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ABSTRACT
IN PARTNERSHIP?
PEDESTRIAN PLAZAS IN NEW YORK CITY

by

Hanife Vardi Topal

Traditional public spaces —such as public parks, streets, and public squares—have long been part of the urban landscape. In today’s congested cities, however, creating such public spaces is difficult because they require capital investment, vacant land, and ongoing maintenance. Possibly in response to these obstacles, new types of urban public spaces have emerged.

Pedestrian plazas, one of these new types, is the topic of this research, with a focus on the New York City Plaza Program, which was the first such program in the U.S. For this research, the design, management, and use characteristics of five completed pedestrian plazas were examined, with attention also given to the partnerships behind the creation and maintenance of these plazas. The role the partners played in the plaza program was also investigated to understand its impact on the design, management, maintenance, and use of pedestrian plazas. The five case study plazas are located in neighborhoods without sufficient public space, as determined by the Department of Transportation, which runs the program. The following data collection strategies were used: site observations, user surveys, and interviews with government officials and sponsor partners.

This research demonstrates that although pedestrian plazas are relatively small and are located immediately adjacent to roadways, they fulfill an important role in urban neighborhoods that otherwise lack sufficient public space for recreation. The type and

diversity of activities vary between the plazas, depending on features of their design, maintenance, and management. The findings suggest that partnerships between the City and community organizations in the New York City Plaza Program play a prominent role in shaping design, maintenance, and management strategies, which affect their use. Neighborhood residents use the case study pedestrian plazas in a variety of ways, including for gathering with friends and family, people-watching, chatting, eating and drinking, and attending programmed events. Some plazas are typically frequented by the same people on a daily basis and become popular gathering places whereas other plazas are more often used for shorter periods of time for eating lunch, meeting someone, and taking a brief rest.

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**by
Hanife Vardi Topal**

**A Dissertation
Submitted to the Faculty of
New Jersey Institute of Technology
Rutgers, The State University of New Jersey-Newark
in Partial Fulfillment of the Requirements for the Degree of
Doctor of Philosophy in Urban Systems**

Hillier College of Architecture and Design

August 2020

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**IN PARTNERSHIP?
PEDESTRIAN PLAZAS IN NEW YORK CITY**

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Dedicated to my parents and sisters.

ACKNOWLEDGMENTS

Throughout my graduate studies at NJIT, I have had the honor of being surrounded by outstanding faculty, taking courses that extended my horizon, and having access to great resources and invaluable staff members. First and foremost, I am particularly indebted to Professor Karen Franck, chair of my dissertation committee. She not only guided me through the research, but also has always been a supportive mentor and friend, with her approach enabling me to find my academic self from the first day of my PhD studies. She will long continue to serve as a role model for me.

I am thankful to have Professor Laura Lawson in my graduate studies. I had the opportunity to learn from Professor Lawson both during my master's thesis and PhD dissertation. I am utterly grateful for her invaluable insights and guidance. I would also like to thank the other two members of my committee- Professor Arthur Powell and David Burney. I am grateful for Professor Powell's thoughtful feedback and vision on the research method of my study. I appreciate the research guidance of David Burney for pedestrian plazas. I learnt a lot from him about what to look for in this research. This work would not have been completed without dedicated, passionate, and dynamic help of my adviser and committee members.

I also would like to thank to those who I interviewed from NYC Department of Transportation, NYC Department of Design and Construction, New York Police Department, the Myrtle Avenue BID Queens, Queens Economic Development Corporation, RiseBoro Community Corporation, the Kensington Stewards, the Horticultural Society of New York, Art and Democracy, ArtBuilt, and Breaking Ground. This dissertation would not be completed without their valuable contribution.

I appreciate Dr. Maya Gervits and Dr. Frederick Little for their dedicated support and assistance in keeping me on track throughout my research. I am appreciative of the support, friendship, and intellectual engagement from my peers in the Urban Systems PhD program. To my dear friend- Zehra Betul Atasoy, your patience and kindness in the first year of the program, and your company throughout my PhD years gave me strength to continue to do this. To Esthi Zipori, I was able to proceed my research thanks to your caring friendship. I will never forget your help. I am also grateful for John Jones' support and friendship over my PhD years. Finally, I am so grateful for Emery Huang's friendship and invaluable feedback that he provided for every page of my dissertation.

I would like to acknowledge the scholarship I received from the government of Turkish Republic that enabled me to start and finish my academic journey in the US. I owe special thanks to Professor Engin Nurlu and Professor Veli Ortacesme for encouraging me to follow my dreams. I am also grateful to my friends for supporting me and encouraging me every step of my life.

Finally, my parents and sisters have enriched my life by their support, love, and care. I am grateful for all that they have done and continue to do for me. I am thankful to my husband Unsal and our son Doruk for shaping and inspiring my life and thought with love and kindness. I will never forget the times you helped me during the two hot summers of New York.

TABLE OF CONTENTS

Chapter	Page
1 INTRODUCTION.....	1
2 NEW TYPES OF PUBLIC SPACES.....	6
2.1 Pedestrian Plazas.....	8
2.1.1 Studies of Pedestrian Plazas.....	18
2.2 Other New Types of Public Spaces.....	23
2.2.1 Parklets.....	24
2.2.2 Privately Owned Public Spaces.....	30
2.2.3 Pedestrian Malls.....	34
3 PUBLIC PRIVATE PARTNERSHIPS.....	37
3.1 Public Private Partnerships in Traditional Public Spaces.....	37
3.2 Public Private Partnerships in New Types of Public Spaces.....	44
4 PEDESTRIANIZATION IN NEW YORK CITY.....	50
4.1 Programs for Pedestrians.....	50
4.2 New York City Plaza Program.....	53
5 METHOD.....	58
5.1 Cases.....	60

**TABLE OF CONTENTS
(Continued)**

Chapter		Page
5.2	Sources of Data.....	62
	5.2.1 Site Observations.....	63
	5.2.2 Survey with Users.....	66
	5.2.3 Interviews.....	67
5.3	Data Analysis, Reliability, and Validity.....	70
6	PARTNERSHIP.....	73
6.1	Organizations in the Partnership.....	74
	6.1.1 NYC Department of Transportation and Sponsor Partners....	75
	6.1.2 Other Organizations.....	78
6.2	Partnership Process.....	80
	6.2.1 Partnership in Case Study Sites.....	87
7	DESIGN.....	95
7.1	Temporary Plazas and Permanent Plaza Design Process.....	95
7.2	Design Features of Permanent Plazas.....	99
8	USERS AND USES.....	117
8.1	Users in Pedestrian Plazas.....	118
8.2	Everyday Uses in Pedestrian Plazas.....	130
8.2	Programming in Pedestrian Plazas.....	135
9	MANAGEMENT AND MAINTENANCE.....	145
9.1	Management in Pedestrian Plazas.....	145
9.2	Maintenance in Pedestrian Plazas.....	156

**TABLE OF CONTENTS
(Continued)**

Chapter	Page
10 DISCUSSION.....	164
10.1 Sharing Responsibilities: Partnership.....	165
10.2 From Temporary to Permanent: Design and Maintenance.....	172
10.3 Taking the Risk: Pedestrianization.....	178
10.4 Sitting in the Street: Use and User.....	181
11 IMPLICATIONS.....	185
11.1 Future Design.....	186
11.2 Future Maintenance.....	188
11.3 Future Management.....	190
11.4 Recommendations for Future Research.....	195
APPENDIX A 71 ST AVENUE PLAZA.....	198
APPENDIX B CORONA PLAZA.....	218
APPENDIX C KENSINGTON PLAZA AND AVENUE C PLAZA.....	243
APPENDIX D KNICKERBOCKER PLAZA.....	270
APPENDIX E OBSERVATION CHECKLISTS OF DESIGN FEATURES, MANAGEMENT PRACTICES, USER ACTIVITY, AND USER SURVEY...	288
APPENDIX F INTERVIEW PROTOCOLS.....	293
APPENDIX G PLAZA CONFIGURATIONS.....	299
REFERENCES.....	301

LIST OF TABLES

Table		Page
2.1	New Types of Urban Public Space in the US: 1959- 2017.....	23
5.1	Research Questions.....	59
5.2	The list of Pedestrian Plaza Study Sites.....	62
5.3	Number of Interviews Conducted by Type and Organization.....	70
5.4	Qualitative Codebook for Three-Level Content Analysis.....	72
6.1	Case Study Plazas and Involvement of Organizations in the Process.....	88
8.1	Number of Users and their Ratio of Gender, Race, and Age.....	119
8.2	Number of Respondents and User Preferences.....	124
8.3	Age Groups and Number of Respondents for Duration of Visits.....	127
8.4	Number of Occupants and Their Ratio of Postures in Each Plaza.....	131
8.5	Number and Type of activities and their ratio in each plaza.....	132
10.1	Organizations and Their Responsibilities in Different Stages of Plazas...	166

LIST OF FIGURES

Figure	Page
4.1 NYC Department of Transportation’s plaza priority maps for four boroughs.....	57
6.1 Organizations in the plaza process and their relationship in the partnership.....	83
7.1 An example of typical temporary materials in Wyckoff Plaza, Brooklyn.....	96
7.2 Examples from intersection plazas in New York City.....	101
7.3 Creation of 71 st Avenue Plaza by using residual space between sidewalk and the traffic island.....	102
7.4 Some reclaimed plazas in New York City.....	103
7.5 The Corona Plaza site as a truck parking area	104
7.6 Several uses of the Avenue C Plaza site.....	105
7.7 Some through-block plazas in New York City.....	106
7.8 The Diversity Plaza site as a roadway.....	106
7.9 Some sidewalk-extension plazas in New York City.....	107
7.10 Circulation paths created along retail stores in 71 st Avenue Plaza, Kensington Plaza, and Corona Plaza.....	108
7.11 Most used pedestrian circulation pathways for people exiting from subway stations in case study sites: Corona Plaza and Knickerbocker Plaza.....	109
7.12 Chairs and tables in 71 st Avenue Plaza, Avenue C Plaza, Knickerbocker Plaza, and Corona Plaza.....	111
7.13 Examples of fixed seating types from some of the studied plazas	112
7.14 An image of Kensington Plaza during the nighttime.....	115

**LIST OF FIGURES
(Continued)**

Figure	Page
7.15 Planting areas in 71 st Avenue Plaza, Corona Plaza, Knickerbocker Plaza, and Kensington Plaza.....	116
8.1 The age of plaza users based on site observations and user Surveys.....	120
8.2 Time of arrival and means of transportation to get to the plazas from home.....	125
8.3 Socialization in case study plazas based on site observations.....	128
8.4 Socialization in case study plazas based on user surveys.....	129
8.5 Food concessions in Corona Plaza.....	139
8.6 A kite making event in Avenue C Plaza.....	143
9.1 Locations of rule’s signage in each plaza.....	147
9.2 An example of the old and new rule’s signage from Kensington Plaza....	148
9.3 An employee from ACE stacking chairs and tables to chain them in Avenue C Plaza.....	158

CHAPTER 1

INTRODUCTION

The mass-production of automobiles in the 1920s caused a major transformation in American cities. Auto-centric urban design has had long-lasting implications affecting the experience of urban life, and causing the emergence of social and economic issues in cities (Appleyard, 1980; Davis, 2006; Jacobs, 1961; Lee, 1973). Many cities have created new pedestrian zones with the intention of enhancing in public life, the livability of cities, and economic development in the last five decades. As a result of these efforts, some new types of urban spaces have emerged to ease the implications of auto-centric urban design. Since the early 1960s, pedestrian malls and privately owned public spaces have been deployed by city governments to facilitate public life in cities with the partnership of private stakeholders. While most pedestrian malls faded away from cities towards the mid 1980s, due to several issues in their design, management, and use, most privately owned public spaces have continued their existence in many cities, despite several criticisms they have received about accessibility, the reduction in diversity and freedom of public life (Davis, 2006; Huang, 2014; Loukaitou-Sideris & Banerjee, 1993; Pojani, 2008).

In the last decade, parklets and pedestrian plazas have emerged as a new movement in the creation of new types of urban public spaces with auto-exclusive and experimental design strategies and creating a different form of public-private partnership model than pedestrian malls and privately owned public spaces. Many cities such as New York City, San Francisco, Los Angeles, and Philadelphia launched city programs for the creation of parklets and pedestrian plazas. The Plaza Program of the New York City Department of

Transportation (NYC DOT) has achieved a highly regarded and institutionalized place among these programs and become a model for many other cities such as San Francisco and Los Angeles. Although cities commonly adopt pedestrian plaza programs, drawing from the New York City Plaza Program (NYCPP) as a relevant model, little is known about pedestrian plazas in New York City as it relates to various constructs of the program: design, management, use, partnership, and community participation. By investigating pedestrian plazas, this study can contribute further to the development of pedestrian plaza programs in New York City and other cities in the transformation of streetscapes to improve the social and ecological functions of neighborhoods.

Because the pedestrian plaza is posited as a new type of urban public space, the analysis of pedestrian plazas and their influence on urban processes and transformations relies on the use of a conceptual framework with other new types of urban public spaces, including: parklets, privately owned public spaces, and pedestrian malls. I refer to these four typologies as the new types of urban public spaces. This is because they distinguish from traditional public spaces with regards to a combination of creation, ownership, and management notwithstanding their many differences. Each type presented a new and an unusual public space form, both spatially and socially. In Chapter 2, the characteristics of other three other types of public spaces (parklets, privately owned public spaces, and pedestrian malls) are presented comparatively to characteristics of pedestrian plazas. Parklets and pedestrian plazas are the most related among the four types, presenting similar characteristics such as their emergence from the same movement (reclamation of streets from cars), the collaboration of public and private institutions, and the inclusion of community in the process of application, design, and management. Pedestrian plazas share

some characteristics with privately owned public spaces concerning their creation strategy by the city and involvement of private parties in the creation and management of the space. That said, it is important to note that both pedestrian malls and pedestrian plazas are typically created through the exclusion of automobile traffic.

In this study, successful public spaces are characterized by significant pedestrian activity and use. Several studies have shown that design characteristics have been effective on the success of new types of urban public spaces (Bates, 2013; Gehl Studio & J. Max Bond Center, 2015; Kim, 2016; Panganiban & Ocubillo, 2014; Pojani, 2008; Whyte, 1980). As indicated in the studies of many researchers, seating and climate control are major tools to create a quality user activity in public spaces (Whyte, 1980; Gehl, 2013; Car et al., 1992). Several studies have indicated that this situation is valid for pedestrian plazas as well (Gehl Studio & J. Max Bond Center, 2015; Kim, 2016; Panganiban & Ocubillo, 2014). Sufficient lighting, and visibility of a plaza can affect safety and comfort, which are other important design features to attract people to a public space (Carmona, 2010c; Carr, Francis, Rivlin, & Stone, 1992; Gehl, 2013). Studies have shown that most pedestrian plazas have high visibility, which creates the feeling of safety (Gehl Studio & J. Max Bond Center, 2015; Kim, 2016). The literature suggests that the programming of events is partially related to design features of pedestrian plazas (Gehl Studio & J. Max Bond Center, 2015; Kim, 2016). Flexible design elements provide opportunities to create extra space for community events such as farmer's markets, dancing, yoga, and public workshops (Gehl Studio & J. Max Bond Center, 2015; Kim, 2016; Ocubillo, 2012).

The private management of public space is common in the new types of public spaces. A high volume of the literature asserts the implications of the private management

in privately owned public spaces focusing on the issues of accessibility, policing, and democracy (Loukaitou-Sideris & Banerjee, 1993; Mitchell, 2003; Németh, 2009; Smithsimon, 2008). Past research about private management of public spaces suggests that the existence of security guards, appearing surveillance systems, restricted hours of access, the restriction of certain activities and users by rules, and the leasing or selling of the space, were all instrumental in the emergence of these issues in public spaces. Similarly, in parklets that are typically managed by adjacent businesses and institutions, issues of accessibility and the perception of a parklet as a public space have received some criticisms (Ecker & Kim, 2014; Lyle, 2016). Private parties in the management of pedestrian plazas are typically comprised of community organizations that are often required a community outreach process in the creation of pedestrian plazas. It was indicated in a study of Gehl Studio and Max Bond Center in 2015 that this outreach process provided a high level of sense of ownership and stewardship in many studied pedestrian plazas (Gehl Studio & J. Max Bond Center, 2015; Rowe, 2013). However, there is a gap in the literature of how this partnership works and what ways the partnership is effective in the design, management, maintenance, and use of pedestrian plazas. Therefore, the partnership in New York City Plaza Program was the focus of this study.

In the U.S., there are several combinations of financial responsibilities in the partnership model of pedestrian plaza programs. Even though the design and construction of pedestrian plazas are funded completely or partially by most cities, some cities impose the design, implementation, management, and maintenance responsibilities on the private stakeholder. Along with operational responsibilities such as upkeep and cleaning of the pedestrian plazas, community partners also assume responsibility for the programming of

these spaces. Cities put special emphasis on ongoing event programming in pedestrian plazas because these events are seen as a way to improve street vitality and generate a sense of community.

One of the features that make pedestrian plazas and other new types of urban public spaces distinct from traditional ones is the public-private partnership and its financial and operational advantages to the city government. However, this advantage may turn into a drawback for some sponsor partners serving in low- and moderate-income neighborhoods. Past research has shown that community partners of pedestrian plazas in underserved areas need support from the city funds for the management and maintenance costs of their plazas (Gehl Studio & J. Max Bond Center, 2015; Ocubillo, 2012). Given that past research suggests that about half of the pedestrian plazas were in low and moderate income neighborhoods in New York City (Kunstadter, 2016), it was noteworthy to investigate challenges and coping strategies of the sponsor partners in these neighborhoods.

Past research has not specifically focused on plaza partnerships. This dissertation systematically documents components of pedestrian plazas: design, management, maintenance, and use, with a special emphasis on partnerships. The study findings suggest that the case study plazas are well-used public spaces by the neighborhood people. The type and diversity of activities vary between the plazas, depending on features of their design, maintenance and management. Organizations and their financial and technical capacity in plaza partnerships are significant in determining features of the design, management, and use of pedestrian plazas.

CHAPTER 2

NEW TYPES OF PUBLIC SPACES

Studies have classified urban public space concerning various aspects: physical, socio-cultural, and political-economy (Carmona, 2010a). Classification of urban public space based on physical type, function, and use is a widespread practice of design perspectives. Carmona (2010) indicates that design literature is often used physical characteristics and function to categorize types of urban public spaces (Carmona, 2010a). Considering the physical terms, several studies have considered morphological, typological and typomorphological characteristics to define urban public spaces and types (Ben-Joseph, 2005; Carmona, 2010a; Papadakis & Watson, 1990; Sitte, Collins, & Collins, 1965; Zucker, 1959). Notions of use, design, and adaptability have been used to identify functional types of public space (Carr et al., 1992; Franck & Stevens, 2007; Gehl & Gemzøe, 2001). Carr et al. (1992), for instance, report eleven functional types of public space: public parks, squares and plazas, memorials, markets, streets, playgrounds, community open spaces, greenways and parkways, atrium/indoor marketplaces, found spaces/ everyday spaces, and waterfronts (Carr et al., 1992). Carmona (2010) asserts that public space needs to be characterized by its multiple dimensions (function, perception, and ownership), and that it presents a new typology of urban spaces with twenty urban space types in four overarching categories: positive spaces, negative spaces, ambiguous spaces, and private spaces indicating a continuum from clearly public to clearly private space (Carmona, 2010a). In this classification, there are positive spaces as natural/semi-natural urban space (rivers, natural features, seafronts, canals), civic space (streets, squares, promenade), and public

open space (parks, gardens, commons, urban forests, and cemeteries). He identifies these spaces as the traditional forms of urban space and clearly public which means that they are typically under state ownership, open to all, and dedicated to providing a variety of functions.

Traditional urban public spaces contribute to the quality of public life responding to the socio-cultural and economic needs of individuals in a variety of ways. Carr et al. (1992) emphasize the reciprocal relationship between public space and public life by reporting that “new forms of public life require new spaces” (343). In addition to caring for existing ones, creating new public spaces improve public life in cities (Carmona, 2010b; Carr et al., 1992). In today’s congested cities, however, creating traditional public space can be problematic because it requires capital investment, vacant land, and ongoing maintenance. There is a possibility, that in response to these difficulties in creating and maintaining traditional public spaces in cities, new types of urban public spaces in the United States began to emerge in the 1950s. Privately owned public spaces and pedestrian malls became new strategies of city governments in the creation of additional public spaces in cities with new strategies that were associated with various partnership models between city governments and non-government bodies. In the last few decades, however, the rise of unsanctioned activities such as ‘Build a Better Block’, ‘Chair Bombing’, and ‘Park(ing) Day’ potentially inspired cities in the creation of parklets and pedestrian plazas. On the contrary of traditional public spaces, responsibilities of the city government in these new types are shared with non-governmental institutions so that the governmental bodies do not always play a prominent role in the ownership, design, and management depending on the type.

With a particular emphasis on pedestrian plazas, this part of the study investigates four new types of urban public spaces: pedestrian plazas, parklets, privately owned public spaces (POPS), and pedestrian malls. These four types have some shared and distinct characteristics, as it relates to design, ownership, partnership, management, use, size, and typical locations.

2.1 Pedestrian Plazas

Pedestrian plazas are public spaces that are created through the transformation of a portion on a roadway into a pedestrian space with a collaboration of city governments and community organizations including not-for-profits, community corporations, business improvement districts, private corporations, and schools. City governments named this kind of public spaces as “public plazas,” “plazas,” or “urban plazas” in their plaza programs. In this study, I refer to them as “pedestrian plazas” because their creation requires road space reallocation for pedestrians. Calling them as “pedestrian plazas” also provides a distinction from traditional plazas.

Pedestrian plazas began to appear in cities in the late 2000s. One can however identify earlier precedents in planning and design, particularly pedestrian malls. Many city governments in the U.S. created pedestrian malls, more extensively from the 1960s until the 1980s. Like pedestrian plazas, pedestrian malls require closing off roadways so that pedestrians may occupy what formerly the roadway. However, pedestrian malls and pedestrian plazas are distinctive because while pedestrian malls were created with a top-down planning process primarily arising from local government decisions, the creation of pedestrian plazas requires a bottom-up planning approach with the direct participation of

the community throughout the creation and management process. Even though pedestrian plazas and pedestrian malls have a similarity in their spatial arrangement, the bottom-up planning feature of pedestrian plazas differentiates them as a distinct typology.

Talen (2015) argues that bottom-up approaches are part of a rooted tradition of American self-help urban activism through urban beautification and civic improvement movements in the late 1880s. In the mid-20th century, studies of urbanists like Jane Jacobs and William Whyte emphasized the significance of having street-level, firsthand knowledge of urban places (Talen, 2015). An ethnographic study of Jane Jacob's (1961) *The Death and Life of Great American Cities* inspired a wide range of people including planners, designers, urbanists, and activists, regarding the need for building places with, and not for the community. Inspired by Jacob's study and other concurrent studies such as Kevin Lynch's *The Image of the City* (1960) and Herbert Gans' *The Urban Villagers* (1962), the question about the reliance on top-down approaches in planning discipline began to rise (Finn, 2014). This question was especially highlighted in Paul Davidoff's paper on "Advocacy and Pluralism in Planning," leading to the movement of advocacy planning, which links to today's grassroots interventions in the use of urban space (Davidoff, 1965). The famous "Right to the city" concept by Lefebvre has also been influential in the emergence and evolution of several grassroots approaches for urban changes considering that the concept was rearticulated by social theorist David Harvey as "far more than the individual liberty to access urban resources: it is a right to change ourselves by changing the city" (315) (Harvey, 2009) (Lefebvre, 1968).

Burgeoning approaches that advocate for small-scale and bottom-up change of undesired environments have been welcomed with a universal enthusiasm by many urban

activists, artists, and design and planning professionals. They have been called under a variety of titles: Do-it-yourself (DIY) Urbanism, Guerilla Urbanism, Tactical Urbanism, User-generated Urbanism, Insurgent urbanism, and Pop-up Urbanism. Even though all of the titles refer to the grassroots efforts of different groups and individuals in the creation, reclamation, and transformation of the cityscape, with small-scale and bottom-up strategies, each term may indicate a wide range of activism in the physical space interventions of cities, which is beyond the scope of this study.

In the late 1960s and early 1970s, some applications of urban activism such as squatting in vacant urban properties, guerilla gardening, and Green Guerillas took place in cities such as Philadelphia and New York City. There have been other similar events and interventions at the national and international scales. Some of these were Bonnie Ora Sherk's Portable Park installations in the 1970s in San Francisco, the Parking Meter Parties in Hamilton, Ontario, from 2000, and the living room installation events by Ted Dewan (the Road Witch Trial) from 2003. Even though these projects attracted considerable attention in the local scale, the first Park(ing) Day event in 2005 gained national and international attention. The event was initiated by a design studio in San Francisco and some activists, with the conversion of a single parking space into a mini-park with some sod, a bench, and a tree (Birdsall, 2013).

After the national and international success of the Park(ing) Day event, the city government in San Francisco launched Pavements to Parks Program installing several pilot parklets around the city in 2009. Along with San Francisco's trial parklets, a new movement called Tactical Urbanism gained attention from some city governments in the transformation of an underused portion of city streets into public spaces. In the same

period, the term Tactical Urbanism was being popularized by two founders of the movement: Mike Lydon and Tony Garcia. In 2012, they published *Tactical Urbanism: Short-term Action, Long-Term Change* describing strategies and techniques used in Tactical Urbanism projects for urban transformation (Lydon, Bartman, Garcia, Preston, & Woudstra, 2012).

Tactical Urbanism has been widely initiated by municipal departments, government, developers, and non-profit organizations because the movement aspires to incremental, small-scale, and short-term applications, which provide long-term changes. Lydon and Garcia distinguish Tactical Urbanism from other similar approaches like DIY Urbanism by stating that “Not all DIY urbanism efforts are tactical, and not all Tactical Urbanism initiatives are DIY” (7) (Lydon et al., 2012). What distinguishes tactical urbanism from other approaches is that projects of Tactical Urbanism aim to initiate change in the long term with small-scale and incremental tactics along with a spectrum of legality whereas DIY urbanism projects are not necessarily target long-term changes. Sanctioned applications of Tactical Urbanism such as pedestrian plaza programs, parklet programs, open streets, and play streets are the ultimate goals in tactical urbanism projects because they address the tension between bottom-up and top-down processes providing opportunities for both governments and communities with incremental actions resulting in long-term change (Lydon & Garcia, 2015).

Today, in many plaza programs, cities use tactical urbanist perspectives to gain support from the community and measure the effects before the capital investment. Pedestrian plaza programs widely employ tactical urbanism actions, even as the process that they adopt for this purpose presents some differences. For instance, New York City

Plaza Program uses a three-stage process that includes one-day plaza, interim plaza, and permanent plaza. San Francisco, on the other hand, divides the process into two stages known as experimental and permanent. Lydon and Garcia (2012) assert that the government programs that employ tactical urbanism actions obtain major benefits because they encourage participatory decision-making which is critical for public action. In many pedestrian plaza programs, each stage requires the involvement of the community through public meetings and other community opinion sharing methods. The community remains a part of the whole process starting from the short-term interventions through the permanent stage.

The New York City Plaza Program as for being the starter of pedestrian plazas has directly influenced the creation of pedestrian plaza programs in other cities. San Francisco initiated the Plaza Program in the Pavements to Parks using the New York City Plaza Program as a model. Other cities such as Los Angeles, Oakland, and Atlanta have been using a similar model to the New York City Plaza Program. It is noteworthy that New York City and San Francisco have a dialectical relationship regarding place-making programs. While San Francisco's Pavements to Parks program used the New York City Plaza Program as a model, New York City initiated its Streets Seat Program, modeling from San Francisco's Parklet Program.

Global Street Design Guide (2016) indicates that pedestrian plazas "transform underutilized areas of the street into vibrant social spaces for surrounding residents and businesses" (212). Pedestrian plazas are created with partnerships between city and community groups and organizations. In many pedestrian plaza programs, city

governments assume the responsibilities of design and implementation, while community partners typically undertake management, maintenance and programming.

The size of pedestrian plazas may show differences from one location to another in each city. In New York City, for example, 185th Street Plaza covers an area of 33,000 square feet in Manhattan. The size of George B. Post Plaza in Brooklyn, for example, is approximately 5,000 square feet. Pedestrian plazas can appear in various physical forms, in both commercial and residential areas in various physical forms. In *Global Street Design Guide* (2016), four configurations of pedestrian plaza forms were presented: reclaimed plazas, through-block plazas, intersection plazas, and sidewalk-extension plazas. Reclaimed plazas are typically located on residential street spaces, empty parking lots, and areas under elevated structures. Many plaza examples fit this description in New York City, especially in the Brooklyn and Queens boroughs. Through-block plazas are created either by closing off the traffic of a street in one or more blocks or by reclaiming public space in super-blocks. Many examples of this configuration can be found in New York City, Los Angeles, and San Francisco. Another plaza configuration are intersection plazas, which are developed through the redesign of intersections. This type is typically smaller-sized than other configurations. Sidewalk-extension plazas are the results of sidewalk widening along the length of a block. There are some examples of this plaza configuration in New York City, especially in Manhattan, where the traffic flow is in high density in a commercial zone.

The Plaza program of New York City Department of Transportation, which started with Times Square plaza project in 2009, inspired other cities beginning with San Francisco. The city launched the Pavement to Plazas program a few months later than New

York City. The City installed eleven plazas in different phases (interim and permanent) in the first five years of the program. Following San Francisco, many other cities such as Los Angeles, Oakland, Philadelphia, and Atlanta created pilot or permanent programs. Many of these cities started their parklet programs before the pedestrian plaza programs. In parallel to the rise of parklet programs in the nation, pedestrian plaza programs have also been appreciated by many other cities. In Boston, Detroit, Portland, and Chicago, some applications of pedestrian plazas have been done under pilot programs. Transportation departments of cities lead or operate pedestrian plaza programs typically in collaboration with other city agencies. For instance, in New York City, Philadelphia, and Los Angeles, pedestrian plaza programs have been operated by their city transportation departments while other city departments have been brought into the process for specific duties. A leading role of city transportation departments turning automobile spaces into pedestrian spaces are evidence that many transportation departments of cities are willing to shift their auto-centric approach to pedestrian-centric and community-based design practices.

Many pedestrian plaza programs evaluate applications in a competitive manner. Potential plaza partners apply to the program with a proposed plaza site. Even though each city has its own specific evaluation criteria, commonly used ones are: lack of open space, site context (surrounding land use, zoning, transit adjacency, traffic circulation, and existing pedestrian activity), and existing community support for the proposed plaza. Along with these criteria, some other criteria such as income eligibility, existing funding, and potential to enhance street safety are also in the evaluation list of some cities. Cities typically evaluate these criteria using a point-scale system. Siting is crucial in the evaluation of plaza applications in every pedestrian plaza program. However, criteria for

siting vary depending on the priorities of cities in program goals. Some city governments give priority to the plaza applications that present physical, social, or economic need for a public space in the hosting neighborhood. For example, lack of public space in the surrounding neighborhood within a ten-minute walk is an evaluation criterion in New York City Plaza Program, whereas Philadelphia prioritizes proposed plazas near commercial activity.

The temporality of the plazas varies in each city ranging from one-day demonstrations to a year. In some cities like New York City and San Francisco, the creation of temporary plazas occurs in two stages: one-day demonstrations and interim plazas (one or two-year duration with easy-to-move materials). After the evaluation of proposed plazas, cities create interim pedestrian plazas. Temporary stages are significant for the future development of plazas due to the evaluation of pedestrian and traffic circulation, the provision of funding and stewardship, the development of a strong partnership between the community partner and the government, and the organization of community participation processes. Interim plaza projects last for a longer duration of time, ranging from several weeks to years in each city. These projects require more expensive and elaborate interim design materials than one-day plazas. Interim material projects are typically altered or redesigned to become permanent plazas. Global Street Design Guide exemplifies some interim materials that are used in permanent stages as modular curbs, flexible bollards, surface paint and thermoplastic, and planters (Initiative & Officials, 2016)

Each city has its own requirements for design, management, and maintenance. Design requirements of many plaza programs are instructed in detail thoroughly detailed online booklets, websites of the relevant government offices, and notifications in the

application forms. They often indicate their standards about the size of the plaza, furnishing, the ground surface treatments, traffic control and safety devices, planters, and plants. Operational requirements of all programs present the range of activities that the sponsor should follow during the management and maintenance process. This could range from the signage indicating the publicness of the plaza, to the manner of condition in which tables and chairs are stored. Most prominent operational requirements include keeping the plaza and furniture clean, maintaining the plaza from hazardous situations, complying to the rules of the Public Health Department, and providing access for all citizens.

Criticisms towards pedestrian plazas have been raised in the communities of some pedestrian plazas. The biggest concern of residents in a pedestrian plaza neighborhood is usually the parking space lost over a pedestrian plaza. In New York City, some Washington Heights residents were highly concerned about the elimination of seventeen parking spots in the proposed pedestrian plaza of Columbia University Medical Center (Krisel, 2017). Some Residents also indicated that the existence of Columbia University Medical Center and their proposed plaza contribute to the gentrification of the area (Krisel, 2017). As it is seen in this example, the possible contribution of pedestrian plazas to the gentrification in low-income neighborhoods is another fear of some residents. In some cases, business owners in the plaza neighborhood oppose the creation of pedestrian plazas because of a decrease in their profits, due to loss of parking space or cutting off vehicular traffic. In State College, Pennsylvania, community partners of a proposed plaza in South Allen Street had to withdraw their pedestrian plaza application because of the lack of community support regarding closing off the street to vehicular traffic (Rafacz, 2018). In Queens, New York City, many business owners pointed out their dissatisfaction with the pedestrian plaza

because they believed that the street closure negatively impacted their income (Gronda, 2014).

2.1.1 Studies of Pedestrian Plazas

Goals of pedestrian plaza programs typically include conversion of underused street space into pedestrian destinations, encouraging non-motorized transportation such as walking and biking, improving pedestrian safety, supporting local economic growth, and improving public life. In order to make these short and long-term goals happen, temporary interventions are used in pedestrian plazas for monitoring and testing strategies, before making capital investments in permanent plazas. Along with these shared goals of all pedestrian plaza programs, some programs have specific targets. For instance, enhancing neighborhood interaction is one of the goals in San Francisco Pavements to Plazas Program while Atlanta Place-making Program intends to combat undesirable activity in city streets with the help of pedestrian plazas and other alternative place-making strategies. New York City and San Francisco conducted some research to evaluate their programs in the light of their objectives. While some of these studies included research for the evaluation of both parklets and pedestrian plazas in the same report (Panganiban & Ocubillo, 2014), some focused on only pedestrian plazas (Gehl Studio & J. Max Bond Center, 2015; Kim, 2016; NYC Department of Transportation, 2011a). Despite the existence of many studies that were conducted to evaluate the performance of plaza programs, only a few peer-reviewed academic studies have been published about pedestrian plazas (Radywyl & Biggs, 2013; Rowe, 2013; Taylor, 2017).

The literature about pedestrian plazas has presented some advantages of tactical strategies used in pedestrian plazas and other similar urban spaces. Ocubillo (2012)

published one of the earliest studies about pedestrian plazas about parklets and pedestrian plazas (Ocubillo, 2012). The study presented Heuristic Urbanism as a theoretical perspective in the creation of parklet and pedestrian plaza programs. The study focused on the process of how parklets and pedestrian plazas were institutionalized from grassroots actions by city governments. Common social and physical conditions of case study sites plazas in San Francisco, Long Beach, Oakland, and Los Angeles were provided through stakeholder interviews. The findings in Ocubillo's study emphasized some implications of parklet and pedestrian plaza programs: public-private tensions bottom-up planning strategies, the contribution of design professionals in activism and governance, and the significant role of Heuristic Urbanism for strategies in urban development. Rowe (2013) investigated New York City Plaza Program as well as four other case studies in San Francisco, Bogotá, Copenhagen and Melbourne to examine temporary projects that allocate road space to pedestrian right-of-way (Rowe, 2013). In case study sites, the Rowe's study included several data collection strategies: site observations, interviews with government contacts and community stakeholders, and analysis of project documentation. The study findings revealed two major advantages of projects with a road-space reallocation for pedestrian use. Firstly, these projects reduced community fears for losing parking space and risks for negative effects to the traffic circulation. The study presented that people fear less and explore alternatives because they see these projects as tests. Secondly, temporary projects offered effective community participation and engagement.

The primary goal that almost all plaza programs agree upon is to transform a portion of roadways into social, accessible, and vibrant public spaces in a walkable distance for all city residents. The design literature has illustrated that seating is crucial in creating social,

vibrant, and accessible public spaces (Carr et al., 1992; Gehl, 2011; Whyte, 1980). Gehl (2011) says that “well-functioning city areas offer many opportunities for sitting” (155) (Gehl, 2011). He believes that sitting is vital for public space because it provides opportunities for stays of any duration. Sitting leads to several other activities such as eating, reading, sleeping, and so on (Gehl, 2011). These kinds of activities that are seen as the prime attractions for public spaces hardly occur without sitting. In addition to these, lingering makes one of the greatest contributions in the creation of successful public space. For Gehl, sitting opportunities determine the duration of lingering in a public space. Whyte (2012) also emphasizes the simple but significant fact of his study: "people tend to sit most where there are places to sit" (110). He states that seats are the most significant elements of public spaces to attract people to come and sit independently from the attractions of the space. Without a place to sit, other attributes of public spaces such as being visually pleasing, having carefully designed amenities, or having striking ornamental features are not sufficient to make people stay (Whyte, 1980).

In pedestrian plaza designs, most city governments require the use of seating materials as one of the design standards. Various types of seating can be used as fixed and moveable seats. A study of Gehl Studio and J. Max Bond Center in some pedestrian plazas of New York City in 2015 showed that available furnishings such as seats and tables made more people stay, while a high number of moveable furnishings and flexible layouts in plazas made the spaces adaptable for various passive and active activities (Gehl Studio & J. Max Bond Center, 2015). In San Francisco, Panganiban and Ocubillo (2014) studied two pedestrian plaza sites using various instruments such as pedestrian and cyclist counts, stationary activity scans (standing, sitting, and lying), user surveys, and cognitive mapping

(Panganiban & Ocubillo, 2014). The study revealed that design characteristics and the availability of plaza furnishings were related to the activities of users and the number of people in the plazas, emphasizing that the level of plaza use was not always related to the volume of people in the street. In addition to these, the study reported that plaza users were somewhat satisfied with plazas for five categories including plaza cleanliness, plaza maintenance, safety from vehicles in the plaza, weather protection in the plaza, ease of socializing in the plaza with others they do not know.

Pedestrian plazas, as other open public spaces, have the potential to improve quality of life. The collaborative study of Gehl Studio, J. Max Bond Center in 2015 included the most detailed examination of pedestrian plazas in New York City as of 2020. (Gehl Studio & J. Max Bond Center, 2015). The study revealed that studied pedestrian plazas contribute to the improvement of public life as it relates to the following metrics of the study: equity, choice, connectivity, accessibility, ownership, diversity, participation, inclusion and belonging, beauty and public space. The study indicated that residents of some pedestrian plazas agreed upon the fact that the neighborhood's overall appearance improved after the plaza. All studied plazas supported transportation connectivity, meaning that all plazas had access to subway or bus lines within a five-minute walk. Even though most plazas were not diverse regarding race and ethnicity, income and gender diversity were at high levels in most of them. On the other hand, people with lower income tended to visit the plazas more frequently than those with higher incomes. People feel higher levels of sense of ownership and stewardship for the plazas in Brooklyn and Queens than the ones in Manhattan. Another finding which may correlate to a sense of ownership indicated that most locals in Brooklyn and Queens visit the plazas in their neighborhood daily or weekly

while the plazas in Manhattan had their visitors primarily from the Greater New York area or outside of the city.

Many pedestrian plaza programs aim to improve the local economy, enhance safety and traffic calming through the installation of pedestrian plazas. Some studies of the New York City government reported that plazas provided a broad range of economic, safety and traffic calming improvements (NYC Department of Transportation, 2013). According to the report, 72% of New York residents supported the plaza program. The study reported that the pedestrian plaza at Crames Square considerably improved pedestrian access and safety. The study also indicated that while the plaza on Skillman Avenue helped to reduce turning conflicts, another plaza on Delancey Street and some additional upgrades on other traffic amenities led to a 21% decrease on total crashes. In a report of NYC DOT called *Making Safer Street*, it was reported that pedestrian plazas contributed a reduction in crashes with injuries between 17% and 46% compared to three years before project implementation (New York City Department of Transportation, 2013a).

Considering the economic impacts of the plazas, pedestrian plazas and other pedestrianizing projects increased local retail sales by 172% when it is compared to 18% borough-wide (New York City Department of Transportation, 2013a). Additional examples of pedestrian plazas that contribute to the development of the local economy were provided in another report of NYC DOT (New York City Department of Transportation, 2013b). For instance, combined sales increased by 33% in the second year and 47% in the third year of the pedestrian plaza in Willoughby Street in Downtown Brooklyn even though there was a 55% decline in combined sales in the first year. The sales performance of the site was much higher than the two local sites (Fulton Mall and

Willoughby-Fulton) and the borough of Brooklyn. On the other hand, the application of four interventions (traffic pattern changes, signals operation, pedestrian plaza, and bicycle infrastructure) at the busy intersection of the Bronx hub elevated the sales starting from the first year of the plaza's construction throughout the third year.

2.2 Other New Types of Urban Public Space

This study categorizes three additional new types of urban public space: parklets, privately owned public spaces, and pedestrian malls. A brief presentation of these new types prefaces the discussion about pedestrian plazas; providing valuable background. This part of the study presents general characteristics of each type, constructing a conceptual framework to provide a context for interpreting pedestrian plazas and propose relationships among four types. Table 2.1 illustrates a summary of the general characteristics of these four typologies.

Table 2.1 New Types of Urban Public Space in the US: 1959- 2017

	POPS	Pedestrian Malls	Parklets	Pedestrian Plazas
Location and Date of first Appearance	Garden courtyard of Lever House 1952	Kalamazoo, MI 1959	Divisadero Street Parklet, San Francisco 2010	Times Square Plaza, NYC 2009
Purpose	To increase the number of public spaces in the city	To draw shoppers from suburbs to the downtown	To provide extra public space to relax and enjoy	To provide extra public space to relax and enjoy
Ownership	Private	City government	City government	City government
Management	Private sector	Private Sector	Private sector	Private sector
Partnership	City government and private developers (companies and organizations)	City government and local agencies and organizations (BIDs and downtown organizations)	City government and community groups (BIDs, corporations, alliances, local shops, schools, churches and individuals)	City government and community groups (BIDs, corporations, alliances, schools, churches)
Typical Urban Location	Mostly business districts (indoors and outdoors)	Business districts (outdoors)	Business and residential districts (outdoors)	Business and residential districts (outdoors)
Size	Varies from 1000 sq. feet to 8000 sq. feet	Varies from 850 feet to 4500 feet	Two or three car parking spaces in the roadway	Varies from 200 sq. feet to 25000 sq. feet
Common Amenities	Seating, tables, Landscaping, climate control (for indoors), restrooms (for indoors), lighting	Landscaping, seating, lighting, dining tables	Raised platform, planters, seating, café tables	Landscaping, seating (benches and moveable chairs), lighting, tables

2.2.1 Parklets

A parklet is the most related typology to pedestrian plazas, offering small-scale and experimental urban design strategies with the involvement of community input and progressive governmental action (Ocubillo, 2012). In most cases, both parklets and pedestrian plazas have been operated by the city agencies under the same program,

providing different branches for each type. In San Francisco, for instance, the Pavement to Parks Program contains both parklets and pedestrian plazas. These two types have been typically considered as parts of the innovative place-making strategies of cities for the last decade. Even though both types emerged from the same movement, there are certain differences between them: physical form, design process and management requirements of cities, and tactical urbanism strategies.

Parklets can be defined as small platforms built as an extension of sidewalks to provide public spaces for people on the areas of two or three metered-parking spaces. The roots of parklets were established during the park(ing) day events in 2005. The success of Park(ing) day illuminated new ideas such as parklets, pop-up cafes, and chair bombing. In 2010, with the collaboration of three city agencies in San Francisco: the Planning Department, the Public Works Department, and the Municipal Transportation Agency, the first official parklets were built under the Pavements to Parks program. After San Francisco, many other cities such as New York City (2010), Philadelphia (2011), Chicago (2012), and Los Angeles (2012) created their parklet programs. Along with the number of parklet programs in various cities, the number of parklets has soared in many cities since 2010. In San Francisco, for instance, there were thirty-one parklets in 2012, increasing over the years to more than sixty parklets in 2015.

Similar to pedestrian plaza programs, transportation departments are typically responsible or in collaboration with other city departments, such as planning, public works, or parks and recreation, to operate parklet programs. The use of the term ‘parklet’ may vary from one city to another. For instance, while the use of the term “parklet” is valid in San Francisco and some other cities such as Los Angeles, Boston, and Seattle, New York City

referred it as “pop-up cafes” in 2010, then changed it to “street seats” in 2013. Each city describes its goals to create parklet programs. These goals generally include encouraging alternative transportation activities such as walking, riding bicycles, and use of transit while decreasing motorized vehicle activities; improving pedestrian safety; creating lively public spaces to foster public life and supporting local economic activity. According to a study of the San Francisco Planning Department for parklets and pedestrian plazas, twenty parklets were studied out of forty-seven installed parklets in the summer of 2014 (Panganiban & Ocubillo, 2014). Regarding the goals of San Francisco parklet program, the study findings illustrated that the participants come to the parklet sites mostly by walking, biking, and transit independent from travel time and geographic location. In addition to this, parklets usually host a high volume of people regardless of numbers of people in the surrounding area while more varied activities (such as eating and drinking) occur in parklets than on the surrounding sidewalks. Considering the goal about the local economic development which is also listed in many other cities’ program goals, the study results concluded that parklets support local businesses because most participants spent money during their visits to parklets even though they are not required.

Parklets are designed in various physical forms and design themes. While a parklet may include a platform, some cafe chairs and tables, and planters, the design of another may reflect a theme with unusual design elements. In San Francisco, for instance, the parklet Valencia Street includes a concrete tile base, café tables and chairs, and several planters to use as traffic barriers whereas another parklet that sits in front of the neighborhood’s famous coffee shop in Bayview features vertical bike parking with iron pipes along with the seating as an extension of these pipes. Even though the design of

parklets presents differences from one to another, it needs to comply with a set of design guidelines and requirements determined by the city governments. Each city government determines a requirement list for parklet design standards. In general, these standards are related to parklets' platform or base, size, traffic safety (barriers and signage), public health (drainage and utility hole covers) physical accessibility, amenities (planters, seating, tables, and umbrellas), and hardwood materials. A study of the San Francisco Planning Department in 2014 illustrated that the parklet users were satisfied with the amenities and physical conditions provided in studied parklets in San Francisco (Panganiban & Ocubillo, 2014).

Seating is a required design element in parklet design by many city programs. Also, studies about parklets have shown that seating is a useful design element in parklets (NYC Department of Transportation, 2011a; Panganiban & Ocubillo, 2014; University City District, 2013). The pop-up café (parklet) study of NYC DOT proved that more people sit in the public realm compared to pre-installation period of the Pearl Street parklet (NYC Department of Transportation, 2011a). Similarly, the findings of the parklet study of San Francisco Planning Department showed that more people tend to sit in parklets compared to other spaces in the street (Panganiban & Ocubillo, 2014). According to the study of University City District in Philadelphia in 2013, parklets are useful to draw a large number of people filling most seats at peak hours (University City District, 2013). The study also indicated that parklets have strong potential to attract sidewalk users and promote sidewalk vitality. In addition to the abovementioned studies, the evaluation study of Loukaitou-Sideris et. al. in the Pearl Street parklets in Los Angeles, illustrated that the number of people sitting in the public realm was greater after the installation of several parklets along

the street (Loukaitou-Sideris, Brozen, Ocubillo, & Ocubillo, 2013). The study findings also indicated parallel results with University City District's research saying that after installation of parklets, pedestrian volume rose, especially in the evenings. Similarly to these studies, a study of MYC DOT reported that the parklet in Pearl street increased the number of people sitting in the street by 77% while the study detected 14% increase in sales in the neighborhood businesses (New York City Department of Transportation, 2012).

Like pedestrian plaza programs, local businesses, community groups, and individuals are eligible organizations to be a sponsor partner in the creation and management of a parklet. The city governments often require a set of criteria such as proof of economic capacity for design, installation and maintenance, and community support. Compared to neighborhood institutions and non-profit agencies, local businesses are more often partners of cities in the creation of parklets. In San Francisco, for instance, ninety-three percent of parklets were hosted by local businesses in 2014 (Corey, 2014). According to another study in San Francisco parklets, eating and drinking were the most frequently observed activities in parklets, as opposed to elsewhere on the sidewalk (Panganiban & Ocubillo, 2014). The study concludes that because many parklet partners were local eateries providing chairs and tables in the parklet, people tended to sit and eat or drink in this area.

Studies have shown that parklets may lead to increasing economic profits for sponsor partners (Loukaitou-Sideris et al., 2013; NYC Department of Transportation, 2011a; University City District, 2013). According to the study of Loukaitou-Sideris et al in San Francisco parklets, the majority of partnering business owners stated that they

expected increases in the number of customers, revenues, and profits in the following year of the parklet installation (Loukaitou-Sideris et al., 2013). In Philadelphia, the report of University City District showed that the sales of businesses with parklet installations substantially increased compared to pre-occupation sales (University City District, 2013).

In the creation of parklets, the city governments give the responsibility to parklet partners for the expenses of design development and installation. Several city manuals indicate that the cost of a parklet construction and installation range between \$20,000 and \$80,000. In addition to construction and installation, the management of parklets is under responsibilities of the parklet partners. The partners should operate and maintain parklets based on specific sets of rules designated by the city program. In general, parklet programs require partners to enforce access to the parklet for all people, maintain ADA guidelines, keep the parklet clean and safe in operational hours, store parklet furniture and other equipment in crucial situations. The study of Panganiban and Ocubillo in San Francisco parklets indicated that mean responses for cleanliness, maintenance, and safety were higher than four on a scale of one (lowest) to five (highest) (Panganiban & Ocubillo, 2014). The study findings also pointed out that parklet sponsors play a prominent role in providing user satisfaction while providing a high level of neighborhood interaction. Similarly, Loukaitou-Sideris et al reported that people's impressions for the parklet neighborhood positively changed concerning safety and maintenance in the post-installation of the parklet (Loukaitou-Sideris et al., 2013).

Studies have illustrated that parklets have been successful in providing lively and social sidewalks, boosting local economy, supporting walking and cycling activities, and improving pedestrian safety (Loukaitou-Sideris et al., 2013; NYC Department of

Transportation, 2011a; Panganiban & Ocubillo, 2014; University City District, 2013). There have been some challenges with parklets. Losing parking spaces for a parklet in an already limited number of parking spots has been a concern for some residents and business owners. One parklet, in Boston, caused a controversy between two neighboring business owners over lost parking spots resulting in the elimination of the parklet in its second year (Oliveira, 2014). In San Francisco, some residents and business owners of the Mission neighborhood voiced their worries about increasing number of parklets in the neighborhood causing the elimination of fourteen parking spots (Khoshaba, 2012). Dai (2012) studied transportation impacts of three parklets in Valencia Street in San Francisco through a cost-benefit analysis. The study findings revealed that while parklets had no significant effect on vehicular traffic and parking, benefits of installing a parklet is higher than not doing it (Dai, 2012). Another challenge with parklets is that because parklets are usually operated by local businesses (often restaurants and cafes), many passersby have perceived them as outdoor seating areas of the restaurants and cafes (Lyle, 2016). Especially when the design fails to distinguish the parklet as a separate space from the adjacent business. It can be problematic for a passerby to realize what they thought was a business seating space, is a public space. Ecker and Kim (2014) conducted a study in two neighborhoods of San Francisco with a total of six parklets. The study findings reported that 71 percent of all parklet users and passersby understood that parklets are public. However, some respondents thought that even though the parklet is a public space, they needed to purchase something to stay in the parklet (Ecker & Kim, 2014).

2.2.2 Privately Owned Public Spaces

Privately owned public spaces, which are also called “bonus spaces,” began appearing in New York City after the city zoning revision introduced the policy related to the bonus plazas in 1961. Privately owned public spaces have become a widespread phenomenon in the last fifty years. Parallel with developments in New York City, privately owned public spaces appeared in other major cities in the United States such as San Francisco, Seattle, and Boston. Bonus spaces are in different sizes and forms. Bonus spaces are located in outdoor plazas as well as indoor arcades, sidewalk widenings, public passageways, and similar other forms.

The size of bonus spaces varies from 1000 square feet to 8000 square feet depending on the form of the space, and standards that are mandated by cities. New York City government introduced 1975 Zoning Amendment with the plaza reform. While the amendment included requirements for specific design features and their application and improvement instructions of new plazas and existing plazas, it defined two types of bonus spaces: urban plazas and sidewalk widening. The plaza reform in 1975 continued with another amendment in 1977 including residential plazas as another bonus space type. In 2007, the city enacted other zoning regulations for privately owned public spaces.

Several studies have shown that design and management affect diversity and the number of occupants in bonus spaces (Huang, 2014; Kayden, 2000; Loukaitou-Sideris & Banerjee, 1993; Whyte, 1980). Between 1971 and 1973, William H. Whyte conducted his research in his book *The Social Life of Small Urban Spaces*, focusing on bonus plazas along with traditional public spaces such as urban parks, playgrounds, and urban plazas (Whyte, 1980). Focusing on eighteen bonus plazas in New York City, his research indicated that

many plazas were underused except Seagram building Plaza, Paley Park Plaza, Greenacres Plaza, and Water Street Plaza.

Comparing successful plazas to the empty ones, Whyte indicated that design characteristics were the reason for underutilized plazas. The study showed that the most used bonus plazas were the ones with more seating spaces than others. Other attributes of public spaces such as being visually pleasing, having carefully designed amenities, or having striking ornamental features are not sufficient to make people stay if there is no space to sit. In his study, Whyte emphasized the value of moveable chairs because they provide social and physical flexibilities to their users. Whyte's study with moveable chairs in the plazas at Paley and Greenacres proved his point about the success of moveable chairs and led to an increase in the number of chairs in these and other plazas. Along with seating standards, Whyte's study included recommendations as it relates to the orientation of a plaza, decorative features (trees and water), food (vendors and snack bars), and the location of a plaza in relation to the adjacent street.

In Privately owned public spaces, private developers are responsible for the design, implementation, and management regarding the guidelines that have been determined by the city. Academic studies about POPS have presented different arguments about design, management, and use of these spaces. In his study with the New York City Department of City Planning and the Municipal Art Society of New York, Kayden (2000) conducted an extensive survey of 503 privately owned public spaces. Each bonus space survey included data about the size, access, form, amenities (escalator, subway access, covered pedestrian space, artwork, weather protection, food service, planting, tables, lighting, seating, restrooms, activity programs, and others), and project data (Kayden, 2000). Even though

many bonus spaces were compliant with required amenities by the city commission, the findings of Kayden illustrated that 43 percent of buildings with privately owned public space were lacking provision of all required amenities. In addition to Kayden's study, Huang (2014) illustrated in a more recent study that the existence of certain amenities was effective to draw people in these spaces. For instance, provision of free Wi-Fi and power outlets in Citicorp Atrium and Rubenstein Atrium attracted various people to do business meetings, job interviews, or homework assignments (Huang, 2014).

The findings in Kayden's research also addressed issues of accessibility in some privately owned public spaces that employed various management strategies, such as restriction of access and activities, and exclusion of users (2000). Similarly, Whyte (1980) mentioned that design interventions such as making benches too short to sleep, putting spikes in ledges, or constructing steel-bar fences around the plaza caused people to stay out of these spaces. Whyte (1980) concluded that design characteristics of bonus spaces had a more prominent effect on accessibility than some management strategies that are deliberately taken to keep people outside of these spaces. Both Whyte and Kayden focused on the form and design attributes of plazas while laying the burden of empty plazas on designers. Smithsimon (2008) disagrees with both Kayden and White by saying that developers intentionally used the design as a tool to exclude certain individuals or groups from their plazas (Smithsimon, 2008).

Outdoor privately owned public spaces have some similarities with pedestrian plazas regarding their creation strategy by the city and involvement of private parties in the creation and management of the space. Both privately owned public spaces and pedestrian plazas are projects that were created with the intention of providing more public spaces for

city residents by the city governments while private parties typically do both of their design and management. However, pedestrian plazas are distinct from privately owned public spaces concerning several characteristics: location, design process, partnership model, and involvement of communities to the process. Pedestrian plazas are typically located on socioeconomically varied locations in cities while bonus plazas often exist in the downtown areas where the socioeconomic structure is typically stable. Kayden (2000) reported that the total of 503 privately owned public spaces at 320 office, residential, and community facility buildings was in the downtown, midtown, upper east side, and upper west side districts of the borough of Manhattan. Pedestrian plazas in New York City are located in more diverse neighborhoods compared to bonus plazas.

The design process of bonus plazas includes negotiations between the private developer concluding a final design even though pedestrian plazas are created with the input of the government, community partners, and the community using inexpensive strategies during interim stages. Even though bonus plazas are dissimilar to pedestrian plazas in several ways, they are both new types of urban public spaces, distinguishing from traditional public spaces.

2.2.3 Pedestrian Malls

The movement of creating car-free pedestrian zones began in the early 20th century in Western Europe (Bates, 2013). After the first intentional pedestrian mall was built in the Netherlands in 1953, pedestrian malls (or called as “pedestrian-only streets” in some publications) spread through Europe rapidly. In 1959, the first pedestrian mall in the US was developed in Kalamazoo, Michigan. From the 1960s through the early 1980s, pedestrian malls increasingly became a part of the urban landscape in every region of the

country (in both warm and cold climates) as a response to rapidly increasing suburban shopping malls and their popularity in the 1960s and 1970s. During this period, many cities applied pedestrian malls and various other urban renewal strategies like skywalks to attract shoppers who were drawn in suburban shopping malls (Judge, 2013). Therefore, the rise of pedestrian malls in the US occurred to look out for economic interests, ruling out the social and cultural roles of public space.

Even though pedestrian malls presented a rising trend in the 1960s, the number of brand-new pedestrian malls began to drop in the 1970s. In the 1970s, pedestrian malls continued to exist in only five large cities: Baltimore, Dallas, Philadelphia, Chicago, and Denver (Poiani, 2008; Robertson, 1993). Only a few new downtown pedestrian malls were constructed during the 1980s and 1990s. Out of the almost 200 pedestrian malls, cities removed 89%, and redeveloped 11% by the mid-1980s (Judge, 2013). Even though pedestrian malls continued to exist successfully in Europe, they began to fail in the US in the late 1970s because they were considered economically inviable associated with many problems such as low vacancy rates, a low business mix, low pedestrian traffic levels, safety, and lack of appeal (Judge, 2013; Poiani, 2008).

Several factors were effective in the emergence of these problems. Other than lacking of careful design and management strategies, the fall of pedestrian malls was associated with several other factors: development of ring roads around downtowns, lack of automobile access and parking spots, consumer habits, limited zoning regulations, location, and business selection (Gibbs, 2012; Poiani, 2008; Robertson, 1993). However, the literature has emphasized the role of failing design and management strategies far more than other factors.

The design of pedestrian malls was found as one of the responsible agents for their failure (Brambilla & Longo, 1977; Robertson, 1993). Robertson (1993) pointed out the irony in the use of a suburban shopping center model in the creation of initial pedestrian malls. This model was ineffective in drawing in shoppers from suburban shopping centers because it did not promise anything different as far as activities, social life, and aesthetic appeal were concerned (Robertson, 1993). Latter pedestrian malls were designed considering the social and communal functions of these spaces. They incorporated various design elements such as: sitting and play areas, skating rings, walkways, brick paving, trellises, canopies, fountains, ponds, playgrounds, and more (Brambilla & Longo, 1977; Pojani, 2008). Even the inclusion of these design elements did not save the fate of many pedestrian malls. In some pedestrian malls, these design elements created safety issues due to excessive design materials creating blind spots for potential aggressors, causing a lousy reputation among potential shoppers. Robertson (1993) also addressed that fact that many shoppers perceived pedestrian malls as inconvenient, uncomfortable, and less secure.

Similarly, Marcus and Francis (1997) addressed absence of careful design and furnishing, management, and programming for a plaza-like quality for the fall of pedestrian malls. Mismanagement of pedestrian malls was another reason for the decline of pedestrian malls. Even though the creation of pedestrian malls typically incorporated the involvement of several parties including local governments, business improvement districts, and government and non-government organizations, there was little or no provision for their management and upkeep (Robertson, 1993). As a result of mismanagement in pedestrian malls, many pedestrian malls became unappealing and old-fashioned for shoppers, as opposed to suburban shopping malls, which the latest trends existed in a safer environment.

There are a few successful pedestrian malls around the country. These malls are typically located in close proximity to a college campus, situated near a beach, designed in shorter blocks, being in a town with large populations of pedestrians, and located in a primary tourist location (Judge, 2013). Cities followed new approaches after removal or during the redevelopment of many pedestrian malls. Several pedestrian malls have been transformed into or started out as transit-combination pedestrian malls (Judge, 2013). This approach included various modes of transportation such as the light rail, bus, trolley, and taxi along the pedestrian mall. The approach provided enhancements in economic development, access, and safety. Another differentiating factor between this approach and the early pedestrian malls is the partnership between the city and local organizations (local transit organizations, taxi companies, downtown organizations, and other stakeholders) as it relates to the management and maintenance. Another approach was converting them into main street to revitalize pedestrian malls. Using this approach, pedestrian malls are reopened to accommodate the vehicular traffic. Judge (2013) reported that the Main Street Approach has worked successfully in reshaping struggling or unsuccessful urban pedestrian malls in terms of place-making and economic development.

Pedestrian plazas and pedestrian malls share characteristics of limiting or excluding traffic for pedestrian use. As one of the earliest practices of the pedestrianization movement in the twentieth century, pedestrian malls have been widely installed in the US and Europe. The rise and decline of pedestrian malls in urban areas of the US have been investigated by many researchers (Brambilla & Longo, 1977; Gehl, 2011; Hass-Klau, 1993; Marcus & Francis, 1997; Pojani, 2008; Robertson, 1993). Characteristics of successful (still in use) and unsuccessful pedestrian malls (removed or redeveloped) need attention to comprehend

the significance of underlying factors that can also be effective in pedestrian plaza strategies for road space allocations.

CHAPTER 3

PUBLIC PRIVATE PARTNERSHIPS

This study investigated design, management, maintenance, and the use components of pedestrian plazas while positing partnership as the focus of this study. In the community partnership model of the NYC Plaza Program and many other pedestrian plaza programs, a sponsor partner needs to work collaboratively with the government agencies in the creation and operation of a plaza. This chapter includes definition and prevalent characteristics of public private partnerships (PPPs) to provide a basis for further discussion of the partnership model in pedestrian plaza programs. Then, the chapter proceeds with an examination of the PPPs of traditional public spaces, with prominent examples from New York City to show the nature of these partnerships. A general overview of PPPs in new types of public spaces are presented in the last part of this chapter.

3.1 PPPs in Traditional Public Spaces

A few early examples of PPPs in the provision of services trace back to the late 18th century in the United States (e.g., the Philadelphia and Lancaster Turnpike) (Buxbaum & Ortiz, 2009). Until the mid-twentieth century, the government still had a common practice of financing production and provision of public services entirely from its pocket, eventually causing elevated costs and even an economic crisis (Klijn & Teisman, 2000). Since then, new ways of decreasing costs and sharing financial responsibilities of public services have been sought by the city governments. Starting in the 1960s, PPPs have been a large part of these strategies as an ideal way to create or manage public services and goods (Friend, 2006). The rise of PPPs was drawn from the conventional expectation for the involvement

of other governmental and non-governmental bodies to provide better services and goods (Jacobson & Ok Choi, 2008).

While the term ‘public-private partnership’ first established its roots for funding educational programs in the US during the mid 20th century, it became widespread in the creation and management of economic and social infrastructure in the 1960s (Yescombe, 2011). In the late 1960s and throughout the 1970s, PPPs were conducted by the federal government in the U.S. as a tool for developing the private investment, particularly in inner-city infrastructure (Linder, 1999). Osborne (2002) defines public-private partnerships in general terms, viewing it as “a commitment between public and private actors of some durability, in which partners develop products together and share risks, costs and revenues which are associated with these products” (85) (Osborne, 2002). Public-private partnerships can be observed in various organizational structures in a wide range of fields from social services to infrastructural projects. The private side in PPPs may include corporates, business improvement districts, private development agencies, and not-for-profit organizations.

PPPs are established to fulfill different purposes in the provision and delivery of goods and services to the public. These include policy design and planning, policy coordination, policy monitoring, policy evaluation and review, policy implementation and service delivery, resource mobilization, resource management (Bovaird, 2004). The most significant rationale of PPPs is in the provision of resources that the government cannot provide. These resources, ranging from economic capital to technical skill, can be used more efficiently through PPPs because the collaboration of agencies allows for the sustained knowledge of information (Collin, 1998). Other reasons for the government to

collaborate with private sector include the enhancement of pluralism, generation of new knowledge and infrastructure, and the delivery of public goods and services with competition for further improvement (Neal, 2010).

On the other hand, Linder (1999) believes that disciplining the provision of services with competitive market pressures would shrink the role of the government and therefore undermine the significance of the partnership idea (Linder, 1999). The author discusses six types of PPP from the perspectives of neoliberal and neoconservative agendas that have been effective in an asymmetric relationship between the private sector and government sector. These six types are: PPP as management reform, PPP as problem conversion, PPP as moral regeneration, PPP as risk shifting, PPP as restructuring public service, and PPP as power sharing. Linder (1999) puts aside the partnership model between nonprofit organizations and local governments from these six uses of PPPs for three reasons. First, organizations in this partnership typically have a special bond with their communities so that their organizational existence may not be easily distinguishable from the communities that they serve. Second, contrary to the ideologies behind the six types (often related to financial and power sharing), the rhetoric in this type of partnership is related to moral work to meet the needs of the community. Third, because there is no economical motive in this type of partnership, it changes the dynamics and bases of partnership.

The PPP literature addressed some challenges in the levels of both the creation and management of public services and goods in public-private partnerships (Friend, 2006; Jacobson & Ok Choi, 2008; Klijn & Teisman, 2000; Moore, 2005; Wettenhall, 2007). Moore (2005) places these challenges in three categories: blurry boundaries in the negotiation between public and private sides for the protection of public interest; less

effective representation of public side due to the mindset of satisfaction of private side; and public side being less effective on negotiation the deal at hand with private side (Moore, 2005).

Even though public-private partnership has been an ideal way of delivering services and goods in many modern societies, it does not imply a guaranteed success in practice (Friend, 2006). The literature illustrates that PPPs work entirely for public good if all sides in the partnership are able to manage the decision-making process without a competition between partners' self-interests (Friend, 2006; Klijn & Teisman, 2000; Linder, 1999). (Linder, 1999) emphasizes:

The hallmark of partnership is cooperation not competition; the disciplining mechanism is not customer exit or thin profit margins, but a joint venture that spreads financial risks between public and private sector (36).

Similarly, Jacobson and Ok Choi (2008) argue the necessity of joint vision objectives in a successful partnership using other necessary tools such as: performance measures, resource needs and identifications, regular monitoring of objectives and measures and streamlined process improvement (Jacobson & Ok Choi, 2008).

Urban parks can be assumed as the closest type of traditional urban public space to pedestrian plazas. Some urban parks are created or maintained through PPPs. A partnership can be used in the creation and management of public parks for specific reasons. Public parks that are created or managed in PPPs have the potential of providing more flexible budget, efficient advocacy, fundraising and donation, and community engagement for specific needs of the park (Neal, 2010).

Government resources, especially at the level of local governments, are typically limited for funding of urban public parks. Partnering with the private sector can provide

more flexible budgeting and advocacy for the creation or maintenance of urban parks. The private side of the partnership typically invests money to public parks when they foresee their possible economic potential. The private side involves in the partnership through creating, recreating, or managing a public park. Recently, local organizations such as business improvement districts, local development agencies, and community corporations have begun to take responsibility of creating and managing urban parks. These organizations typically use taxes or donations from local commercial developments to fund their parks.

There are many public-private partnership examples for parks in the large cities of the US. New York City has the highest number of PPPs for parks. Non-government organizations have created or transformed many urban parks in partnership with the city and provided flexible budgeting typically through their efficient advocacy and fundraising methods. For example, Bryant Park in New York City was renovated through a PPP method. The park was neglected and had a severe crime rate in the 1970s. Bryant Park Corporation (BPC) was established to restore Bryant Park with, funded by the Rockefeller Brothers in 1980. After four years of renovation, BPC opened the park to the public in 1992. Since then, same organization has been managing the park with another private partner that is called 34th Street Partnership creating new partnerships and marketing strategies for the park.

Like Bryant Park, Central Park had also deteriorated during the city's fiscal crisis of the city in the 1970s. The park was considered unsafe for New Yorkers during this time. The Central Park Conservancy was established in 1980 with a goal of revitalizing the park. Even though there was no official partnership between the city and the Central Park

Conservancy, a memorandum was signed between two parts in 1993 (Baha, 2017). This made the conservancy an official partner of the city for the management of Central Park. The Central Park Conservancy and the Parks Department are two official partners in the management of Central Park. However, other non-government and government organizations contribute the management of the park. Some of these organizations are the Department of Transportation, the Department of Environmental Protection, community councils, and Con Edison (Baha, 2017).

The conservancy is involved in planning and overseeing the park while fulfilling certain expectations of their agreement with the Parks Department. The final authority in fulfilling management and maintenance expectations is the City Parks Commissioner (Baha, 2017). Douglas Blonsky, the former CEO of the Central Park Conservancy, says that:

When the Central Park Conservancy was formed in 1980, we focused on safety first—making sure lights worked so people would come into the park and that benches were repaired so people would stay—before moving on to larger-scale landscape and restoration projects like Sheep Meadow and Cherry Hill Fountain. We build a strong partnership with the city, leveraged contributions from private sector and trained a small army of volunteers to support horticultural care and visitor services (Blonsky, 2017).

To attract people to the park, the Central Park Conservancy focused on eliminating unsafe conditions in the park. In return for their efforts, the park became one of the most visited urban parks in the world. In 2017, Blonsky reported that Central Park receives more than 42 million visits annually and generates around \$1.4 billion economic activity for the city (Blonsky, 2017).

Unlike Bryant Park and Central Park, High Line Park was created from scratch on a privately-owned property which was transferred to the city in the process of creation. In

2009, High Line Park was partially created on historical train tracks run from Gansevoort Street north to the 34th Street. Although the High Line dates back in the 1930s with its construction to provide a safer line for transportation of goods and materials to the industrial zone of the city, the idea of creating a park on the neglected railroad began in the late 1990s. In 1999, two community members from the neighborhood founded the Friends of the High Line to prevent the demolishing of the High Line. The Friends of High Line wanted to create a space that would be useful for the public advocating that the demolition of the railroad would be costlier than keeping it because it potentially would increase revenue from property, sales and income taxes (Bowen & Stepan, 2014). With the community support, Mayor Bloomberg decided to keep the railroad in 2002.

In 2009, the city and Friends of High Line formally started a public-private partnership. In this partnership, Friends of High Line agreed to cover largest part of the park's management and maintenance costs and partially construction cost (Bowen & Stepan, 2014). The first part of the High Line opened in 2009 followed by the second part in 2011, costing \$152.3 million largely funded by the city. The operational cost budget was about \$3 million annually in the first years and faced oppositions from adjacent property owners for the creation of High Line Park (Bowen & Stepan, 2014). In 2005, when the city rezoned the lower West Side, from 16th Street to 30th Street between 10th and 11th Avenues, it allowed higher buildings, and changed the minds of High Line opponents because their property values increased as a potential redevelopment site (Bowen & Stepan, 2014). The rezoning also provided a bonus incentive for property owners and developers who build adjacent to High Line for a fee (\$50 per square) to generate additional tax revenue for the construction of High Line and other needs of the community (Bowen & Stepan, 2014).

3.2 PPPs in New Types of Public Spaces

Pedestrian plaza programs define a set of criteria for potential sponsor partners to ensure that they have the capacity to maintain their plaza responsibilities. Although criteria for partnering may show slight differences in each city, partners need to fulfill or exceed these criteria to elevate their chances in the competitive application process. In almost all pedestrian plaza programs, sponsor partners should demonstrate a strong connection with the community. They should provide proof of support from different groups in the community. Proof of organizational competence of sponsor partners for community workshops, events, and programming is another requirement of cities such as Los Angeles, San Francisco, and New York City. For the proof of organizational qualities, cities often refer to previous organizational experiences of sponsor partners in the public realm like clean-up programs, street events, community gatherings.

In all pedestrian plaza programs, sponsor partners should demonstrate the financial capacity for maintenance and upkeep of pedestrian plazas. In some programs, design and implementation is also funded by sponsor partners. In Philadelphia, the sponsor partner assumes the responsibilities of the design, implementation, and maintenance. The Los Angeles Department of Transportation funds surface treatments, planters, and wayfinding signage, while expenses of design and installation are entirely provided by the New York City Plaza Program.

Internal collaborations between city agencies are also widely used in pedestrian plaza programs. In different stages of a project, Atlanta's Placemaking Program requires the involvement of multiple agencies: the Department of City Planning, Department of Public Works, Office of Enterprise Assets Management, and Atlanta Police Department.

Similarly, in New York City, the Department of Transportation and Department of Design and Construction work on the design and implementation of permanent plazas collaboratively. Pavements to Plazas in San Francisco and Los Angeles Plaza Program also include interagency coordination and collaboration in different stages of the program.

Studies present that the partnership model in pedestrian plaza programs may present some limitations regarding funding issues of sponsor partners in underserved neighborhoods (Gehl Studio & J. Max Bond Center, 2015; Lydon & Garcia, 2015). In New York City, for instance, the city created some pedestrian in partnership with the local BIDs. Since the BIDs work in specific geographic boundaries with common funds of local business' taxes, they typically have the financial capacity to manage and program their pedestrian plazas. On the other hand, some sponsor partners such as not-for-profit organizations, community development agencies, and community corporations face difficulties regarding funding to maintain their plaza in the long-term. The report of Gehl Studio and J. Max Bond Center shows that the funding model of New York City remains insufficient to support certain sponsor partners (Gehl Studio & J. Max Bond Center, 2015). The report indicates that sponsor partners in low-income communities need long-term financial support from the city in the management and programming of their plazas.

Like pedestrian plazas, public-private partnerships also exist in the creation and management of the other three new types of public spaces. Furthermore, organizational structures of the private parts are different in parklets, privately owned public spaces, and pedestrian malls. Local businesses, community groups, and individuals are eligible organizations to be a sponsor partner in the creation and management of a parklet. The private side in pedestrian malls often include the BIDs and mall management companies

who are typically responsible for the planning of operational services. Even though the nature of partnership between the city government and private sector is more different in POPS than other new types, private developers create POPS based on the specific zoning resolutions of the city government which indicate a kind of partnership between them to create additional public spaces in the city.

In parklet programs, the city governments often require a set of criteria such as proof of economic capacity for design, installation and maintenance, and community support in for sponsor partners. Similar to pedestrian plaza programs, transportation departments are typically responsible—or in collaboration—with other city departments, such as planning, public works, or parks and recreation, to operate parklet programs. Compared to neighborhood institutions and non-profit agencies, local businesses are more often partners of cities in the creation of parklets. In San Francisco, for instance, ninety-three percent of parklets were hosted by local businesses in 2014 (Corey, 2014).

Panganiban and Ocubillo (2014) state that San Francisco parklets, eating and drinking were the most frequently observed activities in parklets, as opposed to elsewhere on the sidewalk. The study concludes that because many parklet partners were local eateries providing chairs and tables in the parklet, people tended to sit and eat or drink in this area more than any other place on the sidewalk. Studies have shown that parklets may lead to increasing economic profits for sponsor partners (Loukaitou-Sideris et al., 2013; NYC Department of Transportation, 2011; University City District, 2013). According to the study of Loukaitou-Sideris et al. (2013), the majority of partnering business owners stated that they expected increases in the number of customers, revenues, and profits in the following year of the parklet installation. In Philadelphia, University City District (2013)

reported that the sales of businesses with parklet installations substantially increased compared to pre-occupation sales.

Because parklets are mostly created and managed by the local businesses, making profit out of parklets is integral for sponsor partners. Studies have shown that parklets may lead to increasing economic profits for sponsor partners (Loukaitou-Sideris et al., 2013; NYC Department of Transportation, 2011; University City District, 2013). According to the study of Loukaitou-Sideris et al. (2013), the majority of partnering business owners stated that they expected increases in the number of customers, revenues, and profits in the following year of the parklet installation. In Philadelphia, University City District (2013) reported that the sales of businesses with parklet installations substantially increased compared to pre-occupation sales. Several studies mostly conducted by the city governments focus on financial benefits of parklets to sponsor partners and other local businesses while many cities promote the parklet program as a way to boost the local economy.

When pedestrian malls began to be created by cities to revitalize declining downtown commercial areas, creating a strong public-private partnership for the management of the malls was not something that the city government planner thought over. Robertson (1990) says that “most of the attention given to the early malls focused on design and occurred during the planning stages” (269). In the late 1980s, this situation started to change after most pedestrian malls failed to fulfil the expectation of drawing people for shopping. The removal or restoration of pedestrian malls took place in many US cities in the 1980s-1990s. They were converted into either the main streets or shared streets. Shared Streets, also widely called transit-combination pedestrian malls allow heavy pedestrian

circulation while providing transit services through partnership with local transit organizations, taxi companies, downtown organizations, and other stakeholders (Judge, 2013). A couple of transit-oriented examples of pedestrian malls such as 16th Street Mall in Denver showed that private-public partnership could improve management, maintenance, and programming which were assumed to play key roles in the failure of many pedestrian malls (Robertson, 1990)

In the 1961's Zoning Resolution in New York City, a bonus incentive for developers was introduced to provide additional public space for the city and relieve the city government's financial burden in the creation and management of these spaces. Because the ownership is private, these spaces were called privately owned public spaces. In this partnership, the government agency defines specific policies and guidelines that are supposed to be followed by the private developers, while private developers are responsible for the design, implementation, and management of POPS. (Whyte, 2012) explains this partnership as an "attractive package" for both sides. In New York City, when builders of bonus spaces follow zoning guidelines, they could build ten square feet of office space for every square foot of bonus plaza, with the opportunity of increasing their profit. On the other hand, the city government would provide high-quality public spaces for the residents.

Between 1961 and 1973, in addition to the determination of five special zoning districts for POPS, the city government introduced six types of POPS including plazas and arcades, elevated plazas, through-block arcades, covered pedestrian spaces, sunken plazas, and open-air concourses. The city government continued to initiate new sets of rules for POPs from 1980 to 2000 including restriction and removal of some types of POPS. In 2007, NYC Department of Planning introduced the latest set of rules related to design and

management requirements in POPS. The city government kept changing design standards and management rules over the course because problems presented in the design and management strategies which eventually caused accessibility issues. The negotiations between city officials and the private sector in the application of these standards and rules are unclear in the literature (Huang, 2014; Kayden, 2000; Németh, 2009). However, considering that the private sector has been the one who decides what design and management approaches can be conducted in their spaces, the involvement of city government has been limited in the design and management only with the level of identification of standards and rules.

CHAPTER 4

PEDESTRIANIZATION IN NEW YORK CITY

In the last decade, New York City established pedestrian-oriented strategies in its plans such as VisionZero, PlaNYC, and Sustainable Streets to create sanctuaries from traffic or to reconfigure streets to keep people safe. Along with safety goals, increasing green coverage, expansion of sidewalks, bike paths, new seating, and programming events for pedestrians have also been used as strategies in promoting walking, biking, health, and social life. Most of the strategies began before Mayor Bill de Blasio's administration; NYC DOT has continued to operate seven programs for pedestrians including the Plaza Program and Street Seats Program (Parklet Program). In this chapter, a brief overview of these programs provides a background about the perspective of NYC DOT in the transformation of streets into pedestrian-friendly places. Because the research topic is pedestrian plazas, this chapter also includes a detailed background of the New York City Pedestrian Plaza Program.

4.1 Programs for Pedestrians in NYC DOT

Providing more public space for pedestrians has become an increasing concern for New York City over the last decade. In 1996, the NYC Parks and NYC DOT launched the Greenstreets program in a partnership to create green space in unused road areas. Even though the main purpose of the program was to improve environmental quality in the city neighborhoods and calm traffic, it was an initial step in the creation of spaces that offer pedestrian comfort in the city. Pedestrianization attempts of the city proceeded with Lower

Manhattan Pedestrianization Study of the Giuliani administration in 1997. The project area was identified as Lower Manhattan south of Chambers Street and the Brooklyn Bridge from the East River to the Hudson River. The project goals were to improve pedestrian movement and circulation with the provision of more transit options, the quality of streets with the local business improvement district, pedestrian safety, air quality, and to develop several design proposals to improve the pedestrian experience in Lower Manhattan (City of New York, 1997). In 2000, with the collaboration of the Department of City Planning and Department of Transportation, another project was conducted under the name of the *Midtown Manhattan Pedestrian Network Development Project* focusing on Times Square and the Theater District. The goals of the project were similar to the Lower Manhattan Pedestrianization Study. It is significant to note that both projects emphasized taking measures with a collaboration of the BIDs using low-cost tests in the achievement of some of these goals. As such, it established an early example of tactical urbanism projects.

Starting with the NYC Plaza Program in 2008, NYC DOT has been offering six more programs for pedestrians including CityBench, DOT Art and Event Programming, Safe Streets for Seniors, Street Seats, and Weekend Walks. Even though each program has its unique goals to fulfill, introducing these programs is a part of the pedestrian-oriented strategy based on both PlaNYC (New York City long-term sustainability plan) and Sustainable Streets (the New York City Department of Transportation's strategic plan) (The City of New York, 2011; The NYC Department of Transportation, 2008).

With the CityBench program, NYC DOT began to install benches for improving mobility in senior and disabled citizens and began creating more comfortable transit usage for pedestrians around the city in 2012. The program evaluates seating requests coming

from the public with a priority for the areas: bus stop without shelters, sidewalks near transit facilities, senior centers, hospitals and community health centers, commercial zones and shopping districts, and municipal facilities. NYC DOT covers installation and maintenance costs of benches. Another NYC DOT program that aims to improve the quality of senior citizen's life is Safe Streets for Seniors. The program works on several senior pedestrian focus areas that were determined by NYC DOT. Since the launch of the program in 2008, more than a hundred projects have been implemented citywide resulting in 16% decreases in annual senior pedestrian fatalities.

DOT Art and Event Programming Program works with artists who would like to present temporary public art projects and events in a NYC DOT property. Even though the period of public art presentation is determined by the artists, NYC DOT limits the time frame to eleven months. NYC DOT includes public art events such as dance, music, performance, workshop, and intervention in 'Summer Streets' and 'Car Free Earth Day' events. The Summer Streets event is the project of NYC DOT, opening several streets between Brooklyn Bridge and Central Park to pedestrians on three consecutive Saturdays in August every year. The goal of the event is to provide space for healthy recreation and facilitate the use of sustainable forms of transportation such as cycling. The Car Free Earth Day event is held the day before Earth Day every year. Like the Summer Street event, the event includes the closing of several streets to the car traffic and creating pedestrian walkways in New York City. Along with art events, both events promote environmental programming that aims to raise awareness about environmental topics such as climate change and sustainability.

NYC DOT began to sponsor Weekend Walks in its sixth season in 2015. Even though these events are like the Summer Streets events regarding allocation of road space for a temporary pedestrian use, the main difference between Summer Streets and Weekend Walks events is that Weekend Walks occurs in various locations in New York City almost every weekend and promotes neighborhood specific activities whereas the Summer Street event is held in the same location for three consecutive weekends every year.

Street Seats Program is the parklet program of NYC DOT. The program aims to transform underused roadways or metered parking spots into public space. With success of first few parklets in San Francisco in 2009, NYC DOT began to install parklets under the name of “pop-up café” pilot program in 2010. In 2013, the program became permanent as Street Seats. A total of eighteen street seats were implemented in Manhattan and Brooklyn by 2017. The program works in a competitive manner with the application of eligible businesses and intuitions. Similar to the Plaza Program, Street Seats program requires applicants to obtain approval from the property owner adjacent to the proposed site and the local community board. Sponsorship is another common characteristic of street seats and plazas with a slight difference. Sponsors need to cover installation and management of a street seat while sponsors of plazas are only responsible for the management of these areas.

4.2 New York City Plaza Program

Times Square Pedestrian Plaza is widely known as the first pedestrian plaza in the United States with the contribution of a leading figure in the project and the head of NYC DOT at the time, Janet Sadik-Khan (Lydon & Garcia, 2015). Although the transformation of Times Square sparked national attention to start the NYC Plaza Program, Times Square Plaza was

not the first pedestrian plaza in New York City. The history of pedestrian plazas in New York City rooted back to the Lower Manhattan Pedestrianization Study and the efforts of Randy Wade and other NYC DOT officials, in the creation of a pedestrian plaza in lower Manhattan in 1997 (City of New York, 1997; Lydon & Garcia, 2015). Randy Wade and his team created the plaza following temporary and inexpensive strategies like today's pedestrian plazas. Using the same approach of Wade and his colleagues in the Whitehall Street Plaza, another plaza with the collaboration of the local BID was also developed in Manhattan in 2006 as a part of the city's PlaNYC sustainability and quality-of-life effort projects (Lydon & Garcia, 2015). The past attempts for the creation of pedestrian plazas did not have a continuity as it has been in NYC Plaza Program probably because the city government did not promote these attempts to institutionalize as a program in NYC DOT at that time.

New York City Transportation Department applied the first pedestrian plaza in the transformation of Times Square as a part of the Greenlight for Midtown project. The project began with the closure of the square in a weekend in 2008 and included temporary actions such as folding lawn chairs and orange traffic barrels (Lydon & Garcia, 2015). In the same year, different portions of Broadway were closed for pedestrians with the provision of moveable chairs, tables, and some planters. The project was conducted with the collaboration of the local Business Improvement Districts (BID) and NYC DOT. After measuring statistics about the traffic congestion and accident reports, the project gained potential support from the community and the Mayor Michael Bloomberg administration. Design and programming processes of the square continued in 2009 and 2010 and the first stage of the plaza was constructed in 2013.

NYC DOT started NYC Plaza Program in 2008 with the Times Square Plaza project. Since then, pedestrian plazas have been constructed throughout New York City. As of 2019, NYC DOT lists 73 plazas in different tactical stages (interim-materials and permanent-materials) that were implemented or decided to be implemented in New York City (NYC Department of Transportation, 2019a). The goals of the program are to ensure that all New Yorkers live within a ten-minute walk of quality open space, to transform underused streets into vibrant, accessible public spaces and walkable destinations, and to enhance the public realm. According to the definition of NYC DOT, a pedestrian plaza is:

an area designated by NYC DOT for pedestrian circulation, use, and enjoyment of DOT property, including but not limited to property mapped as public space or property within the bed of a roadway, and which may contain amenities such as tables, seating, trees, plants, lighting, bike racks or public art (2) (NYC Department of Transportation, 2017).

NYC DOT employs tactical urbanism actions by using a three-stage process. The first stage is called as “one-day plaza,” which refers to a single day event where the proposed plaza is tested, and the community is asked to participate in providing opinions for the proposed plaza. This component includes defining, programming, and documenting a potential plaza site with the sponsor partner. “Interim materials plaza,” which is the second stage, allows testing operational abilities of the sponsor partner, usage of design element, and traffic circulation data ahead of a capital construction project. Several community events are scheduled for community involvement in the creation of permanent plaza. The final stage includes "permanent materials plaza," which is under the responsibility of sponsor partners to manage, operate, and, maintain the new public space (NYC Department of Transportation, 2017). Based on the timeline provided by NYC DOT, the process from the first stage to the final stage takes approximately three years.

The program provided a model for many other cities including the Pavement to Parks program in San Francisco. NYC DOT successfully implemented a model that includes both spatial and social factors (Ocubillo, 2012). Ocubillo (2012) categorized this model into four sections. First, the city targeted spaces that have an acute imbalance between pedestrian use and automobile use. Second, the program used interim stages to test potential sites for permanent changes. Third, NYC DOT defined certain strategies for the implementation, evaluation, and regulation of the plazas. Finally, public-private partnership provided a quality community participation process and a sharing of responsibilities over management.

Eligible organizations or individuals can propose new plaza sites for their neighborhood. The program strongly recommends the application for sites of more than 2,000 square feet. The deadline for the submission of applications, determined by NYC DOT, occurs on a date between May and July every year. After the application deadline, NYC DOT begins to evaluate applications in a competitive manner based on a 100-point scale that is distributed in different categories including open space, community initiative, site context, organizational maintenance and capacity, and income eligibility. While neighborhoods fitting the criteria with insufficient open space is worth 30 points out of 100, providing community initiative (presenting community outreach plan and community support), appropriateness of site context (compatibility of the plaza with land uses, population density, proximity to transit, safety priority), and proof of organizational and maintenance capacity (for managing, operating, maintaining, and programming the plaza) take 20 points. On the other hand, low or moderate-income neighborhoods can receive 10 points; other sites are evaluated with zero point (NYC Department of Transportation,

2017). Considering these criteria, the NYC DOT prepared priority maps showing which parts of the city is prioritized for plazas (Figure 4.1). NYC DOT requires applicants to provide local support for the potential plaza. This requirement is standardized with:

At least eight letters of support from key community stakeholders, including but not limited to adjacent properties/businesses, nearby institution (such as churches or schools), elected officials, not-for-profit groups, neighborhood and block associations, and neighborhood residents (3) (NYC Department of Transportation, 2017).

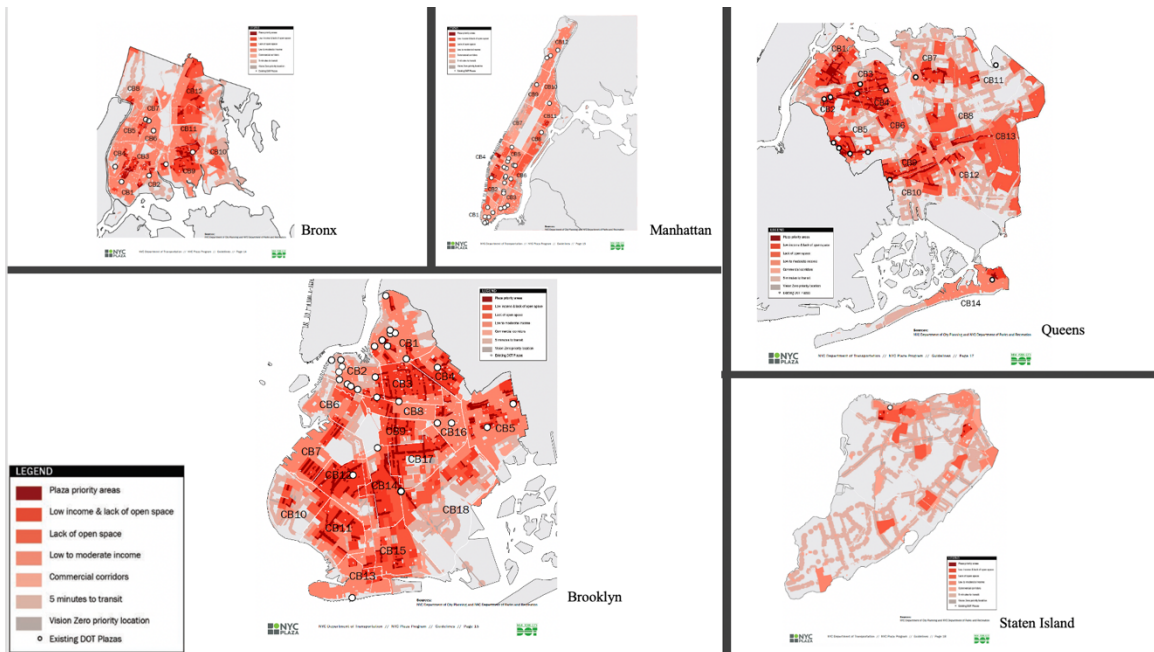


Figure 4.1. NYC Department of Transportation’s plaza priority maps for four boroughs
Source: (NYC Department of Transportation, 2019b).

There are a number of expectations of the DOT from sponsor partners (NYC Department of Transportation, 2017). Sponsor partners are expected to conduct public workshops to facilitate the active involvement of residents, members of the local business community, representatives of nearby institutions and elected officials. NYC DOT assumes the responsibilities of the design and implementation while the maintenance of pedestrian plazas needs to be done by sponsor partners. NYC DOT mandates sponsor partners need

to be active throughout the design process by participating in design meetings and communicating with designers about the needs of the community. NYC DOT also expects sponsor partners to organize community programs in pedestrian plazas with members of the community.

CHAPTER 5

METHOD

In this study NYC pedestrian plazas were chosen for two main reasons. First, NYC Plaza Program has the longest history and experience in the creation of pedestrian plazas. Second, NYCPP has become a model for many urban place-making programs. Given these circumstances, a study of pedestrian plazas in New York City can contribute not only to the development of NYC Plaza Program, but also to other pedestrian plaza programs in the nation.

This aim of this research was to understand the spatial and social dynamics of pedestrian plazas from the perspective of the partnerships that created and maintains them. The research drew upon various methods of collecting data. Table 5.1 presents research questions for this study. They are organized into four categories: partnership, design, uses and users, and management and maintenance.

Table 5.1 Research Questions

Category	Research Question	Data Collection/ Sources of Data
Partnership	1. What are the organizations that are involved in the plaza partnership?	Interviews with sponsor partners, government officials, and other organizations.
	2. How are the responsibilities shared in the plaza partnerships?	Interviews with sponsor partners, government officials, and other organizations.
	3. Why did the community partner group propose a plaza? What were their intentions?	Interviews with sponsor partners.
	4. How do partners evaluate their relationships and communication with each other?	Interviews with sponsor partners, government officials, and other organizations.
	5. What are the tensions/sources of conflict that arose during the process of creating plazas? How were they resolved?	Interviews with sponsor partners, government officials, and other organizations.
Design	6. What are the design characteristics of case study plazas?	Site observations, photographs, maps, and city reports.
	7. What is the rationale for design choices?	Interviews with sponsor partners, and government officials.
	8. Does the design of the case study plazas address the needs of the community? If so, how? If not, why not?	Interviews with sponsor partners, government officials, and other organizations; site observations, photographs; and maps.
	9. What were the roles of partners and the community in the design process?	Interviews with sponsor partners, government officials, and other organizations.
Uses and Users	10. Who are the plazas serving?	Interviews with sponsor partners, user surveys, interviews, and site observations.
	11. What activities occur in the plazas? And when?	Interviews with sponsor partners, user surveys and interviews.
	12. Does the design of case study plazas influence the type of activities occurring? If so, how?	Site observations, interviews with sponsor partners.
	13. What is the level of user satisfaction with plaza maintenance, cleanliness, and safety?	User Surveys and interviews with police precincts.
	14. What are the roles of partners in programming events and activities in the plazas?	Interviews with sponsor partners, government officials, and other organizations.
Management and Maintenance	15. Who manages the pedestrian plazas?	Interviews with sponsor partners and government officials.
	16. What are the official/unofficial site-specific rules in the management of the plazas?	Interviews with sponsor partners and site observations.
	17. What roles do sponsor partners play in the management of case study plazas?	Interviews with sponsor partners, government officials, and other organizations.
	18. What are the tensions/sources of conflicts that arose in the management practice of case study plazas? How were they resolved?	Interviews with sponsor partners, government officials, and other organizations.
	19. What are the tensions and sources of conflicts that arose in the maintenance of the plazas? How were they resolved?	Interviews with sponsor partners, government officials, and other organizations.

5.1 Cases

The study sites were NYC pedestrian plazas in the boroughs of Brooklyn and Queens. From seventy-three pedestrian plazas, I selected five as study sites, using maps for plaza priority areas determined by the NYC DOT. These maps were created considering several characteristics of sites such as lack of open space, low- or moderate-income level, and proximity to transit, commercial corridors and hubs. Many reasons were effective in the selection of study sites using priority maps of the NYC DOT. First, studying a pedestrian plaza in a neighborhood with a lack of open space gave a better opportunity for pre-and post- installation comparisons of physical and social environment. Second, choosing pedestrian plazas in neighborhoods with low- or moderate-income levels provides a better idea of how these plazas address the needs of underrepresented communities through design, management, and use. Third, selection of pedestrian plazas located in priority areas identified by the NYC DOT provides a wide range of community organizations as sponsor partners.

In the site selection strategy, I identified which pedestrian plazas are located near or in the plaza priority areas. I found nineteen pedestrian plazas in four boroughs of New York City: three in the Bronx, six in Brooklyn, one in Manhattan, and nine in Queens. Thirteen sites were eliminated because they lack a sponsor partner, or because they were temporary plazas or under construction. At that point, the qualifying study sites were: three pedestrian plazas in Brooklyn, two pedestrian plazas in Queens, and one pedestrian plaza in the Bronx (Table 5.1).

Data collection strategies for these six case study sites included site observations, interviews with sponsor partners and city government officials, and user surveys. I

conducted my observations in these six case study plazas between June 2018 and September 2018. Between May 2019 and September 2019, I conducted several site observations along with user surveys. Between December 2018 and September 2019, I interviewed plaza sponsors in 71st Avenue Plaza, Corona Plaza, Kensington Plaza, and Knickerbocker Plaza. I made several attempts to contact plaza sponsors of Morrison Avenue Plaza and New Lots Plaza, but these were unsuccessful. Based on my previous experiences, sponsor partners are inclined to tell the story of a plaza in the best possible way because they were involved in the creation and management of their plazas at every step. Due to the significance of interviews with sponsor partners in this study, I eliminated both Morrison Avenue Plaza and New Lots Plaza due to the absence of data from sponsor partners.

Using the site selection criteria, I chose one in each community district to provide variety in terms of locations. Kensington Plaza and Avenue C Plaza are two neighboring plazas fitting site selection criteria and located in the same district. In order to select one of these plazas, I used the age of plazas as a selection criterion considering older one could be more adopted by the community. Therefore, I chose Kensington Plaza because it was built two years before Avenue C Plaza. However, in the early stages of my data collection in 2018, I discovered an interesting dynamic between these two neighboring plazas than I anticipated when I started my research. Kensington Plaza was being used by the community for daily uses whereas Avenue C Plaza was hosting all kinds of neighborhood events, festivals, and community meetings although there was almost no daily use in Avenue C Plaza. These two plazas are also managed by the same sponsor partner: the Kensington Stewards. Therefore, differences are apparent between two plazas: one is used

for daily activities and the other for programming by the sponsor partner. Considering this interesting difference between these two neighboring plazas, it seemed important to add Avenue C Plaza to the case study sites.

After the elimination of two plaza sites and the addition of one plaza site, I conducted my research on five case study sites: Knickerbocker Plaza, Kensington Plaza, and Avenue C Plaza in Brooklyn; and 71st Avenue Plaza and Corona Plaza in Queens (Table 5.2).

Table 5.2 The list of Pedestrian Plaza Study Sites

Plaza	Borough	Community Partner	Date of Completion	Selection of the Site
Morrison Avenue Plaza	Bronx	Youth Ministers for Peace & Justice	P:2015	E
Knickerbocker Plaza	Brooklyn	RiseBoro Community Corporation	P: 2014	S
New Lots Plaza	Brooklyn	New Lots Avenue Triangle Merchants Assn.	T: 2012 P: 2018	E
Kensington Plaza	Brooklyn	The Kensington Stewards	T: 2012 P: 2017	S
Avenue C Plaza	Brooklyn	The Kensington Stewards	T: 2015 P:2017	A
71 st Ave Plaza	Queens	Myrtle Avenue BID Queens	T: 2013 P:2018	S
Corona Plaza	Queens	Queens Economic Development Corp.	T: 2013 P:2018	S

Note: T: Date of Completion: (T) temporary plaza completion, (P) permanent plaza completion
 Selection of the Site: (E) eliminated from the research (S) Selected from the beginning of the research (A) added to the research later

5.2 Sources of Data

The data was drawn from three sources: site observations, user surveys, and interviews with NYC DOT and NYC DDC officials, sponsor partners, plaza managers, police officers and other non-profit agency workers involved in the process of creating and maintaining the plazas. Interviews provided information concerning partnership, management, maintenance, and programming in pedestrian plazas. Site observations in five study sites were conducted to gather data for company, postures, and daily activities in pedestrian

plazas. User surveys provided data about users and their perception (See Appendix E for observation and survey instruments, and Appendix F for interview instruments).

5.2.1 Site Observations

Observational research techniques were employed to document design characteristics, pedestrian volume, and use of the plazas. Instruments of this study's site observations were created using a mix of instruments that were used in previous pedestrian plazas studies in New York City and San Francisco (Gehl Studio & J. Max Bond Center, 2015; Panganiban & Ocubillo, 2014). User counts, stationary activity counts, and the quality and condition of design elements were recorded.

User counts were used to measure the volume of people in pedestrian plazas. Stationary activity scans tracked the number of different activities in pedestrian plazas. In this instruments, stationary activities included the following seven activities: eating/drinking, chatting, people-watching, electronic device use, commercial, and other. Also, the study identified four postures: standing, formal sitting, improvised sitting, and lying down (Appendix E for the observation checklist). These activities and postures were counted regardless of headcounts. For instance, one person could eat, chat, and use an electronic device while sitting, standing, and leaning during the period in the plaza. In this case, I recorded each activity and posture independently.

During June 2018, I conducted preliminary observations on Kensington Plaza, New Lots Plaza, Knickerbocker Plaza, 71st Avenue Plaza, Corona Plaza, and Morrison Avenue Plaza. The purpose of this phase of the research was to identify the case study sites' physical features and test the observation instruments in the observation checklist. In order to explore uses in each plaza, site observations were made during weekday and weekend

afternoons (12 pm- 1 pm and 5 pm-6 pm) between June and August of 2018. Each site was visited one day with two sets of observation sessions in the summer of 2018. I completed the preliminary observations with a total of 12 site visits. After making a few revisions in my observation checklist, I proceeded with more site observations from May 2019 through September 2019.

Because two case study sites were eliminated and one was added, observations in 2019 were conducted in five case study sites. I conducted systematic observations every week in different case study plazas. I visited each plaza for three weekdays and three weekends (12 pm- 1 pm and 5 pm- 6 pm) to conduct observations. In this way, I was able to visit the same plaza approximately every five week. I conducted observations on six different days for each plaza including weekdays and weekends between May and September of 2019. Including both observation sessions in 2018 and 2019, I collected observational data from five case study sites on a total of 38 different days (See Appendix E for the schedule of site observations).

Site observations were conducted to document uses and users in selected pedestrian plazas. Observations were also used for a detailed analysis of design and management features and their influences on the use of pedestrian plazas. Data regarding design characteristics were gathered using a checklist that included information about seating and other amenities, material use, and plan (Appendix E). Similarly, some management practices at each site were also recorded with a checklist including items such as presence of surveillance camera, security personnel, maintenance personnel, and sign for plaza rules (See Appendix E for the for the management checklist). Data collection techniques included photographs using a cell phone camera, field notes, and voice recordings using a

cell phone. Immediately after completion of each site visit, I entered relevant data in a word document specially created for each site on my laptop. At that point, I updated my notes using pictures and voice recordings.

Among case study sites, Avenue C Plaza was almost completely empty during the first four observation sessions. Because Avenue C Plaza and Kensington Plaza are within a five-minute walking distance, I also had the opportunity to confirm the regularity of this situation at Avenue C Plaza through visiting the plaza in different times than it was scheduled for the observations. My visits confirmed Avenue C Plaza was regularly less occupied plaza (with an average of two people per hour) on weekdays regardless of the time of the day. Hence, I stopped my site observations in Avenue C Plaza in mid-summer 2019. However, Avenue C Plaza was bustling with people during organized events and activities almost every weekend. Therefore, I collected the data for the programming in Avenue C Plaza through interviews with the participants and organizers of programmed events.

Extreme weather conditions were the most significant limitation for site observations. Because pedestrian plazas are open spaces, they are visited by fewer people in extreme weather conditions. On extremely hot days, all seats protected from the sun were occupied by the users in many case study plazas. As the researcher for this study, I was mostly under the sun for long hours which caused frequent pauses in the observations. During heavy rain, most plazas were almost empty, leading me to conclude three observation sessions earlier than planned.

5.2.2 Surveys with Users

The survey with users included a questionnaire with multiple choice questions to collect data about user preferences and background, and scaled answers to questions about their satisfaction with the plaza. The questions were asked to the respondents and their answers were recorded by the researcher. The questionnaire was developed to answer two research questions: (1) Who is the plazas serving? and (2) What is the user satisfaction with plaza maintenance, cleanliness, and safety?

NYC DOT's goal in creating pedestrian plazas is to provide public spaces within a ten-minute walk of every resident's home. The survey questions were designed to determine whether case study plazas are serving for residents within a ten-minute walk. The questions were developed with a Likert-type scale to measure how the community satisfaction with their plazas. There were also questions concerning demographic background of the users. Age and gender were recorded in both site observations and user surveys to provide more reliable data whereas user surveys were only data sources for the race and ethnicity (See Appendix E for user survey instruments).

A total of 240 people responded survey questions in four of five case study plazas. Because Avenue C Plaza was almost completely empty for daily uses, conducting user survey was not possible. Instead of structured user surveys, I conducted informal and unstructured interviews with the people at Avenue C Plaza during two programmed plaza events in July 2019.

In 2019, user surveys were conducted concurrently with the site observations weekdays and weekends between 2 pm and 4 pm. I conducted user surveys 24 times in four case study sites (See Appendix E for the schedule of user surveys). The survey for

each person took about ten minutes. The selection of respondents was random and limited to users who were willing to answer questions. The response rate for all case study sites was 47.6%. The highest response rate was in Corona Plaza (51.2%), and Kensington Plaza had the lowest response rate (44.1%).

The language barrier was a challenge for the user survey. Many users in Knickerbocker Plaza and Corona Plaza spoke only Spanish, resulting with elimination of them as potential respondents. Extreme weather conditions (heat and heavy rain days) were also a challenge and caused finishing earlier than planned in four of my survey sessions.

5.2.3 Interviews

I started my interviews immediately after the IRB Approval in October 2018 and continued for a year. Interviews were two types: formal, semi-structured interviews with people from government or non-government organizations that had responsibility for plazas; and informal, unstructured interviews with users of all case study plazas. I used separate interview protocols and questions for interviewees from different type of organizations (Appendix F).

Interviews were conducted with people from three types of organizations: government organizations, sponsor partner organizations, and supporting partner organizations (Table 5.3). Government organizations included NYC DOT (New York City Department of Transportation), NYC DDC (New York City Department of Design and Construction), and NYPD (New York Police Department). The sampling technique for these interviews started with identifying officials in each government agency using their organization's website and calling to ask who I can speak with. From these participants, first I interviewed a NYC DOT official who provided the contact with NYC DDC officials.

Interviews with government officials allowed me to obtain background information on pedestrian plazas as well as the rationale in the decision-making process. I interviewed one official from NYC DOT and two from NYC DDC. Based on the consent of all interviewees, I was able to record the interviews. Interviews with police officers occurred in the police precincts. A total of three police officers were interviewed for this dissertation. Due to precinct policies, I was not allowed to record so I took detailed notes. Interviews with police officers provided information about safety in the plaza and the neighborhood. A total of six people participated in these interviews. While interviews with officials who are familiar with the program took approximately an hour, interviews with police officers lasted about 20 minutes each.

Interviews were also conducted respectively with three plaza managers of 71st Avenue Plaza, Corona Plaza, and Knickerbocker Plaza. Two interviews were conducted with two volunteers from the sponsor partner that created Kensington Plaza and Avenue C Plaza; one of them was the former manager of that plaza. A total of four plaza managers and one volunteer responded questions about case study sites. They were interviewed based on formal and semi-structured questions. These interviews occurred purposively targeting interviewees responsible for each plaza. I used their organizations' website to get each participants' contact information. I emailed and called those who had available contact information to ask for their participation in my research. From seven of those who were emailed for their participation, only three responded and agreed for interviews through emails (Knickerbocker Plaza, Kensington and Avenue C Plaza). I called four different sponsor plaza organizations to ask for an interview, I received responses from three of these

organizations while only two agreed and scheduled an interview (71st Avenue Plaza and Corona Plaza).

Despite my several attempts via emailing and calling, I did not get responses from the managers of Morrison Avenue Plaza and New Lots Plaza. Interviews with the managers from sponsor plaza organizations provided the essential data about design, management, maintenance, and programming; and increased this study's internal reliability. Data collected from a case study site would be unreliable and incomplete without plaza managers' contribution. Therefore, I eliminated two case study sites, Morrison Avenue Plaza and New Lots Plaza because I was not able to conduct interviews with their plaza managers. From five participants, I conducted one phone interview and four face-to-face interviews between December 2018 and September 2019. All interviewees allowed me to record their interviews. Each interview took about an hour.

Six staffers from other partnering organizations participated in this research: two from the Hort, two from ArtBuilt, one from Art and Democracy, and one from Breaking Ground. Six interviews were conducted during the summer months of 2019 (four on the phone and two face-to-face). These interviews were conducted in order to gather reliable data for management, maintenance and programming in case study sites. All respondents consented to record the interviews taking about 30 minutes each.

Finally, informal and unstructured interviews were conducted only with plaza users. I did not record these interviews but took detailed notes. These interviews were mostly conducted followed by the user surveys between May through August 2019. I asked most people who were surveyed for further conversation about the plaza. Slightly more than 10% of surveyed people agreed for a brief interview after they completed the survey

questions. A total of 28 people was interviewed in all five case study sites. While 12 people were interviewed in Avenue C Plaza, there were four interviewees in each of other plazas. The duration of interviews ranged from five minutes to 15 minutes depending on willingness of the respondent to continue the interview. These interviews provided additional data for user background and perception.

Table 5.3 Number of Interviews Conducted by Type and Organization

Interview Type	Government Organizations	Sponsor Partners	Supporting Organizations	Users
Formal and Semi-structured	6	5	6	None
Informal and unstructured	None	None	None	28

5.3 Data Analysis, Reliability, and Validity

For this research, I initially digitized my notes that I took during site observations, interviews, and user surveys. I used Microsoft Word and Excel to create tables and study sheets. By doing so, I read through all the collected data to understand an overall picture of the data.

The data collected from site observations were digitized with naming separate sheets in Excel for each plaza. At the end of each observation day, I used previously created Excel tables to transcribe my notes based on each category: company, postures, activities, design, and management. The data collected from user surveys was digitized with the same way that I did for observations. This process enabled me to calculate descriptive statistics generated from observations and user surveys.

Zeisel’s (2006) work on environmental behavior research guided to analyze design characteristics of case study plazas. The following elements documented in each site plan: sitting materials, green areas, furnishings, use of building space, connection to the

neighborhood public space (street, sidewalk, or another plaza). Site plans of each case study plazas are in Appendices A, B, C, and D. I used an AutoCAD 2019 software to draw site plans using a mix of my notes and measurements, and Google Maps Images. Visual elements generated for this analysis were presented in this study's Appendices.

I transcribed audio recordings immediately after each interview. All interviewees were comfortable to record them from the beginning to the end of our conversation. Thus, only a few of them had off the record statements mostly included the contact information of other possible interviewees. Reliability check of the study was conducted following several steps as (Creswell, 2013) suggests in the following: that the reliability of approaches can be determined with checking transcripts to avoid apparent mistakes during transcription, writing memos about the codes and their definitions, and cross-checking codes that were developed by different researchers. During the first reading of each transcript, I created a qualitative codebook with first-level and second-level codes. After the creation of categories of codes, I engaged in focused coding as suggested by (Charmaz & Bryant, 2007), in which I reread all interview transcripts and initial codes to identify common and significant features of pedestrian plazas which led me to identify third-level codes. Table 5.4 lists the three-level coding.

Triangulation of different data sources provided a coherent justification of themes. Interviews with both sides of the partnership and other supporting partners showed differences and commonalities in their perspectives. It also provided an extensive data about design, management, maintenance, and programming in pedestrian plazas. Spending prolonged time in case study sites helped to develop an in-depth understanding of the uses and users and convey detail about the site. By doing so, I understood how these spaces

were used and by whom. During the data collection process, I periodically reported to my dissertation adviser my initial findings and challenges in the collection of the data in order to confirm my data collection strategies were proper if they needed to be changed.

Table 5.4 Qualitative Codebook for Three-Level Content Analysis

First-Level Codes	Second-Level Codes	Third-Level Codes
Partnership	Responsibilities in the Partnership	Sharing responsibilities
		Differences in partner types
		Challenges in the process
Design	Design Amenities and Challenges	Two phase design
		Community participation in the design
		Similar plaza designs
		Weather Protection
		Location and Type of Seating
		Absence of Amenities
Management	Management approaches	Presence of Drinking People
		Presence of Homeless People
		Presence of Street Vendors
		Plaza Rules and their application
		Safety Concerns for users
Maintenance	Maintenance Challenges	Limited Funding
		Supporting partners (NPP)
		Daily Maintenance
		Support for Repair
Uses and Users	Activities and the diversity of users	Neighborhood People
		Gathering Space for people
		Programming Activities
		Supporting Partners for Programming

CHAPTER 6

PARTNERSHIP

In the New York City Plaza Program, the New York City Department of Transportation relies on a partnership model in the creation and management of pedestrian plazas. Each plaza has a sponsor partner from a government or a non-government entity. Among the 73 pedestrian plazas in temporary or permanent stages listed by NYC DOT in 2019, 61 have sponsor partners from non-governmental organizations. There are nine pedestrian plazas with a sponsor partner from a government agency. The plaza list provided by NYC DOT indicates as “in progress” for sponsor partners of three pedestrian plazas (NYC Department of Transportation, 2019a).

The partnership model in the creation and management of a pedestrian plaza comprises the NYC DOT and the sponsor partner; supporting partners are other government and non-government organizations who participate in different stages during the plaza process. The involvement of multiple organizations from various organizational structures and types makes the partnership more complex than it appears to be in the official description of the plaza program.

This chapter first identifies all organizations that are involved in the application, design, construction, management, and maintenance of pedestrian plazas, and categorizes some of these organizations based on their primary intentions in the creation of a plaza. Then, the second part of the chapter presents the network and relationship among these organizations throughout the process of plaza applications, temporary plazas, and permanent plazas using the data from interviews conducted with government officials and sponsor partners. The Final part in this chapter focuses on sponsor partners and their

partnerships with other organizations in the creation and management of the five case study pedestrian plazas. Site-specific information regarding partnership and process in each case study site can be found in appendices in this dissertation. (Appendix A: 71st Avenue Plaza, Appendix B: Corona Plaza, Appendix C: Kensington ad Avenue C Plaza, Appendix D: Knickerbocker Plaza).

6.1 Organizations in the Partnership

Several governmental and non-governmental organizations are involved in the processes of creating and managing of pedestrian plazas. Governmental organizations that play integral roles in the creation of plazas are New York City Department of Transportation (NYC DOT) and New York City Department of Design and Construction (NYC DDC). As a governmental organization, the New York City Department of Parks and Recreation (NYC DPR) is only involved as a sponsor partner in the creation of a few pedestrian plazas. All other sponsor partners are non-profit organizations except four private companies that sponsor four pedestrian plazas in Manhattan and Brooklyn.

Non-profits of various types majorly include business improvement districts (BIDs), development corporations, merchant associations, and neighborhood groups. Other organizations are involved in the partnership providing assistance to the management and maintenance of some pedestrian plazas. The Horticultural Society of New York (The Hort) and the Association of Community Employment Programs for Homeless (ACE) provide services and programs for maintenance works in 14 plazas in New York City. In addition to this, some sponsor partners are in partnership with other non-profit organizations for programming activities in their plazas.

6.1.1 NYC DOT and Sponsor Partners

NYC's Department of Transportation is the governmental partner for all pedestrian plazas in New York. As the administrator of NYC Plaza Program, NYC DOT participates directly or indirectly in many steps in the process of the creation and management of pedestrian plazas. The NYC DOT engages in the process more directly in the evaluation of plaza applications, one-day plaza events, and the installation of temporary plazas. The NYC DOT participates indirectly in the provision of funding for the maintenance of some temporary and permanent plazas, and for the design and construction of all permanent plazas.

As of 2019, there were 73 interim and permanent plazas; and 68 of those have sponsor partners while the other five do not. From these five pedestrian plazas, three plazas do not have a sponsor partner while two plazas are sponsored by the NYC DOT. Among 68 temporary and permanent plazas, NYC DOT has partnerships with 52 different sponsor partners including governmental organizations, private companies, and non-profit organizations.

As a governmental agency, the NYC DPR is the main sponsor partner in six plazas, and a partnering sponsor partner with other organizations in three plazas. In six plazas, NYC DPR partnered with NYC DOT because the Parks Department wanted to build a pedestrian plaza in these sites that are under their jurisdiction. The NYC DPR provides funds available for the design and construction of plazas they sponsored. For instance, the Parks Department proposed Del Valle Square Plaza in Bronx, for a redesign as a pedestrian plaza in the NYC Plaza Program providing \$4 million in funds for the creation of the plaza. In this case, the agreement between two parties is that the Parks Department is responsible for the management of the plaza (NYC Department of Transportation, 2011b).

When some plazas fall partially under the jurisdiction of NYC DPR, non-profit organizations and NYC DPR work as joint sponsor partners for those plazas such as Columbus Circle Plaza, Union Square Plaza, and Zion Triangle Plaza. Federal Reserve Bank of New York (Fed Reserve NY) is another governmental organization; it sponsors Louise Nevelson Plaza in Manhattan. Louise Nevelson Plaza was designed in memory of sculptor Louise Nevelson. The plaza is distinctly different from all other plazas in the city with its several Cor-Ten steel sculptures and non-standard seating. The NYC DOT does not have any other organization as a sponsor partner for the management of two plazas in Brooklyn: Brooklyn Plaza and Municipal Plaza.

Non-governmental organizations, including private companies and non-profits, are the sponsor partners of the remaining pedestrian plazas in the city. Only four private companies are sponsor partners of four plazas in Manhattan and Brooklyn. As of 2019, non-profit sponsor partners manage 58 pedestrian plazas in the NYC Plaza Program. There are some differences among non-profit partners in terms of their main intention and potential funding resources in the creation and management of pedestrian plazas. Considering these differences, this study investigated non-profit organizations in two general categories: organizations focusing on economic improvement (OFEI) and organizations focusing on social and environmental improvement (OFSEI). Organizations in the first category focus on improving and beautifying spaces in their defined geographical area primarily for enhancing economic development in their neighborhoods. BIDs, BID Partnerships, EDCs, economic development alliances, and merchant associations fall in this category. In contrast, the incentive for creating plazas for the second type of organizations is to provide improvements in the social and physical environments

of their neighborhoods better places to live for residents. Organizations in this category include charitable organizations, local groups, and neighborhood associations. In this categorization, most of the OFEI organizations differ from the OFSEI organizations in terms of their potential funding resources. Organizations focusing on economic development typically have more secure funding through governmental subsidies, tax revenues or memberships whereas local groups, neighborhood associations, and charities have less secure funding resources from donations, volunteer works, and charity events.

In the first category (OFEI), there are 34 non-profit organizations that are sponsor partners of 43 plazas throughout the city. In this category, many organizations are BIDs or BID partnerships. Most BID organizations have only one plaza to manage while some organizations such as Fulton Mall Improvement Association, Myrtle Avenue BID Queens, and Alliance for Downtown New York are the sponsor partners of two plazas. Downtown Brooklyn Partnership includes three BID organizations: Metrotech BID, Livingston-Schermerhorn BID, and Fulton Mall Improvement Association, is the only sponsor partner of three plazas in NYC Plaza Program. BIDs typically have more abundant financial resources mainly collected through the levy (additional tax payments of businesses in the district) compared to economic development corporations that are mainly funded through local government subsidies, and merchant associations that are mainly funded through membership payments and donations (New York City Small Business Services, 2019).

In the second category (OFSEI), 14 organizations have 16 plazas throughout the city. In this category, there are seven volunteer neighborhood groups and seven charitable organizations. Neighborhood organizations include local groups such as the Kensington Stewards and the Friends of Bogardus Plaza, and community organizations such as

RiseBoro Community Development and Bangladeshi–American Community Development and Youth Service. Both the Kensington Stewards and the Friends of Bogardus Plaza were established as non-profit organizations by local citizens in order to create a plaza in their neighborhood. These groups have remained as the sponsor partner in the plazas that they created.

Charitable organizations in the OFSEI category include park conservancies, universities, schools, and foundations. All other charitable organizations are sponsor partners of pedestrian plazas in Manhattan except Open Space Alliance that sponsors one plaza in Brooklyn. Central Park and Madison Square Park are two park conservancies that have two pedestrian plazas, and work with NYC DPR as dual sponsor partners in the management and maintenance. DDG Foundation, a private company charity, is the only foundation that is the sponsor partner of a plaza in NYC Plaza Program. In addition to conservancies and foundations, Yeshiva University, Baruch College, and Grace Church School are the sponsor partners of three pedestrian plazas in Manhattan.

6.1.2 Other Organizations

New York City’s Department of Design and Construction (NYC DDC) is involved in the plaza process during the design and construction of plaza sites. All plaza designs are either prepared or reviewed by the designers of NYC DDC. The Neighborhood Plaza Program (NPP), a program of the Horticultural Society of New York (the Hort) is involved in the maintenance process of some plazas. In 2013, the Neighborhood Plaza Program emerged to meet daily maintenance and horticultural needs of medium- and high-need plazas in New York. Laura Hansen, the former director of the NPP describes the emergence of NPP:

After the DOT started the Plaza Program, I began to hear from community groups who wanted funding to be able to operate a plaza. When the funding requests started

coming in, it struck me that the model for the plaza program was not feasible for some non-profit managers in high-need areas. The public tends to love the plazas, so even struggling organizations are willing to invest time and money to manage them. For a non-profit to pay for plaza maintenance and programming, they have to raise more money by either convincing existing funders or finding totally new sources — both are really hard. Creating programming is what the managers love, and it's the right role for them, but it requires the funding. I began talking to Andy (Andy Wiley-Schwartz, the former director of the NYC Plaza Program) about how to address these funding and maintenance questions and what a useful private partner to these plaza managers would look like. I also talked to a lot of plaza managers about their issues as well as explored various maintenance models and public-private partnerships in low-income neighborhoods to see what has and hasn't worked. Those were the beginnings of the Neighborhood Plaza Partnership, a program of The Horticultural Society of New York that seeks to ensure that the plazas continue to flourish by supporting low-capacity plaza managers with direct services and advocacy work. The first focus was on maintenance (Hansen, 2015).

The Hort's Neighborhood Plaza Program delivers horticultural services working with the GreenTeam and. Like the Neighborhood Plaza Program, the GreenTeam is a program of the Hort with the primary purpose of providing employment opportunities for at-risk youth and formerly incarcerated individuals through horticultural works in the city. In a coordination with the NPP, the GreenTeam delivers horticultural services in many pedestrian plazas. The GreenTeam director interviewed for this dissertation described his work in the plazas,

We (the GreenTeam) do all the horticultural work. So, I make sure that we have got the right plants coming and schedules for the planting. I work with the NPP director in coordination for the logistics around all plazas, and meeting with the DOT with the NPP director.

The NPP and the Association of Community Employment Programs for the Homeless (ACE) work in a partnership to provide daily maintenance services. The partnership between NPP and ACE started in 2013 after the NPP received a \$800,000 donation from Chase Bank to use for homeless individuals to provide them vocational rehabilitation services and transitional employment opportunities in pedestrian plazas.

Under contract to the NPP, ACE delivers daily maintenance services in high-need plazas such as sweeping the ground and trash removal. In 2015, Laura Hansen explains the partnership between NPP and ACE,

We pay for ACE crews to maintain the plazas, and the community managers pay us a fee. It costs us about \$50,000 a year per plaza and the average fee is \$11,000, so it is highly subsidized. This provides really straightforward financial relief for these groups and relieves them from the difficulty of trying to do it on their own with volunteers (Hansen, 2015).

More recently under contract to NYC DOT, NPP continues to work with ACE to deliver daily maintenance services to 14 high-need plazas that were designated by the NYC DOT. These plazas do not make any payment for the maintenance services they receive from the NPP.

Similar to the Neighborhood Plaza Program delivering maintenance and horticultural services to high-need plazas, some non-profit organizations are involved in programming events and activities in some of these plazas. These organizations provide financial and technical resources for the programs in some pedestrian plazas. While the partnership between the sponsor partner and the programming partner may occur for a single event such as The Uni Project events, partnerships for recurring events are also widespread. For instance, the Queens Museum has been programming monthly events in Corona Plaza every summer while Avenue C Plaza has been programmed for weekly events every summer through a partnership of several organizations.

6.2 Partnership Process

Figure 6.1 illustrates a diagram that explains the responsibilities of each organizations in different phases and stages of pedestrian plazas while showing their direct and indirect relationships in the partnerships. For most plazas, the partnership process typically starts

with an application from a local organization for a pedestrian plaza. Applicants need to fill out a form with additional documents related to their organization's mission and goal, budget, and staff; and provide support letters from the community. NYC DOT evaluates applications in approximately three months right after the application deadline in July every year.

Once the application for the proposed site is approved by the DOT, a few "one day plaza" events occur during the spring season. The applicant, which usually becomes later the sponsor partner for the pedestrian plaza, programs these events to provide community outreach and test the future plaza. During one day plaza events and later in the temporary plaza phase, the DOT gathers data about the site including traffic and pedestrian counts, crash data, impacts of the potential plaza to parking spaces, impacts of the potential plaza to bus or truck routes, surrounding land uses and access to transit and open space (NYC Department of Transportation, 2017). "One day Plaza" events are tests to measure suitability of the potential plaza site for a pedestrian plaza and the preparedness of the potential sponsor partner for their plaza responsibilities. The interviewee from NYC DOT expressed that:

We partner with groups to test out a plaza idea across the street for a day actively program that allows us to see if the partner is able to understand what it takes to manage and program a public space and it gives the partner a fantastic opportunity to put their action in reality and also gain a lot of input from stakeholders.

Temporary plazas, which are called interim plazas in the NYC Plaza Program, are built with inexpensive and removable material selections and typically remain on the site for one or two years. NYC DOT creates temporary plazas; sponsor partners are responsible for the management, maintenance, and programming activities in their plazas. During the temporary plaza phase, the design process for permanent plazas starts with at least two

public workshops that are organized by the sponsor partner. Typically, officials from both NYC DOT and NYC DDC attend these public workshops. NYC DDC works with NYC DOT and sponsor partners throughout the design and construction processes of permanent plazas.

The NYC DOT and the sponsor partner present preliminary designs of permanent plazas to each plaza's community board when the design process is completed by NYC DDC. Approval of the design by the community board is necessary to proceed to the construction stage. An interviewee from NYC DOT emphasized that if the community board does not approve the proposed plaza, the permanent plaza project is either postponed until the community support is provided or it is eliminated. After an approval from the community board, NYC DDC is responsible for the review of the final design before the construction stage. An interviewee from NYC DDC explained the design evaluation by saying that:

Eventually they (sponsor partner) produce plans that we review make sure there's no issues with whether it's FDA or any sort of code like fire department got to make sure the fire department can get access to it.

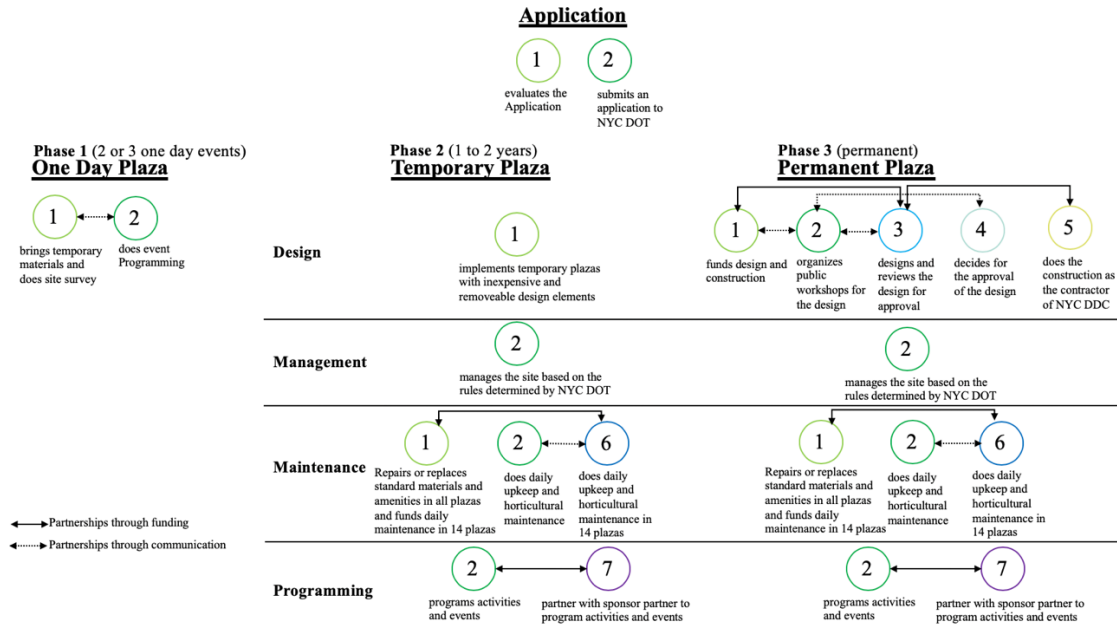


Figure 6.1 Organizations in the plaza process and their relationship in the partnership.
 Note: Organizations that involve in all NYC plazas: (1) NYC DOT, (2) Sponsor Partner, (3) NYC DDC, (4) Community Board, (5) Construction Contractor; Organizations that involve in some NYC plazas: (6) Neighborhood Plaza Program, (7) Programming Partners.

After the approval of the final design, the NYC DDC starts the bidding process to contract out the plaza’s construction. During the construction stage, the NYC DDC regularly inspects the construction making sure the contractor proceeds in compliance with the design drawings. When a plaza is completed and ready for the public use after the inspection, involvement of NYC DDC ends in the design and construction process of the plaza. After the completion of the construction, the contractor is also responsible for anything that needs to be replaced or fixed in the new plaza during a-18-month guarantee period.

Sponsor partners are responsible for the management and maintenance of their plaza sites. However, NYC DOT still exists indirectly in the management of all plazas and maintenance of some plazas. In their management of pedestrian plazas, sponsor partners employ the rules designated by NYC DOT. The NYC DOT is involved in the maintenance

process of some plazas by providing funds. The NYC DOT funds the Hort to provide daily maintenance and horticultural services in 14 pedestrian plazas. The funding is allocated through OneNYC Plaza Equity Program that aims to provide equal opportunities in the management and maintenance of all plazas in New York. An official from NYC DOT emphasized that the OneNYC Plaza Equity Program is valuable because it ensures all plaza neighborhoods have access to high quality public space with the provision of daily maintenance and horticultural services for medium- and high-need plazas in the program. The officer from NYC DOT also mentioned that they used a ranking system to determine low-, medium-, and high-need plazas that receive maintenance and horticultural services. In the selection process, the NYC DOT considers several elements including the sponsor organization's type and budget, and the size of the plaza.

As a part of the Plaza Equity Program, NYC DOT allocates to the Hort \$ 1.4 million to spend on horticultural services and daily maintenance of medium- and high-need plazas. The Hort has a program named Neighborhood Plaza Program (NPP) that solely works to provide daily maintenance and horticultural services under contract to NYC DOT for 14 pedestrian plazas. NPP coordinates the work and relationship between sponsor partners and maintenance providers. NPP works with the GreenTeam (another program in the Hort) for provision of horticultural services and pays ACE for provision of daily maintenance in 14 pedestrian plazas.

Government officials and plaza managers interviewed for this dissertation described some challenges related to different stages in the creation of pedestrian plazas. These challenges are related to prolonged permanent plaza design and constructions

processes, the link between design and maintenance, jurisdiction related interagency conflicts, and limited funding for programming activities in plazas.

An issue mentioned in these interviews was that some plazas remain in the temporary stage for longer periods than normally is the case. Most plazas remain one or two years in the temporary phase. For some plazas, this period is prolonged up to 5 years. Reasons of the delay are typically related to gathering additional data for pedestrian and traffic, lack of community support from the community board, disputes during construction, and sponsor partner issues. According to the interview with a NYC DOT official, some plaza projects remain longer in temporary phase when their communities have a lot of concerns and challenges about these plazas. Therefore, they stretch the temporary plaza period to collect additional data and community support for the permanent plaza.

Disputes during the construction process are typically related to interagency issues causing taking more time than it scheduled. Interviews with city government officials revealed some challenges that arise in the construction process between city departments. Even though they are mostly resolved at the end, they create concerns during the design and construction process. For example, the NYC DDC and the NYC Department of Environmental Protection have had some disputes over protecting of infrastructure underneath plazas. Another example is difficulties that arise with the NYC DPR that has jurisdiction over trees in the city. Any work the NYC DDC does that affects the canopy of a tree needs a permit from the NYC DPR which may lead to shutting down the construction if NYC DPR does not approve the work.

According to the official from the NYC DOT interviewed for this study, a few years ago, the DOT has adopted a new design strategy in the creation of new plazas to incorporate design with more affordable maintenance work. The NYC DOT has standardized this design strategy for all plazas rather than only medium- or high-need plazas to promote equity in the design of all plazas. The interviewee indicated that they used to have elaborated plaza designs in the first few years of the program featuring distinctive features such as water fountains and permanent artwork. Over time, many sponsor partners who were mostly local groups and even some BIDs had difficulties meeting with elevated maintenance costs due to plaza designs. The interviewee explained the benefits of this standardization:

Standard materials are not kind of a downgrade in design but really an upgrade in terms of something that looks great and will be durable. DOT as an agency can come in and repair and replace if something gets damaged. So, instead of cutting our partners out to pay for a contractor to come in and replace broken parts (like the sidewalk gets cracked for some reason), then DOT crews can come in and replace that. And so, that's done a lot to promote equity throughout the city.

An official from the NYC DDC also mentioned the challenge of designing in light of their potential maintenance demands:

So, you want to give them (sponsor partners) a great design but you also want to make sure that they are able to maintain it. I think that's one of the trickier things. You've got a fine line to walk.

Many plaza managers interviewed for this dissertation mentioned the challenges of funding programmed activities. Regardless of the type and structure of the sponsor partners' organization, programming activities in plazas places a financial burden on them. Most of them find programming costs more than they can afford so they seek programming partners to program some of their events and activities in their plazas. The NYC DOT occasionally helps plazas to provide materials for their programs. For instance,

interviewees from the Kensington Stewards said that the NYC DOT provided some yoga mats and canopy tents for their recurring plaza programs. All plaza managers interviewed reported that they would organize more events and activities if they had more funding for programming.

6.2.1 Partnership Process in Case Study Sites

The case study sites in this dissertation have different types of sponsor partners that differ in their organizational structure and budget. The sponsor partner of the 71st Avenue Plaza is Myrtle Avenue BID Queens. The Queens Economic Development Corporation is the sponsor partner of Corona Plaza while Queens Museum is the programming partner of the plaza. Knickerbocker Plaza is managed by its sponsor partner: Ridgewood Bushwick Senior Citizens Council, which was renamed the RiseBoro Community Development Corporation in 2017. The Kensington Stewards of Kensington Plaza and Avenue C Plaza is a unique case in sponsor partners of the plaza program, illustrating that the funding may not be a limitation in the programming. Table 6.1 lists all organizations involved in the creation, management, and programming of all five case study sites.

Table 6.1 Case Study Plazas and Involvement of Organizations in the Process

	Process	71 st Avenue Plaza	Corona Plaza	Kensington and Ave C Plaza	Knickerbocker Plaza
	Type of Sponsor Partner	Business Improvement District (BID)	Economic Development Corp.	Volunteer Group	Community Development Corp.
	Application	Sponsor Partner DOT	Sponsor Partner DOT	Sponsor Partner DOT	Sponsor Partner DOT
Temporary Plaza	Installation	DOT	DOT	DOT	N/A
	Management	Sponsor Partner	Sponsor Partner	Sponsor Partner	
	Maintenance	Sponsor Partner	Sponsor Partner DOT ¹ (Indirectly) NPP	Sponsor Partner DOT ¹ (Indirectly) NPP	
	Programming	Sponsor Partner	Sponsor Partner Programming Partner ²	Sponsor Partner Programming Partners ²	
Permanent Plaza	Design	DOT DDC Sponsor Partner	DOT DDC Sponsor Partner	DOT DDC Sponsor Partner	DOT DDC Sponsor Partner
	Construction	DOT DDC	DOT DDC	DOT DDC	DOT DDC
	Management	Sponsor Partner	Sponsor Partner	Sponsor Partner	Sponsor Partner
	Maintenance	Sponsor Partner	Sponsor Partner DOT ¹ (Indirectly) NPP	Sponsor Partner DOT ¹ (Indirectly) NPP	Sponsor Partner DOT ¹ (Indirectly) NPP
	Programming	Sponsor Partner	Sponsor Partner Programming Partner ²	Sponsor Partner Programming Partners ²	Sponsor Partner

Note: (1) NYC DOT partially or fully funds some services or needed materials typically through a contract with the Hort’s Neighborhood Plaza Program. (2) Queens Museum is the programming partner of Corona Plaza. In Avenue C Plaza, Kensington Cultural Council includes several organizations: the Kensington Stewards, ArtBuilt, Arts & Democracy, BIPA - Bangladesh Institute of Performing Arts, The Singing Winds, and Casa Cultural. Event programming is supported, in part, by public funds from the New York City Department of Cultural Affairs in partnership with the City Council, New York City Small Business Services, and Brooklyn Borough President Eric L Adams.

The Myrtle Avenue Business Improvement District (BID) in Queens, which was established in 1988, is the sponsor partner for the 71st Avenue Plaza. The Myrtle Avenue BID describes its purpose: “to provide supplemental services and programs for an enhanced shopping environment on Myrtle Avenue from Wyckoff Avenue to Fresh Pond Road in Ridgewood” (The Myrtle Avenue Business Improvement District). As can be seen in the mission statement, the Myrtle Avenue BID Queens is one of the sponsor

partners that creates plazas with the primary intention of economic improvement of their neighborhoods. Another sponsor partner that focuses on economic development is the Queens Economic Development Corporation (QEDC which is the sponsor partner of Corona Plaza in Queens. Even though QEDC and the Myrtle Avenue BID are different in terms of their organizational structure and funding resources, these organizations have similar incentives to create a plaza in their neighborhoods.

RiseBoro Community Development Corporation is the sponsor partner for Knickerbocker Plaza in Brooklyn. It is a non-profit organization that focuses on social issues like affordable housing mostly for vulnerable populations. Even though RiseBoro has a similar organizational structure as QEDC, they have different intentions in the creation of pedestrian plazas are different. RiseBoro is one of the few sponsor partners that focus on social and physical improvement in the creation of pedestrian plazas. The Kensington Stewards is the sponsor partner of two neighboring plazas in Brooklyn: Kensington Plaza and Avenue C Plaza. Like RiseBoro, the Kensington Stewards also focuses on social and physical improvement of their neighborhood. According to the interviews conducted with volunteers from the Kensington Stewards, the Kensington Stewards first created Kensington Plaza in 2010 and then Avenue C Plaza in 2017 to improve the physical conditions in the neighborhood and provide social spaces for residents. In terms of organizational structure and funding resources, Kensington Stewards is a completely different organization from other organizations that were studied for this dissertation. Staff in the Kensington Stewards comprised volunteer residents in Kensington; and the organization has no stable funding.

RiseBoro and QEDC manage one plaza each, the Myrtle Avenue BID Queens and the Kensington Stewards are two of a few sponsor organizations that manage two plazas together. Myrtle/ Cooper Plaza, which is the second plaza of the Myrtle Avenue BID Queens, is located a few blocks away from 71st Avenue Plaza. Similarly, the Kensington Stewards manages both Kensington Plaza and Avenue C Plaza locating a few blocks away from each other.

The plaza managers interviewed for this dissertation were asked about their motivation for creating plazas and their experiences in the application process. Each sponsor partner had different stories to tell regarding the creation of their plazas. According to the manager of 71st Avenue Plaza interviewed, the idea of 71st Avenue Plaza first emerged in the late 1980s with NYC's Commercial Revitalization Program. However, the project was not accomplished through NYC's Commercial Revitalization Program. The Myrtle Avenue BID Queens applied for the 71st Avenue Plaza to the NYC Plaza Program in 2012. After their application in 2012, the interim phase of 71st Avenue Plaza started in 2013.

Knickerbocker Plaza was created in 2015 as a result of a traffic calming study at the intersection of Myrtle Avenue and Knickerbocker Avenue. Prior to the creation of the plaza, the intersection was a dangerous spot for pedestrian safety leading to deadly accidents every year. The Ridgewood Bushwick Senior Citizens Council, which was later named RiseBoro Community Partnership applied for Knickerbocker Plaza seeing the traffic calming as an opportunity to create a public space in the neighborhood. Because the traffic calming project included the construction of Knickerbocker Plaza within a larger traffic calming project, Knickerbocker Plaza was created after only a few one-day plaza

events without having a temporary plaza phase, which is a rare situation in the NYC Plaza Program.

Similar to Knickerbocker Plaza, Kensington Plaza was created in relation to another city project on the same block. In 2010, the NYC DOT has decided to make a curb extension on the sidewalk at the intersection of Church Street and Beverly Road in Kensington, Brooklyn. As a result of this extension, the sidewalk was wider and created an empty space for some seating. In 2012, a few community leaders (the Kensington Stewards) arranged community meetings to discuss having a plaza in their neighborhood. These meetings generated support from the community for the plaza. The Kensington Stewards, comprised of all volunteer residents, applied to the DOT for Kensington Plaza. The DOT approved their application and installed a temporary plaza in 2012. In 2015, Kensington Stewards proposed another plaza in the neighborhood. A traffic triangle on McDonald Avenue had been used for city government storage before the storage was moved to another location in the neighborhood in 2014. After the application of Kensington Stewards to the NYC DOT to create Avenue C Plaza at this triangle, a temporary plaza was built in the summer of 2016. According to the interviews with two stewards, they managed to have a second plaza (Avenue C Plaza) in their neighborhood thanks to their organization's successful management and maintenance of Kensington Plaza.

Corona Plaza has a unique story of how multiple local organizations can work together to create a pedestrian plaza. In 2007, the Queens Museum established the Heart of Corona Initiative that brought leaders of different groups in the community together to discuss the issues and needs of Corona. In 2007 and 2008, several arts and performing events, called *Corona Plaza, Center of Everywhere*, occurred on the roadway where the

Corona Plaza is now located. An interviewee from the Queens Economic Development Corporation (QEDC) said that the idea of having a plaza on this place emerged after the Queens Museum's events in Corona Plaza in 2008. The NYC DOT realized the potential of the site as a pedestrian and reached out to the Queens Museum to let them know about their plaza program. The NYC DOT expected the Queens Museum to become the plaza sponsor for Corona Plaza because they were already programming events at that location (V. M. M. Mogilevich, 2014). When the officials at Queens Museum reviewed the financial responsibilities of management, maintenance, and programming, they decided to remain only as a programming partner for Corona Plaza. The interviewee from QEDC indicated that QEDC volunteered to become an official plaza partner for Corona Plaza because the plaza would be great asset for the neighborhood. In August 2012, a temporary plaza was built on the roadway between National Street and 104th Street with two local partners: The Queens Museum for programming and QEDC for the maintenance and management.

Except for the manager of Knickerbocker Plaza, all interviewees from sponsor partner organizations indicated that they had organized design workshops to seek community input and held meetings with the city officials from NYC DOT and NYC DDC during the design process. The manager of Knickerbocker reported that she had no knowledge about the design process since she has started to work as the plaza manager when the plaza construction was completed. Most plaza managers interviewed for this dissertation characterized their relationship with the city government partners somewhat collaborative throughout the application, design, and management process.

All case study plazas, except 71st Avenue Plaza, get daily maintenance and horticultural services from the Neighborhood Plaza Program (NPP) of the Hort funded by

NYC DOT. The Myrtle Avenue BID Queens pays for daily maintenance of 71st Avenue Plaza from their budget whereas the horticultural maintenance of the plaza is done through NPP. The Myrtle Avenue BID Queens has an individual contract with NPP to receive horticultural services in 71st Avenue Plaza. Daily maintenance of 71st Avenue Plaza is done by a private company called Street Plus which was hired by the Myrtle Avenue BID for the daily maintenance of entire district of the BID. Knickerbocker Plaza, Corona Plaza, Kensington Plaza, and Avenue C Plaza receives daily cleaning and sweeping services from ACE through the contract between ACE and the Hort. Horticultural needs of these plazas also are met by NPP and GreenTeam through the contract between NYC DOT and the Hort. All sponsor partners interviewed for this dissertation stated that they have had a good communication with the staff of Neighborhood Plaza Program.

In the NYC Plaza Program, all sponsor partners are responsible for programming events and activities in their plazas. Interviews with plaza managers from sponsor partner organizations revealed that the biggest challenge facing sponsor partners in programming events in their plazas is the funding. Based on the interviews and observations of plaza sites, sponsor plazas studied in this dissertation have different strategies to overcome challenges in programming events. Knickerbocker Plaza, which is one of the most heavily occupied plazas in this study, has the least amount of programming. The manager of Knickerbocker Plaza indicated that even though they rarely program activities or events, they are open to anyone who wants to organize an event. 71st Avenue Plaza manager mentioned that even though they do not have a partnership with a specific organization for programming events, they manage to organize several events every year from their budget.

The partnership between the QEDC and the Queens Museum makes Corona Plaza a very active plaza in programming events and activities. The Queens Museum has programs in the plaza every two weeks during the summer. In addition to the programming made by the Queens Museum, QEDC hosted a farmer's market in Corona Plaza occurring every Friday from the first week of July until the first week of August in 2019. In the case study sites, another sponsor partner that has programming partners is the Kensington Stewards. The Kensington Stewards are in partnership with several organizations in programming events throughout the summer in Avenue C Plaza. Programs in Avenue C Plaza are typically organized by several organizations that formed Kensington Cultural Council: the Kensington Stewards, ArtBuilt, Arts & Democracy, Bangladesh Institute of Performing Arts (BIPA), The Singing Winds, and Casa Cultural. Programs in Avenue C Plaza are supported by public funds from the New York City Department of Cultural Affairs, the City Council, New York City Small Business Services, and Brooklyn Borough President Eric L Adams. These organizations provide financial support as well as engaging an active role with the provision of human and material resources in programming events and activities in Avenue C Plaza.

CHAPTER 7

DESIGN

The design for a permanent pedestrian plaza officially starts after its temporary phase. NYC’s Transportation Department (NYC DOT) considers temporary plazas as tests for design elements and materials, community support, and the capacity of sponsor partners to manage and maintain their plazas. This chapter begins with the involvement of partners in the temporary phase of plazas and the process of permanent plaza design. The second part presents a detailed investigation of pedestrian plaza designs— in terms of size, shape, pedestrian circulation, plaza furniture, design materials, and green areas— while providing examples from case study sites for these design features. More detailed data of design features in each case study site can be found in Appendices (Appendix A: 71st Avenue Plaza; Appendix B: Corona Plaza; Appendix C: Kensington and Avenue C Plaza; Appendix D: Knickerbocker Plaza).

7.1 Temporary Plazas and Permanent Plaza Design Process

Temporary or interim plazas are designed with temporary and low-cost materials to test plaza ideas on these sites. Materials in temporary plazas are typically comprised of moveable coffee tables, moveable chairs, epoxied gravel, moveable planters, boulders, and sometimes beach umbrellas. Figure 7.1 demonstrates an example of typical design features from the Wyckoff Plaza in Brooklyn. NYC DOT officials tend to use moveable materials in temporary plazas. Therefore, the implementation of fixed benches only can be observed in few temporary plazas. Kensington Plaza, for instance, had four benches during the

temporary plaza stage, and these benches remained in the permanent design without adding any moveable chairs or tables.



Figure 7.1 An example of typical temporary materials in Wyckoff Plaza, Brooklyn.

According to the interview with a NYC DOT official, NYC DOT assesses plaza sites during their temporary phases, using a series of metrics such as effects of street closure, traffic network, parking, emergency response time, and pedestrian flow. In addition, the NYC DOT can verify the capacity of these sponsor partners in managing and maintaining their plazas. According to Ed Janoff, public space operations manager at NYC DOT from 2008 to 2013:

What is crucial is that no public space is designed to a standard which cannot be reasonably managed and maintained. And for that, there is no better tool than using temporary materials. The quick-build approach allowed DOT to test if a public space would actually work in a given location from many different perspectives – not just in terms of traffic flow, but was it embraced by the community and did the partner have the ability to take care of it? In many cases plaza designs had to change and even whole partner organizations had to change to make the project successful (From Reflections on 10 Years of the NYC Plaza Program (Janoff, 2019).

While the NYC DOT conducts their analysis, the temporary plaza phase also allows sponsor partners to organize a series of public workshops for consolidating the community support for the permanent plaza. According to interviews with sponsor partners and government officials, several strategies are employed to collect community feedback for a permanent plaza design. These include mapping techniques, surveys, and informal conversations with the community over design options. City officials from NYC DOT and NYC DDC also attend these workshops to record the public input in permanent design. After two or three public workshops, sponsor partner often gathers sufficient information about what kinds of design features community members expect from the plaza. While some community partners hire consultant designers or work with them for a pro-bono design for their plazas, others do not. For those without consultant designers, NYC DDC creates drawings for their plazas. Regardless of who designs a plaza, NYC DDC reviews all drawings and makes necessary changes at the end.

An official from NYC DDC interviewed for this dissertation stated that they review each design drawing to make sure everything is in line with NYC DOT design standards and other city agencies' standards. The official also reported that, in some cases, the NYC DDC can proceed with certain things in design if necessary, even though the community does not want it for some reason. This situation most likely occurs when the financial capacity of the sponsor partner is potentially insufficient to maintain certain things in the proposed design.

The design process of Avenue C Plaza presents a great example for the elimination of certain design features in consideration of maintenance costs. Interviewees from the Kensington Stewards (Kensington Plaza and Avenue C Plaza) and QDEC (Corona Plaza)

mentioned some challenges occurred during the design process. Through a design competition, the Kensington Stewards selected a design from a local artist after a design competition process for Avenue C Plaza. The design included a small pond and an area of concrete surface to be painted. After the review of the design by the NYC DDC, the sponsor partner was asked to remove the pond and painted concrete elements from the design. The designer disagreed with these changes and withdrew the design; the NYC DDC ended up designing Avenue C Plaza with standard design features designated in the *Street Design Manual* of NYC DOT. Even though the Kensington Stewards did not get the design they wanted, the interviewees from Kensington Stewards said that they accepted the current design. They acknowledged that it would have been too difficult for them to maintain Avenue C Plaza if their design had been built.

The manager of Corona Plaza believes that city officials responded to some needs of the community very well in the design of Corona Plaza. There were some disputes in the community over certain design features, including an amphitheater. Since Corona Plaza has historically been a place for festivals and other community events, the NYC DDC proposed to build an amphitheater on the east side of the plaza. This idea was opposed by the church community because its location was very close to the church. If it was built, it would be too loud and uncomfortable for them. After several attempts to relocate the amphitheater in the plaza, a terrace was designed at the same location that was proposed for an amphitheater.

The manager of 71st Avenue Plaza indicated that in addition to the creation of the plaza, required infrastructural systems were renewed or added to the site during the design process. The city has renewed water and sewer lines and added a new fire hydrant that was

missing on the block before the plaza. The manager also mentioned that certain design features they (the Myrtle Avenue BID Queens) wanted to include, such as more trees and planting beds, were not possible because of the location of the sewer lines underneath the plaza. The manager of 71st Avenue Plaza recalls:

They (NYC DDC designers) tried to accommodate as much as they could...they couldn't do that because of probably a sewer line that ran down at the center of what used to be 71st Avenue and there is another sewer line which connected that to Myrtle Avenue. So, because of that, they could not have any tree in the front part of the plaza. But they did listen our request, and investigated it, and came back to us telling why they couldn't do it.

Another plaza manager who evaluated the design process notes that:

At the end, we were asked to choose one from few raw plans that were prepared by the DOT.

7.2 Design Features of Permanent Plazas

There are two kinds of projects in NYC DOT: operational and capital. Temporary plazas are operational projects which are undertaken without major interventions. These projects are designed by NYC DOT staff and built either by their personnel. Permanent plazas are capital projects that require major constructions on project sites such as utility work, drainage, or roadway grading. All permanent plazas are launched by NYC DOT, designed by NYC DDC staff or consultants, and built by NYC DDC contractors (New York City Department of Transportation, 2015).

The physical context of a plaza site is substantially effective on the geometry and size of plazas. Pedestrian Plazas can be as small as 2,400 square feet (e.g., Coney Island Plaza) and as large as 74,000 square feet (e.g., Flatiron Plaza). Physical features that influence the geometry and size of a plaza can be related to surrounding traffic circulation,

land use, and spatial arrangement of surrounding blocks. Depending on these variables, pedestrian plazas can be designed in different configurations. *Global Street Design Guide* (2016) defines four types of plaza configurations: reclaimed plazas, through-block plazas, intersection plazas, and sidewalk-extension plazas. Of the 73 plazas listed by NYC DOT, this study identified 64 plazas based on the four types of plaza configurations (See Appendix G). Because nine NYC DPR-sponsored pedestrian plazas were typically created as extensions of existing parks or squares, they do not fit any configuration described by *Global Street Guide*.

Intersection plazas are the most common configuration of the 64 plazas that fall under the categorization made by *Global Street Guide* (2016). *Global Street Guide* (2016) defines intersection plazas as providing additional pedestrian space by redesigning intersections to be more compact. Using residual space between intersecting streets, on street corners and traffic islands, these spaces provide a safer and more active pedestrian environment” (215). In NYC Plaza Program, 18 plazas were partially or fully created as intersection plazas typically using the residual space between a sidewalk and traffic island. Figure 7.2 shows some of the intersection plazas, including three case study sites: Kensington Plaza, Knickerbocker Plaza, and 71st Avenue Plaza. Most of these form a triangle-like shape. Brooklyn has eight intersection plazas.

Knickerbocker Plaza is located at the intersection of Knickerbocker Avenue and Myrtle Avenue in Brooklyn. The plaza is a comparatively small plaza, with a 5,400 square-foot coverage. Knickerbocker Plaza is an example of an intersection plaza that is created by taking over residual street space to provide public space in areas with high pedestrian volumes and a lack of public space. The location of Knickerbocker Plaza was a busy traffic

intersection that caused conflicts between pedestrians and automobile drivers. Intersection plazas are also claimed as a mediator to reduce conflicts for vehicular and pedestrian ("Global Street Design Guide," 2016). In order to reduce conflicts resulting from the traffic island at the intersection of Knickerbocker Avenue and Myrtle Avenue, Knickerbocker Plaza was created using residual space between the traffic island and the sidewalk as a part of a traffic calming study of NYC DOT in 2015. Knickerbocker Plaza has a triangular shape, like many other intersection plazas in the city.

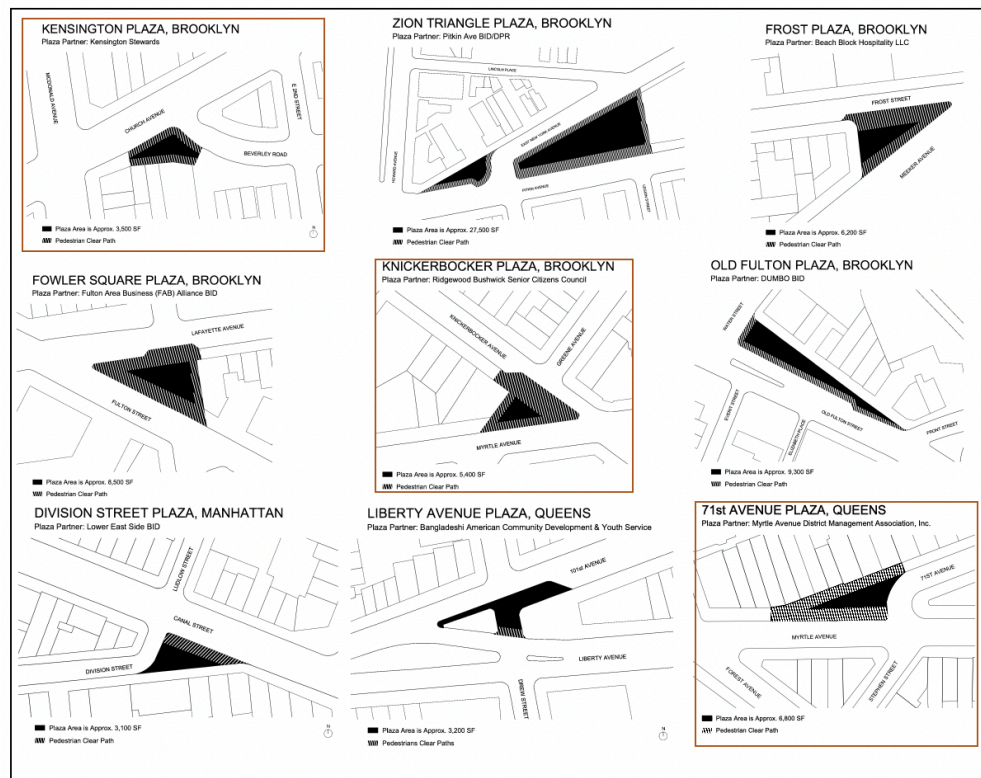


Figure 7.2 Examples from intersection plazas in New York City (including Kensington Plaza, Knickerbocker Plaza and 71st Avenue Plaza that are the case study sites in this dissertation).

Source: Individual plaza maps were obtained from New York City Department of Transportation.

NYC DOT did a curb extension project for pedestrian safety at the intersection of Church Avenue and Beverly road about two years before Kensington Plaza was built. The

curb extension project, resulting in a wider sidewalk, led to the creation of Kensington Plaza. Some residents from the neighborhood saw the opportunity to create a pedestrian plaza in their neighborhood. These residents formed the Kensington Stewards and applied to the NYC Plaza Program to create Kensington Plaza. After going through a review process, NYC DOT created Kensington Plaza in 2012 by adding four benches, boulders, and three tree pits.

71st Avenue Plaza, which covers a 6800 square-foot area, is also an intersection plaza. The Plaza is located at the intersection of Myrtle Avenue and 71st Avenue in Queens. Before the plaza was constructed, there was a traffic island allowing two outlets from 71st Avenue to Myrtle Avenue. 71st Avenue Plaza was built by closing one outlet and using residual space between the sidewalk and the traffic island. Figure 7.3 shows before and after images of 71st Avenue Plaza, demonstrating how the roadway was closed and used for the plaza.



Figure 7.3 Creation of 71st Avenue Plaza by using residual space between sidewalk and the traffic island.

Source: Google Earth.

Global Street Guide (2016) explains the creation of reclaimed plazas as taking over residual street space for pedestrian plazas, including empty parking lots, areas under elevated structures, and other spaces that are not appropriately programmed for their context. A total of 16 plazas fit the description of reclaimed plazas: seven in Brooklyn, five

in Queens, three in Manhattan, and one in the Bronx. Figure 7.4 illustrates some of examples of reclaimed plazas, including Avenue C Plaza and Corona Plaza. They can be in various geometries and sizes, depending on the physical context of the plaza site. For example, Lowery Plaza and Bliss Plaza are located under elevated tracks, which substantially defines their size and geometry. Some plaza sites— such as Venditti Square in Queens, Times Plaza and Parkside Plaza in Brooklyn, and Morrison Avenue in Bronx— were created with very little or no roadway to pedestrian space allocation.

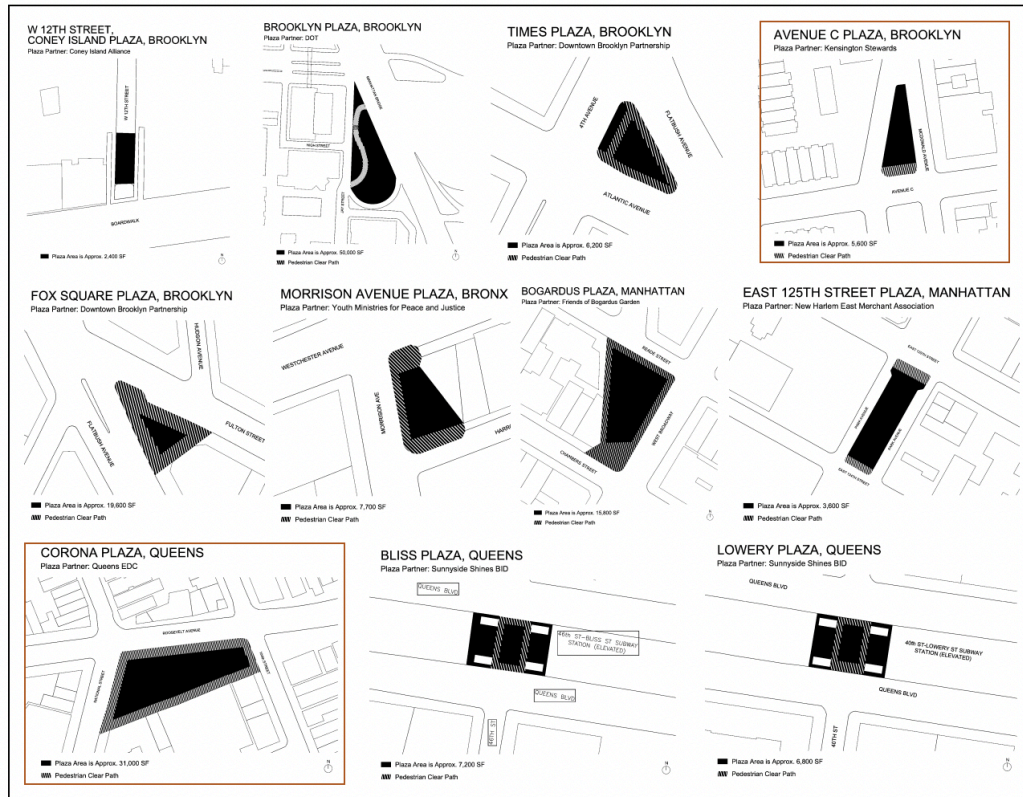


Figure 7.4 Some reclaimed plazas in New York City (including Avenue C Plaza and Corona Plaza, from case study sites in this dissertation).
Source: Individual plaza maps were obtained from New York City Department of Transportation.

From five case study plazas, Avenue C Plaza in Brooklyn and Corona Plaza in Queens are identified as reclaimed plazas. Corona Plaza was created on a site that was used as a truck parking lot and a roadway. Figure 7.5 shows the site used for a parking area and

a roadway in 2012 and for Corona Plaza in 2018. The manager of Corona Plaza interviewed for this dissertation mentioned that community members (including residents and shop owners in the surrounding blocks) supported the plaza idea. The main reason for the surrounding shop owners to support the plaza was that truck parking posed safety concerns and obstructed the visibility of their businesses from the sidewalk. Despite the site being used as an occasional gathering space for community events and festivals before Corona Plaza, its primary use had remained as a truck parking area before Corona Plaza. The community interest and support towards these events contributed to the conversion of the site from a truck parking space to a permanent public space.



Figure 7.5 The Corona Plaza site as a truck parking area.
Source: Google Earth.

Avenue C Plaza also fits the description of a reclaimed plaza. The site of Avenue C Plaza, which is a traffic triangle at the intersection of McDonald Avenue and Avenue C, was used as a storage space of the city government before the city designated another location in the neighborhood for such purpose in 2014. The vacant triangle was then used for parking purposes by residents during 2015. After the application of the Kensington Stewards to NYC DOT for creating a pedestrian plaza in 2015, Avenue C Plaza was created on this traffic triangle in the summer of 2016. Figure 7.6 illustrates previous uses of the triangle site: as a storage until 2014, as a parking in 2015, and as a pedestrian plaza in 2018.

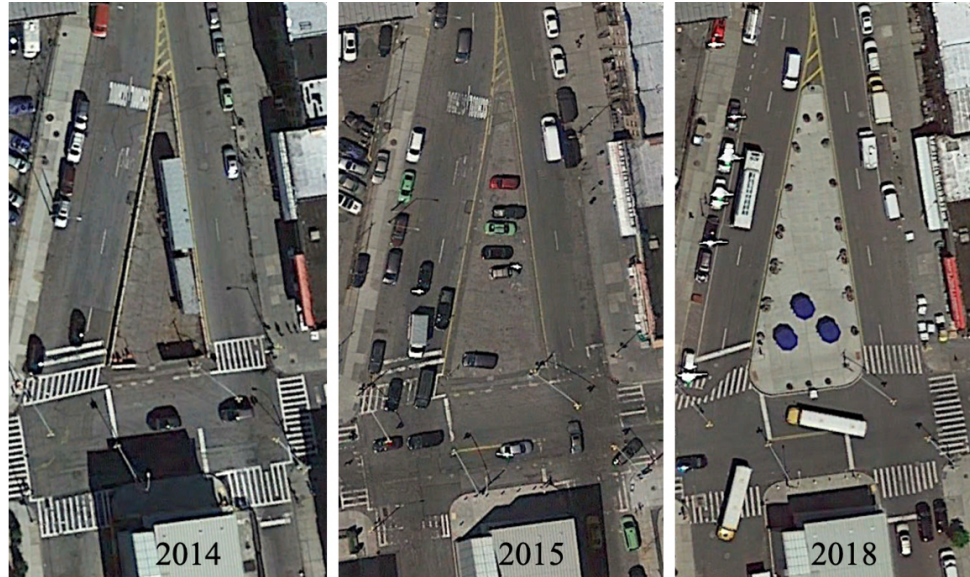


Figure 7.6 Several uses of the Avenue C Plaza site (as storage space until 2014, parking lot in 2015, and permanent Avenue C Plaza in 2018).
Source: Google Earth.

Through-block plazas are typically created either by closing off streets for one or more blocks or by allocating the site through super-blocks ("Global Street Design Guide," 2016). This study identified a total of 15 plazas that fit this description. Figure 7.7 shows some of the through-block examples in New York City. Most through-block plazas were created in Manhattan, which has a total of eight. The number of through-block plazas in Queens is four, and the total in Brooklyn is three.

Through-block plazas require a clear pedestrian path along the block to allow universal accessibility and emergency vehicle access ("Global Street Design Guide," 2016). They tend to be larger sites than intersection and reclaimed plazas. In through-block plazas, streets are converted to car-free areas. Examples of through-block plazas are: Diversity Plaza in Queens, Hillel Place in Brooklyn, and 33rd Street Plaza in Manhattan. There is no through-block plaza in case study plazas. Therefore, Diversity Plaza was used in order to demonstrate an example of a through-block plaza in Figure 7.8.

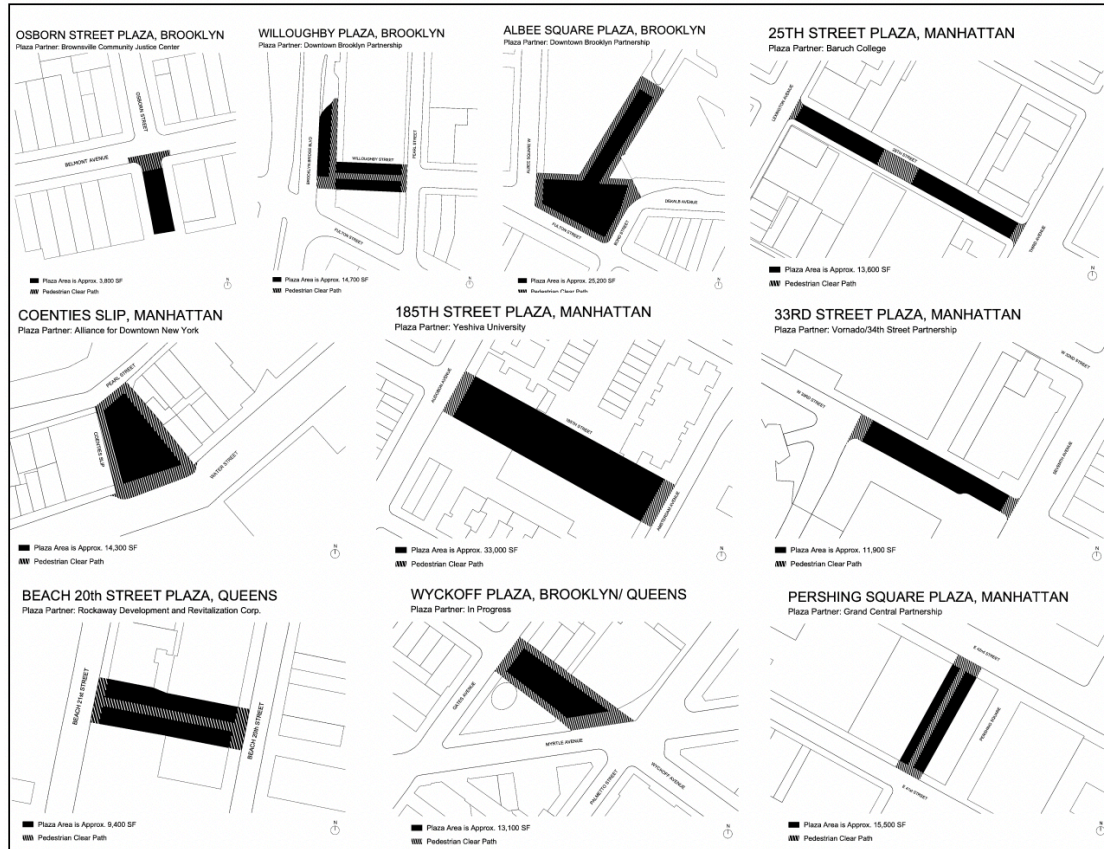


Figure 7.7 Some through-block plazas in New York City.
Source: Individual plaza maps were obtained from New York City Department of Transportation.



Figure 7.8 The Diversity Plaza site as a roadway.
Source: Google Earth.

Like through-block plazas, sidewalk-extension plazas are created along the length of a block. However, instead of closing off the street completely (as it is in through-block

plazas) sidewalk-extension plazas are formed through widening the sidewalk and allocating a partial area of the roadway for pedestrian use. Sidewalk-extension plazas comprise the least number of pedestrian plazas in New York City. There are 12 sidewalk-extension plazas: seven in Manhattan, four in Brooklyn, and one in Queens. These plazas, which may also proceed along more than one block, typically have a linear shape. Figure 7.9 shows some of the examples of sidewalk-extension plazas in New York City. *Global Street Design Guide* (2016) emphasizes the significance of maintaining clear circulation paths to provide unobstructed pedestrian movement in sidewalk-extension plazas. Plaza furniture and other structures are typically located with this consideration in sidewalk-extension plazas of New York City.



Figure 7.9 Some sidewalk-extension plazas in New York City.
Source: Individual plaza maps were obtained from New York City Department of Transportation.

Site context and pedestrian density on the sidewalk are two contributing factors in the design of pedestrian plazas. These factors are crucial for locating pedestrian circulation paths, selection of plaza furniture, and other materials and amenities. NYC DOT gives priority to plaza applications that are near dense retail centers or transit opportunities (NYC

Department of Transportation, 2019b). There are many pedestrian plazas that fit one or both of these conditions. If there are shops in the same block with a pedestrian plaza, a clear pedestrian circulation path typically exists along those shop fronts. Among the case study sites, Corona Plaza, 71st Avenue Plaza, and Kensington Plaza are examples of this (See Figure 7.10 for examples).

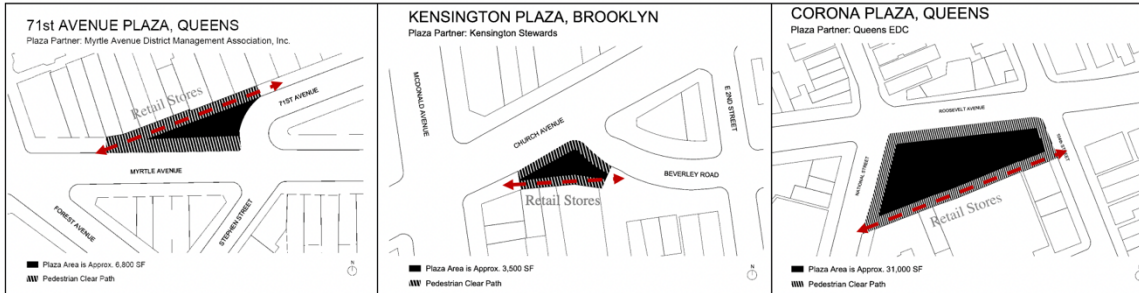


Figure 7.10 Circulation paths created along retail stores in 71st Avenue Plaza, Kensington Plaza, and Corona Plaza.

Source: Individual plaza maps were obtained from New York City Department of Transportation.

Most pedestrian plazas in the NYC Plaza Program are located on commercial blocks with close proximity to public transportations. Some plazas have subway entrances or bus stops in the plaza boundary, which create a clear pedestrian circulation path. Knickerbocker Plaza and Corona Plaza are two plazas that have subway exits in their plaza boundaries. Since the Knickerbocker Avenue Station of the M train is located at Knickerbocker Plaza, hundreds of people walk through the plaza every day. In addition to pedestrians walking through the plaza as a part of the sidewalk, Knickerbocker Plaza also receives passersby from the station approximately every ten minutes. To accommodate pedestrian activities, the center area of Knickerbocker Plaza was left empty, and benches were located along the edge of the plaza facing to the station entrance/exit. Similarly, the 7 train runs adjacent to Corona Plaza located and 103rd Street-Corona Plaza station exits in the plaza. Like Knickerbocker Plaza, Corona Plaza receives many people who are exiting

from the station approximately every ten minutes. Corona Plaza receives a high volume of people passing by these exits, particularly from 4 pm to 6 pm. Figure 7.11 demonstrates circulation pathways of people from MTA exits in these two case study sites.

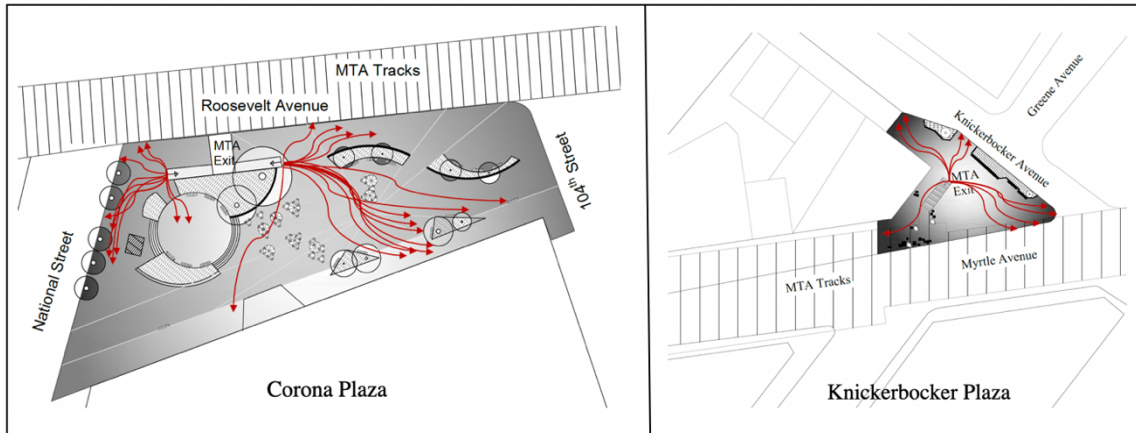


Figure 7.11 Most used pedestrian circulation pathways for people exiting from subway stations in Corona Plaza and Knickerbocker Plaza.

As was mentioned in the previous chapter, the selection of design materials and plaza furniture depends on the maintenance capacity of sponsor partners. In New York City's *Street Design Manual* (2015), the NYC DOT lists several plaza design features: moveable and fixed seating, trees and plants, lighting, paving, information and wayfinding signage, sub-concessions, public art (temporary or permanent), bicycle parking, and drinking-water fountains. It is important to note that in the first few years of the program, NYC DOT used to encourage plaza sponsors to incorporate both temporary and permanent art projects in coordination with the Percent for Art Program by NYC Department of Cultural Affairs (NYC DCA). The interviewee from NYC DOT indicated that they made some changes in that strategy a few years ago, including the elimination of permanent art in pedestrian plaza designs, because difficulties arose related to the maintenance of art components in many plazas. The official emphasized that NYC DOT still encourages

temporary art projects but stipulates that they should be coordinated with the Percent for Art Program.

Interviewees from both NYC DOT and NYC DDC mentioned that the design of permanent plazas considers the character and context of neighborhoods and the needs of these communities. However, site observations illustrated that NYC DOT used standard design features in all case study plazas, with the exception of a few design features, such as light poles in the historic district of 71st Avenue Plaza. Interviews with sponsor partners and city officials revealed that in most cases, they provide sponsor partners the material catalogue to decide furniture and material options for the design. If a sponsor partner requests a design feature not included in the material catalogue, that material is reviewed by NYC DDC and NYC DOT for approval. According to the interviewee from NYC DDC, even though the BIDs used to be able to choose design materials and furniture outside of the catalog. Recently, NYC DOT has started to limit them to standard plaza materials in consideration of elevated maintenance costs, which would create a problem for NYC DOT if a sponsor partner withdraws from sponsorship.

Seating types in pedestrian plazas include both formal seating (e.g., moveable chairs and fixed benches) and informal seating (e.g., concrete blocks and raised planting beds). In most pedestrian plazas, moveable seating includes metal park chairs paired with moveable tables. This type of chair is also widely in use at other public spaces in NYC. Government officials from both NYC DOT and NYC DDC mentioned the importance of moveable seating in the design of plazas because of the flexibility in their use and ease of storage. Among five case study plazas in this dissertation, moveable seating is used in the design of all plazas except Kensington Plaza. The interviewee from the Kensington

Stewards mentioned that moveable seating was not requested in the initial design of Kensington Plaza, so NYC DOT did not install them.

Based on site surveys conducted from May through September 2019, Corona Plaza provides the greatest number of chairs and tables (55 chairs and 20 tables). While 71st Avenue Plaza provides 33 chairs and 11 tables; Avenue C Plaza provides 18 and six; and Knickerbocker Plaza provides eight and three, respectively. In 71st Avenue Plaza and Avenue C Plaza, all tables and chairs are chained together making them almost fixed seating. Even though all plazas have chairs and tables that are made of metal material, their styles and colors are only slightly different from each other. Figure 7.12 shows the different styles and colors of chairs and tables existing in case study plazas in 2018.



Figure 7.12 Chairs and tables in 71st Avenue Plaza, Avenue C Plaza, Knickerbocker Plaza, and Corona Plaza.

Fixed seating types in studied plazas were benches, concrete walls, and concrete blocks. Among studied plaza sites, three plazas had benches: 18 in Corona Plaza, five in Knickerbocker Plaza, and four in Kensington Plaza. Benches in all three plazas are standard aluminum street benches, typical for New York City. In 71st Avenue Plaza, Knickerbocker Plaza, and Corona Plaza, planter ledges were also designed to function as informal seating. In Knickerbocker Plaza, seven free-standing concrete blocks are used for sitting purposes.

Figure 7.13 illustrates benches used in case study plazas and types of informal seating options in 71st Avenue Plaza and Knickerbocker Plaza.



Figure 7.13 Examples of fixed seating types from some of the studied plazas (benches as formal seating, and concrete walls and blocks as informal seating).

Site observations of case study sites reveal that seating areas in plazas are mostly in direct sunlight during daytime. Some studied plazas provide beach umbrellas to shield occupants from the sun, while others rely on three canopies, surrounding buildings, or other structures. There are some beach umbrellas in Corona Plaza, Avenue C Plaza, and 71st Avenue Plaza. However, beach umbrellas do not function properly in 71st Avenue Plaza and Avenue C Plaza for two reasons. One is that beach umbrellas are too heavy to avoid falling on the ground when wind is strong or other causes. Because they are heavy, it is extremely inconvenient for an average person to relocate them based on angles of sunlight. Second, relocating chairs would be a good solution for many people to avoid sun in 71st Avenue Plaza and Avenue C Plaza. However, since tables and chairs are chained, relocating them is not an option. Compared to Avenue C Plaza, which does not have tree canopies or surrounding buildings to obstruct the sun, there are more seating options protected from sunlight in 71st Avenue Plaza, which has two large tree canopies and surrounding buildings to protect heating (e.g., planter ledges) from the sun.

Beach umbrellas in Corona Plaza were made of lighter materials making them easy to be relocated based on the sun at different times of the day. In 2018, eight beach umbrellas were observed in different locations of Corona Plaza. In 2019, however, Corona Plaza had only two beach umbrellas for use by people. The manager of Corona Plaza interviewed for this dissertation explained that two incidents occurred when umbrellas fell over and injured people during windy days. Therefore, QEDC (the sponsor partner) wanted to remove all eight umbrellas and replace them with two umbrellas that were used during the temporary plaza phase.

Neither Knickerbocker Plaza nor Kensington Plaza provide beach umbrellas. A large part of Kensington Plaza remains unprotected from the sun during daytime. Among four benches, only one has the protection from a tree canopy; the other three benches are mostly in the sun. Two boulders at the center of the plaza are always under the protection of a tree canopy. Like Kensington Plaza, benches in Knickerbocker Plaza are also under the sun. However, compared to Kensington Plaza, more seating in Knickerbocker Plaza are protected from the sun. Thanks to the elevated train tracks, the south edge of Knickerbocker Plaza is primarily shaded. In addition to moveable chairs that are often located at the shady area, several concrete blocks, which can be used for sitting, are also located in this area.

Pedestrian plazas may include art display cases, public toilets, bike parking stations, WalkNYC wayfinding systems, lighting, drinking fountains, plaza rules signage, and waste receptacles. Some amenities—such as waste receptacles, plaza rules signage, and drinking fountains—are provided in most of the case study plazas. Among case study sites, Corona Plaza offers the greatest amenities to the public; Kensington Plaza provides the fewest amenities, only including plaza rules signage and waste receptacles. The other case study

plazas provide three or more of these amenities. Among all the amenities provided in the plazas studied, some require regular maintenance for being used by the public continuously. In Corona Plaza, for instance, the public toilet was out of use during the observations in the summer of 2018. The drinking fountain in Knickerbocker Plaza was broken during on-site observations in 2018. The Knickerbocker Plaza manager interviewed for this dissertation said that it has been broken for a few years.

The number and type of lighting and poles in a plaza depended on its size and the site context. Except Avenue C Plaza, which relies on the adjacent streetlight poles, all plazas studied had at least two lighting poles that were specifically designed to illuminate the plaza. Avenue C Plaza was illuminated through the lighting on neighboring sidewalks. Corona Plaza and Kensington Plaza have standard type lighting poles and luminaire, lighting installed in Knickerbocker Plaza and 71st Plaza are distinct types. According to the user surveys that were conducted in four plazas, users are rated lighting at average: 4.3 in 71st Avenue Plaza, 4.1 in Corona Plaza, and 4.1 in Knickerbocker Plaza (Five- point Likert-type scale: (1) very poor to (5) very good). Users from Kensington Plaza indicated that the lighting is poor (2.3) especially on the east side of the plaza. Figure 7.14 shows the evening situation of Kensington plaza which is lacking sufficient lighting. Informal interviews with users from Kensington Plaza also indicate that sufficient lighting is needed to improve plaza safety.



Figure 7.14 An image of Kensington Plaza during the nighttime.

The pavement of permanent plazas is also an important feature to be constructed in the design process. Based on the pedestrian circulation and site context of a plaza, the NYC DOT and NYC DDC determine the color and material of concrete pavement. In the design of 71st Avenue, for example, the NYC DDC designed a patchwork pattern that combines granite blocks and dark pigmented concrete for the concrete pavement of the plaza to match the historic limestone buildings in the neighborhood. The pavement of Corona Plaza is in a pattern mixing with two types of concrete: light color unpigmented concrete and dark pigmented concrete. Similar to 71st Avenue Plaza and Corona Plaza, the pavement of Knickerbocker Plaza has a pattern that combines two types of pigmented concrete: one with light-color aggregate and another with carbide treatment. Pavements of Kensington Plaza and Avenue C Plaza are crated with unpigmented concrete.

Pedestrian plazas in New York City have green spaces containing seasonal flowers, shrubs, and trees. The design of green spaces varies based on site specific conditions

including tree beds, raised planting areas, in-ground planting areas, and raingardens.

According to the *Street Design Manual* (2015) published by the NYC DOT,

installation of all plantings within the public right-of-way must be reviewed and approved by the Parks Department and the Transportation Department. A forestry permit from the Parks Department is required to install new trees and for any work being performed within 50 feet of existing trees (189).

A tree protection area is defined by the canopy drip line of an existing tree meaning that this area should be protected from construction vehicles during the process. According to the interviewees from NYC DDC, tree protection areas can be challenging during the construction of some pedestrian plazas especially to those constructions that take place within the tree protection areas.

The NYC DOT defines two types of planting areas in pedestrian plazas: in-ground planting and raised planting. The in-ground planting areas in Kensington Plaza include individual tree beds. Knickerbocker Plaza has two raised planting areas containing small and medium size shrubs and seasonal flowers. Figure 7.15 illustrates the design of planting areas in 71st Avenue Plaza, Corona Plaza, Kensington Plaza, and Knickerbocker Plaza. Except Avenue C Plaza, which provides a few large flowerpots only, all plazas studied are in a combination of the two types of planting areas listed in the plaza program.



Figure 7.15 Planting areas in 71st Avenue Plaza, Corona Plaza, Knickerbocker Plaza, and Kensington Plaza.

CHAPTER 8

USE AND USERS

Uses of the case study plazas are investigated in two main categories: everyday uses and uses during the programmed activities. The data for the former was collected through site observations and user surveys; the latter is largely based on interviews with sponsor plaza partners and programming partners. In each plaza, a total of eight different site observations—four weekdays and four weekends—recorded everyday users and their activities. While site observations in four case study sites enabled me to explore how people used these spaces, user surveys were employed to collect the demographic background of everyday users, including age, distance to the plaza from their home, time spent in the plaza, and ways of getting to the plaza.

To explore everyday uses and users, I conducted a total of 80 different observation sessions and 32 user survey sessions. I observed approximately 1055 people and surveyed 240 people in the total of four plazas. Observations were conducted from June to August in 2018 and May to September in 2019, both on weekdays and weekends; user surveys were conducted concurrently with site observations on weekdays and weekends in 2019.

Only 13 occupants were observed in Avenue C Plaza in six different observation times in 2019, but I was unable to obtain any user survey data. For these reasons, Avenue C Plaza was excluded from the study results for everyday uses and users. Contrary to everyday uses, Avenue C Plaza is heavily used for programming. Therefore, the data related to its use for programmed activities was collected. More detailed data about use and users for each case study site can be found in Appendices in this dissertation (Appendix A:

71st Avenue Plaza; Appendix B: Corona Plaza; Appendix C: Kensington ad Avenue C Plaza; Appendix D: Knickerbocker Plaza).

8.1 Users in Pedestrian Plazas

The data collection strategies for the user profiles and preferences in the case study plazas included a combination of site observations and user surveys. In the site observations, a total of 1055 people were recorded: 576 in weekdays and 479 in weekends in four case study plazas. Table 8.1 illustrates number of users with the ratio of gender, age, and race based on site observations and user surveys. The number of males were higher than females in all plazas. Except 71st Avenue Plaza, all plazas had overwhelmingly more male than female occupants. Specifically, in Corona Plaza, the total number of males in many site-observations almost doubled the number of female occupants.

Table 8.1 Number of Users and their Ratio of Gender, Race, and Age

	Units of Analysis	Total	71st Avenue Plaza	Knickerbocker Plaza	Corona Plaza	Kensington Plaza
Number of users (Observed)	Weekdays	576	132	171	217	56
	Weekends	479	109	136	196	38
Gender (Observed)	Male	62.0%	56.4%	62.9%	62.0%	73.4%
	Female	38.0%	43.5%	37.1%	38.0%	26.6%
Age (Observed)	18-39	28.0%	31.1%	29.1%	22.3%	41.5%
	40-59	35.0%	27.4%	34.8%	41.7%	25.5%
	60+	33.9%	39.4%	32.2%	33.4%	27.7%
	Unidentified	3.1%	2.1%	3.9%	2.6%	5.3%
Number of users (Surveyed)	Weekdays	144	36	32	44	18
	Weekends	96	31	27	37	15
Age (user surveys)	18-24	7.1%	7.5%	3.4%	7.4%	12.1%
	24- 39	25.4%	26.9%	20.3%	17.3%	51.5%
	40-59	30.0%	31.3%	27.1%	35.8%	18.2%
	60+	37.5%	34.3%	49.1%	39.5%	18.2%
Race (user surveys)	White	27.1%	53.7%	15.2%	11.1%	33.3%
	Black	12.9%	11.9%	11.9%	17.3%	6.1%
	Hispanic	45.8%	26.9%	67.8%	58.1%	15.1%
	Asian	9.2%	4.5%	3.4%	8.6%	30.3%
	Other	5.0%	3.0%	1.7%	4.9%	15.2%

During my observations, I documented user age in three types: 18-39, 40-59, and over 60. According to observation results for user age, users between 40 and 59 ages make up 35% of all users followed by 60+ (33.9%) and between 18 and 39 (28%). About 3% of people's age remained undetermined. To gather more detailed data, I used four groups of age identifications in user surveys: 18-24, between 24-39, 40-59, and over 60. User surveys resulted slightly different from the results generated from the site observations. Figure 8.1 shows findings for observations and user surveys in each case study plaza. However, the combination of two age groups- 40-59 and 60+ comprised of about 70% of all people in the observations and user surveys. Overall, results from both the observations and user

surveys indicate that almost all case study plazas are mostly used by people over 40 years old.

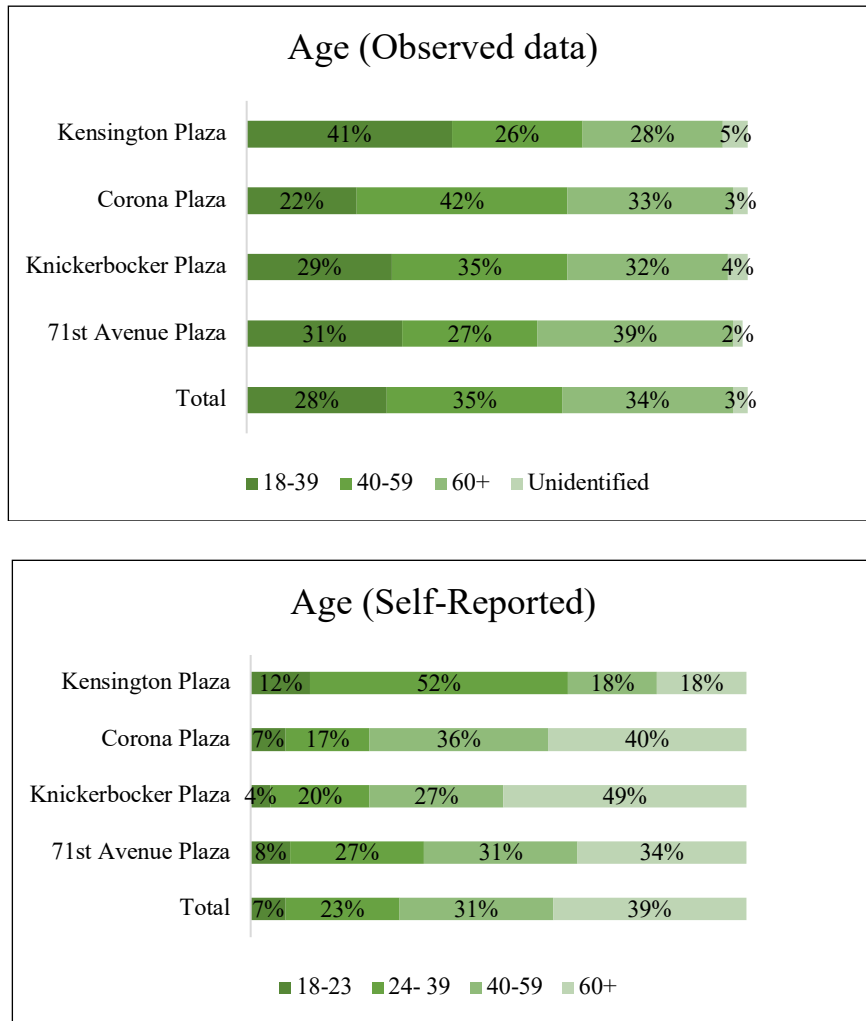


Figure 8.1 The age of plaza users based on site observations and user surveys.

The resulting age groups of each plaza studied based on the site observations and the user surveys are slightly different from each other, with the exception of Kensington Plaza. In Kensington Plaza, the difference between the results of the site observations and the user surveys for the age group of 18-39 is the highest. In Kensington Plaza, occupants between 18 and 39 were recorded as 41.5%, according to the site observation results; the survey results indicated that the number of the same category was overwhelmingly higher

than site observations, comprising 63.6% of all users surveyed. The survey response rate of Kensington Plaza was around 44%, meaning that for every 10 people who were asked to participate the survey, about four of them accepted to respond survey questions. The participation rate of people over 40 years of age was substantially lower (32%) than people who are between 18 and 39. Therefore, people between 18 and 39-years old tended to be more willing to participate the user survey, maybe affecting the results in favor of this age group. Despite the tendency of younger groups to participate to the user survey, it can be said that Kensington Plaza was still occupied more by younger groups (between 18 and 23, and between 24 and 39) than other case study plazas when the combination of the data collected from site surveys and observations is compared to other plazas.

In both observations and user surveys in Corona Plaza, more than 70% of occupants were over 40-years old. Similarly, Knickerbocker Plaza and 71st Avenue Plaza were occupied mostly by the same age group. In Knickerbocker Plaza, site observations indicated that there were 34.8% of people between 40 and 59, and 32.2% of people over 60. In survey results, however, people from the 60+ group was higher, with a 49.1% rate; and people between 40 and 59 were less than the results from site observations, with the rate of 27.1%. The participation rate was almost the same, with the rate of 45.1% in each age group in Knickerbocker Plaza. The explanation for different results between surveys and site observations can be the result of an observer bias in the prediction of the user age during site observations.

According to both site observations and user surveys, people who are between 40 and 59 years old were recorded highest in Corona Plaza. In Corona Plaza, there was no substantial difference between the results from site observations and user surveys. Respond

rates were almost equal for all age groups. The results indicated that like Knickerbocker Plaza, Corona Plaza was overwhelmingly occupied by people who are over 40 years old. Although 71st Avenue Plaza was also occupied largely by two older age groups, between 40 and 59 years old, and over 60, both observations and user surveys confirmed that the distribution of age groups were closer to each other at 71st Avenue Plaza compared to other case study plazas. Therefore, the percentage of people who are between 24 and 39-years old was higher in 71st Avenue Plaza than Knickerbocker Plaza or Corona Plaza.

The demography in almost all neighborhoods of case study sites was racially and ethnically diverse. During observations, it was difficult for me to identify ethnicities of Hispanics or Latinos. Considering that demographics of some plaza neighborhoods are associated with large Hispanic populations (like Knickerbocker Plaza and Corona Plaza), recording races in the observations without the identifying Hispanics and Latinos would be misleading for this study. Therefore, user surveys were used as sole sources for the determination of occupants' race and ethnicity in case study plazas. From 240 surveyed users in all four case study sites, Hispanics were the largest group, with 45.8% of all respondents; Whites were the second racial group, comprising 27.1% of all users. The numbers of Black (12.9%) and Asian (9.2%) occupants were close in the total of surveyed occupants of all plazas. People who identified themselves as Other remained at 5% in all case study plazas.

Table 8.1 provides detailed data for percentages of each race and ethnic group in each plaza. Knickerbocker Plaza had the largest Hispanic population 67.8% of all case study plazas. The percentages of White (15.2%) and Black (11.9%) occupants were close to each other. The second largest Hispanic population was in Corona Plaza, comprising

58.1% of all respondents. The rate of respondents who identified themselves as White in 71st Avenue Plaza was overwhelmingly higher, with the rate of 53.7%. The percentage of respondents who identified as Hispanic was around 27%. In Kensington Plaza, Whites were also higher (33.3%) than the average rate 27.1%, while the percentages of people who identified as Asian (30.3%) and Other (15.2%) were considerably higher than the average rates in these categories. Most respondents who identified as Asian were South Asians. Kensington Plaza was occupied by the most racially and ethnically diverse population among all four case study sites.

Based on the user surveys, Table 8.2 provides information about the method respondents use to get to the plaza from their homes, the proximity of their home to the plaza, frequency of their visits to the plaza, and duration of their visit. NYC DOT indicates that “the NYC Plaza Program is a key part of the City's effort to ensure that all New Yorkers live within a 10-minute walk of quality open space” (NYC Department of Transportation, 2019b). The survey results show that 73.3% of respondents in all plazas lived in a ten-minute walk from their plazas. The percentage of people who live between a 10- and 30-minute walking distance is 18%. Respondents who lived in the 30-minute walking distance from the plaza is about 9%. Since most of the respondents live within a ten-minute walking distance, a high proportion of them (81.7%) walk to their neighborhood plaza. About 9% of the respondents in each plaza reported that they used public transportation. The rates of using a bicycle and a car are 6.7% and 2.5% respectively. About 91% of people who live in a more than 30-minute walking distance to the plazas reported that they used public transportation or a car to arrive at the plaza.

Table 8.2 Number of Respondents and User Preferences

Units of Analysis		All Plazas	71 st Avenue Plaza	Knickerbocker Plaza	Corona Plaza	Kensington Plaza
Number of Respondents	Total Numbers	240	67	59	81	33
Method to Get to the Plaza	Walking	81.7%	91.0%	88.1%	66.7%	87.9%
	Bicycle	6.7%	6.0%	1.7%	11.1%	6.1%
	MTA/ Bus	9.1%	3.0%	8.5%	17.3%	3.0%
	Car	2.5%	0	1.7%	4.9%	3.0%
Proximity from Home to the Plaza	Less than 10 minutes	73.3%	80.6%	77.8%	56.8%	90.9%
	10-30 minutes	17.5%	17.9%	16.9%	23.4%	3.0%
	More than 30 minutes	9.2%	1.5%	5.1%	19.8%	6.1%
Frequency of Visits to the Plaza	Once a day	36.7%	43.3%	45.8%	22.2%	42.4%
	More than once a week	24.6%	20.9%	23.7%	29.6%	21.2%
	Once a week	21.2%	19.4%	18.6%	27.2%	15.2%
	Rarely	8.4%	8.9%	5.1%	8.7%	12.1%
	Very rarely	4.1%	3.0%	1.7%	4.9%	9.1%
	First time	5.0%	4.5%	5.1%	7.4%	0
Duration of Visits	Less than 30 minutes	39.6%	43.3%	23.7%	44.5%	48.5%
	30 min-2 hours	28.8%	32.8%	27.2%	25.9%	30.3%
	2-4 hours	22.9%	19.4%	35.6%	19.7%	15.1%
	More than 4 hours	8.7%	4.5%	13.5%	9.9%	6.1%

Figure 8.2 illustrates the comparison of the method used to get to the plaza and proximity of the plaza from users' homes. According to the user surveys, 87.9% of the respondents from Kensington Plaza reported that they walk to the plaza from home which is the highest rate among studied case study plazas. Among the four cases studied, Corona Plaza has the lowest rate that people who walk to the plaza from their home. The rate of people who visit Corona Plaza by public transportation is 17.3%, which is almost double

the average rate for the same category (9.1%). The rates for people who reported cycling to the plaza was the highest in Corona Plaza (11%) and the lowest in Knickerbocker Plaza (2%).

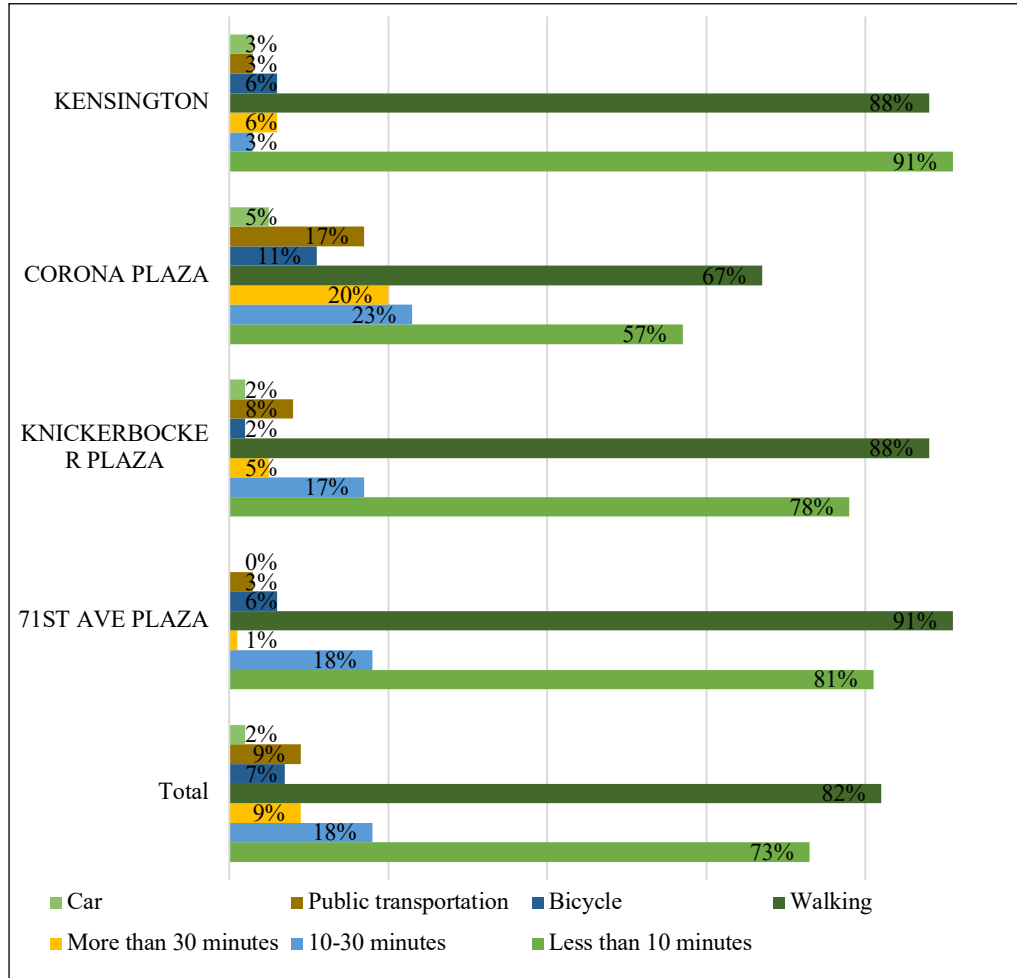


Figure 8.2 Time of arrival and means of transportation to get to the plaza from home.

Those who take surveys in the case study plazas were also asked about their visit frequency and duration. Among all respondents, the proportion (36.7%) that people visit the plazas every day is the highest in the frequency of visiting plazas: more than once a week (24.6%), once a week (21.2%), rarely (8.4%), very rarely (4.1%), and first time (5%). Except Corona Plaza, the proportion of respondents from all case study plaza sites who visit their plaza every day is the highest. In Corona Plaza, the highest frequency that people

visit is “more than once a week” (29.6%). Among different age groups, case study plazas are frequently used by two age groups: 40-59 and over 60.

The survey results indicate that most people tend to spend less than 30 minutes in the case study plazas. The rate of the respondents who spend less than 30 minutes in the plaza is 39.6%. Among the four plazas studied, Corona Plaza has the highest rate of people who spend less than 30 minutes in the plaza (44.4%). Similar to Corona Plaza, people often use 71st Avenue Plaza for short time visits (43.3%). Respondents who stay in 71st Avenue plaza between 30 minutes and two hours are also quite high, with a rate of 32.8%; 22.9% of respondents from Corona Plaza reported to spend between two to four hours in the plaza; 35.6% of those from Knickerbocker Plaza indicated that they spend the similar time in the plaza.

Table 8.3 illustrates duration of visits for each age group based on the survey results. The survey findings indicated that younger age groups tended to spend less time in the plazas studied. About 82% of those between 18 and 23 reported to spend less than 30 minutes in their plazas; 62.5% of people between 24 and 39 also preferred spending less than 30 minutes in the plaza. Most of the respondents who reported spending between 30 minutes and two hours are aged between 40 and 59. Among four age groups, the respondents whose age is over 60 spend the longest amount of time in the plazas studied. In general, people from this age group spend more than four hours in the plazas. Among the respondents, 8.7% reported spending more than four hours in the plazas studied. The survey findings indicate that respondents from Knickerbocker Plaza and Corona Plaza more often reported spending more than four hours in these plazas compared to the other case study plazas.

Table 8.3 Age Groups and Number of Respondents for Duration of Visits

	Age Groups	Numbers of Respondents	Less than 30 minutes	30 min-2 hours	2-4 hours	More than 4 hours
All Plazas	18-24	17	14	2	1	0
	24- 39	56	35	17	4	0
	40-59	75	19	31	21	4
	60+	92	27	19	29	17
Total Number of Respondents	N/A	240	95	69	55	21
71st Avenue Plaza	18-24	5	4	1	0	0
	24- 39	18	11	6	1	0
	40-59	21	5	7	7	2
	60+	23	9	8	5	1
Total	N/A	67	29	22	13	3
Knickerbocker Plaza	18-24	2	2	0	0	0
	24- 39	12	6	4	2	0
	40-59	16	2	5	4	5
	60+	29	4	7	15	3
Total	N/A	59	18	16	21	8
Corona Plaza	18-24	6	4	1	1	0
	24- 39	14	8	4	2	0
	40-59	29	13	4	6	6
	60+	32	11	12	7	2
Total	N/A	81	36	21	16	8
Kensington Plaza	18-24	4	4	0	0	0
	24- 39	12	7	5	0	0
	40-59	9	2	3	3	1
	60+	8	3	2	2	1
Total	N/A	33	16	10	5	2

Data related to user socialization in the plazas was collected through observations and user surveys. Three categories identified through socialization are: people who are alone, people with one person, and people with more than one person. In each observation of the case study plazas, I counted people by groups. Therefore, people who are alone were also counted as a group. The percentages of people with one person and people with more

than one person are almost equal (both about 37%) in the average of four case study plazas. From the total of 1055 people documented, 26% were alone. Among four case study plazas, the percentages of people with more than one person (46%) and people who were alone (23%) have the greatest gap in Knickerbocker Plaza. The percentage of people who are alone is highest in Kensington Plaza among all plazas. Figure 8.3 indicates the proportion of people who are alone, with one person, or with more than one person in the four plazas studied.

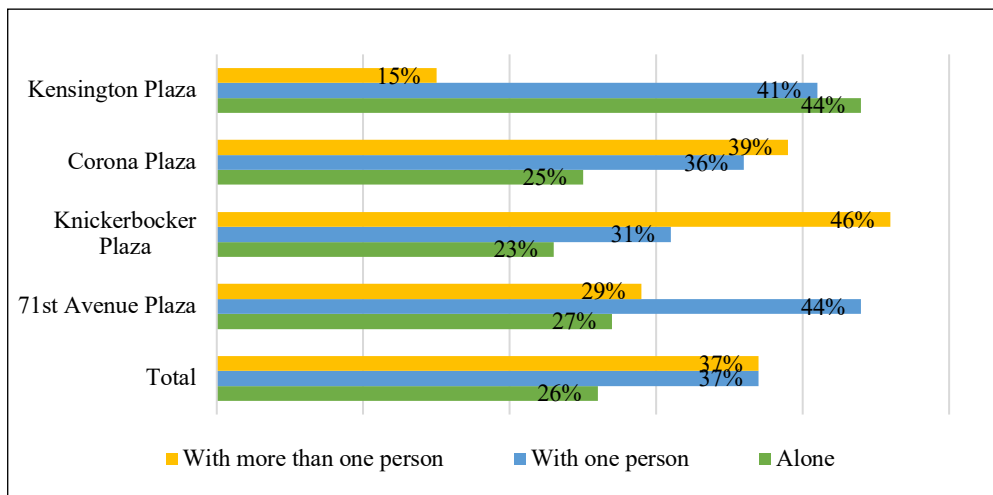


Figure 8.3 Socialization in case study plazas based on site observations.

In the user surveys, people were asked to rate socialization in two categories: socializing with friends or family and socializing with strangers. A five-point Likert-type scale was used: (1) never, (2) seldom, (3) sometimes, (4) often, (5) almost always. Overall, people reported that they socialize with friends or family more than strangers. Among all respondents from all case study plazas (240 people), the average rating for socializing with others they do not know is 3.4, whereas the average rating for socializing with friends or family was higher, with almost 4.4 (Figure 8.4). Among the four plazas, the average rating

for socializing with strangers is higher than the one for socializing with friends or family in Kensington Plaza.

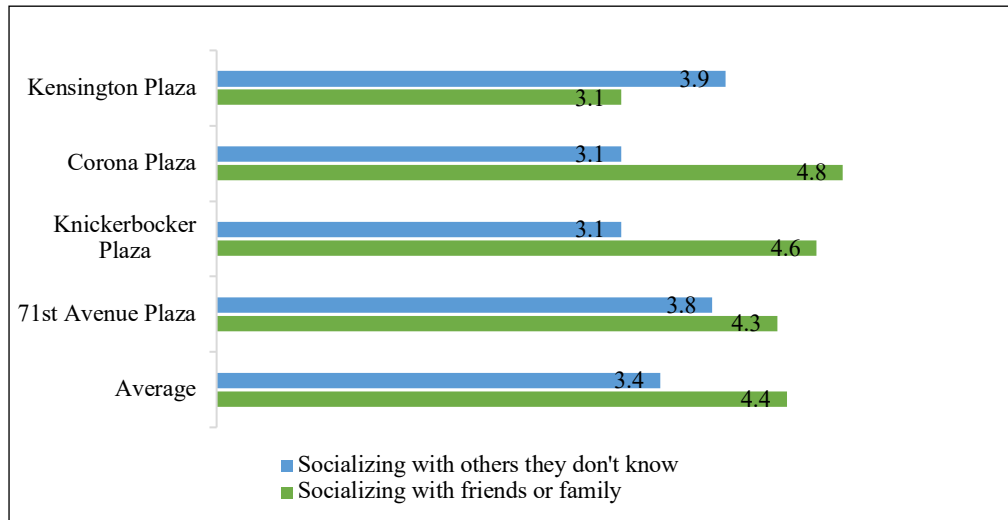


Figure 8.4 Socialization in case study plazas based on user surveys.

Findings both from the site observations and the user surveys pointed that the case study plazas are used mostly by people whose age is over 40-years old. Ethnically, users from Knickerbocker Plaza and Corona Plaza are mostly Hispanic or Latino. Among the four plazas, Kensington Plaza has the most diversity of users. Conversely, 71st Avenue Plaza is mostly used by Whites. Considering that these results are somehow parallel with the neighborhood characteristics of each plaza (See Appendices A, B, C, and D for the neighborhood characteristics of each plaza), it can be said that users in case study plazas represent the demography of their neighborhood which infers that the case study plazas were occupied by neighborhood people.

8.2 Everyday Use in Pedestrian Plazas

The use of the plazas studied may vary based on the size and location of a plaza, the number of amenities in a plaza, the number and time of observations conducted in a plaza, and the

weather condition on an observation day. Therefore, rather than a fully compare and contrast study in the use of the case study plazas, the aim is to illustrate daily use in connection with their own design, management, maintenance, and partnership practices.

As site observations documented, pedestrian plazas are well occupied both on weekdays and weekends. In general, more than half of the seats in the plazas are occupied by people. Even though the number of occupants is slightly higher on weekdays than on weekends, some plazas attract many people when activities and events are held on weekends. A total of 1055 people are documented in the 32 observation sessions (eight observation sessions for each plaza) during the summers of 2018 and 2019: 413 in Corona Plaza, 307 in Knickerbocker Plaza, 241 in 71st Avenue Plaza, and 94 in Kensington Plaza.

The observation checklist for postures included five types: standing, standing/leaning, formal sitting, informal sitting, and lying. Table 8.4 presents the percentages of postures in each observed plaza. Lying down is the least observed posture in all case study plazas. In all 1055 people observed, the percentage of people standing and standing/leaning in case study plazas are 17.1% and 8.2% respectively. Most people stood near buildings adjacent to the plazas while some preferred to stand/lean near the raised plant beds and planter walls. In 71st Avenue Plaza and Kensington Plaza, people were usually standing in front of the stores and shops that are adjacent to these plazas. In Knickerbocker Plaza, people were mostly standing near two planters on the side of Knickerbocker Avenue. In Corona Plaza, people were observed mostly standing near the stores, the MTA exit, and the planter walls.

As data collected demonstrates, among the five types of postures, people use the plazas mostly for sitting. Two types of sitting observed are: formal sitting and informal

sitting. In this study, the formal sitting includes people who were sitting in a comfortable sitting position on seats that were primarily designed for sitting, with both feet aiming the ground. In the informal sitting position, people sit on the walls of planting beds that were not primarily designed for sitting, personal chairs, or the ground, regardless of their body position. The informal sitting also includes people who use seats that were primarily designed for sitting without a proper body position. In all case study plazas, the percentage of people who sit formal sitting is 51.6% while the percentage of people who sit in an informal position is 19.7% (Table 8.4). Except Kensington Plaza, all plazas have the highest percentage for people who sit formally. People in Kensington Plaza mostly stand or stand/lean during the period of observations (52.1%).

Table 8.4 Number of Occupants and Their Ratio of Postures in Each Plaza

	Type of Posture and Activity	Average of All plazas	71 st Avenue Plaza	Knickerbocker Plaza	Corona Plaza	Kensington Plaza
Postures	Standing	17.1%	12.8%	19.2%	13.1%	38.3%
	Standing/Leaning	8.2%	5.8%	6.5%	9.4%	13.8%
	Formal Sitting	51.6%	59.3%	51.5%	54.1%	22.3%
	Informal Sitting	19.7%	19%	16.9%	22%	20.2%
	Lying down	3.4%	2.9%	5.9%	1.4%	5.3%
Total Number of People	Observations	1055	241	307	413	94

Table 8.5 shows the rates of activities included in the observation checklist. The observation checklist includes daily activities: eating/drinking, chatting, people-watching, electronic device use, commercial activity, and other. It is significant to note that each activity was counted independently from people who conducted the activity. For instance,

if a person eats and talks to someone during the observation period, both types of activities were counted in the checklist. Overall, chatting, people-watching, and eating/drinking were the most frequent activities in the observed sites. Of all the observed activities, the rates of most occurring activities are chatting (31.6%), people-watching (26.1%), and eating/drinking (17.7%).

Table 8.5 Number and Type of activities and their ratio in each plaza

	Type of Posture and Activity	Average of All plazas	71 st Avenue Plaza	Knickerbocker Plaza	Corona Plaza	Kensington Plaza
Activities	Eating/drinking	17.7%	20.2%	9.7%	23.3%	10.0%
	Chatting	31.6%	29.7%	36.2%	27.4%	41.9%
	People-Watching	26.1%	20.8%	29.5%	25.2%	33.1%
	Electronic device	15.9%	22.1%	14.1%	15.3%	10.0%
	Commercial Activity	3.4%	0.5%	5.1%	4.2%	0
	Others	5.3%	6.7%	5.5%	4.5%	4.9%
Total Number of Activities	Observations	1758	390	475	733	160

Types of everyday activities observed vary across the four plazas. In 71st Avenue Plaza, chatting (29.5%), use of electronic device (21.9%), people-watching (20.6%), and eating/drinking (20.1%) are the most occurring activities. In Knickerbocker Plaza, the rates of chatting (36.2%) and people-watching (29.5%) are significantly higher than using electronic device (14.1%) and eating/drinking (9.7%). Three most conducted activities in Corona Plaza are almost in the same percentage: chatting (27.4%), people-watching (25.2%), and eating/drinking (23.3%). The percentages of chatting (41.9%) and people-watching (33.1%) in Kensington Plaza are highest among four observed plazas.

Other activities in the case study plazas typically included reading, smoking, and playing games. Even though smoking is not allowed in the plazas as the rules posted, I observed 44 times of smoking in the plazas: 14 in Corona Plaza, 12 in Kensington Plaza, ten in Knickerbocker Plaza, and eight in 71st Avenue Plaza. Reading was the second most frequent Other activity among all case study plazas. I also observed a group of men (about 5 people) were playing dominoes in four different observations in Corona Plaza. They bring their own chairs and tables and gather in front of a retail shop where is a shady area during the day. When interviewing the manager of Corona Plaza, he used the example of playing dominoes to explain how community members use the plaza as a gathering space:

It (Corona Plaza) increases community pride make you feel better about your neighborhood and play a role as sort of like mechanism of unity to bring people together in a community because of the social gathering like you have the people here playing dominoes all the time. Whenever I'm around I always take part of it.

The manager of Corona Plaza also provided another example how the community use Corona Plaza as a gathering space:

the plaza became kind of game gathering place. People protest here when they want to. They're not protesting against the plaza but some kind of policy or something maybe with immigrant law like ICE issues. They come here to do press conferences and things like that. A lot of times when we went to the meetings in the nearby area, "where should we meet? Corona Plaza" like people know exactly where it is. It is a gathering place for civic purposes and also for cultural celebrations.

The protest that the manager talked about occurred on August 11, 2019. People protested mass raids that occurred in Mississippi food processing plants, which resulted in the arrest of 689 Latino workers. There were also a few protests during the temporary Corona Plaza. People gathered to protest some decisions for the business improvement district in 2013 and overcrowded Corona schools in 2014. The manager of Corona Plaza did not express any negative or positive comment towards these protests or protestors during the interview.

Commercial activities observed in the plazas is often about street vendors. In all the observed activities in Knickerbocker Plaza, commercial activities make up 5.1%. Similarly, commercial activities in Corona Plaza make up 4.2% of all activities observed. Street vendors in Knickerbocker Plaza mostly sell food (ice cream and fruit), used clothing, and handmade objects. In Corona Plaza, street vendors sell food (ice cream, Mexican food, and fruits) and handmade items. In 71st Avenue Plaza, street vendors were only documented twice during the observations while none were observed in Kensington Plaza.

There are also various kinds of shops near the plazas. There are two fast-food restaurants right across Knickerbocker Plaza. I observed a couple of people getting food from these restaurants to eat in Knickerbocker Plaza while sitting on benches. My observation notes indicated:

Three people are eating their food under the direct sunlight. Even though there are other empty tables in the plaza, all chairs located on the side of the elevated train tracks are occupied by other users who preferred to sit in a shady area. Two young girls are eating their ice cream purchased from the ice cream vendor in the plaza. They also sit in the sun.

The percentage of people who eat or drink in Knickerbocker Plaza and Kensington Plaza is relatively lower compared to 71st Avenue Plaza and Corona Plaza. That might be that both Knickerbocker Plaza and Kensington Plaza do not provide enough tables, chairs, and shady areas for comfortable eating or drinking.

8.3 Programming

NYC DOT requires all sponsor partners to program community events and activities in their plazas. In NYC Plaza Program Guidance (2019), NYC DOT indicates:

“To make the plaza a vibrant center of activity and a neighborhood destination, the Partner will be responsible for programming activities and events at the site. These

may include holiday events, food or craft markets, temporary public art installations or exhibits, and music and dancing. The Partner will be expected to program the plaza throughout the year” (8).

During 2018 and 2019, I followed programmed activities in five case study plazas through announcements in social media (Facebook), and interviews with managers and locals. Except Kensington Plaza and Knickerbocker Plaza, each plaza has their own social media page (mostly Facebook). Facebook pages of 71st Avenue Plaza and Corona Plaza have been inactive for years. Avenue C Plaza, however, has a very active Facebook page that posts and shares information of events and activities. The 71st Avenue Plaza manager reported that they now only use emails, a local newsletter, and a local TV channel to advertise events in the plaza.

The Knickerbocker Plaza manager indicated that they disseminate information about programmed events mainly through flyers and posters. They also post event information on the RiseBoro (sponsor partner) Facebook page and the Facebook page of Tony’s Pizzeria, which has more followers than the RiseBoro. Because the Kensington Stewards sponsors both Kensington Plaza and Avenue C Plaza, the Facebook page of Avenue C Plaza also announces programmed events taking place in Kensington Plaza.

In the interviews with representatives from the sponsor partners, programming related to the case study sites was also covered. In general, interviewees from the sponsor partners all expressed the importance of funding for programmed activities and events in their plazas. The Knickerbocker manager said:

We do not do a lot because we have no dedicated funding our capacity to do so... We've done a number of plant giveaways in partnership with the Horticulture Society. There was a game day and a year passed as part of that. The HORT brought out, we did not have funding to do this, like a mobile library and maybe like a mobile science lab. So, we've had a few. A few events...we've had such programming in the plaza. We use the chairs at the plaza for like a meet-up or a

meet-up space for a cleanup day like everybody met there and then like dispersed to like work on the corridor.

During 2018 and 2019, there were only a few programmed activities in Knickerbocker Plaza, 71st Avenue Plaza, and Kensington Plaza. The Knickerbocker Plaza manager mentioned that they programmed a few events in partnerships with the Hort and the UniProject in the past even though there were no events more recently. The 71st Avenue Plaza manager stated that they have no partnership with any organization in programming events. Instead, the Myrtle Avenue BID Queens programs and funds all events in 71st Avenue Plaza. Kensington Plaza has an exceptional position among all plazas in terms of programming. Despite both Kensington Plaza and Avenue C Plaza being managed by the Kensington Stewards, the number of events in Avenue C Plaza is disproportionately higher than in Kensington Plaza. A member of the Kensington Stewards commented on this situation by saying that Kensington Plaza covers a small size, processes a high pedestrian circulation volume, and do not have moveable chairs and tables, all of which limits its potential for events. Therefore, Avenue C Plaza is a better candidate in the neighborhood for programmed activities.

Among five case study sites, Avenue C Plaza and Corona Plaza offered the greatest number of programmed activities from May 2018 to October 2019. During the 16-month period, there were more than 35 programmed activities in Avenue C Plaza. During the same period, about 20 programmed activities and events were hosted in Corona Plaza.

Programming in Corona Plaza has been very active, even before the current plaza was built. Under their *Corona Plaza, Center of Everywhere* program in 2006, Queens Museum began to program events and festivals in the truck parking space where the Corona Plaza was built later. Queens Museum continued to program events and festivals in the

following years which led to the creation of Corona Plaza. Instead of becoming the sponsor partner of Corona Plaza, Queens Museum became its programming partner and has been in charge of organizing events and festivals since the temporary plaza was installed in 2012. The official sponsor partner of Corona Plaza is the Queens Economic Development Corporation, which is responsible for the management of the plaza. The manager of Corona Plaza from Queens Economic Development Corporation explained their responsibilities:

We're not necessarily an event Planning organization. that's not just our specialty. Our specialty is entrepreneurship training and assistance. So, a lot of the stuff that we do is with the help of local partners. Actually, from the very beginning of the of the plaza program, the Queens Museum has been like an ad hoc programming partner. The DOT kind of like relies on us for the maintenance oversight and everything. They are confident that the museum is going to do a lot of activities. So, the museum does a lot of programming here.

Queens Museum organized the first event, *Corona Plaza Community Festival*, in Corona Plaza after its installation as a temporary plaza in August 2012. Since then, this festival has become annual in Corona Plaza, typically including various outdoor reading rooms, science and crafts workshops, free eye exams for children, gardening classes, concerts, dance performances, and plays performed by different actors. Throughout the summers, Queens Museum also organized other concerts, festivals, and community events when Corona Plaza was in the temporary phase.

After Corona Plaza becomes a permanent plaza in 2018, Queens Museum continually organizes summer events and festivals focusing on immigration and celebrating the diverse cultures in the community. These programs have been organized every month during the summer of 2018 and 2019. In July 2018, the new plaza started with its *Coronate* Festival, featuring music (an Afro-Peruvian music concert), dance, arts and crafts workshops, and free health screenings. These festivals continued monthly from July

2018 to November 2018. In May 2019, events in Corona Plaza started with a Science Fiction Festival. Following by that, the *Coronate* festivals recurred in June 2019 and continued to October 2019. Even though the *Coronate* festival includes various types of music and dance performances, workshops, and community classes, each activity has its own focus on different cultures and aspects of the community in Corona.

In addition to the activities organized by Queens Museum, other organizations such as the Uni Project and Corona Plaza Business Alliance also participate in organizing activities and events in Corona Plaza. Thanks to the partnership of QEDC and Corona Plaza Business Alliance, a farmer's market was hosted in Corona Plaza every Friday from the first week of July until the first week of August in 2019. In the summer of 2018, other small community groups also occasionally organized cultural events and food stands (Figure 8.5). The manager of Corona Plaza said:

One of our main partners was the friends of Coronal Plaza which is now known as the Corona Plaza Business Alliance. I think the construction kind of like slowed down the momentum (of organizing events) and we have it like got back to our original before the face of construction. There were events here all the time. There's now actually a farmer's market happening here.



Figure 8.5 Food kiosks in Corona Plaza (July 29, 2018).

Organizations who want to organize an event in Corona Plaza or in any other plaza are not required to be in a partnership with the plaza sponsor. They can apply to the Mayor's office with the payment of an event permitting fee and other permitting fees to the city departments. Overall, it is a costly and time-consuming process. However, the process is way less expensive and time consuming when these organizations work with the sponsor partner to organize an event. Corona Plaza manager said:

Any group that wants to use the plaza it is a public space. QEDC doesn't control who can use the space that anybody can actually go in there on their own and put in a permit application. But they will just pay the regular public fee that that comes with the plaza like I would say about thousands of dollars. If they are permitted through us, when we are the sponsor or get a sponsor of the event, then this would be only paying the processing \$25 fee. And, there may be a couple more permits. If you're going to be using speakers and stuff like that, you have to get a stamp permit from the precinct. That's about \$50 sometimes. If you're going to bring a like a generator, you have to get a Fire Department permit.

Even though Avenue C Plaza was almost empty for everyday use during my observation sessions, it is a very active plaza based on the number of events taking place there. The Kensington Stewards are in partnership with several organizations in programming events in Avenue C Plaza: ArtBuilt, Arts & Democracy, BIPA - Bangladesh Institute of Performing Arts, The Singing Winds, and Casa Cultural. In 2017, these organizations established Kensington Cultural Council to communicate and act together in the programming of Avenue C Plaza. Programmed events and activities in Avenue C Plaza is supported, in part, by public funds from the New York City Department of Cultural Affairs as well as the funds from the City Council, New York City Small Business Services, and the National Endowments for Arts.

The Kensington Stewards organizes programmed events in Avenue C Plaza throughout the whole year but more frequently between April and November. These events

include various types of activities such as Yoga classes, Pilates classes, and stargazing. The Kensington Stewards supplied mats and tents for Yoga and Pilates classes that occurred almost every week throughout the summer of 2018 and 2019. The interviewees indicated that mats were provided by New York City Department of Transportation to support these events. There were stargazing activities in June and September in 2018 and 2019 in the plaza. These events were held during the nighttime in partnership with the Amateur Astronomers Association of New York, who provided two telescopes. The Kensington Stewards organized several Community iftars in 2018 and 2019 in Avenue C Plaza. The interviewee mentioned that these iftar events attract both Muslims and non-Muslims in the community, exceeding 100 attendees each year.

Arts and Democracy is a non-for-profit organization supporting cultural events and art organizations specifically focusing on immigration reform, environmental justice, equitable development, participatory democracy, and human rights. Arts and Democracy has been organizing several events in Avenue C Plaza since 2016. An event organizer interviewed for this dissertation reported that she has been working at Arts and Democracy for four years and grew up in Kensington. The interviewee stated that their aim is to combine art, culture, social justice, and participatory democracy as a tool to uplift issues in the community. For their events in Avenue C Plaza, the organization specifically targets women and youth to provide a space for them to call their own and to learn skills through programmed activities. The interviewee stated that their events in Avenue C Plaza are funded through New York City Cultural Affairs and the Office of Council Member Brad Lander.

The first contact of Arts and Democracy and the Kensington Stewards occurred at the very beginning of Avenue C Plaza through an art project of Monica Jahan Bose, a Bangladeshi-American artist. She wanted to record the stories of Bangladeshi women and have private conversations with women in public space. The interviewee said:

The intention was for women to take up public space in our neighborhood. And so, we wanted to use the plaza. We approached the Kensington Stewards, the volunteer group that overseeing the plaza for the last few years. And after a little bit of back and forth, we were able to get permission to do programming there. That was our first time for using the plaza.

After this first project, the Kensington Stewards and the Arts and Democracy have been in a partnership for programming events in Avenue C Plaza. The interviewee from Arts and Democracy said:

After that (their first event in Avenue C Plaza), we approached the stewards, because they're a volunteer group, they don't have funding that necessarily to do programming on the plaza. But we do have funding. And so, we and ArtBuilt Mobile Studio are the ones who hold the insurance every June there, the insurance and the licensing, and everything else to do programming on the plaza. We started programming there because there weren't any other bodies really in the community that had the funding and the time to be able to curate any media.

Since 2016, Arts and Democracy has organized several events in Avenue C Plaza such as art events, craft workshops, concerts, and community gatherings. ArtBuilt has also been partnering to program Avenue C Plaza with various events. The interviewee from Arts and Democracy was asked about the participation and reaction of the community to organized events in Avenue C Plaza:

I think this year has been the biggest the largest number of people that we've had kind of attend. It's the most diverse group of people that we've had come attend. Lots of new families that we've never seen before who live in the neighborhood. It is really hard organizing immigrant communities to come out and take part of these things. And a huge factor is about time. A lot of immigrant families don't have the time to come on a Saturday afternoon. They have work. They have other responsibilities. And I think. The first year, people came but it was still

predominantly male. The same families were there. And over the last two years, I can confidently say that more people are showing up, more women and more youth have been coming. And it's been immigrant communities, but immigrant communities of all backgrounds, not just from Bangladeshi. Non-immigrant communities also have been coming. I think, if you would ask me this four years ago, I'd say the turnout was okay. And, it was not necessarily what I would have hoped for whereas now, I can confidently say every year people are expecting us to be there on the plaza.

ArtBuilt is a non-for-profit art and culture organization providing services to artists, arts organizations, and the public. ArtBuilt has several mobile studios that aim to activate public spaces with art and culture programming in collaboration with local government agencies and other non-for-profit organizations. Specifically targeting under-served communities, these mobile studios are temporarily located at parks and street plazas in New York City and Philadelphia (ArtBuilt, 2019). In Avenue C Plaza, ArtBuilt has been one of the main sponsors of June programming, with one of their mobile since June 2016. Two program coordinators from Artbuilt were interviewed for this dissertation. One interviewee explained the permitting process from the city in the organization of events during the month of June:

We are working with a partnership a group called the Kensington Stewards who are the sponsoring organization of this plaza...So, they get the permit. I think we only pay the application fee just \$25. But the actual permit fee is waived.

Some of the events during this month are also supported by other organizations such as the Singing Winds, Casa Cultural, Bangladeshi Institute of Performance Arts, and local institutions. The ArtBuilt mobile studio is located on Avenue C Plaza providing a small indoor space for some of the public events and workshops during the month of June every year. Focusing on women and youth, these events usually include painting classes, planting workshops, ethnic music, and dance events (annual immigrant heritage concerts), craft workshops (sculpting and kite-making), and reading and writing workshops. Figure 8.6

shows images from a kite making event organized for the children of the neighborhood.

The interviewee from Art Built Studio said:

Our focus is really helping neighbors and learn how to best program and work with public spaces. The mobile studio becomes more of an institution for people. Then, the question becomes what goes in it. So then, we presented that to the neighbors, and we started brainstorming what could go in it. It was the first year of the ArtBuilt studio. We are very lucky there is a lot of support from local teaching artists. So, we were able to find some very very good people to present on each week and of the month.



Figure 8.6 A kite making event in Avenue C Plaza (June 2019).

Other non-profit organizations and volunteer groups such as Casa Cultural, the Singing Winds, and BIPA - Bangladesh Institute of Performing Arts organize events in Avenue C Plaza. Considering the number of organizations in partnership for programming in Avenue C Plaza, interviewees from the Kensington Stewards and Art and Democracy revealed that they created the Kensington Cultural Council a few years ago to provide better communication between these organizations and create a calendar for programming in Avenue C Plaza. The interviewee from Art and Democracy said:

We created the Kensington Cultural Council. The point of the Kensington Cultural Council is to make sure that we're not working in separately and that we're all in communication about the type of programming we're doing throughout the year, but also working together to curate programming for the plaza.

In the 2019 Create NYC Plan, NYC Department of Cultural Affairs (NYC DCLA) aims to provide technical assistance and support to plaza managers in the provision of networking with cultural organizations and artists (NYC Cultural Affairs, 2019). Based on this plan, NYC DCLA supports the organization of events in Avenue C Plaza. NYC DCLA provides funds and technical assistance to non-profit organizations that organize public art events such as ArtBuilt and Art and Democracy through Create NYC Plan.

CHAPTER 9

MANAGEMENT AND MAINTENANCE

Sponsor partners of pedestrian plazas in New York City are responsible for management and maintenance of their sites. Interviews with sponsor partners from five case study sites and interviews with officials from NYC DOT were conducted to explore the management approaches. Other interviews were conducted with NYPD officers to investigate safety in the case study plazas. In addition to these interviews, user surveys were conducted for the purpose of user perceptions related to the safety and maintenance of the case study plazas. The first part of the chapter provides a description of the general official and unofficial rules in pedestrian plazas. Interviews with sponsor partners reveal the enforcement of these rules. The second part of this chapter focuses on the maintenance of five case study sites. More detailed data of management and maintenance practices in each case study site can be found in the Appendices of this dissertation. (Appendix A: 71st Avenue Plaza; Appendix B: Corona Plaza; Appendix C: Kensington and Avenue C Plaza; and Appendix D: Knickerbocker Plaza).

9.1 Management in Pedestrian Plazas

Organizations that sponsor pedestrian plazas are also responsible for their management. Most of these sponsor organizations assign one person to be the plaza manager who oversees the management of the plaza they created alongside his or her other responsibilities in the organization. In this study, I interviewed the managers of 71st Avenue Plaza, Corona Plaza, and Knickerbocker Plaza, and the former manager of Avenue C Plaza

and Kensington Plaza. The Primary responsibilities of these plaza managers include: determining the maintenance needs of the plaza, coordinating operational work in the plaza, ensuring the plaza is serving the needs of the community, and programming events in the plaza. Pedestrian plazas are managed based on a series of rules that were determined by the NYC DOT.

In 2015, Times Square Plaza, the city's first plaza project, received some criticisms from Mayor Bill De Blasio and the then Police Commissioner, William J. Bratton, due to the aggressive performances of street performers in the plaza. These criticisms were substantial enough that the plaza even faced elimination. At the time, Mayor Bill De Blasio made a statement about evaluating the removal of Times Square Plaza, addressing the street performers specifically:

That's a very big endeavor, and like every other option comes with pros and cons... So, we're going to look at what those pros and cons would be. You could argue that those plazas have had some very positive impacts. You could also argue they come with a lot of problems (Grynbaum, 2015).

Possibly as a response to these issues, in 2016, New York City Council enacted plaza rules authorizing the NYC DOT to adopt a regulatory framework for pedestrian plazas (DOT, 2016). The regulatory framework defines general uses, prohibited uses, and regulated uses in pedestrian plazas. Based on the general uses, event organizers are required to get a permit from the Mayor's Office of Citywide Event Coordination and Management for their events. If people want to use an amplifier, or organize a parade, procession, or demonstration, they are also required to get a permit from the NY Police Department.

Two signages that list all prohibited uses are displayed on the light poles in pedestrian plazas in the city. These prohibited uses include camping, smoking, consumption of alcoholic beverages, littering, unreasonable noise, skateboarding, cycling

and the feeding of undomesticated animals. Figure 9.1 presents the locations of rules signage in each case study plaza. Even though locations of the rule's signage varied in each case study plaza, they are typically one at the center and the other at the edge of a plaza. In the summer of 2018, the signage design of Knickerbocker Plaza and Kensington Plaza were different from other case study plazas. These signage in both plazas was changed again in the summer of 2019. According to the interview with the Knickerbocker Plaza manager for this dissertation, it was revealed that NYC DOT staff changed them in the fall of 2018. While the old signage indicated less plaza rules, the new signage lists prohibited and regulated uses in detail. Figure 9.2 shows the difference between the old and new signage in Kensington Plaza. Now signage in all case study plazas is in the same design and lists the same rules except the name of the plaza.

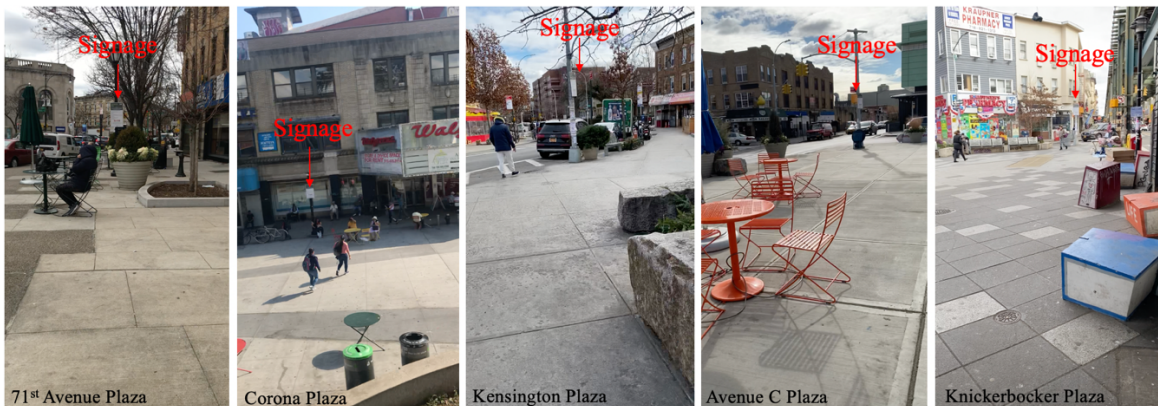


Figure 9.1 Locations of rule's signage in each plaza.

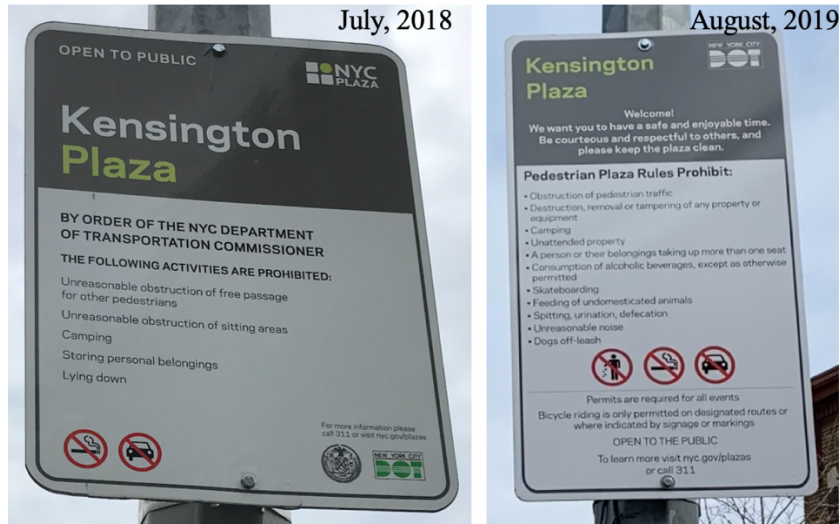


Figure 9.2 An example of the old and new rule’s signage from Kensington Plaza.

Regulated uses are about notices and signs posted in pedestrian plazas that are for the purposes of commerce and events. A permit is required from NYC DOT if people want to carry flags, banners, signs, or models; or display means of aircrafts, kites, or other aerial devices in, on, or above the surface of any pedestrian plazas (New York City Department of Transportation, 2016). Based on the regulatory framework, commercial activities in the plazas cannot prevent people using these plazas. The NYC DOT allows plaza concessions for up to 29 days with the agreement of concessionaires. In this agreement, concessionaires pay a fee to the NYC DOT and provide maintenance services for the plaza.

Even though NYC DOT defines the prohibited uses, activities and items in pedestrian plazas, lawful sanctions of these rules is contentious. For example, smoking in public spaces is not prohibited by law unless it is a public park or some other designated outdoor space by law. Because pedestrian plazas are not categorized as public parks, police officers cannot enforce any lawful allegation against people who smoke in plazas. Even though drinking alcohol is prohibited in pedestrian plazas, New York State has no law against public intoxication due to alcohol consumption. Based on the interviews with plaza

managers, plaza users, and nearby store owners, the biggest issue in the management of plazas is the contradiction of plaza rules to state law. It has difficulty to enforcing these plaza rules.

During my observation sessions in all case study plazas, I did not observe any plaza managers from case study plazas onsite overseeing their spaces or other security personnel from their organizations. According to four plaza managers in this dissertation (one is the former manager), only two of them reported checking their plazas at least once a day. All plaza managers expressed that they do not have any intention to ask people to leave or to contact police officers if people conduct any prohibited activities. They would do so only when they receive complaints from other plaza users or nearby shop owners. These complaints are often about individuals who are homeless or street vendors, or about prohibited uses such as alcoholic beverage uses.

Apart from Avenue C Plaza, homeless individuals were observed in all other four plazas studied: Corona Plaza, Kensington Plaza, 71st Avenue Plaza and Knickerbocker Plaza. Homeless individuals in Corona Plaza and Kensington Plaza were also identified as homeless by the plaza managers based on my question specifically asking about these individuals after my observations. In Knickerbocker Plaza, I observed two different homeless individuals in 2 of 8 observation sessions in 2018 and 2019. The interview with the plaza manager and site observations reveal that homeless issues are not an ongoing problem in Knickerbocker Plaza. Based on the interviews with the plaza managers and plaza users in 71st Avenue Plaza, Corona Plaza, and Kensington Plaza, the presence of drunk men is what people primarily complain about. All plaza managers indicated that most of the drunk men in these plazas are not homeless. The 71st Avenue Plaza manager

provided a detailed description of these drunk men that they often drink alcohol in another place, and they are already drunk by the time they are in the plaza. Their lingering around the plaza causes complaints from other users.

A homeless individual in Kensington Plaza was occupying a particular bench with his belongings in all observation sessions of the plaza during the summer of 2019. An interviewee who works as a sales manager in a near store to Kensington Plaza indicated that the homeless individual stays in the plaza most days and nights. The interviewee continued that some people who the interviewee could not recognize as homeless or not visit him regularly, but they leave after a couple of hours of being in the plaza. The interviewee said:

The problem with him (the homeless individual) is not that he is actually sitting there all the time. The problem is that he sometimes yells to passerby people, especially women, and it scares people. I know many women, like my wife, in the neighborhood use the opposite sidewalk at nights.

Another interviewee who has been a long-time resident from the neighborhood mentioned that in addition to the homeless man in the plaza, another group of people who may not be homeless individuals hangs out in the plaza almost every day especially during the nighttime. She reported that these people usually speak loudly and sometimes drink alcohol in the plaza. She thinks that these people make her feel much more uncomfortable than the homeless man in the plaza. She mentioned that:

They are getting more and more people every day. They even have their own chairs in front of Walgreens. I am not okay with it.

In October 2019, the issue of homeless and drunk individuals in Kensington Plaza was discussed at a meeting of the Albemarle Neighborhood Association. In addition to 35 community members, several representatives from different organizations in the

neighborhood also attended the meeting. They are two police officers from the 66th precinct, a representative from the Breaking Ground homeless organization, an assembly member, and a local bank manager. As one of the speakers, a representative from the Kensington Stewards (the sponsor partner of Kensington Plaza and Avenue C Plaza) was also at the meeting.

When the issue of homeless and drunk individuals in Kensington Plaza was brought up, some community members expressed their concerns and noted that they do not feel safe to use the plaza, especially during the nighttime. Some people were also concerned by the increasing number of homeless and drunk people in the plaza. Several of the community members said that the plaza should be eliminated if community members cannot use it because of these people. The representatives from the Kensington Stewards and the Breaking Ground homeless organization argued that plazas are public spaces and are open to everyone. Therefore, they cannot remove these people from Kensington Plaza because they have a right to be there as much as other people do.

Similar to what happens in Kensington Plaza, in Corona Plaza, a group of men who drink alcohol, talk loudly, and lie on the ground is also identified by plaza users. While the same group of people was also observed in Corona Plaza three times out of eight observation sessions, I did not actually observe any of them drinking alcohol in the plaza. I realized that they were drunk when I attempted to talk to them. Two female plaza users interviewed for this dissertation said that they are not sure all people in the group (about five people) are homeless. However, some of them stay in the plaza for most of the evening hours making them and their other female friends feel uncomfortable to use the plaza. The manager of Corona Plaza also indicated that he knows that some of these people have

homes because they leave the plaza later in the evening. Some nearby store owners also told the manager that some drunk men from this group sometimes sleep in the plaza overnight. When sometimes when store owners come to open their stores in the morning, they are still sleeping there. The manager of Corona Plaza indicated that since this is a city-wide issue, it is very difficult to be solved. The sponsor organization (QEDC) has been trying to connect these people with homeless organizations for homeless services, but they often reject their efforts. The manager said:

We do meetings about every two to three months up on the church where we bring the merchants, the community officers from NYPD, local residents, and so on to discuss some of these things (issues with homeless and drunk individuals). And, you know, we've done things. We have actually tried to connect them with some social service organizations. A lot of times they don't want it. And, we are also speaking to NYPD about what are some things that could be done about it. And, you know one of the challenges is that unless they are setting up an encampment like they're like stocking up a tent and live in it, there's really not much things.

In 71st Avenue Plaza, the manager described that the biggest problem of the plaza is drunk men visiting the plaza every day. He said that they (The Myrtle Avenue BID Queens) do not make them out of the plaza when they do not receive any complaints from other plaza users or nearby shop owners. In case of a complaint, the manager calls the precinct. When police officers arrive to the plaza, what they could do is to dump their drinks. If a person is not involved with any unlawful action, being drunk in public does not break any state law. The 71st Avenue Plaza manager reported:

By the time the police get there (71st Avenue Plaza), they (drunk men) could do it all out and go someplace else... An hour later, they come back. And often, when the police down there, some of them are so drunk that often they are actually laying on the ground, cold out, and then they (police officers) have to call the ambulance. And then, of course, becomes an issue, because once the police call an ambulance, then they have to stay there until the ambulance comes. And sometimes they're (the police) occupied at this plaza for this kind of low level issue when there might be a more serious issue that they should be addressing. So, you know, it's a problem.

For two evening observation sessions of 71st Avenue Plaza on the weekends, I observed some people holding soda cans and talking loudly. In one of those observations, when I approached them (four people) to ask some questions, two of those men said they come to the plaza to meet with friends; and they are not homeless (even though I did not ask a question about it). In our short conversation, I sensed the strong alcohol smell coming from them. When I asked if they knew that drinking is not allowed in the plaza, they confirmed that they are aware of it. During the interviews with six plaza users, three of them indicated that they were asked for money or cigarettes by drinking people, making them feel unsafe. But none of them ever called the police or filed a complaint about it to the plaza management.

The 71st Avenue Plaza manager thinks that this group may cause a negative plaza experience for plaza users, especially for those visiting the plaza first time. The manager indicated that the Father of the Old Catholic Church also tries to reach this group to address their drinking habit. The manager reported:

Father Mike has something called ‘the hungry monk’ food truck and I know that he feeds them. And he constantly tells them, “look, you cannot hang out at the plaza to drink.” But, of course, you know, telling them not doing it, they may say “yes, Father, yes, Father”; and then once they start drinking, they don't remember that. And then, they hang out there. So, it is an ongoing issue. I know that sometimes they actually urinate near it.

According to the interviews with three police officers, they often visit plazas when they get calls about drinking individuals in pedestrian plazas. If they see alcoholic beverages when they are there, they throw them into trash bins and leave the plaza. If individuals need medical needs, they would call an ambulance. They could not arrest them unless these individuals get into a fight, harm anyone, or vandalize the plaza. Occasionally, police officers may take individuals who are intoxicated from alcohol in public to their

home or a hospital if they consent. For example, a nearby store manager from Kensington Plaza said

The police took G... (the name of the homeless man in Kensington Plaza) to a treatment facility, I guess a couple of times, but he came back to the plaza next morning every time.

The police officers were also asked about the overall change in crime rates after the construction of pedestrian plazas in their neighborhoods. All officers reported no positive or negative change in the crime rate of the neighborhood after the construction of the plaza.

Plaza users were asked about their scores for safety in their plazas. Results indicated that users of case study plazas think that their plazas are safe at least at the acceptable level, at an average of 3.9 (Likert-type scale: (1) very poor, (2) poor, (3) acceptable, (4) safe, (5) very safe). Corona Plaza was rated 3.2 for safety scoring the lowest rating among all plazas. Users rated safety in Kensington Plaza 3.8. On the other hand, safety scores in 71st Avenue Plaza (4.4) and Knickerbocker Plaza (4.6) were the highest. It is significant to note that most female users rated safety with lower scores than males in all plazas. Plaza users in 71st Avenue Plaza rated safety 4.4 despite concerns of the plaza manager and some users for the presence of drunk men in the plaza.

In the site observations, I observed street vendors in some plazas. In the interviews, plaza managers were asked about their opinions of the street vendors in their plazas. The manager of Knickerbocker plaza stated that there are some street vendors who occupy different parts of Knickerbocker Plaza. The manager added "It is against the rules. But I'm not going to call on somebody to make them away." On the other hand, the managers of 71st Avenue Plaza and Corona Plaza reported that street vendors without a proper permit from the city agencies are unwelcomed in their plazas. The manager of 71st Avenue Plaza

indicated the permit is compulsory for any kind of activity in the plaza including commercial and entertainment. The manager of 71st Avenue said:

Occasionally on Saturdays or Sundays, somebody started to show up with a car and they started selling stuff. When we got the call (about the street vendor), we called the police and they got rid of it because you cannot sell at the plaza without a permit, without a license. So, that's the point. The other week, someone decided to set up a guitar and play. Same, you're supposed to get a permit when we have events.

The manager of Corona Plaza described unauthorized street vendors as an issue in the plaza. Like 71st Avenue Plaza, the Corona Plaza management welcomes only permitted street vendors. However, the process of keeping other street vendors away from the plaza have a difficulty because it needs constant monitoring from the plaza managers. The manager of Corona Plaza said that

What we always have to keep our eyes on is illegal vending. The plazas attract illegal vendors a lot.

A plaza manager interviewed described difficulties related to keeping unauthorized street vendors away from the plaza due to jurisdictional issues between the city agencies.

The plaza manager said:

We have conducted meetings with the business owners to discuss it and with the NYPD Community, and the affairs unit. We speak to the vendors, too. Some of them are licensed; some of them are not. And, we try to work with the city agency still address it because sometimes it could be helpful. The health department is the agency that licenses some of the vendors. And sometimes, when you go to NYPD to complain, NYPD would say: "you have to report them to consumer office and the health department." When you go to health department, they'll say: "Well, if they're not licensed and not legal, it's an enforcement issue, call the police." So, a lot of times, it's back and forth. You know the police is telling you to report it to the agency or anything like that and agency tells you to call the police. So, that's some of the problems that happen.

The plaza managers were also asked about unofficial rules that they are aware of in their plazas. Except the manager of Knickerbocker Plaza, other case study plaza managers did not describe any unofficial rules in their plazas. The manager of Knickerbocker Plaza reported that unofficial rules of the plaza are typically related to the senior citizens who use the plaza regularly. The manager said:

I think that seniors get priority at that space. I think that's an unofficial rule. I think some of the unofficial rules are likely to see whose seat is who's because of the regular routines that people get into it: "That's your spot. You better not sit at somebody's spot."

9.2 Maintenance in Pedestrian Plazas

As it was mentioned earlier in the Partnership and Design chapters, maintenance stands as the most important factor in the design of pedestrian plazas. NYC DOT gives the responsibility of plaza maintenance, including daily upkeep and repair to sponsor partners with a contract signed between the NYC DOT and sponsor partners. The maintenance capacity of a sponsor partner is also significant in the selection of pedestrian plaza applications during the competitive process. Therefore, pedestrian plazas are ensured in the application process for having sponsor partners who will be able to do the maintenance of their plazas.

Considering that organizations that have this capacity are most likely in comparatively more affluent neighborhoods of the city, the number of pedestrian plazas in these neighborhoods would be more than less affluent neighborhoods in the city. Because NYC DOT realized this equity issue a few years ago, it started to provide maintenance assistance to some plazas in different neighborhoods of the city. Funded by NYC DOT, these plazas get maintenance and horticultural services from the Hort's Neighborhood

Plaza Program. Based on NYC DOT's categorization of plazas, 14 high-need and medium-need plazas can get benefit from this service. Under contract to the Hort, ACE delivers daily maintenance services to 14 plazas in New York. By 2019, ACE employees have been providing daily maintenance services in 2 plazas in Manhattan, 2 plazas in Bronx, 5 plazas in Queens, and 5 plazas in Brooklyn. Among five case study sites, four of them receive daily maintenance services: Knickerbocker Plaza, Corona Plaza, Kensington Plaza, and Avenue C Plaza.

Daily maintenance of pedestrian plazas includes daily sweeping, emptying the trash cans, watering the plants, and daily maintenance of plaza furniture. NYC DOT secures these services that are given by the sponsor partner with an agreement that is typically signed before the completion of a permanent plaza construction. Starting from the temporary plaza phase, sponsor partners do daily maintenance by hiring a cleaning company or assigning employees from their organizations. From the case study sites, the Myrtle Avenue BID Queens that sponsor 71st Avenue Plaza contracts the daily maintenance services of the plaza to a private company called Street Plus. Other than the 71st Avenue Plaza, Street Plus is also in charge of the maintenance services of the 11-block BID district including sweeping, cleaning, and the emptying out of trash cans. During eight different observation sessions in the summer of 2018 and 2019, all tables and chairs in the plaza were clean and painted. All umbrellas were working properly, and no trash was on the ground or tables. In addition, in the user surveys that were conducted with 67 people in the plaza, the plaza was rated 4.9 for both cleanliness and maintenance which are the highest scores for these categories among case study sites in this research. Therefore, 71st Avenue Plaza is the most well-maintained plaza in the plazas studied.

Knickerbocker Plaza, Corona Plaza, Kensington Plaza, and Avenue C Plaza receive daily maintenance services from the employees of ACE. Daily services sometimes also include setting up tables and chairs and stacking them to lock in plazas if there is any. According to site observations and interviews with plaza managers who receive this service, Employees from ACE set up chairs and tables around 9 am and collect them between 4 pm and 6 pm in only weekdays (Figure 9.3). Sponsor partners use their own resources for the daily maintenance services in weekends.



Figure 9.3 An employee from ACE stacking chairs and tables to chain them in Avenue C Plaza.

In Knickerbocker Plaza, an employee from the sponsor partner set up tables and chairs in the morning while employees from ACE put them away in the late afternoon. ACE employees also sweep and empty trash cans during the weekdays in the plaza. The Knickerbocker Plaza manager indicated that before the Neighborhood Plaza Program took the responsibility of daily maintenance through ACE employees, one of the earliest issues regarding maintenance was to find a spot for a daily dumping of trash cans in the plaza. It

was solved when New York City Police Department 83rd Precinct stepped in and allowed the plaza management to use their dumping site in the first few years of the plaza. The Knickerbocker Plaza manager said:

We've now figured out where we put our trash for the plaza right over there, which has sort of its own view of the police precinct. But before, when we had to put our bag, our trash and put it on the curb, at Myrtle (Avenue). That brought other people see a bag of trash and then just dump trash they were really just like “oh great! now we can put trash.” So, that became an issue.

According to user surveys collected from Knickerbocker plaza, the average score of cleanliness is 4.4. During five out of eight observation sessions in the summers of 2018 and 2019, trash was observed on the ground of the plaza, especially on the west side of the plaza right under the elevated train tracks where mostly old people sit on chairs and concrete cubes.

In Corona Plaza, ACE employees are responsible for sweeping, cleaning, and disposal units as well as displaying and collecting chairs and umbrellas on the site in the mornings and afternoons. Based on my observations in 2018 and 2019, Corona Plaza was clean with well-maintained amenities and green areas. However, the permanent Corona Plaza was just recently built in 2018; therefore, the observation results may not reflect the real situation of maintenance and up-keep over time. Based on the survey results, people from Corona Plaza rated the cleanliness of plaza with an average of 4.

Like Knickerbocker Plaza and Corona Plaza, ACE employees are responsible for everyday cleaning of Kensington Plaza and Avenue C Plaza. During eight different on-site observations in four on weekdays and four on weekends in 2018 and 2019, I observed ACE employees maintaining Kensington Plaza on two weekday observation sessions that occurred between 12 pm and 1pm. The average score of cleanliness and maintenance of

Kensington Plaza is 4.1 and 4.2, respectively. Informal interviews with those who took the surveys also reveal that the plaza was much cleaner a few years back than now. The interviewees from the Kensington Stewards indicated that an ACE employee unlocks and sets up tables, chairs, and umbrellas around 9 am and put tables and chairs away to lock around 5 pm in weekdays. Before the Neighborhood Plaza Program provides daily maintenance services through ACE in Kensington Plaza, the Kensington Stewards had to maintain the plaza daily based on the maintenance requirements of the NYC DOT. In order to accommodate this situation, community members who formed the Kensington Stewards about one year after the construction of Kensington Plaza, established a volunteer scheduling for those who want to participate in the daily maintenance of Kensington Plaza during the first few years of the plaza. The interviewee from the Kensington Stewards said:

The agreement for Kensington Plaza was, because we had no organization behind us, we had to put in sweat equity. So, we committed ourselves to, each person committed themselves to cleaning one day a week, you know, like an hour each day. So, we had six people who were cleaning on a regular basis for two and a half years. And because we actually did it, we (the Kensington Stewards) earned the right to be considered (as a sponsor partner by NYC DOT).

In addition to the daily maintenance, the repairment of plaza materials and furniture in pedestrian plazas is also needed. The official from the NYC DOT indicated that the NYC DOT provides the repair service to the standard plaza furniture and materials. Those that are not under the category are the responsibility of sponsor partners. In all case study plaza sites, plaza materials and furniture are mostly standard elements. Based on the site observations of Knickerbocker plaza, few plaza items are needed to be repaired. Because of wear and tear, some concrete blocks and benches need maintenance. As the manager reported, the drinking fountain has been broken for more than a year. Some users

interviewed in the plaza mentioned that the plaza furniture was less maintained a few years ago than now. The Knickerbocker Plaza manager supported this statement by saying:

We put that art installation on there as a way to mitigate the existing conditions meaning that they [NYC DDC] installed those sitting blocks right there which were like...Some of the seniors said “I don't want to sit there” because of like mass traffic. But, the most difficult piece was that it's right under the elevated train, which I'm going to call it historic, a historic pigeon roost above there. So, for about the first year of us having the maintenance responsibilities of that plaza, those city blocks were, I have pictures, filthy because they were covered with the pigeon waste meant that seniors didn't want to hang out there. Occasionally, people with substance issues would hang out there because nobody would want to sit there. So, it was about another year of working with the MTA, because the MTA is the one who owns that structure, trying to figure out how to maneuver, navigate and coordinate all of that. They [MTA] were finally able to install pigeon guards.

The plaza materials and furniture are still in decent condition because it was completed in 2018. However, the number of umbrellas provided in the plaza decreased from eight in 2018 to two in 2019. The plaza manager from Corona Plaza reported the decreasing number of umbrellas in the plaza and provided a detailed explanation:

QEDC is the Entity that provides insurance for the space. So, about four or five years ago, there was an incident with an umbrella in the plaza. There was like a windy, stormy day or whatever; and allegedly an umbrella fell on somebody. So, there was a lawsuit involved. We actually got sued by the person who were injured by an umbrella. We never got to, you know, we never got to see to the person or know the details about it but that's what happened. So, it's always been an issue with umbrellas and things like that in terms of how we are going to utilize them, things and so on. But the main thing was that, during that time (temporary plaza), there were big and sturdy umbrellas.

According to the manager, when the permanent Corona Plaza was constructed in 2018, the design included lighter and more fragile umbrellas in the permanent plaza than there were in the temporary plaza. The manager said:

A few new umbrellas were here last year (2018). While these kids were playing on them, they broke, like they became dense. And, just because we're already used to the lawsuit and everything because of umbrellas, we don't want any harm and you know we don't want any fragile umbrella has been out here.

In addition to being cautious not to harm people due to any incident in the plaza, the cost of liability insurance for the plaza would rise by each lawsuit related to equipment of Corona Plaza. Considering that QEDC pays for the insurance expenses, the decision of QEDC can be seen as a natural consequence of this situation. Therefore, until the DOT changes or fixes new but broken umbrellas, Corona Plaza may remain with two or less of them.

All pedestrian plazas in New York City include green spaces such as tree pits, flowerpots, and planters. The Hort's Neighborhood Plaza Program collaborates with GreenTeam (another program of the Hort) for delivering horticultural services to many pedestrian plazas in the city. The Neighborhood Plaza Program and the GreenTeam work in pedestrian plazas in two ways. The first way is that under contract to NYC DOT, they provide horticultural services in 14 pedestrian plazas. The second way is that some other pedestrian plazas pay the Hort to receive horticultural services from the Neighborhood Plaza Program and the GreenTeam. All five case study plazas receive horticultural services from the Hort's programs. While Corona Plaza, Avenue C Plaza, Kensington Plaza, and Knickerbocker Plaza are among 14 pedestrian plaza sites that receive these services with the city funds, the sponsor partner of 71st Avenue Plaza pays to the Hort to receive horticultural services.

According to the interviewees from sponsor partner organizations, the availability of the Hort's programs for horticultural services started roughly in 2013. Since then, the Hort's programs have been helping sponsor partners in the maintenance and improvement of their green spaces. All plaza managers mentioned about their relationship with the employees of the Hort as "highly communicative." An interviewee from the Kensington

Stewards described some difficulties they had in the maintenance of green spaces before the Hort's programs by saying that:

One day, I remember, we went looking for plants to do planting to the Knickerbocker Plaza Plant Giveaway event because (tree) beds were empty in Kensington Plaza. So, we brought plants. I guess we paid from the treasury, from whatever we had. We planted to make these differences. That's our mission to make the neighborhood look beautiful.

CHAPTER 10

DISCUSSION

In this study, pedestrian plazas are viewed as a new type of public space from the partnership perspective. To present the distinguishing features of pedestrian plazas in New York City, other new types of public space typologies are used as a framework. Parklets, privately owned public spaces, and pedestrian malls can be posited as new types of urban public space because they are different from traditional public spaces regarding a combination of their creation, ownership, and management. Even though New York City's pedestrian plazas are different from other new types in many ways, all the new types share a commonality: providing additional public space in unexpected locations and ways.

The goal of city governments for creating or enabling the creation of pedestrian plazas, parklets, and privately owned public spaces (POPS) has been to provide additional public space for the city residents. The goal of creating pedestrian malls, on the other hand, has been boosting the economy. However, these also, like the others have functioned as an additional public space in unusual locations of cities.

Pedestrian plazas, parklets, and pedestrian malls have been created by allocating what was road space for pedestrian use while POPS have been created in indoor or outdoor locations of privately owned buildings. Unlike traditional public spaces such as parks and public plazas, the creation of new types has not required a specifically designated city land just for this purpose.

The city government typically creates and operates traditional parks using funds from local government resources. Public-private partnerships also can take part in the

improvement and maintenance of traditional parks as in the examples of Central Park and Bryant Park in New York City. Private entities in these examples played a prominent role in the restoration and subsequent maintenance promotion of these parks through their successful advocacy and robust funding resources (Blaha, 2017). City parks are also under the jurisdiction of New York City's park department that manages and maintains traditional public spaces. In sharp contrast, NYC's DOT has focused on transportation for decades, their attention to pedestrians emerged only a decade ago through the plaza program. Hence, the DOT contributes pedestrianization in New York City providing a more different function than traditional parks. Parks are larger and set themselves apart from the surrounding context while pedestrian plazas are part of the street network, and so, the transportation system.

10.1 Sharing Responsibilities: Partnership

Even though the city government and private entities has collaborated in different levels of the creation and management in all new types, the responsibilities of the partners in the creation and provision of operational services are different for pedestrian plazas than it is for other new types (Table 10.1). For example, the city government shares responsibilities for pedestrian plazas whereas the authority is almost completely given to the private partners in the creation and management of POPS and parklets. Typically, the private sector is responsible for the creation and management of POPS and parklets; the city government's role is limited to establishing standards and rules for the design and operations. However, in addition to setting standards and rules for the design and operations of pedestrian plazas, the city government also shares responsibilities with its

partners on equal terms. The city government designs and builds pedestrian plazas while the sponsor partner is responsible for the operational services.

Table 10.1 Organizations and Their Responsibilities in Different Stages of Plazas

	Application	Temporary Plaza Installation	Design	Construction	Management and Maintenance	Programming
NYC DOT	evaluates plaza applications on a 100-point scale.	installs temporary plazas with removeable materials.	N/A	N/A	funds the Hort for maintenance services in 14 plazas.	N/A
NYC DDC	N/A	N/A	designs and evaluates permanent plaza designs for approval.	contracts out permanent plaza constructions to a contractor.	N/A	N/A
Sponsor Partner	applies to the NYC Plaza Program to create a pedestrian plaza	N/A	N/A	N/A	manages and maintains the plaza in both temporary and permanent phases.	programs regular events and activities in the plaza.
The Hort-Neighborhood Plaza Program	N/A	N/A	N/A	N/A	conducts daily maintenance and horticultural services in 14 plazas in partnership with ACE.	N/A
Programming Partner	N/A	N/A	N/A	N/A	N/A	works with the sponsor partner to program events and activities in some plazas by providing financial and human resources.

Note: NYC DOT: New York City Department of Transportation, NYC DDC: New York City Department of Design and Construction, the Hort: The Horticultural Society of New York, ACE: The Association of Community Employment.

In the NYC Plaza Program, the NYC DOT and the sponsor partner commits the partnership once a plaza was built permanently. The main partnership is not only between NYC DOT and the sponsor partner, but other non-government and government organizations are also involved in this partnership as supporting partners. The NYC DDC

and the Horticultural Society of New York City are two integral supporting partners that participate in the design of most plazas and in their operational services. In each plaza, local agents such as police precincts, community councils, and elected official also contribute to the process.

Many parklet programs such as Pavements to Parks in San Francisco, Los Angeles' Parklet Program, and NYC Street Seats Program also operate with this kind of multi-organizational partnership model in the creation of parklets. The difference between parklets and pedestrian plazas arises from the permanency of the partnership. Parklets are temporary spaces that are eliminated whenever either the sponsor partner or the city decides. Therefore, parklet partnerships require less commitment from partners compared to partnerships in pedestrian plazas which require full commitment from all partners permanently.

City officials that are interviewed for this dissertation talked about inter-agency communication and its effect on the different stages of plaza creation. Officials from the NYC DDC referred to their collaboration with the NYC DOT as “hand-in-hand” and “easy to work with” during the design and construction stages of plazas. The NYC DDC was responsible for the design and construction of all case study sites. Interviews with sponsor partners for the case study sites showed that NYC DDC officials collaborated with sponsor partners throughout the process. Most interviewees agreed that NYC DDC officials communicated with them regarding their needs and problems related to the design and infrastructure during the entire process of design and construction. The Hort also has had effective communication with the case study sponsor partners in terms of operational

services and horticultural services through Neighborhood Plaza Program. The official from the NYC DOT described their partnership with the Hort:

we're able to utilize their (the Hort) great work to help deliver our great work to create public spaces.

All interviewees including city officials and sponsor partners reported that they are satisfied with their communication in the partnership during the design and construction of their plazas. Sponsor partners were asked about inspection of plazas by the city officials after they permanently built. All interviewees reported that they are not aware of any inspection by the city officials. A plaza manager interviewed for this dissertation said:

I've never been informed of any of that. The first day when they did the turnover of the site. We all did a walkthrough to create a punch list of items that were not in the plaza. The plaza wasn't in a 100% good condition and we've never gotten them to respond to those punches. So, that was the last time.

Another plaza manager said:

I can't speak on that because I don't know. They come here for like scheduled meetings that we do. But, I'm sure there's certain things that I'm not aware of like there are a couple of bike wrecks that were added here. I didn't know about that ever notice. Someone came in and pointed them out but had no idea they were doing you know bike wrecks and stuff like that so I'm sure they're here. But I cannot tell you how frequently they are.

The NYC DOT official indicated that they repair plaza furniture and other amenities by saying that:

You may be familiar with the Street Design Manual that kind of outlines what DOT standard materials are. They are very high quality and not kind of a downgrade in design but really an upgrade in terms of something that looks great and will be durable. But, the DOT as an agency can come in and repair and replace if something gets damaged, instead of cutting our corporate partners out to pay for a contractor to come in and replace broken parts. For example, if the sidewalk gets cracked for some reason then DOT crews can come in and replace that.

It can be understood from these interviews with both government officials and sponsor partners that there is miscommunication between sponsor partners and government

officials particularly after plazas are built. The DOT inspects plazas even though it is still uncertain how often this inspection occurs. They also do repairs and replacements of plaza amenities when they are aware the need. Therefore, if sponsor partners request a repair or replacement of a broken amenity, the DOT does it free of charge. However, many sponsor partners that I interviewed seemed they are unaware of this opportunity. Therefore, there is a need for better communication between sponsor partners and the DOT related to the maintenance needs of permanent plazas.

The participation of sponsor partners for pedestrian plazas and parklets is somewhat similar. Both types of partnerships include the involvement of city agencies and the private entities during different stages of the creation and management. Non-profit and for-profit organizations such as BIDs, community corporations, alliances, local businesses, and corporations can be partners in both parklets and pedestrian plazas. Studies have shown that the sponsor partners of parklets are overwhelmingly from local restaurants and cafes who usually increase their profit through the visitors in parklets probably due to the pressure or assumption that they need to buy something to stay in the parklet (Corey, 2014; Loukaitou-Sideris et al., 2013; Panganiban & Ocubillo, 2014; University City District, 2013). Like parklets, pedestrian plazas in New York City also have partners from for-profit and non-profit organizations who focus on economic development. Based on studies of parklets that document the economic benefits of parklets for their sponsor partners and the interest of local businesses in parklets (Corey, 2014; Loukaitou-Sideris et al., 2013; Panganiban & Ocubillo, 2014; University City District, 2013), this research presumed that a similar situation would exist in pedestrian plazas .

To gain an understanding of who the sponsor partners for plazas are, non-profit sponsor partners were classified into two categories: (1) organizations that focus on economic improvement and (2) organizations that focus on social and environmental improvement. From these categories, 34 sponsor partners are from the first category and they have the highest number of pedestrian plazas in the city with a total of 43 pedestrian plazas. On the other hand, 14 sponsor partners are from the second category managing 16 plazas in the NYC Plaza Program. Assuming that sponsor partners from the first category (organizations focusing on social and environmental improvement) create their plazas to improve social and environmental conditions in their neighborhood, this research posed the question: do sponsor partners from the first category (organizations that focus on economic improvement) create their plazas for economic improvement?

From case study sites, two plazas have partners who focus on economic improvements in their neighborhood: The Myrtle Avenue BID in 71st Avenue Plaza and Queens Economic Development Corporation in Corona Plaza. During interviews with the plaza managers, they were asked about their purpose in the creation of their plazas. The 71st Avenue Plaza manager said:

People love sitting in the plaza and having a place where they can quietly relax and shop on the avenue. It's nice to have little areas where you can take a rest and take or take a break. I mean, the program and this public space and all public spaces are, I think, vital to our neighborhoods and they really serve the community well because they're a gathering place for people to enjoy themselves. And that's what they're there for.

Similarly, the Corona Plaza manager thinks that the main purpose of Corona Plaza was to create a public space for the community for gathering, relaxing, and socializing. The manager said that the only time that they were concerned about the financial impact of the plaza was during the construction phase. The manager said:

One of the things that we're worried about was in the construction phase. We know whenever there's construction, it always impacts traffic flow like pedestrian flow and everything. They (the DOT) wouldn't want to harm the businesses which it did. We spoke to the Walgreens; we spoke to restaurants over here. The construction did slow down business because pretty much this (stores along the plaza) was blocked off. And once people get up to the train station, say they wanted to go to the pharmacy, they went to the Rite Aid instead of coming to the Walgreens. And then, because this was closed people would walk around. So, businesses here got a little hurt during the construction. But overall, I think a couple of the businesses have told us and Walgreens gave me information that they are at least stabilizing back to pre-construction numbers.

Even though their organizations are economic development oriented, interviews with two plaza managers from 71st Avenue Plaza and Corona Plaza illustrate that their goal was to create a public space where the community can enjoy themselves without any pressure to shop. This does not necessarily mean that they completely created their plazas without any expectation that the plazas would benefit local businesses. They see the value of the plaza for promoting economic activity particularly through programming. They do or plan to hold various events in their plazas to attract shoppers. The manager of Corona Plaza said:

It's programming events that actually draws extra people for the businesses. The plaza being here is definitely great. It makes the place look more inviting; it makes a better lit for safety; you feel more comfortable walking through here at night now than you did before the plaza. It's definitely improved for businesses.

Therefore, the partnership model in pedestrian plazas differs from other new types because it includes various organization types and numbers that are involved in the process and allows sharing plaza responsibilities more equally. Partnerships form the core of the NYC Plaza Program affecting on various aspects of pedestrian plazas including design, management, maintenance, and programming. The large number and variety of partner organizations that are involved in different stages of plaza creation and maintenance is a factor for thriving pedestrian plazas in New York. However, the findings in this research

indicate that there are some miscommunication issues between the DOT and sponsor partners. The study findings also show that regardless of their types, all sponsor partners of case study sites created their plazas so the community can enjoy themselves.

10.2 From Temporary to Permanent: Design and Maintenance

The most important feature of pedestrian plazas compared to other new types of public space is the experimental approach. In the NYC Plaza Program, three phases make up creation of plazas: one-day plazas, interim (or temporary) plazas, and permanent plazas. The creation of POPS and pedestrian malls typically includes a traditional decision-making and design process to build them permanently. Parklets, as the closest type to pedestrian plazas, also include a kind of an experimental phase but it is different from pedestrian plazas. Even though some parklets exist for several years, they are temporary public spaces and never turn into permanent. They can be removed in few hours when the removal is demanded by the city or the sponsor partner.

Interviews with city officials and sponsor partners indicate that temporary plazas are significant for three reasons. First, for the NYC DOT, the creation of temporary plazas allows them to collect data including pedestrian counts, pedestrian circulation, parking and vehicular traffic flow; and contextual data to determine appropriateness of a plaza in the proposed location. Second, the temporary plaza gives an opportunity to sponsor partners to see whether they have the operational and financial capacity to manage, maintain, and program their site. Finally, the temporary plaza gives an opportunity to the community to decide if they want a pedestrian plaza in their neighborhood.

To ensure the community support for the creation of a plaza in a neighborhood, the NYC DOT requires the approval of the community board associated with each plaza for

the construction of a permanent plaza. The official from NYC DOT emphasized the significance of community support:

Some communities are much more welcoming of these acts (the creation of a plaza). So, projects move along quickly. Some communities have a lot of concerns and challenges and so we stretch our process to meet the needs of the community. So, in some cases that's been as quick as a year. In other cases, it takes two plus years because we're continuing to have conversations provide additional data do additional studies to get the community to where they feel comfortable for the community board. So, we don't announce projects that don't have community board support. We put a lot of responsibility on our partners to help get that support. End of the day, when it is a little controversial, the DOT never would convince for the support. It's all community themselves or their neighbors that are making the compelling arguments for the space.

Involvement of the community in the decision-making process is uncommon for other new types of public spaces. In POPS and pedestrian malls, the decision for the creation of these public spaces is top-down, meaning that the decision is made by the city planners and applied by their partners. Even though parklet programs typically require the community support in the application of a proposed plaza, this usually refers to only the support of adjacent businesses or organizations to the proposed parklet.

In pedestrian plazas, the community is involved in the design process through a series of public workshops organized by the sponsor partner. Plaza managers were asked about public workshop results and their compromises from these results in the permanent design. Their responses varied depending on the extent of what the community asked for and what they got. Out of five case study sites, three pedestrian plazas were designed by city officials who responded to most of the community's requests during the public workshops. Other two sites were missing some or most items that the community requested in the public workshops. The reason that these plazas did not get what the community asked

for is that the community requested more than the city officials could provide such as a kiosk, a small pond, and a painted concrete.

All sponsor partners confirmed that sponsor partners had to select items for their plazas from the *Street Design Manual* of NYC DOT which includes standard types and styles for plaza furniture, ground cover, and lighting. This also explains why most plazas were equipped with only slightly different colored and styled furniture and materials that make them look somewhat similar. Therefore, the question poses: what is the function of public workshops if plaza designs are standard?

To explain the similar designs of pedestrian plazas, NYC DOT has the following explanation: to provide equity for all plazas in the city and to keep maintenance costs at low. Based on the interview with the DOT official, the NYC DOT values equity in the plaza program. The interviewee claimed that they want to provide equal opportunities for all neighborhoods in the city. The official from NYC DOT said:

In the beginning, our designs were quite fancy. They had distinct material. They offered permanent artwork. And, what we found over time is that the maintenance costs prohibit these types of treatments for communities. And really interestingly, we found that then two of the partners who were well-funded and had large budgets and a great deal of staff capacity in public space management, even some of those partners were having problems with artwork or water fountain or something like that. So, we take a kind of a big turn quite a few years ago to look at how we could still design very high-quality spaces but the materials down to meet beauty standards.

The resemblance of plazas serves for equity. In this way, pedestrian plazas with partners that have less funding resources can have similar pedestrian plazas to the ones with partners that have more funding. The NYC DOT official thinks that designing pedestrian plazas with standard materials promotes equity in all pedestrian plazas because repair and replacement of these materials can be done by the DOT without any cost and

they are easy to maintain. In addition to provide equity among all plazas, there is another incentive for designing plazas with low-cost maintenance materials. If a sponsor partner withdraws from sponsorship of its plaza, the NYC DOT needs to maintain it because all pedestrian plazas fall under the DOT's jurisdiction. Officials from the NYC' Department of Design and Construction department stated that the maintenance is the main driver in the design of pedestrian plazas. The DOT wants to use standard materials and furniture that demand less maintenance work. According to the officials, the use of standard materials and furniture that were listed by the DOT benefits sponsor partners who have an agreement with the city to maintain plazas and the DOT who will maintain the plaza if sponsor partners fail to do it.

Site observations indicate that all case study sites include seating and green areas. Seating is essential for most pedestrian plazas because it is a visual sign for pedestrians to distinguish the plaza from the sidewalk. Both moveable chairs and benches are in Knickerbocker Plaza and Corona Plaza whereas 71st Avenue Plaza and Avenue C Plaza have only moveable chairs. Considering that moveable chairs and tables are very typical in most pedestrian plazas in the city, Kensington Plaza is a rare example of pedestrian plazas created with only benches for seating. Site observations indicated that the number of seats was sufficient for users in all plazas because there were often empty chairs or benches.

Site observations show that plazas need better strategies for the protection from the sun. Even though each case study plaza had plenty of seating, lack of weather protection played a prominent role in the occupancy of the seating. In Knickerbocker Plaza and Kensington Plaza, benches are located where there is poor weather protection. Although

both plazas were designed without umbrellas, there are no tree that are tall enough yet to provide canopy except one medium sized tree in Kensington Plaza. As a result, benches were occupied by just a few people for a short period of time in these plazas. Compared to Knickerbocker Plaza, which is being partially under elevated train tracks, Kensington Plaza is exposed to the sunlight during most of the day. So, in Kensington Plaza, two boulders under a tree at the center of the plaza were most often occupied. On the other hand, benches at the edge of the plaza were less frequently occupied between 11 am and 6 pm. Benches in the direct sunlight were not favored because people did not want to sit in direct sunlight or sit on an aluminum material that grows hot in the sunlight.

Umbrellas, however, were insufficient to provide weather protection in some plazas. In 71st Avenue Plaza and Avenue C Plaza, there were number of umbrellas and moveable chairs which presumably create flexible usage for weather protection and other purposes. However, they were actually fixed by locking them to each other and also to the ground. Therefore, since they could not be moved by occupants, the chairs and umbrellas in 71st Avenue Plaza and Avenue C Plaza had very limited functionality. 71st Avenue Plaza is a well occupied plaza. Because it has concrete walls which were designed as small platforms for a secondary type seating near planted areas providing a tree canopy, many people were able to sit on these walls in a quite shady area when there were no chairs in the shade.

Avenue C Plaza is the most significant example of how a public space with quite several moveable chairs and umbrellas but without sufficient weather protection can fail to attract people. Avenue C Plaza also had umbrellas near tables and chairs locked together. Like 71st Avenue Plaza, moving either the chairs or umbrellas were almost impossible for

occupants to move. Because Avenue C Plaza is a traffic triangle in the middle of a roadway, there are no grown trees to provide canopy. As a result of poor weather protection, Avenue C Plaza was almost empty for daily use during all site observations. Considering that Avenue C Plaza was bustling during community events when extra canopy tents were provided, poor weather protection could be the only reason for the low daily occupancy rate of Avenue C Plaza.

Poor weather protection influences maintenance because it causes rapid aging of seating resulting in repair or replacement well before they normally would require if they could have stayed protected. This situation may invalidate the DOT's equity approach for the design of plazas. The DOT has the intention of 'designing for maintenance' meaning that design selections are based on convenience of the maintenance cost and service. Yet, rapidly aging materials due to poor weather protection could cost more than they expected.

Thus, pedestrian plazas in New York differs from all other new types with its three-phase experimental design strategy turning from the temporary to a completely permanent public space. In addition to this, the community is more involved in the decision-making of pedestrian plazas compared to other new types of public spaces. The community boards have a strong voice in the decision of the creation of a plaza. However, there are some issues in regard to reflecting community needs to the design of pedestrian plazas. Public workshops for permanent design of plazas are unfunctional for meeting the needs of the community because in order to provide equality in all pedestrian plazas, the city government uses only slightly different standard materials and furniture in all plazas substantially ignoring community requests in public workshops. Therefore, this situation creates some design flaws such as insufficient weather protection in many plazas.

10.3 Taking the Risk: Pedestrianization

Taking space away from cars to create a public space for pedestrians only was a risk for Transportation Department of New York City. As the most automobile-dependent country in the world, the traditional approach of city governments has been to prioritize cars over pedestrians. Transportation departments were the city agency that has ensured automobile-oriented streets. However, in 2009, with the decision of the NYC DOT to create Time Square Plaza, many people questioned how likely the closing the most well used street in the city for a couple of chairs and tables would benefit Times Square and the city (Goodyear, 2015). When the project was announced by the city government, pedestrian malls and the failure of most of those became a concern for this new project because pedestrian malls are also created through closing off the traffic for pedestrians (Davies, 2009; Garvin, 2009; Garvin & Garvin, 2002; O'Toole, 2009; Staley, 2009a, 2009b; Sullivan, 2009). So, the creation of pedestrian plazas through taking space away from cars was a risk for the city government when the failure of most pedestrian malls was considered.

However, pedestrian plazas have some distinctive features. First, most pedestrian malls were created as a solution for declining businesses whereas the incentive in the creation of pedestrian plazas in New York City is to create quality public spaces in a 10-minute walk of all New Yorkers. Therefore, pedestrianization is deliberate in the creation of pedestrian plazas while it remains as a tool in the creation of pedestrian malls for another greater purpose: revitalizing the economic activity.

Second, partnership models in pedestrian malls and pedestrian plazas are handled differently. Pedestrian plazas are created through a formal partnership between the city

government and local organizations with predetermined and established responsibilities and requirements for both parts. Pedestrian malls were created through planning and design process without a concrete strategy for ongoing management (Pojani, 2008). Therefore, the partnership model related to the management and maintenance of pedestrian malls was vague which was a reason for their decline (Robertson, 1990, 1993).

Although the management of pedestrian plazas is defined by NYC DOT as the responsibility of the sponsor partner in the beginning of the partnership with a formal agreement between the city and the sponsor partner, there are still some difficulties. These difficulties are related to the management described by the plaza managers and users in case study plazas. The issue described most frequently is the presence of drunk or homeless men in the plazas. In most cases, users interviewed in the case study plazas understood that the drunk men in their plazas were homeless channeling their disappointment to the issue of homeless people. However, interviews with the plaza managers and conversations with some of those drunk men themselves revealed that most have a home, they do not sleep in the plaza unless they fall asleep due to alcohol. Only Kensington Plaza has a homeless man who sleeps in the plaza every day.

Contrary to neighborhood residents, plaza managers for Kensington Plaza, Corona Plaza, and 71st Avenue Plaza were aware that the issue was more about drunk men who frequent their plazas almost every day than homeless people. Even though drinking alcohol is not allowed in plazas, the only thing plaza managers can do is to call the police. However, because there is no law related to being drunk in public space, the police also has limited enforcement power. Despite these issues, the safety was rated average 4 in a scale of 1 lowest and 5 highest score in user surveys. Especially in 71st Avenue Plaza which also

faces drunk men issue, users rated safety at 4.4. Even though there are some difficulties related to the management in these pedestrian plazas, the plazas are still seen as a safe place by its users.

Although the creation of both pedestrian malls and plazas through closing off streets looks like a common feature in both type, strategies in closing off streets affect their sizes which are quite different in two types. Pedestrian malls were often planned closing off the traffic for one or more blocks forming a super block that typically has long walking distances from one end to another. This situation led to flaws in the design such as navigating between shops and blank walls causing safety issues for pedestrians. Therefore, pedestrian malls were created for pedestrians but they were excluded from the street network making them unattractive for walking (Robertson, 1993).

Pedestrian plazas have four main configurations that lead to different types of street closures according to the *Global Street Design Guide* (2016). Form 73 plazas in New York, only 15 plazas were created through closing off streets for one block. Their sizes are not as large as most pedestrian malls. The reason is that they are typically located on small streets and closure of only one block which ideally eliminate those risks that arose in pedestrian malls due to their sizes. Other configurations in pedestrian plazas are completely different what it was used in the street closures of pedestrian malls. These configurations include redesigning intersections, reclaiming underused street areas, and extending sidewalks. All three configurations are formed through partial closure of the traffic. Partial closure of the traffic with these configurations has been applied for more than half of all pedestrian plazas in New York city. Even though their sizes vary as small as 2,000 sf to the largest 75,000 sf

which was created a combination of multiple configurations, most of them are smaller than 15,000 sf.

The creation of pedestrian plazas through taking space away from cars was a risk for the city government because cars were traditionally the owner of streets for so long. In addition to this, the case of pedestrian malls that failed in many locations of the country was a discouragement for the creation of pedestrian plazas. However, pedestrian plazas have been growing and thriving in New York because the NYC DOT used simple and effective strategies including design strategies that include experimental phases in comparatively smaller sites and partnership strategies that ensure the management and maintenance of pedestrian plazas.

10.4 Sitting in the Street: Uses and Users

Most pedestrian plazas were created through partial closures that maintain continuity of the street enabling pedestrian plazas still being a part of the street network with their proximity to vehicular traffic and transportation modes. Being a part of the street network minimizes the risk of being underused by people. Because they are located on the daily route of thousands of people every day, they are eventually used by many people. William Whyte says in his seminal work, *The Social Life of Small Urban Spaces*: “people tend to sit most where there are places to sit” (110) (Whyte, 1980). This is a straightforward and yet a relevant statement for pedestrian plazas as well. Many pedestrian plazas are in places where typically there was no stationary activity associated before the plaza because normally people do not expect to sit and spend hours in the middle of a roadway or a busy intersection. However, when there is seating; it designates the space for sitting. People internalize the new norm and occupy the space with stationary activities. Site observations

in five case study plazas demonstrate that pedestrian plazas are lively public spaces with the most occurred activities associated with sitting: chatting, people watching, and eating/drinking.

Case study plazas are occupied by the neighborhood people both for every day uses and programmed events. User surveys indicate that most people who use plazas are living in a ten-minute walk from the case study plazas. As another indicator of plazas attracting locals, user backgrounds regarding race and ethnicity were parallel to neighborhood characteristics for each plaza. Studied plazas were also heavily occupied by older age groups (40 years old and older). Most of them reported that they like to sit in the plaza with their friends and family. All case study plazas were mostly occupied by males. This result can be correlated with the safety in the plazas. Case study plazas that were rated with the lowest average scores in safety were also the ones that had lowest percentage of female users.

People use plazas purposefully. All case study plazas serve for some needs of the community in one way or another. Knickerbocker Plaza, Corona Plaza, and 71st Avenue Plaza were often described by their users and managers as “a casual gathering space for people in the neighborhood.” Knickerbocker Plaza is called as ‘old folk’s park’ by locals because it is regularly occupied by older residents as a gathering space. 71st Avenue Plaza and Corona Plaza are also used by their regulars. A user in 71st Avenue Plaza said:

Every weekend, I go shopping but before that I come here to meet with my friends. We used to go to the park down the street before they built here. But here is better now because it’s on my way to shopping. And so, I don’t need to walk there (to the park).

Corona Plaza manager said:

You know a lot of times when people meet someone in the nearby area. It's like "where should we meet? Corona Plaza" like people know exactly where it is. It is a gathering place for civic purposes and also for cultural celebrations.

Programming activities and events in plazas is integral in some communities who have less resources in accessing them. Avenue C Plaza and Corona Plaza were two plazas that had the highest number of events throughout this research. Surprisingly enough, their sponsor partners were also the ones who had fewer financial resources to do it. Sponsor partners in both pedestrian plazas were aware the needs of their community for programming activities and events. So, they responded this need with forming partnerships with other organizations or institutions because they have limited funding resources in programming events.

Queens Museum started to use Corona Plaza for events and festivals long before the plaza was built. The museum has continued as the programming partner of Corona Plaza starting with temporary till today. They have been funding and organizing monthly events every year during the summer months. Their events are typically themed with celebration of different cultures in the neighborhood. In Avenue C Plaza, the Kensington Stewards has established partnerships with city's several non-profit organizations to schedule a variety of events and festivals. All organizations in the programming in Avenue C Plaza work collectively for funding and organizing events because they believe that the community has very limited resources in accessing these events in the neighborhood. An event organizer from one of the partnering organizations said:

I remember one year we were doing a workshop and it was raining so hard and a girl who was maybe eight or nine years old came on her scooter in the rain because she was looking forward to doing a workshop that we got. And a bunch of other kids came in, the rain soaking wet. They didn't care. They were just like hungry to do more. And I think it was a really good example of one why arts and culture as needed through why public space is so important. There is a lack of activity for our

children in the neighborhood. There is a lack of accessibility whether it's cost barriers or just lack of information. The amount of people who come every year who looks forward to it are so helpful. Every time we come to set up and take care of things are a real symbol of I think community is gathering and why that's so important, but also a representation of just how important it is to have a public space accessible for people.

Because sponsor partners of Avenue C Plaza and Corona Plaza planned most of their events in consideration of the needs of locals in their plaza neighborhood, these events attract neighborhood people. Both sponsor partners of Avenue C Plaza and Corona Plaza reported that they have not recognized any group or groups in the community feeling excluded from programmed events. However, interviews with Arts and Democracy and ArtBuilt Studio organizers in Avenue C Plaza indicated that even though the community has been showing a great interest for programmed activities for a last few years, there were some hold backs from the community in the beginning years of their events.

It may well be that the creation of pedestrian plazas increases the gentrification of New York neighborhoods, particularly in the early stages of such a change. As advocated by Project for Public Space, in order to prevent the risk of encouraging gentrification that comes with placemaking in such neighborhoods, new public spaces need to be created with the participation of neighborhood residents to provide public spaces that meet their needs (Kahne, 2015). That is the process used in the creation of pedestrian plazas studied in this research.

The use of the case study plazas by neighborhood people can be correlated to the ongoing gentrification issue in the city and the contribution of pedestrian plazas to this issue. Besides many other factors -including the housing market, public schools, transportation modes, and location of the neighborhood in the city-, new public spaces creates a potential for gentrification, particularly in early-stage gentrification. Pedestrian

plazas as public spaces that are created in busy intersections and streets that are mostly in low- or moderate-income neighborhoods can easily be also counted among these factors. As it is advocated in Project for Public Space, in order to prevent the potential risk that comes with the placemaking in such neighborhoods, the creation of new public spaces needs to be created with the neighborhood people based on their needs to provide them places to sit and talk (Kahne, 2015). Since the case study plazas studied are used mostly by neighborhood residents to meet and socialize through daily use and programmed events, their potential to contribute to gentrification is minimal in these neighborhoods.

CHAPTER 11

IMPLICATIONS

The findings from this research demonstrate that even the case study plazas are often relatively small spaces (ranging from 3,000 square feet to 31,000 square feet) with few design amenities and located in just next to right of ways; they are well used and, in this way, successful. The study findings point out two possible main factors that contribute to high occupancy of pedestrian plazas: their connection to the street network and fewer choices for public space in their neighborhoods.

For some people, pedestrian plazas are brief resting places between two destinations. Almost one third of people who were surveyed in the case study plazas reported that they use the plaza as a place to rest while going from one destination to another. The majority of these people visit the plazas on the way to and from home, shopping, or public transit because these plazas are located on or near sidewalks. Therefore, pedestrian plazas, as parts of the street network, are convenient for people who spend time on the street for various reasons and seek a place for brief resting.

Most of these respondents reported that they live in a ten-minute walk from the plaza. Most of them visit the case study plazas more than once a week; almost one third of the users in these plazas reported that they stay more than two hours. The main reason for most of these people choosing the pedestrian plazas is a lack of quality open public space close to their homes. All case study plazas are in neighborhoods that have a very limited number of open public spaces within a ten-minute walk of the plaza. Therefore, the plazas fulfill a significant role in neighborhoods that lack sufficient public space for recreation.

The findings demonstrate that design and management have much more of an impact on the number and diversity of activities than the number of occupants in the case study plazas because these plazas attract people naturally due to their location of being a part of the street and being in neighborhoods with limited alternatives for quality public space. However, certain design and management strategies employed in some case study plazas fail to enhance the number and diversity of activities. The findings in this study also suggest that partnerships between the City and community organizations in the New York City Plaza Program play a prominent role in shaping the design, maintenance, and management strategies, which affect the quality of pedestrian plazas in terms of their use.

Based on the findings from this study, it is possible to make recommendations for the design, maintenance, and management strategies of future plazas and to address these recommendations to NYC DOT and sponsoring partners. Even though current partnerships are effective in the creation and successful use of many pedestrian plazas, the functions of partnering organizations can be improved and the number of partnerships can be increased to better serve New Yorkers. In addition to recommendations for future plazas, this chapter also presents what future research would need to be conducted to further investigate pedestrian plazas considering some other plaza aspects that were underrepresented in this study.

11.1 Future Design

The findings from this study demonstrate that the case study plazas have some limitations in shade amenities and the quantity and quality of seating. The main reason for these limitations relies on the design strategy that is employed by the NYC DOT to reduce maintenance costs of pedestrian plazas. Based on this strategy, all five case study plazas

are equipped with NYC DOT's standard umbrellas, seating, and other amenities that present similarities to each other. The use of standard design features for all plazas is valid since the plazas sponsored by organizations with ample financial resources would be more attractive than plazas whose sponsor partners did not possess such resources. This is the equity goal set by the NYC DOT. Even though the equity goal is well-intended, it disqualifies the site-specific needs of communities and produces limitations in the design due to use of standard design features for all plazas that are located in different physical and social contexts.

According to the survey results, users rated weather protection in pedestrian plazas with the lowest average score (3.1) compared to the other plaza satisfaction categories (maintenance, cleanliness, and safety). The findings from site observations also demonstrate all plazas' lack of sufficiently shady areas and comfortable seating. For example, in order to seek protection from the sun, most people in Knickerbocker Plaza are cramped under the elevated train tracks, sitting on a few moveable chairs and concrete cubes that are unlikely to provide a comfortable sitting experience for long hours. While the area under the elevated train tracks is crowded with many people, benches on the other side of the plaza are almost completely unoccupied because these are unprotected from the sun all day long.

Similarly, in Corona Plaza and Kensington Plaza, people accumulate, sitting on benches, boulders, or moveable chairs in shady areas that are provided by some grown trees or surrounding buildings. The quantity and quality of seating in pedestrian plazas are important in pedestrian plazas because seating influences the number and diversity of activities, as well as occupants. In 71st Avenue Plaza and Corona Plaza, where the number

of moveable chairs and tables are the greatest number, the activities are more diverse compared to Knickerbocker Plaza, with benches, concrete cubes, and fewer chairs and in Kensington Plaza, with only benches. Therefore, the New York City's Transportation Department and Design and Construction Department need to provide quality seating and shade amenities to increase the level of comfort in future pedestrian plazas based on the physical context of each plaza.

The use of standard design features in pedestrian plazas may not be so important in those neighborhoods that have plentiful public space choices. However, pedestrian plazas located in under-resourced communities need to do more than just meet the basic functions. Providing comfort and increasing usability in pedestrian plazas in these communities is significant because pedestrian plazas fulfill an important role for these communities to access public space. Therefore, these plazas need to be designed with site-specific design features to meet community expectations and to offer user comfort. In creating pedestrian plazas for neighborhoods with limited public spaces, the city officials need to pay particular attention to physical context (e.g., identifying the angle of the sun in different times of a day for shade amenities and seating) and social context (e.g., identifying potential users and needs through the results of public workshops) and consider these in designing the plazas, without considering potential maintenance costs in these plazas.

11.2 Future Maintenance

For the NYC DOT, partnering with non-profit organizations to ensure the maintenance of plazas is always challenging. Interviews with city officials and plaza managers revealed that most sponsor partners who have plazas in under-resourced communities face financial or technical difficulties in maintaining their plazas. These sponsor partners are non-profit

organizations that mainly focus on economic and/or social improvements in their neighborhoods. These organizations typically have no or little experience in operating an open public space and the majority of these also have limited financial capacity to do it. This new responsibility eventually creates financial and technical difficulties for the maintenance of pedestrian plazas. Reducing the financial and technical difficulties sponsor partners face for the maintenance is significant because these issues have impacts on the design of pedestrian plazas.

To address these difficulties in some of these plazas, the NYC DOT provides funding through OneNYC for the maintenance of 14 pedestrian plazas that they have designated as high-need plazas under their Plaza Equity Program. Except for 71st Avenue Plaza, all case study plazas in this research are among those 14 plazas that are funded by the NYC DOT to receive daily maintenance and horticultural services from the Hort. Many sponsor partners of these plazas reported hardships in maintaining their plazas during the first few years before the maintenance of their plazas was funded by the NYC DOT. This means that before funding maintenance services through the Hort, the NYC DOT waits to fund maintenance services until sponsor partners are completely incapable of maintaining their plazas. In the first few years of pedestrian plazas, which are still in the ‘temporary phase’ during that time, the permanent design of these plazas is done considering the maintenance capacity of the sponsor partners without knowing whether maintenance services will be funded by the NYC DOT. To design plazas in view of their usability and comfort, the NYC DOT needs to assume formal responsibility of maintenance services for all new pedestrian plazas in under-resourced communities at the beginning of the plaza process. As the result, maintenance of these plazas would be ensured and therefore, they

would be designed with the consideration of physical and social contexts of pedestrian plazas with a focus on human comfort. This strategy also has the potential to contribute to creating a greater number of pedestrian plazas in under-resourced communities. Without the financial burden of maintenance, local organizations in these neighborhoods would be more encouraged to sponsor for a pedestrian plaza.

11.3 Future Management Strategies

The findings from this study reveal three main issues related to the management strategies in the five case study sites: (1) management strategies that diminish the function of design features (2) management strategies that fail to contend with lingering issues of drunk individuals (3) management strategies that fail to facilitate programmed activities.

Except for Kensington Plaza, all the case study plazas have moveable chairs and tables. These are protected from being stolen through management strategies that vary with the type of moveable chairs and tables provided. The first strategy is to pile up and chain the chairs and tables that are light and foldable. This strategy is used for moveable chairs and tables in Corona Plaza, Knickerbocker Plaza, and Avenue C Plaza. This strategy provides more flexibility for moving chairs and tables in the plaza during the day. However, the drawback of this strategy is that people cannot use chairs and tables after they are stored, around 5pm. The second strategy is to fix chairs and tables that are firm and heavy by chaining them to each other, so that they serve in the plazas for 24 hours. Among case study plazas, the managers of 71st Avenue Plaza and Avenue C Plaza use this strategy. Even though this strategy does not limit the use of the chairs and tables to certain

times of the day, it eliminates the flexibility of moveable chairs and tables. People cannot move them in the plazas.

Both management strategies to protect moveable tables and chairs place their own limitations on the use of pedestrian plazas. These limitations have a greater impact on the use of pedestrian plazas, such as 71st Avenue Plaza and Avenue C Plaza, which provide only moveable chairs for sitting. In 71st Avenue Plaza, moveable chairs, tables, and even umbrellas are chained to each other and fixed to the ground, forcing most plaza users to sit in direct sunlight. As a result of this strategy, most people use the plaza only for short term activities even though the plaza has comfortable chairs that could allow for long-term visits. While all other pedestrian plazas have areas that are partially shaded by adjacent buildings or trees during certain hours of a day, Avenue C Plaza relies completely on beach umbrellas that are insufficient for preventing exposure to extreme heat in the plaza. As a result, Avenue C Plaza has a very low occupancy during warm months. But Avenue C Plaza has a great potential for evening use because the plaza cools down in the evening hours. However, the removal of chairs and tables to chain them after 5pm prevents the use of this plaza during the evening time and eliminates this potential.

These management strategies are adopted to protect moveable chairs and tables from being stolen. The agreement between the NYC DOT and sponsor partners includes responsibility of sponsor partners for protecting plaza furniture. The NYC DDC officials interviewed for this dissertation reported several instances of stolen chairs and tables from pedestrian plazas. Accordingly, taking actions to protect the plaza furniture is necessary for sponsor partners.

In 71st Avenue Plaza, Corona Plaza, and Kensington Plaza, the study findings reveal that drunken men create concerns for plaza managers and some plaza users. While the plaza managers reported that they have no particular management strategy regarding these people, they take some actions to reach out to these people such as organizing meetings with the community members and the police precinct and working with homeless organizations or locals who have a key role in the community. As a common practice, most plaza managers call the precinct when they receive a complaint about the drunken men in the plaza. Because public drinking is not a crime according to state law, police officers cannot conduct any legal actions against these people. So, management strategies that are available to keep drunk individuals away from plazas do not work entirely.

In her seminal book *The Death and Life of Great American Cities (1961)*, Jane Jacobs' 'eyes on the street' theory points out the significant role of the community members play in creating a vibrant street life in maintaining neighborhood safety. Jacobs emphasizes the point that if neighborhood people participate in street life, they will be natural owners of the street. Considering that all the case study plazas are used by the neighborhood people, sponsor partners can establish and encourage the community's engagement in their plazas.

The adverse effects of failing management strategies to protect plaza furniture and to keep drunken men away can be mitigated by an active participation of the neighborhood residents in the management of pedestrian plazas. Sponsor partners can promote their plazas for active participation of the community members in the management through weekly or monthly meetings to discuss ongoing issues and actions that need to be taken. When community members are assured that their opinion matters in the management of

the plazas, sponsor partners can seek their voluntary work to conduct some operations. This may include storing chairs and tables later than current times to enable people to use them for longer periods of time, especially when the weather gets cooler in the evening. In addition to this, sponsor partners can organize community events for cleaning trash from the plaza, and the maintenance of planting beds. These kinds of small tasks increase engagement of the community with the public space since it creates a sense of ownership as Jacobs emphasized in the 'eyes on the street' theory.

Programming activities in public spaces also offer a way of increasing community engagement because they provide an inclusive environment for all members of the community (Carr et al., 1992). However, among the five case study plazas, only Avenue C Plaza and Corona Plaza host regular events. Each event in these plazas typically targets one demographic group in the community to provide some sort of attachment between the targeted group and the plaza. Interviewees from Avenue C Plaza's sponsor partner and programming partner organizations reported that they program most activities and events to focus on people from various cultures that represent their community. In Corona Plaza, the Queens Museum and the sponsor partner (QEDC) conduct monthly festivals. Each festival emphasizes on a specific culture in the community. The manager of Corona Plaza believes that these kinds of festivals and events increase community pride and make Corona Plaza an invaluable space for the community. What makes Avenue C Plaza and Corona Plaza successful programming spaces is that their collaboration with other non-profit organizations or institutions that have the necessary funding and knowledge to conduct this programming.

The study findings show that sponsor partners who collaborate with other non-profit organizations or institutions organize many more programmed events and activities in their plazas than sponsor partners who conduct programming without a partner. This results in a greater number of programmed events and activities occurring in these plazas compared to the other case study sites. Among the five case study sites, only the sponsor partners of Avenue C Plaza and Corona Plaza collaborate with other organizations. The 71st Avenue Plaza management conducts a programming strategy that includes funding a few irregular events such as street music and dance every summer; the Knickerbocker Plaza management does not program any events or activities in the plaza at all. While the Kensington Stewards (the sponsor partner of both Kensington Plaza and Avenue C Plaza) program many events and activities in Avenue C Plaza every year, Kensington Plaza is programmed with only a few events. The management conducts this strategy between the two plazas because of the smaller size and high pedestrian volume of Kensington Plaza.

The Kensington Stewards collaborates with several art and cultural organizations. Their collaboration has turned Avenue C Plaza into a popular space in the neighborhood for programmed events and activities. The sponsor partner of Corona Plaza, which is an economic development corporation with no experience conducting cultural events and art activities, partners with the Queens Museum for programmed activities and events in the plaza. Both sponsor partners of Avenue C Plaza and Corona Plaza interviewed for this dissertation indicated that if they did not have programming partners, they would be programming fewer events and activities due to their lack of financial and technical capabilities.

Findings regarding Avenue C Plaza and Corona Plaza demonstrate that partnering with other non-profit organizations can provide the needed financial and technical resources for sponsor partners to program activities and events in their plazas. These non-profit organizations such as Art and Democracy and ArtBuilt Studio (programming partners of Avenue C Plaza) often have funds to spend on art and culture events as well as knowledge for how to operate those events. The NYC DOT currently supports these kinds of partnerships between sponsor partners and other non-profit organizations for programming in pedestrian plazas. But only supporting is not enough. The NYC DOT should promote plaza programming, allocate its own funds for more programming in pedestrian plazas, and do more to facilitate the collaborations between sponsor partners and non-profit organizations that have financial and technical resources. To further support these collaborations, the New York City Department of Cultural Affairs needs to be involved more actively than they are currently.

11.4 Recommendations for Future Research

This study displays the significance of systematic empirical research about pedestrian plazas because it provided a detailed documentation of how pedestrian plazas are used during the summer season; by whom; what design and management strategies are employed; and how the partnership between the City and community organizations impacts these strategies and the subsequent use of pedestrian plazas. The data related to these aspects was collected through systematic observations of case study sites, surveys and interviews with plaza users, interviews with city officials, sponsor partners, and other organizations' employees who involve in the process as supporting partners. Conducting

these data collection strategies provided multiple perspectives for the conclusions reached in this study (e.g., the perspectives of the City, sponsor partners, supporting partners, and plaza users). Without the contribution of each data collection strategy, the study findings may misrepresent certain parts which eventually lead one to overlook important details of the phenomenon. Therefore, these data collection strategies are recommended to be employed for similar studies that are conducted in pedestrian plazas.

As the findings demonstrate, pedestrian plazas are well occupied during summer season. However, this leaves several questions unanswered: what about the use of pedestrian plazas for remaining months of the year? What are the differences in use and users between warm and cold weather? How do sponsor partners manage and maintain their plazas during the winter season? How do they protect or store plaza furniture? If there is any programming, what kind of events do occur in these plazas in different seasons?

Findings from this study demonstrate that the results of public workshops had little or no impact on the final design of case study plazas. According to the city officials, there are some limitations in the process, but they design plazas in the best possible way so that sponsor partners can maintain their plazas. Many sponsor partners interviewed for this dissertation agreed that even though they did not receive design features that they requested; they are happy with the design of their plazas. How about the views of community members who attended public workshops? Are they as happy as sponsor partners with the final design? How do they evaluate the overall collaboration and participation process?

This research covers the views of city officials, sponsor partners, supporting partners, and plaza users regarding various aspects of pedestrian plazas. How about the

views and experiences of surrounding shop owners or employees who interact with the plaza users every day? How did they contribute to the creation and maintenance of the pedestrian plaza? Did the construction period adversely impact their business? If yes, what were their strategies to reverse it? How do they evaluate pre- and post-plaza in terms of environmental quality and use? How did the plaza affect their businesses?

For this study, to measure the density of pedestrian circulation from the MTA exits, only pedestrians from these exits were counted in two plazas that have the MTA exits. Considering that pedestrian plazas are parts of street network; thousands of people pass through plazas every day. It would be interesting to explore impacts of pedestrian circulation on pedestrian plazas. How does the pedestrian circulation affect the design of pedestrian plazas? How does the people walking through affect use of pedestrian plazas? Where are the most used pedestrian circulation pathways in plazas? Does the density of pedestrian circulation impact on maintenance costs in pedestrian plazas? How does programming occur in pedestrian plazas that have a dense pedestrian circulation?

This study focused exclusively on the social impacts of pedestrian plazas as it arises from various features of the plazas, including their design, management, and maintenance. However, as a part of the green infrastructure of the city, it is also important to measure the environmental impacts of pedestrian plazas. How do pedestrian plazas affect air quality at the micro and macro level? How do pedestrian plazas affect the natural habitat at the micro and macro level? How effective are pedestrian plazas for improving air quality and natural habitat?

Neighborhoods plazas that are designated as high- or medium-need plazas by NYC DOT were specifically selected to understand the impacts of the partnership, design,

maintenance, and management of the NYC Plaza Program in these plazas. Central city plazas that were designated typically under the low-need category by NYC DOT were excluded from this study because sponsor partners who have enough financial resources to operate their plazas would possibly have different challenges than the others. However, the future research is warranted to investigate central city plazas and compare how central city plazas and neighborhood plazas are different or similar in terms of design, management, maintenance, and use.

APPENDIX A
71ST AVENUE PLAZA

71st Avenue Plaza is located at the intersection of Myrtle Avenue and 71st Avenue in Ridgewood neighborhood of Queens. Ridgewood is adjacent to Bushwick, Brooklyn. Myrtle Avenue has been used as the main corridor for developing transportation methods starting with horse-drawn cars to trolleys, elevated trains, and motorized vehicles (Donald, 2014). Historically, Bushwick was a British settlement that contained farms owned by both British and Dutch families in the 19th century (Donald, 2014). The neighborhood hosted several European immigrant communities (particularly from Germany) in the late 19th century. Starting from the late 20th century, the Hispanic population has been increasing in the neighborhood. Based on the data from the 2010 United States Census, the Hispanic population was almost half of the population in Ridgewood (U.S. Census Bureau, 2011). In 2010, the total population of the neighborhood was 69,317, revealing that White (about 40%) and Asian (7.7 %) people were the other largest groups in the community. Ridgewood is designated in the Queens Community District 5. The entirety of community Board 5 also contains Maspeth, Middle Village, and Glendale having a total of 169,200 based on 2010 Census data.

In 2014, the Landmarks Preservation Commission designated ten national historic districts in Ridgewood. 71st Avenue Plaza is located on the South-west corner (at the South end of 71st Avenue) of the Central Ridgewood Historic District. In Figure A.1, the land use map of Queens Community District 5 shows that residential uses cover slightly more than 40% of the district including 1 and 2 family housing and multifamily walk-ups. Some of

these units were built during the first two decades of the 20th century consisting of two- and three-story brick houses and tenements (Donald, 2014).

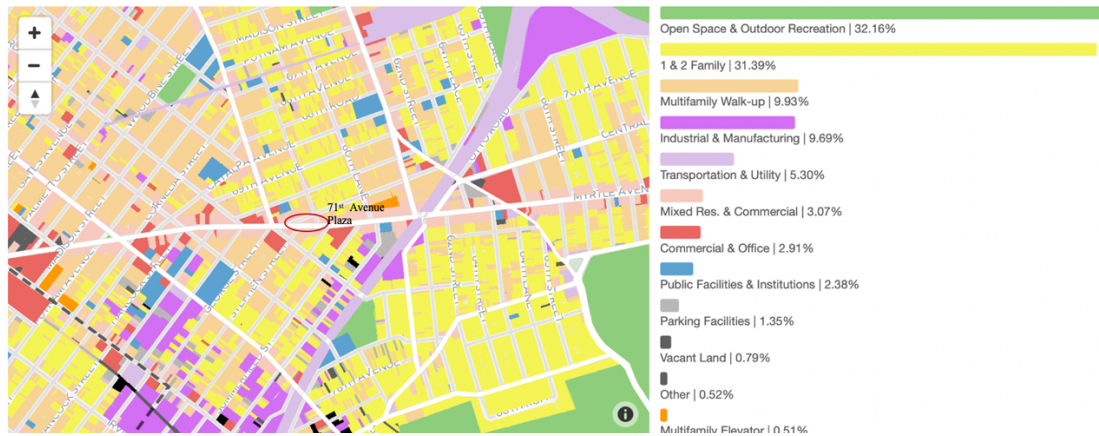


Figure A.1 Land use map of 71st Avenue Plaza and the neighborhood

Source: (New York City Planning Department, 2019a).

Open spaces and outdoor recreation areas cover up 32.16% of Queens Community District 5. Even though this coverage is comparatively high for New York City, most of these areas are used as cemeteries and therefore cannot be used for recreational activities. Three different open public spaces are used for recreational activities in a ten-minute walk from the plaza. These are Rosemary’s Playground, Evergreen Park, and Benninger Playground (Figure A.2). Rosemary’s Playground was built in 1962 as part of Ridgewood Intermediate School. In 1997. The park was renovated with new play equipment (e.g., benches, game tables, a baseball diamond, and a basketball court) (New York City Department of Parks & Recreation). Evergreen Park has been named after the nearby Cemetery of the Evergreens, which was founded in 1849 (New York City Department of Parks & Recreation). Located in a five-minute walk to the 71st Avenue Plaza, Evergreen park contains basketball and handball courts, a playground, benches, picnic tables, and bathrooms. The Benninger playground was built in 1937 and featured a handball court, play equipment, and basketball/volleyball court that could be converted as a wading pool

in the summer. The park went under renovation in the early 1990s and was completed in 1995 with a new handball and basketball courts, play equipment, surfacing, drinking fountains, fencing, and benches (New York City Department of Parks & Recreation).

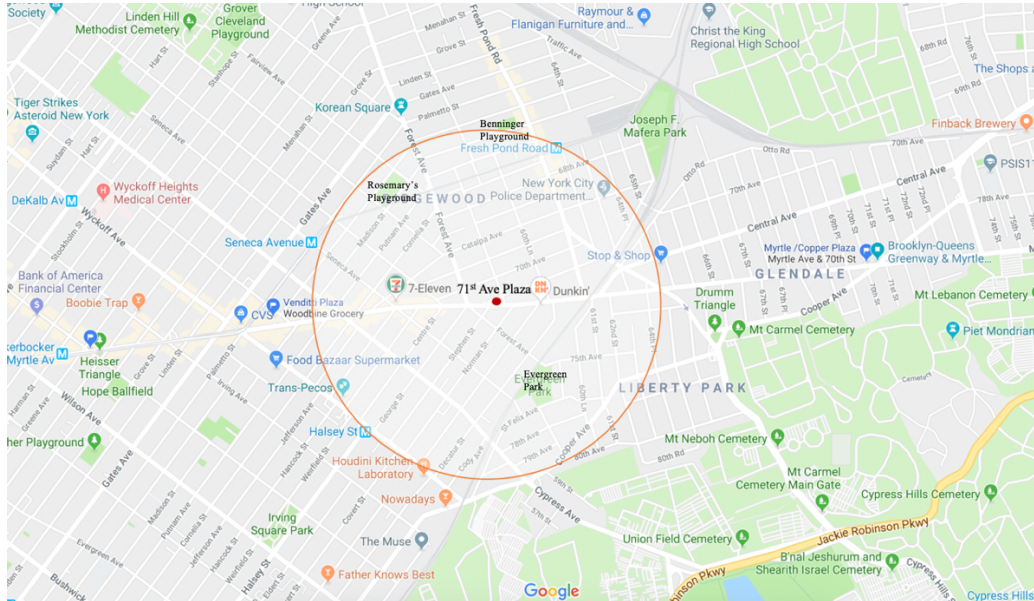


Figure A.2 Radius of ten-minute walking distance from 71st Avenue Plaza
Source: Google Maps.

A.1 The Site

The Plaza is located at the intersection of Myrtle Avenue and 71st Avenue in Queens. It covers a 6800 square-foot area. Before the plaza was constructed, there was a traffic island allowing two outlets from 71st Avenue to Myrtle Avenue. 71st Avenue Plaza was built by the closure of one of these outlets because it was created by using residual space between the sidewalk and the traffic island (Figure A.3). Even though the plaza has caused the elimination of six metered-parking spots along 71st Avenue, new parking spots were added on the Myrtle Avenue side of the plaza. The block that the 71st Avenue Plaza is located on is designated for mixed residential and commercial uses. The three-story building on the

block is used for multi-family residential, office uses, and shops selling a variety of goods such as food, drink, outfits, and personal care service and products.

Figure A.3 shows that neighboring blocks and the block that the 71st Avenue Plaza is located on are designated for mixed-use of residential and commercial activities by the city. Based on the data from New York City Planning Department, zoning near 71st Avenue Plaza is designated as predominantly residential areas whereas the commercial district starts at the west side of the plaza and goes along ten blocks on the Myrtle Avenue (New York City Planning Department, 2019a). The commercial district is identified as Community Board 4 by the planning department, meaning that commercial activities in this area are limited with specialty and department stores, theaters, and other commercial and office use (New York City Planning Department).



Figure A.3 Before and after images of 71st Avenue Plaza.
Source: Google Earth.

A.2 Process and Partnership

The Myrtle Avenue Business Improvement District (BID) Queens, which was established in 1988, is the sponsor partner of 71st Avenue Plaza. The Myrtle Avenue BID Queens describes its purpose as “to provide supplemental services and programs for an enhanced shopping environment on Myrtle Avenue from Wyckoff Avenue to Fresh Pond Road in

Ridgewood” (The Myrtle Avenue Business Improvement District). The BID district covers 12 blocks on Myrtle Avenue from Wyckoff Avenue to Fresh Pond Road. It is also the partner of Myrtle/Cooper Plaza on Myrtle Avenue, which is located from a few blocks ahead of 71st Avenue Plaza. The manager of 71st Avenue Plaza interviewed for this dissertation mentioned that 71st Avenue Plaza was proposed for a plaza project under Capital Improvement Projects by NYC’s Commercial Revitalization Program in the late 1980s. However, the project was not accomplished through NYC’s Commercial Revitalization Program. The Myrtle Avenue BID Queens applied for 71st Avenue Plaza to NYC Plaza Program in 2013.

Like other sponsoring organizations, The Myrtle Avenue BID Queens is responsible for the management of the plaza. The 71st Avenue Plaza manager interviewed for this dissertation reported that they were actively involved in the design process of the plaza. The interviewee indicated that even though The Myrtle Avenue BID Queens was very active in the process in terms of holding public workshops and working with the NYC Department of Design and Construction, they were not officially invited to the community board presentation of 71st Avenue Plaza—a situation which they found confusing. Myrtle Avenue BID expected to be invited to the community board presentation because of their active involvement in the design process. During the creation process, not everyone was in favor of a plaza on the block. During the interview, the plaza manager mentioned that some shop owners were opposed to the creation of 71st Avenue Plaza. Later, these shops have been closed or moved out from the neighborhood independently of the plaza issue.

A.3 Design

In 2013, 71st Avenue Plaza was created with interim materials including some moveable chairs and tables, three umbrellas, a few boulders, and fourteen large size planters. During the interim plaza phase, a public workshop for permanent design was conducted on April 3, 2013. The public workshop resulted in several requests for the permanent design (Table A.1). Even though most of these requests were fulfilled in the design of 71st Avenue Plaza, three of those were absent such as rotating art exhibit, including chess tables, and providing electrical connection; and some (maximizing the number of plants and creating light-colored pavement) were partially created in the plaza.

Table A.1 Community Feedback Results

Community feedback	Response
Seating area	✓
Maximize the number of street trees	Partially
Use rainwater for plant irrigation	✓
Raised planters- deciduous shade trees	✓
Dynamic green buffer	✓
Light-colored pavement to reduce heat	Partially
Umbrellas	✓
Rotating art exhibit- Local emerging artist community	X
Bicycle racks, but at the edges of the Plaza	✓
Make connections to businesses facing the Plaza	✓
Use lighting to increase evening use	✓
Include chess tables for the local group	X
Need electrical connection to facilitate programming	X

Figure A.4 shows the site plan of 71st Avenue Plaza. 71st Avenue Plaza was created using residual space between the street corner and the traffic island and constructed on a comparatively smaller space which is 3,000 square feet. It was designed by the architects

from the NYC Department of Design and Construction. The plaza design included a new concrete ground cover, moveable tables, chairs, six umbrellas (provide shades for tables and chairs), and seven planting area (some have concrete planting ledges around them to provide extra seating).

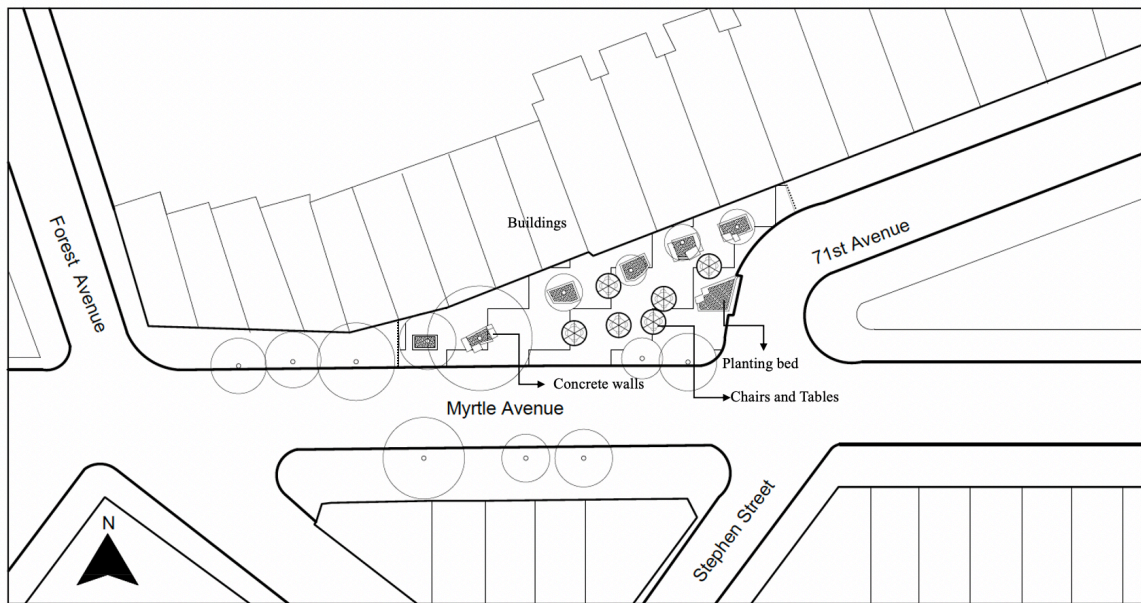


Figure A.4 Site plan of the 71st Avenue Plaza.

There are 33 moveable chairs and 11 moveable tables in 71st Avenue Plaza. Even though there are moveable tables and chairs, they are locked to the ground and each other via a lock system limiting the mobility. Figure A.5 shows an image of locked tables and chairs. Umbrellas, which are heavy for an average person, typically stand near the tables. During site observations in 2018 and 2019, some people relocated tables and chairs around the umbrellas to provide protection from the sun at different hours of a day. However, relocating tables and chairs was difficult since they were locked so that they preferred sitting under the direct sunlight rather than relocating them. Figure A.6 indicates some of the users who sit under the sun on a summer day. It is also notable that the metal material

and dark color of the chairs make the sitting experience uncomfortable since these chairs are exposed to the sunlight for several hours.



Figure A.5 An image of a tied and locked table and its chairs.



Figure A.6 People sitting in 71st Avenue plaza.

There are no benches in 71st Avenue Plaza. Concrete walls around tree pits were designed not only to protect trees from pedestrian activities, but to also create an optional

seating opportunity. Site observations in this study indicated that people used concrete walls for sitting, leaning, and lying on them. Especially the ones under a tree canopy provided protection from the sun often attracting more people in extremely warm weather. Figure A.7 shows images of people who sit on the concrete walls in 71st Avenue Plaza.



Figure A.7 Concrete seating under a large tree on the site.

Concrete was used as a ground cover featuring bright and dark colors. Several types of shrubs and seasonal flowers were in seven different planting pits. The plaza had a total of 8 deciduous trees including the two newly planted trees with the plaza design. Six of those were planted in the tree pits at the North Side of the plaza in front of the building whereas two old trees are facing the roadway. The 71st Avenue Plaza manager interviewed for this dissertation mentioned that in addition to new furnishings, ground cover, and green areas, the permanent design of the plaza included a new fire hydrant which was missing for the whole block before the plaza. Due to the addition of a fire hydrant to the block, water lines and a sewer line were also renewed underneath the plaza.

A.4 Use and Programming

There were 16 different one-hour observation sessions in the 71st Avenue Plaza. A total of 241 people was counted during the observations in the summers of 2018 and 2019. From these people, 132 were counted on weekdays, while counting on weekends tallied 109 people. The total number of people who were observed between 12 pm and 1 pm, and between 5 pm and 6 pm was close to each other in 71st Avenue Plaza. While 52.3% of plaza users were observed during the observations between 12 pm and 1 pm, the rate of users who occupy the plaza between 5 pm and 6 pm was 47.7%. Figure A.8 shows the number of people who were observed on weekdays and weekends, and from 12 to 1 pm and 5 to 6 pm.

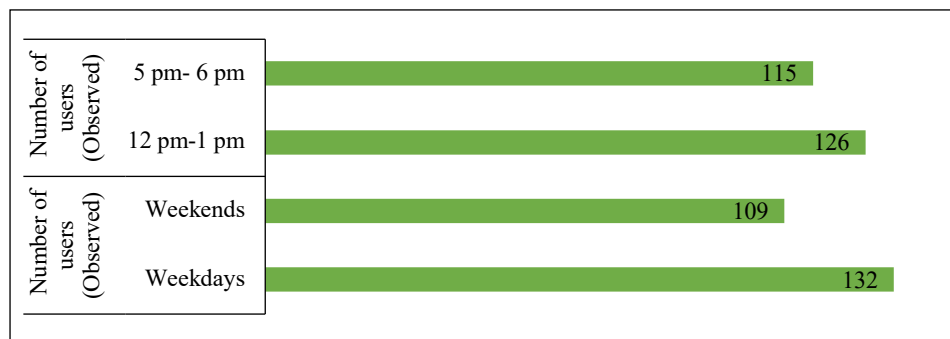


Figure A.8 Observation results showing the number of people in different sessions in 71st Avenue Plaza.

Both observations and user survey results showed that 71st Avenue Plaza was occupied more by people over 60 years old. According to the observation results, the occupants in 71st Avenue Plaza were comprised of 31.1% of people between 18-39 years old, 27.4% of people between 40 and 49 years old, and 39.4% of people over 60 years old. The rate of older age users was the highest in 71st Avenue Plaza compared to the other case study plazas. The age of plaza users was measured also through user surveys in the plaza, resulting in different results in younger age groups than observations of 71st Avenue Plaza.

The user surveys indicated that 71st Avenue Plaza was least used by people who were between 40-59 years old by 31.3% of all users. Respondents who were between 18-39 years old and over 60 years old were almost equal by almost 35% for each age group. Figure A.9 indicates the results for the age collected from user surveys and site observations.

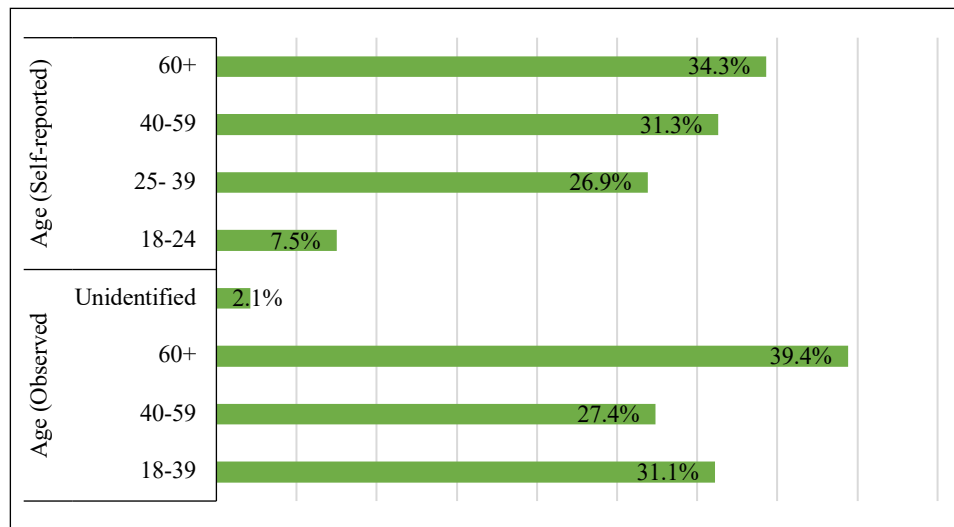


Figure A.9 The rate of people by age from user surveys and site observations in 71st Avenue Plaza.

Although the female and male ratio was closest in 71st Avenue Plaza compared to other case study sites, the rate of males was higher than the rate of females. Based on the counting in site observations, the female to male ratio of the users resulted in 56.4% male and 43.5% female. In terms of the difference between weekdays and weekends, the number of females in the weekend observations was larger than on weekdays observations. In addition to this, the number of females who were over 40 years old was higher than younger age groups both in weekday and weekend observations. In terms of racial and ethnic characteristics of users in 71st Avenue Plaza, user surveys indicated that plaza was overwhelmingly occupied by people who identified themselves as White, resulting in 53.7% of all respondents in 71st Avenue Plaza. Respondents who identified themselves as

Hispanic were the second largest group. Figure A.10 shows the rates of racial categories of respondents in 71st Avenue Plaza.

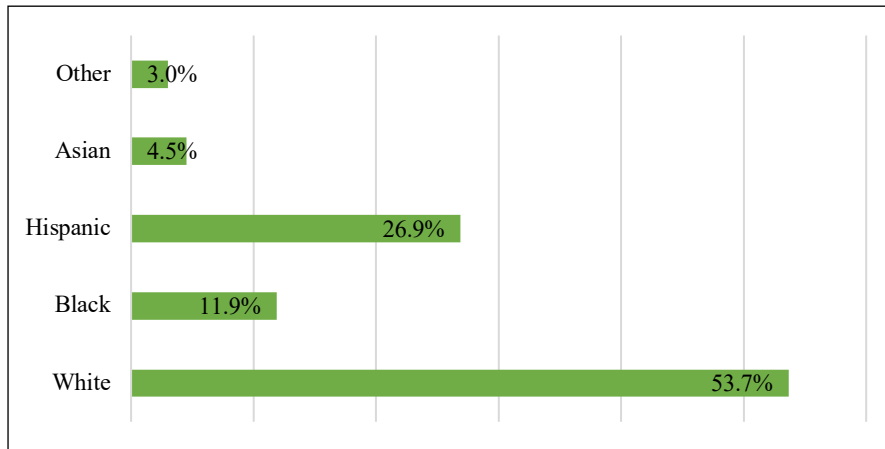


Figure A.10 Rate of racial and ethnic categories in 71st Avenue Plaza.

User survey results indicate that 71st Avenue Plaza was used as a resting spot for a brief amount of time once a day by the neighborhood people who live in a ten-minute walk to the plaza. Figure A.11 shows the rate of respondents for their preferences in the use of 71st Avenue Plaza including the method to get to the plaza, proximity from home to the plaza, frequency of visits to the plaza, and duration of visits. Based on the survey results, 80.6% of respondents reported that they live in a maximum ten-minute walk to the plaza; and more than 90% of respondents said that they walk to the plaza. The plaza was visited once a day by 43.3%, more than once a week by 20.9%, and once a week by 19.4% of the plaza people. Few people indicated that they visited plaza rarely (8.9%) and very rarely (3%). The first-time users were 4.5% of all surveyed individuals in 71st Avenue Plaza. Many people (43.3%) stayed less than 30 minutes when they visited the plaza. Respondents who indicated their stay in 71st Avenue Plaza between 30 minutes and 2 hours was comprised of 32.8% of people. More than half of these respondents were more than 40

years old. Females stayed in 71st Avenue Plaza shorter compared to males. More than half of the female respondents reported their duration of stay for less than 30 minutes.

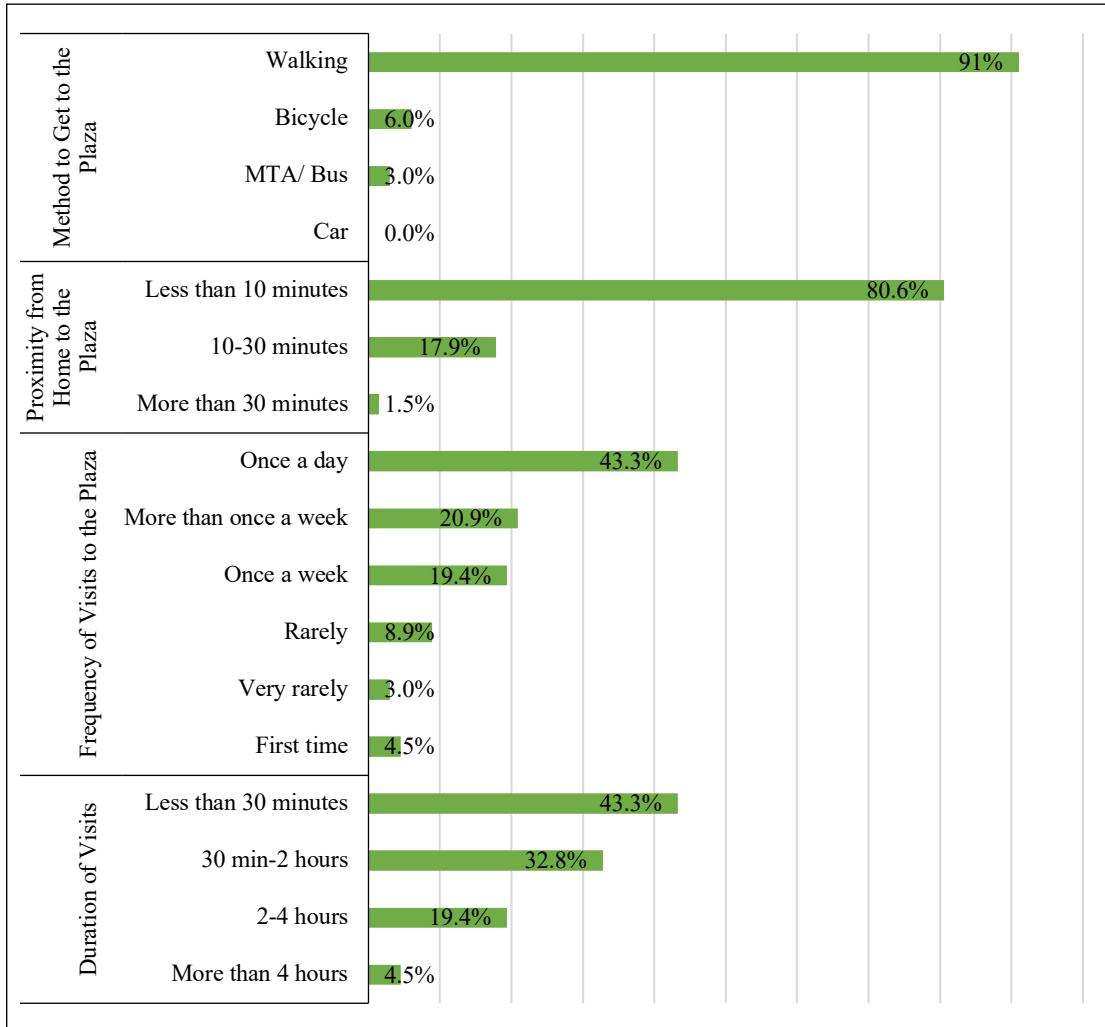


Figure A.11 Rate of respondents for their preferences in the use of 71st Avenue Plaza.

In terms of socialization in 71st Avenue Plaza, site observations showed that many people were with another person (44%) in 71st Avenue Plaza. The number of people who were with more than one person (28.6%) was slightly more than people who visit the plaza alone (27.4%). Therefore, 71st Avenue Plaza was mostly used by groups who were at least two people based on the observation results. Survey results also supported the observation results. Respondents in 71st Avenue Plaza rated socialization with friends and family

members 4.3, and socialization with others they don't know 3.8 on a Likert-type scale: (1) never, (2) seldom, (3) sometimes, (4) often, (5) almost always. Figure A.12 shows the results collected from site observations and user surveys.

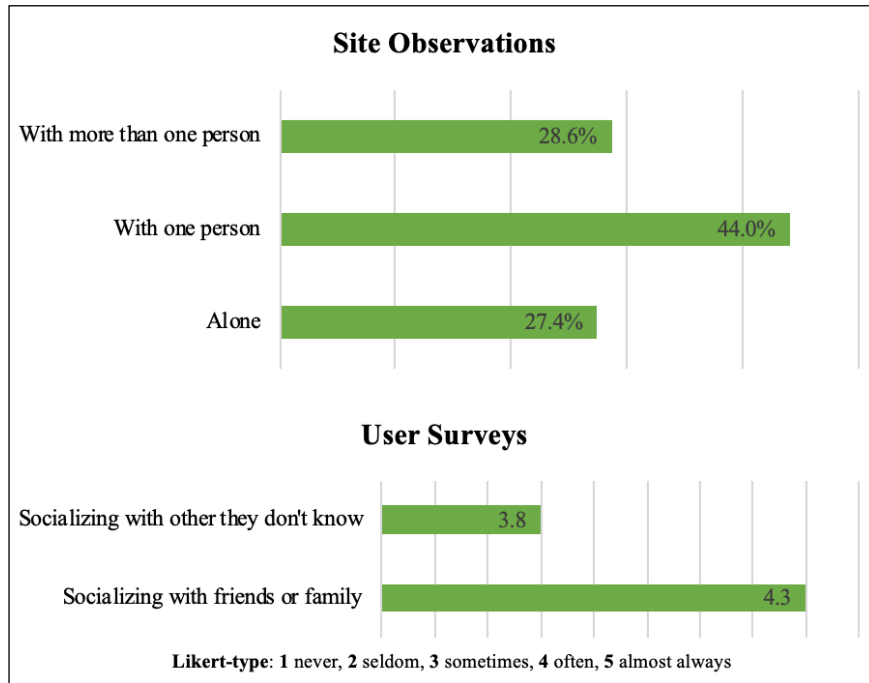


Figure A.12 Results for socializing collected from site observations and user surveys in 71st Avenue Plaza.

Many people in 71st Avenue Plaza spent time while they are sitting (78.3%) which was divided into two observational categories: formal sitting and informal sitting. Formal sitting that refers to a sitting position on a chair or concrete walls stepping feet on the ground was practiced by 59.3% of all users whereas informal sitting positions such as sitting on the ground, tables, different parts of chairs, and some concrete walls included 19% of sitting people in the plaza. During the observations, 12.8% of the users were counted as standing; and 5.8% were observed in a position of standing and leaning (people who make quick pauses or stand less than a minute were not counted for the observational data). The number of people who were lying in the plaza was low with 2.9%. These people

were typically lying on the concrete cubes under the large tree on the Northwest of the plaza. Because the protection from sunlight was limited due to locked chairs and tables, and heavy umbrellas, people were mostly sitting on the concrete walls under a tree canopy during the observations between 12 pm and 1 pm, whereas chairs were occupied by more people during 5 pm to 6 pm observations. Figure A.13 illustrates the rate of postures conducted by people in 71st Avenue Plaza during observations.

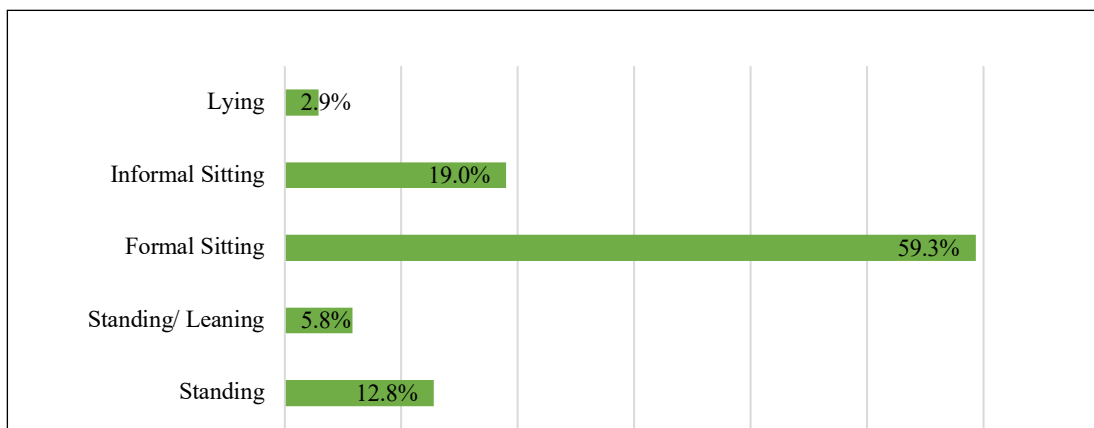


Figure A.13 Rate of postures conducted by people in 71st Avenue Plaza.

Several different activities were observed in the plaza. Figure A.14 illustrates the rate of each activity based on the observation results. These were categorized as eating or drinking, chatting, people watching, using an electronic device, attending an event, commercial activities, and others such as reading, smoking cigarettes, and drinking alcohol. It is important to note that more than one of these activities might be conducted by the same person. For observational data, each activity was counted individually. During the observations, categorized activities were recorded 390 times in 71st Avenue Plaza. The most conducted activity was chatting (29.7%). Compared to other case study sites, eating/drinking was high in 71st Avenue Plaza observed in 20.2% of all users. Regarding the coffee shop and the salad bar in the block, the block provided several opportunities for

eating/drinking activity. In addition to this, the existence of tables and chairs provided a comfortable experience for eating/drinking.

The observation results showed that people use their smartphones in 71st Avenue Plaza more than any other plazas. The use of an electronic device that excessively included smartphones comprised 22.1% of all user activities in 71st Avenue Plaza. While smartphones were used mostly by the younger age group (18-39 years old) in 71st Avenue Plaza, the number of people from older age groups was also higher than in other case study plazas. People-watching followed smartphones as the third most conducted user activity with 20.8%. In past public space studies, people-watching typically referred to as the most conducted activity in public spaces whereas the findings of this study indicate that this situation began to change with the use of smartphones.

The commercial activity in case study plazas was measured counting the number of street vendors. From this perspective, 71st Avenue Plaza had a very low rate of commercial activity in the plaza. Only two street vendors (a fruit seller and an ice-cream seller) were observed on different days of the observations. There were some 'other' activities in the plaza (6.7% of all activities). The most repeated 'other' activity was smoking in 71st Avenue Plaza. Even though the plaza sign for the rules indicated that smoking is not allowed in the plaza, I have observed that 57.7% of other activities included smoking cigarettes in 71st Avenue Plaza.

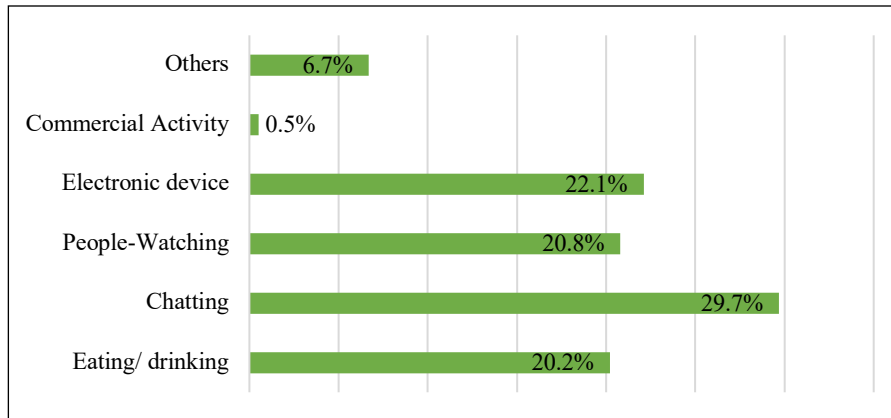


Figure A.14 Rate of each activity from 390 counted activities in 71st Avenue Plaza.

71st Avenue Plaza has been hosting several events since it was built. Most of these events were performed by people from the community. During 2018 and 2019, the plaza management organized several events such as two of the “Music all day at the plaza” events in September 2018 and April 2019, “Make Music in NY” in June 2019, a local band concert in August 2019, and a music event impersonating Elvis Presley in August 2019. Even though the number of these events is not as many as compared to other plazas such as Avenue C Plaza and Corona Plaza, the plaza manager said that they want to do more activities because programming is a significant component for creating a lively and social environment in the plaza. 71st Avenue Plaza manager indicated that currently they do not have any partnership with any social organization or group in the programming activities and organizing events. The manager reported that even though they have funding for the daily maintenance of the plazas, they need more funding for organizing community events in the plaza.

A.5 Management and Maintenance

The plaza is managed and maintained by the official community partner: The Myrtle Avenue BID Queens. Their office is located at the adjacent building to the plaza. The

interview with the plaza manager revealed that the location of their office provides them an advantage in monitoring activities in the plaza closely. There was two signage in the plaza that indicated the plaza rules. Figure A. 15 shows these signages in 71st Avenue Plaza.



Figure A.15 The Signage of plaza rules in 71st Avenue Plaza.

The manager described that the biggest problem of the plaza is drunk people visiting the plaza almost every day. He mentioned that the Myrtle Avenue BID Queens does not take any specific management approach to address this issue unless they receive complaints from people in the plaza or shop owners near it. In case of a complaint, the plaza management calls the police. When police officers arrive at the plaza as a response to these calls, they dump alcoholic drinks into the garbage and leave. Even though drinking alcoholic beverages is not allowed in pedestrian plazas, it is not an unlawful activity based on state law. Interviews with the police officers also confirmed that they cannot force these people to leave the plaza because all citizens have the right to be in the plaza unless they do something against the law.

Site observations indicated that this is a group of people between three and five. I observed several of them grouped together in my three observation sessions (all of them

were evening observations). However, I did not directly observe them drinking alcohol. During interviews with three people from the drinking group, they confirmed that they occasionally drink in the plaza. When I asked if they knew that drinking was not allowed in the plaza, all of them confirmed that they were aware of it. On the other hand, the plaza manager said that they do not necessarily drink at the plaza. He mentioned that they linger in different parts of the neighborhood, and on several occasions, they are already drunk when they come to the plaza. The manager also thinks that this group may cause some people (especially the first comers) to have a negative experience in the plaza. During the interviews with other plaza users, some indicated that they were asked for money or cigarettes by drinking people which makes them feel unsafe, especially during the nighttime.

As a response to this ongoing issue, the Father of the Catholic church in the neighborhood (he often gives them food as well) has had conversations with them not to drink in the plaza. It is also significant to note that the father also is the one who persuades these people to leave or not to drink during special occasions and events in the plaza. Even though the manager described this drinking group of people as the biggest problem of the plaza regarding possible safety concerns of other users, the plaza scored 4.4 for safety based on the user surveys with 48 people (Likert-type scale: (1) very poor to (5) very safe).

During the two sessions of site observations, two vendors were present selling fruit and ice-cream in 71st Avenue Plaza. Two users interviewed for this dissertation mentioned that they like the presence of these vendors. However, the plaza manager indicated that vendors without a permit from the City of New York are unwelcome in the plaza. The management asks them to leave or even call the police when they see them. In addition to

this, the same procedure is valid for the ones who play instruments or music shows on the plaza without the proper permit.

The Myrtle Avenue BID Queens maintains the plaza sweeping it every day and watering the plants. They hired a company (Street Plus) for the cleaning of the 11-block district of the BID. This company also sweeps and empties trash cans. For the maintenance and upkeep of green areas, they collaborate with the NY Horticultural Society. The 71st Avenue Plaza is a well-maintained plaza. During 8 different observation sessions in the summer of 2018 and 2019, I observed that all tables and chairs were clean and painted, all umbrellas were working properly, there was no trash on the ground or tables, and green areas were well maintained. The survey results also support the results of observations. Both cleanliness and maintenance of the plaza scored 4.9 (Likert-type scale: (1) very poor to (5) very good) which is the highest score for this category among case study plazas in this research.

APPENDIX B

CORONA PLAZA

Corona Plaza is in the Corona neighborhood of Queens and the borders of Community District 4. Historically, the neighborhood had its first community with European settlers in 1854 (Jackson, Keller, & Flood, 2010). Since then, Corona has had a diverse population and rapidly changing demographics. Different communities including Italians, African Americans, Dominicans, and Latin Americans have settled in the neighborhood over time (Jackson et al., 2010). The 2010 Census reported that the total population of Corona was around 110,000. Corona consisted of a high number of Hispanics whereas other demographics including Asian, African American, and White stayed at a lower level compared to the Borough averages (New York City Office of the Mayor, 2019).

Queens Community District 4 covers an area of 2.4 square miles with a population of almost 173,000 according to the 2010 Census. Corona Plaza is in a highly populated district with a ratio of almost 72,000 persons per square mile. Residential use covers the majority of the land use in the borders of Community District 4. While the multifamily elevator residents are mostly located at the neighborhoods west of Corona Plaza, most residential land uses surrounding Corona Plaza are multifamily walk-ups and 1 and 2 family buildings (Figure B.1). The commercial and office land use in the community district 4 covers 6.39% of the total area mostly concentrating on different neighborhoods in the district including one around Corona Plaza.

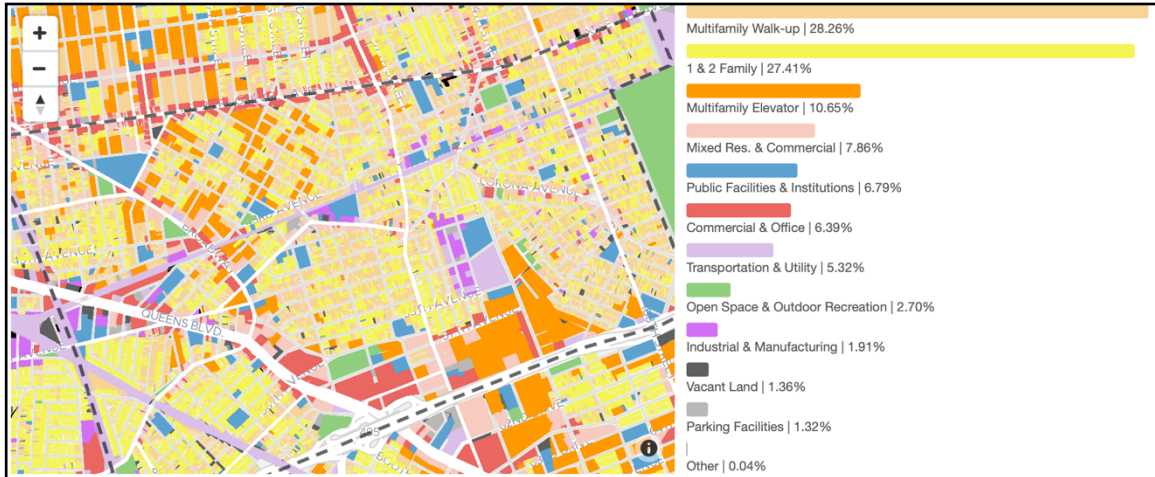


Figure B.1 Queens Community District 4 Land Use Map

Source: (New York City Planning Department, 2019b)

In the district, green areas cover 2.7% of the total area remaining below the average in all community districts in New York City. The district has a few open public spaces mainly consisting of playgrounds and small parks. In a ten-minute walk to Corona Plaza, there are five open public spaces: The Park of the Americas, Corona Golf Playground, PS 19 Community Playground, Josephine Caminiti Playground, Corona Health Sanctuary Playground, and Louis Armstrong Playground (Figure B.2). From these spaces, The Park of the Americas is the closest to Corona Plaza and the largest open public space in the neighborhood. The park includes facilities such as a baseball field, a basketball court, bathrooms, fitness equipment, and a playground.

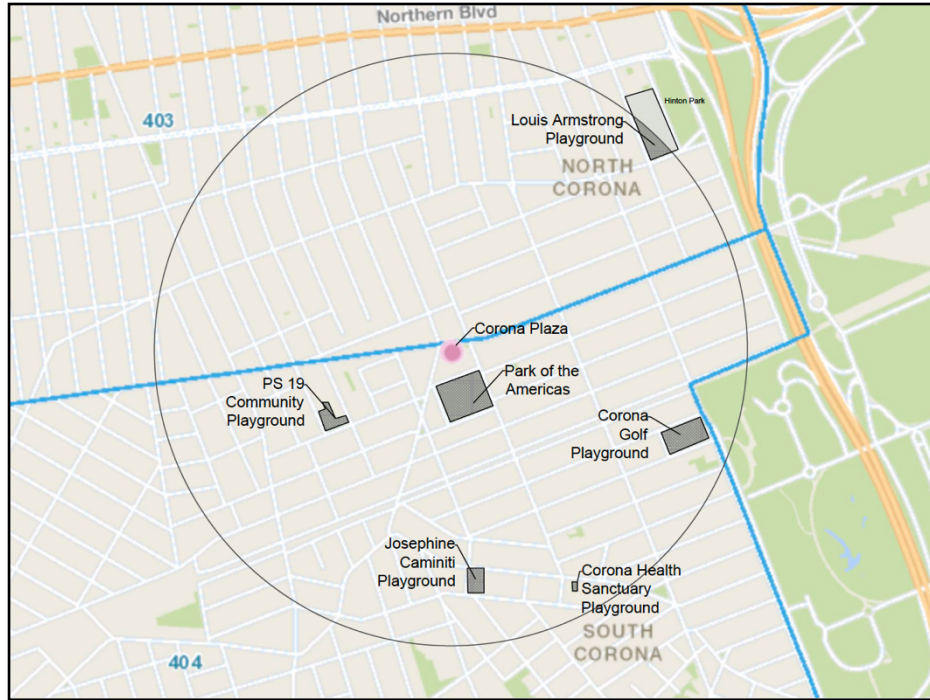


Figure B.2 Open public spaces in a ten-minute walk to Corona Plaza
 Source: The base map was obtained from NYC DOT Map Portal.

B.1 Site

Corona Plaza is located on Roosevelt Avenue crossing by National Street and 104th Street. The plaza is also at the 103rd Street-Corona Plaza subway station. The elevated train tracks are located on the north side of the plaza. Neighboring blocks of Corona Plaza have several types of land uses mostly including mixed residential and commercial, and commercial and office uses (Figure B.3). Multi-family walk-ups and one and two family residentials are prominent residential types in the surrounding blocks of Corona Plaza. Several shops are located on the same block with Corona plaza most of them merchandising food. Walgreens and another drugstore are also located on the same block.

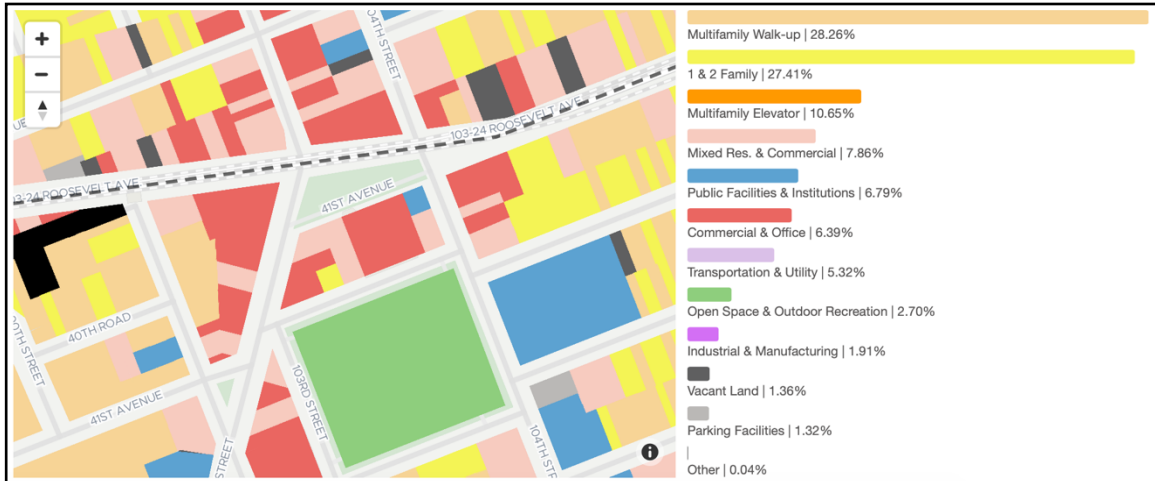


Figure B.3 Land uses of Corona Plaza's surrounding blocks
 Source: (New York City Department of Planning, 2019)

B.2 Process and Partnership

In 2007, the Queens Museum started the Heart of Corona Initiative that brought leaders of different groups in the community together to discuss the issues and needs of Corona. In 2007 and 2008, several arts and performing events, called *Corona Plaza, Center of Everywhere*, occurred on the roadway where Corona Plaza is located now. At that time, the daily use of the roadway was for truck parking with about 20 parking spots. An interviewee from Queens Economic Development Corporation (QEDC) said that the idea of having a plaza on this place was sparked after Queens Museum's events in Corona Plaza in 2008. Neighboring merchants also supported the clean-up of parking trucks because they were obscuring the shops and causing some illegal activities due to hidden spots on the roadway. NYC DOT realized the potential of the site for pedestrians and reached out to Queens Museum to let them know about their plaza program. NYC DOT expected Queens Museum to become the plaza sponsor for Corona Plaza because they were already programming events at that location (V. Mogilevich, 2014). Once the officials in Queens Museum reviewed the financial responsibilities of management, maintenance, and programming,

they decided to remain as a programming partner for Corona Plaza (V. Mogilevich, 2014). The interviewee from QEDC indicated that they volunteered to become an official plaza partner for Corona Plaza because they had enough resources to manage the plaza. In August 2012, a temporary plaza was built on the roadway between National Street and 104th Street with two local partners: Queens Museum for programming and QEDC for maintenance and management.

Queens Economic Development Corporation (QEDC) is a not-for-profit organization aiming to assist small businesses in generating economic activity in Queens neighborhoods. It is funded by several government and non-government organizations such as the New York City Department of Small Business Services, the New York State Department of Economic Development and the Small Business Administration, and the private sector (Queens Economic Development Corporation, 2019). The organization provides several business-related programs for the community including classes, training, and certification. The interviewee from QEDC indicated that their main motivation to involve in the creation of Corona Plaza was to generate economic activity in the neighborhood.

In 2013, QEDC conducted two official public meetings to hear from the community for the permanent design of Corona Plaza. The first meeting occurred in March 2013 with the discussion of general design elements on the site. In August 2013, the second public meeting was programmed to showcase several options for the design of Corona Plaza. In 2014, the design was approved by Public Design Commission scheduling a possible construction date for the permanent plaza in 2015. However, the construction for the

permanent plaza started in 2017 and completed in 2018. The permanent Corona Plaza was opened in July 2018.

B.3 Design

The temporary design of Corona Plaza was created through a road closure between National Street and 104th Street including several large flowerpots, umbrellas, moveable chairs, benches, and large boulders like the design of many other temporary plazas in the city. The temporary plaza remained on the site for about 6 years. Boulders and flowerpots were removed in the permanent design. Instead of flowerpots, planters were built in ten different locations of the plaza in different sizes and shapes. Four of these planters included 25” tall concrete walls that can be used as seating. Based on the observation conducted in the summer of 2018, there were 18 three-seat benches, approximately 55 chairs and 20 tables, and 8 umbrellas in Corona Plaza. Figure B.4 shows the site plan based on conducted site observation in 2018. Figure B.5 features an image of Corona Plaza illustrating the location of seating and umbrellas in July 2018 when Corona Plaza was recently opened.

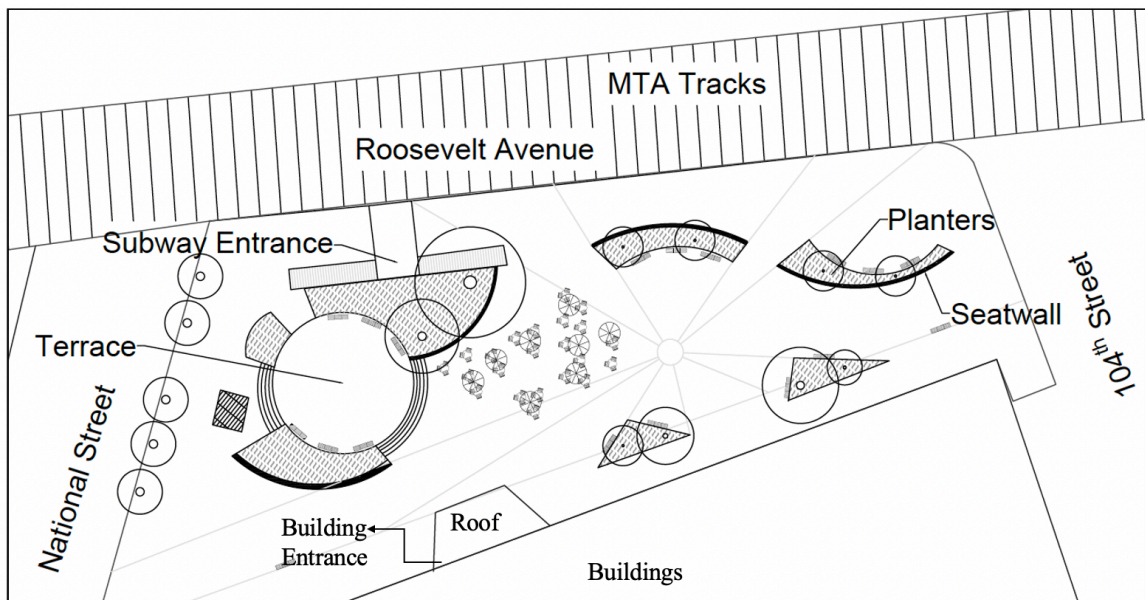


Figure B.4 Site Plan of Corona Plaza.



Figure B.5 Location of seating and umbrellas in Corona Plaza in June 2018.

During the observations in the summer of 2019, there were only two umbrellas in Corona Plaza. The interviewee from QEDC recounted that the reason for that is two incidents that occurred due to the falling of these umbrellas. One of these incidents resulted with being sued by a man who claimed the umbrella had fallen on him, resulting in an injury. The second one was another incident due to a fallen umbrella on a windy day. The interviewee from QEDC said that for the permanent design, the DOT provided new umbrellas which are sturdier, but they are heavier as well. They had a potential to cause these kinds of incidents, which in turn influence the insurance money that the plaza sponsor must pay every year. Therefore, the plaza sponsor (QEDC) has decided to leave most of these umbrellas in storage.

Corona Plaza had various seating types: moveable chairs, benches, and concrete walls. Moveable tables and chairs were used with umbrellas to provide protection from

sunlight. Because of the absence of six umbrellas which were supposed to be on the site based on the site plan, people moved most tables and chairs to under two trees on the south side of the plazas and in front of Walgreens based on the site observations in 2019 (the extended roof at the entrance of Walgreens). Figure B.6 shows how the entrance of Walgreens was used by people in the plaza. A few tables and chairs that are located at the center often remain unoccupied. In 2018, however, most tables and chairs located at the center using the protection of all eight umbrellas were occupied by most of the users in Corona Plaza.



Figure B.6 Images from Walgreens entrance providing a shady area for people in Corona Plaza.

Corona Plaza also has 18 three-seat benches produced from aluminum material. There are six benches on the terrace. These benches are under direct sunlight during the

most hours of daylight. During eight different observations on the site, these benches were occupied less than any other seating spots on the site. The reason might be overheated aluminum material and direct sunlight, creating an uncomfortable sitting experience for users. On the south side of the plaza, three benches were located in front of two planters with trees. Based on the observations both in 2018 and 2019, these benches were the most occupied ones in Corona Plaza most likely because these benches are protected from sunlight thanks to the canopy provided by trees and three-story buildings on the block. While umbrellas existed on the site, some people used chairs at the center in 2018. However, with the elimination of most umbrellas from the site, people were observed relocating tables and chairs near benches to get protection from the sun in 2019. Figure B.7 shows images from two different observations in 2018 and 2019 for the uses of chairs and tables in Corona Plaza.



Figure B.7 Use of benches and chairs in Corona Plaza.

Brand new groundcover featured a sunlight-like pattern which was made using dark and light color concrete squares in the permanent design. The design also included a terrace

on the west side of the plaza. The terrace included 6 three-seat benches and stairs that go down to the center of the plaza (Figure B.8). The plaza manager mentioned that the terrace was considered as an amphitheater for public events in the beginning of the design process. The amphitheater idea was objected to by the nearby church administration reasoning noise that maybe generated during public events. However, my observations coincided with coincided two small music events that used an amplifier on the terrace (later I have learned from the plaza manager that these kinds of events usually occur without a proper permit from the city). Even though the amphitheater idea was abandoned due to noise, the community still uses the terrace as a stage.



Figure B.8 Images of the terrace in Corona Plaza.

NYC DOT defines two types of planting areas in pedestrian plazas: in-ground planting area and raised planting area. Corona Plaza has four large size in-ground planting

areas. Figure B.9 shows an example from these planting areas. These areas typically include trees, perennials, and small size bushes. The permanent design of Corona Plaza contains a total of 13 deciduous trees. While four of these trees have been on the site before the plaza, nine trees were added to the new design of Corona Plaza. In addition to the planting area, there were some other amenities in the plaza including a public restroom which was located only in Corona Plaza in all case study sites. The public restroom was broken and out of use in the summer of 2018, it was in use in 2019. Another different amenity existed in Corona Plaza from other plazas was screens with artwork curated by Queens Museum. Figure B.10 illustrates images of public restroom and screens in Corona Plaza.



Figure B.9 A planting area in Corona Plaza



Figure B.10 Public restroom and poster screens in Corona Plaza.

B.4 Users and Uses

After my two preliminary observations in the summer of 2018, I visited Corona Plaza for site observations at six different times during the summer of 2019. During my observations, I used a checklist containing items for user counts, and observations of user postures and activities. I also conducted user surveys with 81 people in Corona Plaza in six different days and times in 2019. The user survey contained questions with multiple choice and Likert-type scale in several topics: means of transportation to get to Corona Plaza, time of arrival to the plaza from home, frequency of visits to the plaza, duration of visit in the plaza, and user background (gender, ethnicity, and age).

There were eight different one-hour observation sessions in Corona Plaza. A total of 413 people was counted during the observations in the summers of 2018 and 2019. From these people, 217 were counted on weekdays, while 196 people were counted on weekends. The total number of people who were observed between 12 pm and 1 pm, and between 6 pm and 7 pm was different in the plaza. While 45.8% of all observed plaza users were observed between 12 pm and 1 pm, the rate of users who occupy the plaza between 5 pm and 6pm was 54.2%. Figure B.11 shows the number of people who were observed on weekdays and weekends, and 12-1 pm and 5- 6 pm.

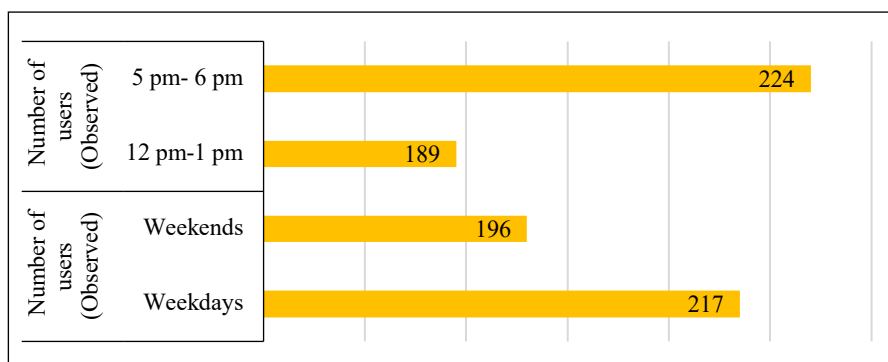


Figure B.11 Observation results showing the number of people in different sessions in Corona Plaza.

Both observations and user survey results showed that Corona Plaza was occupied more by people over 40 years old. According to the observation results, Corona Plaza’s occupants is comprised of 22.3% of people between 18-39 years old, 41.7% of people between 40 and 49 years old, and 33.4% of people over 60 years old. The rate of people who are between 40-59 years old was highest in Corona Plaza compared to the other three plazas. User surveys revealed slightly different results in the rates of older age groups. The site observations indicated that Corona Plaza was more used by people between 40-59 years old whereas the rate of people over 60 years old was the highest in user surveys. The rate of respondents who were between 18-39 years old was close in both observations and user surveys. Figure B.12 illustrates the differences between observations and self-reported survey results for the rates of age groups. The difference maybe a result of two possible situations: the observer bias over assessing people’s age during the observations or higher tendency of older age groups in participating the survey. It is important to note that even though children in plazas were not recorded in this study, Corona Plaza was used by children more than any other case study plazas based on the notes from site observations.

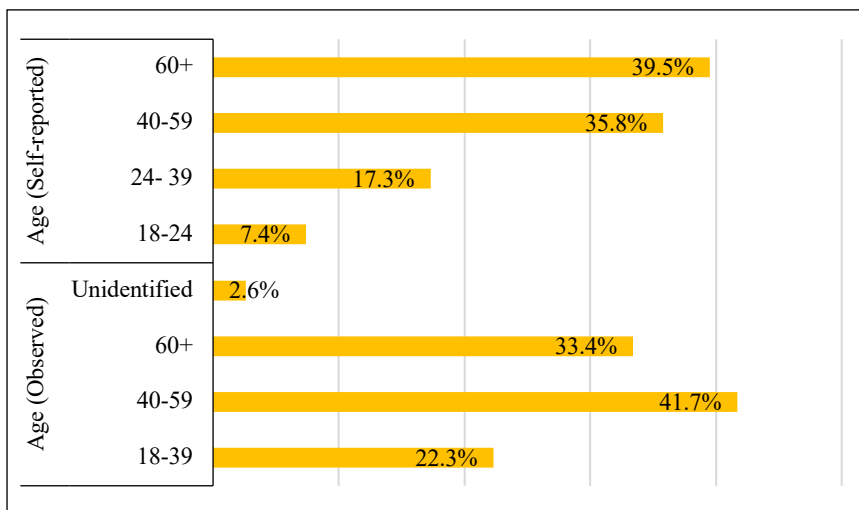


Figure B.12 Rate of people by age from user surveys and site observations in Corona Plaza.

Males occupied Corona Plaza in overwhelmingly higher rates than females. Based on site observation results, the rates of females and males resulted in 62% male and 38% female. In terms of the difference between weekdays and weekends, the number of females in the weekend observations were larger than weekdays observations. In addition to this, the number of females who were over 40 years old was higher than younger age groups both in weekday and weekend observations. Corona Plaza was overwhelmingly occupied by Hispanic or Latino with the rate of 58.1% which reflected the neighborhood characteristics of Corona. Black respondents were the second largest group in this category rating 17.3%. Figure B.13 shows the rates of racial and ethnic groups of respondents in Corona Plaza.

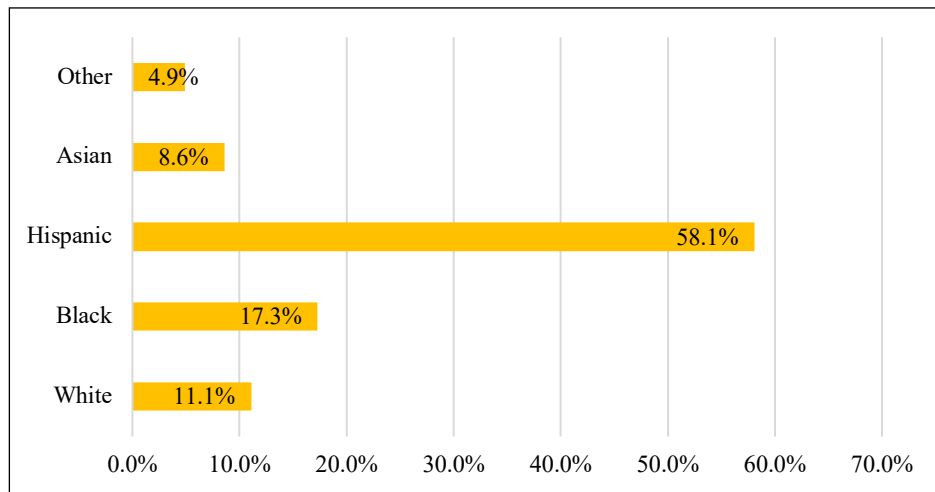


Figure B.13 Rate of racial and ethnic divisions in Corona Plaza.

User survey results indicate that many neighborhood people in Corona Plaza used the plaza for a resting spot for a brief amount of time visiting the plaza more than once a week. Figure B.14 shows the rate of respondents for their preferences in the use of Corona Plaza including method to get to the plaza, proximity from home to the plaza, frequency of visits to the plaza, and duration of visits. Based on the survey results, 56.8% of respondents

reported that they live in a maximum ten-minute walk to the plaza; and more than 66.7% of respondents said that they walk to the plaza. The plaza was visited once a day by 22.2%, more than once a week by 29.6%, and once a week by 27.2% of the plaza people. Few people indicated that they visited plaza rarely (8.7%) and very rarely (4.9%). The first-time users were 7.4% of all respondents in Corona Plaza. Similar to 71st Avenue Plaza, 44.5% of respondents reported that they stayed less than 30 minutes when they visited Corona Plaza. Respondents who indicated their stay in Corona Plaza between 30 minutes and 2 hours was comprised of 25.9%. A considerable amount of people reported that they stayed in Corona Plaza more than 2 hours including mostly people who are over 40 years old.

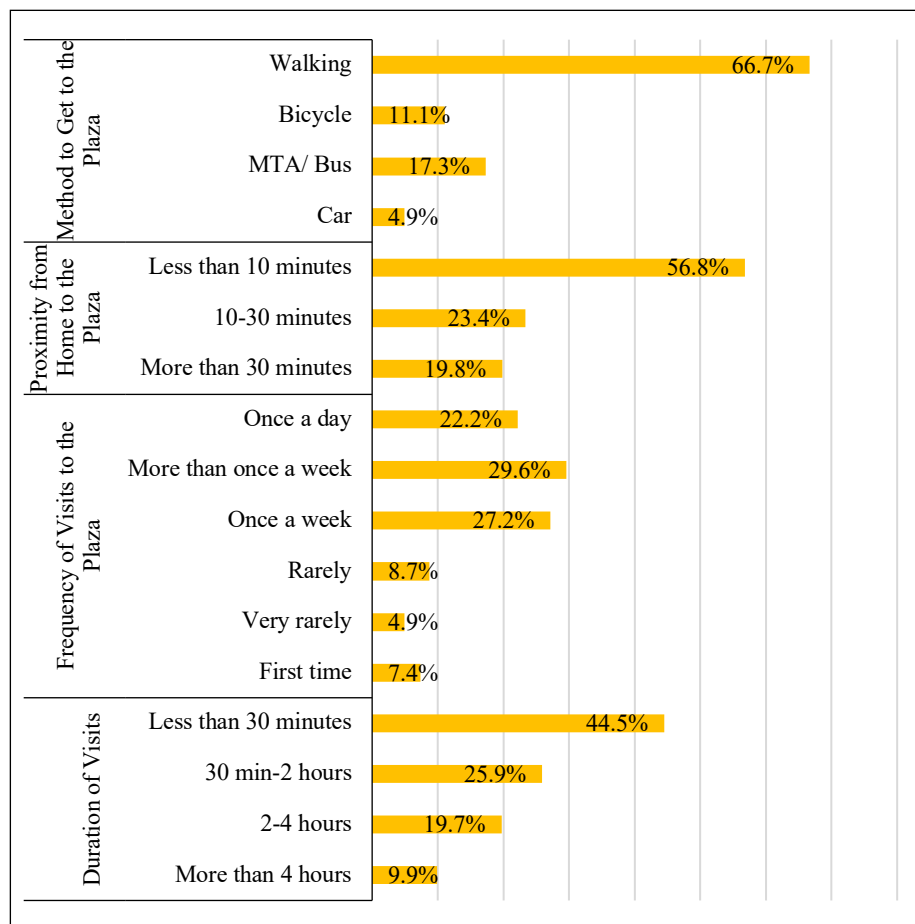


Figure B.14 Rate of respondents for their preferences in the use of Corona Plaza with main categories: their method to get to the plaza, proximity from their home, frequency of visits, and duration of visits.

Site observations resulted that people used the plaza with friends and family members. The rate of people who were with a group of more than two people was highest in Corona Plaza with the rate of 40%. The number of people who were with more than one person was 149 which comprised 36.1% of all observed users in the plaza. The rate of people who were alone in the plaza was 24.9%. Therefore, Corona Plaza was used by many people to socialize with others. Survey results indicated more detail about socialization of people in the plaza. Figure B.15 shows the results collected from site observations and user surveys. Respondents in Corona Plaza rated socialization with friends and family members 4.8, and socialization with others they don't know 3.1 on a Likert-type scale: (1) never, (2) seldom, (3) sometimes, (4) often, (5) almost always.

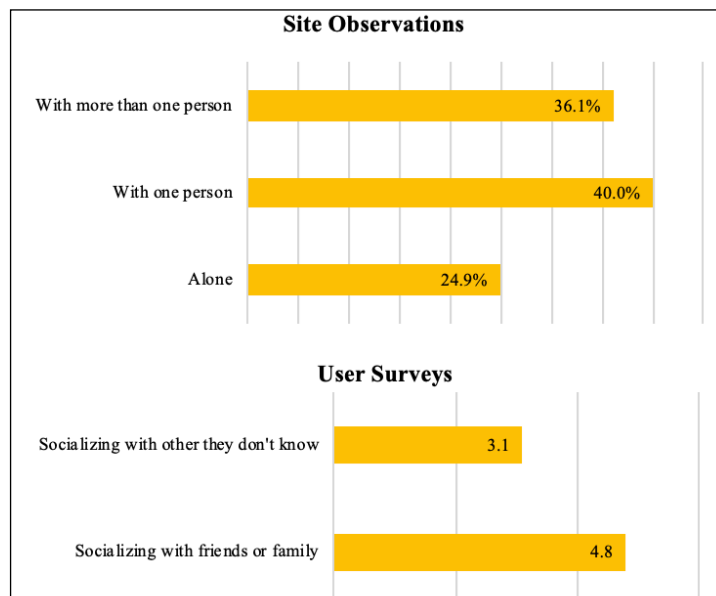


Figure B.15 Results for socializing collected from site observations and user surveys in Corona Plaza.

Figure B.16 illustrates the rate of postures observed in Corona Plaza. In Corona Plaza, 76.1% of people were observed while they were sitting which included two observational categories: formal sitting and informal sitting. Formal sitting that refers to a

sitting position on a chair or concrete walls stepping feet on the ground was practiced by 59.3% of all users whereas informal sitting positions such as sitting on the ground, tables, different parts of chairs, and some concrete walls included 19% of sitting people in the plaza. Benches and concrete walls in the plaza were mostly occupied because they had a tree canopy. Chairs which were designed to be located typically in the center of the plaza were relocated either near benches or in front of Walgreens because they both were shady areas.

During the observations, 22.5% of the users were counted as standing that was also observed in two categories: standing (13.1%) and standing/leaning (9.4%). It is important to note that people who make quick pauses or stand less than a minute were not counted for the observational data. The number of people who were lying in the plaza was very low with 1.4% compared to other case study sites. These people were often lying on the concrete walls under the large tree on the Northwest of the plaza. I also observed some people lying on the ground of the plaza.

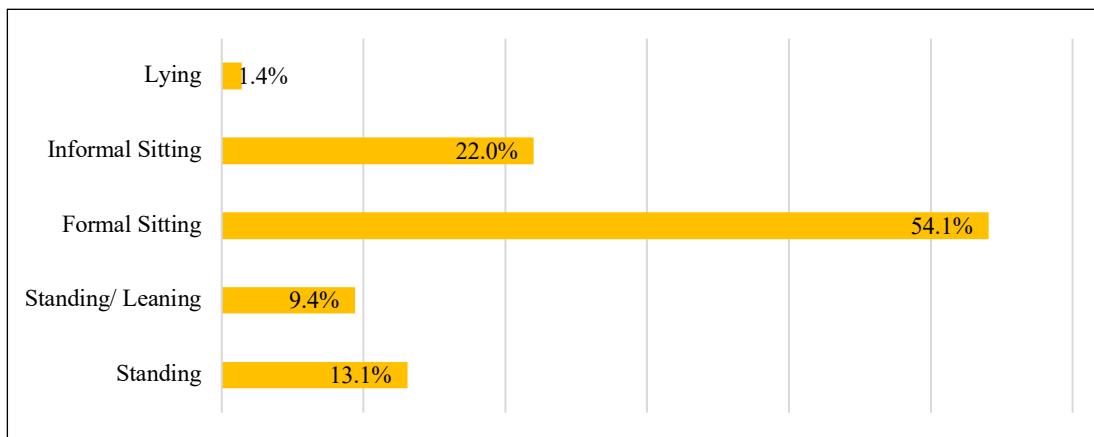


Figure B.16 Rates of postures observed in Corona Plaza.

Several different activities were observed in the plaza. Figure B.17 illustrates the rates of activities from observation results. Activities were categorized as eating or

drinking, chatting, people watching, using electronic devices, attending an event, commercial activities, and others such as reading, smoking cigarettes, and drinking alcohol. It is important to note that more than one of these activities might be conducted by the same person. For observational data, each activity was counted individually. During the observations, categorized activities were recorded 733 times in Corona Plaza (n= 733). The most conducted activity was chatting (27.4%). The observation results also illustrated that people-watching (25.2%) was distinctly higher than the use of smartphones in Corona Plaza (15.3%).

Compared to other case study sites, the highest rate for eating/drinking was high in Corona Plaza, comprising 23.3% of all activities. Moveable tables and chairs provided a comfortable experience for eating/ drinking. In addition to this, the number of eateries and street vendors in the block was a factor in the high rate of eating/drinking activity because many people who were eating or drinking had their food from surrounding places. The number of street vendors in Corona Plaza was more than any other case study sites. The study results indicated that 4.3% of all observed activities included the activities of street vendors. Because Corona Plaza was located on a busy intersection and a lively commercial area, the number of street vendors around the plaza was higher than other case study plazas. During my observations, these vendors were typically selling food, hand crafts, jewelry, handbags, and clothes.

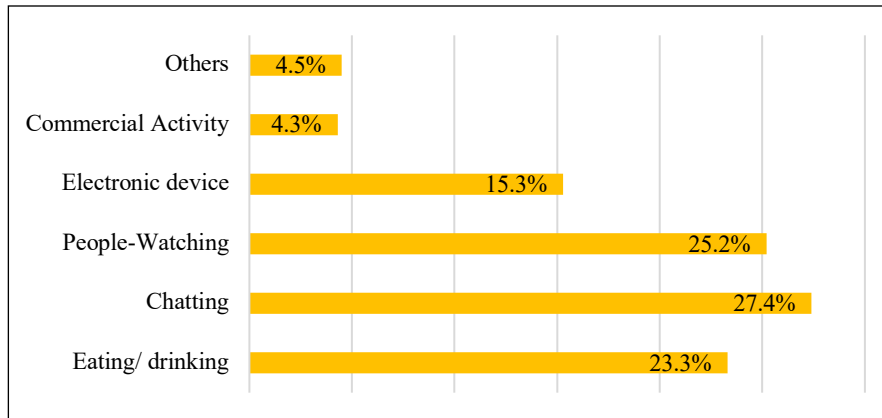


Figure B.17 Rates of observed activities in Corona Plaza (n= 733).

Other activities such as reading, riding a scooter (mostly by children), playing dominos, smoking, and drinking alcoholic beverages were conducted by 4.5% of all activities in Corona Plaza. During all eight observations, some (between four and ten people) were playing dominos in front of Walgreens. They typically had two tables and about ten chairs that are not owned by Corona Plaza. They bring their own tables, chairs, and other equipment to play dominos.

There were two pedestrian circulation paths that receive heavier pedestrian traffic than other places in Corona Plaza. Corona Plaza Subway station has one of its exits in the plaza. Many people used this exit to pass through the plaza almost every five minutes. This situation created a pedestrian circulation path through the center of the plaza. Another circulation path was along the shops in the block of Corona Plaza. This path was also designated by NYC DOT as a pedestrian circulation area in the site plan of Corona Plaza.

Programming in Corona plaza has been very active even before the plaza. Queens Museum began to program events and festivals under their *Corona Plaza, Center of Everywhere* program in 2006. As the programming sponsor, Queens Museum has been programming several events and festivals since the temporary plaza was installed in 2012.

In August 2012, Queens Museum organized the first event, *Corona Plaza Community Festival*, in Corona Plaza after its installation as a temporary plaza. The festival has become an annual event and typically included various activities, such as reading rooms, science and crafts workshops, and free eye exams for children for children, gardening classes, concerts, dance performances, and plays performed by actors.

After the installation of Permanent Plaza in 2018, Queens Museum has continued to organize events and festivals, focusing on immigration and celebration different cultures in the community. These programs have been organized every month during the summer of 2018 and 2019. In July 2018, the new plaza hosted its first event, *Coronate*, featuring music (an Afro-Peruvian music concert), dance, art and craft workshops, and free health screenings. The *Coronate* festivals continued monthly from July 2018 to November 2018. Events in Corona Plaza started with Science Fiction Festival in May 2019 and continued with the *Coronate* festivals monthly recurring from June 2019 to October 2019. Even though all *Coronate* festivals typically include music and dance performances, workshops, and community classes, each has a focus on different cultures and aspects of the community in Corona. Table B.1 lists some festivals that were hosted by Queens Museum in Corona Plaza. In addition to the programming made by Queens Museum, QEDC hosted a farmer's market in Corona Plaza occurring every Friday from the first week of July till the first week of August in 2019.

Table B.1 Festivals Hosted by Queens Museum in Corona Plaza

Name of the Event	Location	Date	Hosting by	Partnering by	Content of the Event
Corona Plaza Community Festival	Corona Plaza	Aug 2012	Queens Museum	*The Uni Project, Queens Library, The New York Hall of Science, The Louis Armstrong House Museum, Social Theater	Arts workshop, mobile library, music, dance and art performances, civic workshop.
¡Oye Corona! Festival in the Plaza	Corona Plaza	Aug 2015	Queens Museum	DK	Live music, workout, art making workshops, dance performances reading.
¡Oye Corona! Festival in the Plaza	Corona Plaza	Sep 2016	Queens Museum	Veronica Ramirez of Immigrant Movement International's project	Arts workshop, mobile library, music, dance and art performances, free community services.
¡Corónate ¡Festival in the Plaza	Corona Plaza	Jul 2018	Queens Museum	Yasser Tejeda and Palotré	Arts and crafts workshop, music, dance and art performances, free community services.
¡Corónate ¡Celebrating culture with Yotoco and Dúo Ruvero!	Corona Plaza	Aug 2018	Queens Museum	Unidentified	Arts and crafts workshop, face painting for kids, music, dance and art performances, free community services.
¡Corónate! Mandingo Ambassador and Mariachi Tapatío	Corona Plaza	Oct 2018	Queens Museum	Unidentified	Arts and crafts workshop, storytime for kids, music, dance and art performances.
¡Corónate: Los Cumpleaños y Mariachi Tapatío Celebration	Corona Plaza	Nov 2018	Queens Museum	Unidentified	Food stands, arts and crafts workshop, Storytime for kids, music, dance and art performances.
Science Fiction Festival in Corona	Corona Plaza	May 2019	Queens Museum	Unidentified	Piñata making, storytelling for kids, space exploration workshop, and live music.
¡Corónate Inmigrante	Corona Plaza	Jun 2019	Queens Museum	Elmhurst Community Partnership	Arts and crafts workshop, face painting for kids, music, dance and art performances, free community services.
¡Corónate Andino! Celebration of Peruvian Culture	Corona Plaza	July 2019	Queens Museum	Navidad Without Barriers	Arts and crafts workshop, outdoor fames for adults and kids, live music, dance and art performances, free community services.
¡Corónate Caribbean Celebration of Culture	Corona Plaza	Aug 2019	Queens Museum	Unidentified	Arts and crafts workshop, live music, dance and art performances, painting and photography exhibitions, theatrical performances
¡Corónate Bailando	Corona Plaza	Sept 2019	Queens Museum	Unidentified	Arts and crafts workshop, face painting for kids, music, dance and art performances, free community services.

B.5 Management and Maintenance

The community partner, Queens Economic Development Corporation (QEDC), is responsible for the management and maintenance of Corona Plaza. As the plaza partner, QEDC also pays the insurance cost of Corona Plaza every year. The interviewee from QEDC said that they were sued two times related to fallen umbrellas which caused an increase on the insurance cost. Therefore, they had to take most of the umbrellas out to prevent these incidents happening again.

There were some homeless individuals and drunk men (up to 6 people) in Corona Plaza during most of my observation sessions. The interviewee from QEDC mentioned that many of them used to spend time in Park of the Americas before the plaza; and only some of those individuals are homeless even though all of them stay in the plaza for the most part of the day. The plaza manager said in the interview they do not have any specific management approach for these people unless they do anything against the law or plaza rules. However, as the plaza partner, QEDC arranged some meetings to discuss this issue with the community and NYPD. The manager said that they mainly discussed the ways of connecting homeless individuals with certain homeless organizations. The interviewee mentioned that their efforts in providing homeless services were often rejected by homeless individuals. The interviewee believes that the homeless problem is a citywide issue; and it needs to be taken care of with the actions citywide.

The manager commented on people playing dominoes in front of Walgreens by indicating that these kinds of activities enable people to connect the plaza and provide community engagement. During the observations, people who play dominoes were using different kinds of chairs than the plaza had. Therefore, they probably brought their own

chairs and a table to play the game (Figure B.18). Based on survey results, people in Corona Plaza feel the least safe than any other case study plazas. The plaza was rated an average of 3.2 for safety based on user surveys conducted with 82 people (Likert-type scale: (1) very poor, (2) poor, (3) acceptable, (4) safe, (5) very safe). Many people, especially female participants, indicated that they do not feel comfortable sitting in Corona Plaza or even walking through it during night hours. The interviewee from QEDC mentioned that where Corona Plaza locates now used to be a truck parking space with a lot of illegal activity aside being a parking space. After Corona Plaza, these activities have decreased substantially. However, some safety issues related to the history of the place still exist on the site.



Figure B.18 Images of people playing dominoes in Corona Plaza.

The interviewee from QEDC said that they were able to maintain the plaza for about 2 years with their funding and \$20,000 reimbursement from the DOT in the beginning of temporary plaza. When their funding for the maintenance became insufficient around 2015, QEDC signed a contract with Neighborhood Plaza Program for the maintenance of green

areas and daily maintenance of the plaza. The Hort's Neighborhood Plaza Program has provided a coordination between the plaza partner and two non-profit organizations (ACE and GreenTeam) for the maintenance of Corona Plaza. ACE workers are responsible for everyday cleaning of Corona Plaza as well as installing and collecting chairs and umbrellas on the site in the mornings and afternoons. GreenTeam helps QEDC in the maintenance of the plants that are provided by Neighborhood Plaza Program. The interviewee indicated that QEDC and Neighborhood Plaza Program have had a close relationship for the needs of Corona Plaza.

During on-site observations, I coincided with the maintenance worker three times: once he was sweeping the ground, and the other times, he was mostly sitting in front of Walgreens. Overall, Corona Plaza was clean with well-maintained furniture and green areas. However, since it is a comparatively new plaza that was built just over a year ago, it is difficult to know how the maintenance will continue over the years in the future. Based on the survey results, people in Corona Plaza rated cleanliness of plaza as 4 out of 5. Maintenance of the plaza was rated as 4.3. People in Corona Plaza rated 1.6 for the weather protection with the lowest scores in all case study sites (Likert-type scale: (1) very poor, (5) very good). Most users interviewed for this dissertation in Corona Plaza indicated the heat as a big problem indicating that shady areas in the plaza is insufficient. This situation causes accumulation of people in a few shady areas whereas there is a plenty of spaces that was designed for sitting in the plaza. In addition to this, some interviewees were upset about umbrellas disappearing from Corona Plaza in 2019.

APPENDIX C

KENSINGTON PLAZA AND AVENUE C PLAZA

Kensington Plaza and Avenue C Plaza are two neighboring plazas located in Kensington, Brooklyn. These plazas are in the territory of Brooklyn Community District 12. The district covers an area of 364.84 acres. Kensington was part of the Dutch Town of Flatbush and a section of Parkville in the 18th century (Jackson et al., 2010). It was developed from rural areas after the completion of Ocean Parkway in 1875. After the turn of the century, the middle section of Parkville became Kensington with the construction of detached single-family houses, brick and brownstone row houses, and six-story apartment buildings (Jackson et al., 2010). Many of these buildings still exist today.

According to the Census 2010, the total population of Kensington-Ocean Parkway was 36,891 featuring 47.9% White, 6.9% Black, and 24.1% Asian (New York City Department of Planning, 2019). Kensington has had a diverse community since the 1980s. In the 1980s, the neighborhood began attracting immigrants from China, Russia, Bangladesh, Poland, Indonesia, Turkey, Mexico, Haiti, and many other countries (Jackson et al., 2010). Kensington also had a comparatively younger population featuring that people under 18 years old made up 27.4% of its total population (21% for New York City) (New York City Department of Planning, 2019).

Brooklyn Community District 12 is a highly populated and densely built area. Based on the land use map of Brooklyn Community District 12, residential uses such as “1 and 2 family housing,” “multifamily walk-up,” and “multifamily elevator” cover about 68% of the district (New York City Department of Planning, 2019) (Figure C.1). In

addition to this, “mixed commercial and residential” uses are designated as 8% in the district. On the other hand, the coverage of open space and recreational areas is 5.57% of the district. Washington Cemetery as the largest green space in the district covers more than half of the designated area. Open public spaces in the district are Gravesand Park, Heffernan Triangle, Dome Playground, Brizzi Playground, Albemarle Playground, and Rappaport Playground (Figure 2). Abemarle Playground and Rappaport Playground are the only open public spaces that are in a ten-minute walk from both plazas.

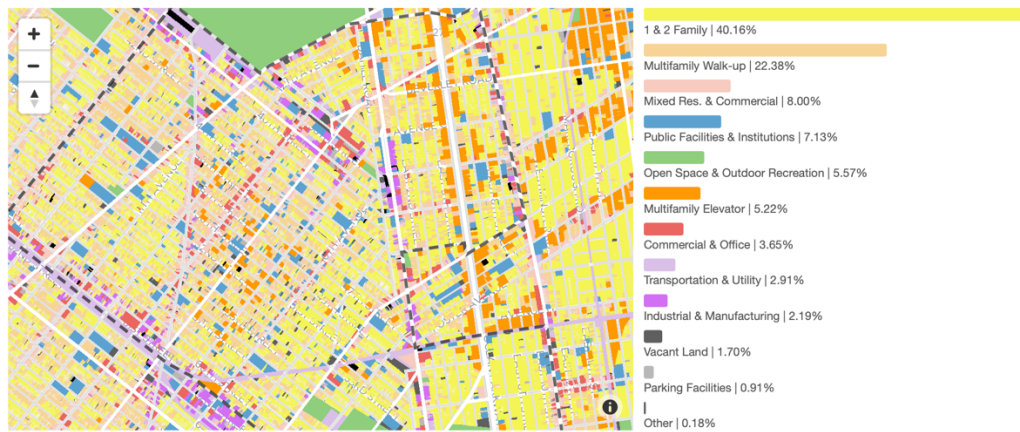


Figure C.1 Brooklyn Community District 12 Land Use Map
Source: (New York City Department of Planning, 2019)

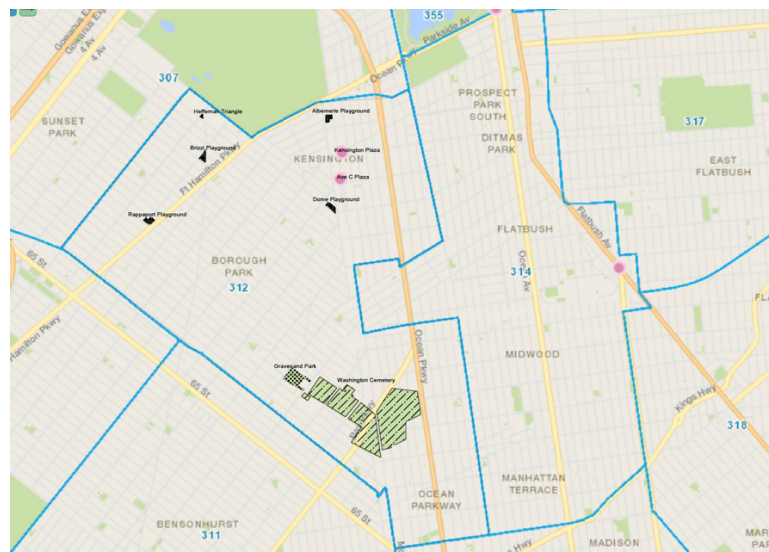


Figure C.2 Open Spaces in the Brooklyn Community District 12.
Source: (New York City Department of Transportation, 2019)

C.1 The Site

Kensington Plaza is located on Church Avenue intersecting with McDonald Avenue and Beverly Road. Kensington Plaza was built on the sidewalk on Church Avenue. The plaza was created through adding benches, trees, flower pits and containers, and some boulders on the existing sidewalk. Kensington plaza is about 3,500 square feet featuring almost a triangle shape. Surrounding land use of Kensington Plaza contains three types: “mixed residential and commercial,” “1- and 2-family residential,” “multifamily walk-up,” and “commercial and office” (Figure C.3). The plaza is located at the busy intersection with several merchants including a pharmacy, a coffee shop, a bar, and a farm market.

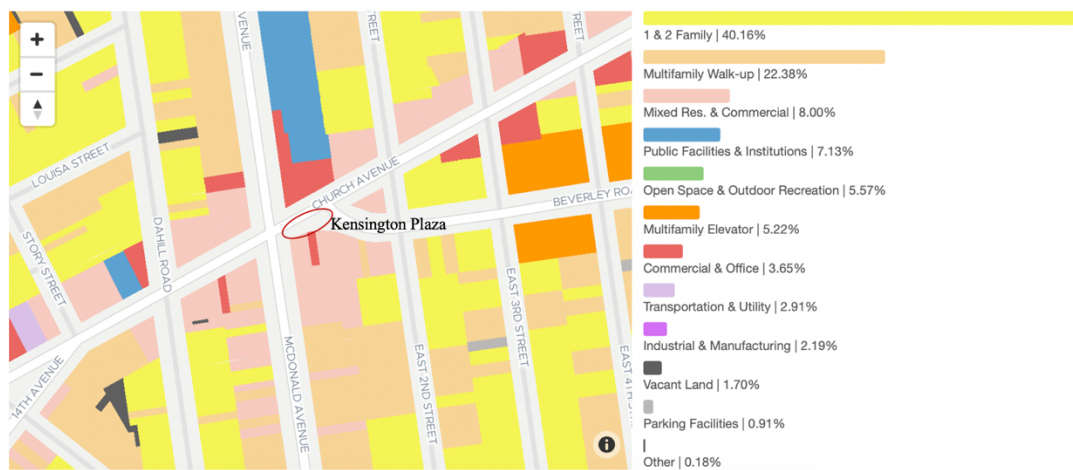


Figure C.3 Surrounding land use of Kensington Plaza

Source: (New York City Department of Planning, 2019)

There is a 5-minute walk on McDonald Avenue from Kensington plaza to Avenue C. The plaza was created on a triangle located on McDonald Avenue at the intersection with Avenue C. It covers approximately a 5,600-square foot area. The land use of the plaza includes “multifamily walk-ups,” “commercial and office uses,” mixed residential and commercial,” and “public facilities and institutions” (Figure C.4). Avenue C Plaza is neighboring with a city facility (used as a storage) a supermarket, a hardware store, and an

auto repair shop. Both Kensington Plaza and Avenue C Plaza are designated in R5 zoning district meaning that these areas can have a variety of housing at a higher density in R3-2 and R4 districts (New York City Planning Department).

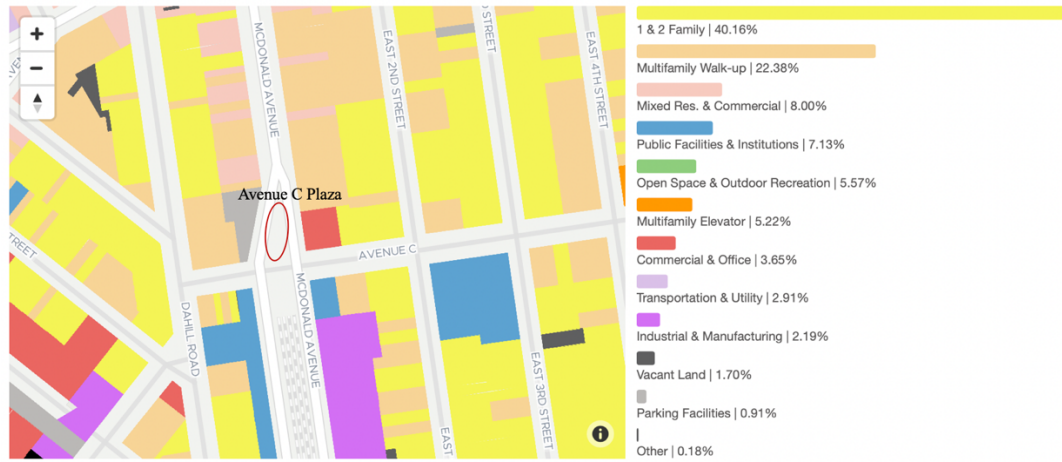


Figure C.4 Surrounding land use of Avenue C Plaza.
Source: (New York City Department of Planning, 2019)

C.2 Process and Partnership

In 2010, NYC DOT did a curb extension on the sidewalk intersecting with Church Street and Beverly Road in Kensington, Brooklyn. As a result of this extension, the sidewalk widened up and created an empty space for some seating. In 2012, some community members have proposed to have a plaza in this area in their community. I interviewed two of those community members who have had an active role in the creation and management of Kensington Plaza and Avenue C Plaza. The interviewees said that they arranged community meetings to discuss having a plaza in their neighborhood. After a few community leaders got the support of many residents in the neighborhood, they applied to the DOT for Kensington Plaza. The DOT installed four three-seat benches, boulders, and three tree pits in 2012 (Figure C.5). The interviewees mentioned their struggle to remain permanent in the neighborhood during the first year of Kensington Plaza. In order to keep

the plaza clean and well-maintained, a group of people (around 10 people) from the community (later called themselves the Kensington Stewards) made a cleaning schedule for the plaza. Interviewees said that each person from this group was assigned to clean the plaza each day for the first year of the plaza. Once the plaza was granted sponsorship for the maintenance by Neighborhood Plaza Program, ACE workers have been cleaning the plaza.



Figure C.5 Three different states of Kensington Plaza: before the plaza in 2011, interim plaza in 2012, and permanent plaza in 2019

Source: Google Maps Street View

In 2015, Kensington Stewards proposed another plaza in the neighborhood. A traffic triangle on McDonald Avenue had been used as a city government's storage before it was moved to another location in the neighborhood in 2014. The empty triangle was used as a parking space during 2015. After the application of Kensington Stewards to NYC DOT to create Avenue C Plaza at this triangle, a temporary plaza was built in the summer of 2016. In 2017, Avenue C Plaza has become a permanent plaza with its new design (Figure 6). The interviewees said that there were a couple of meetings for permanent design of the plaza including the community members, officials from NYC DDC and DOT, and people from Neighborhood Plaza Program. Kensington Stewards held a design competition for the plaza. The art committee of Kensington Stewards decided on a design that includes a pond and a painted concrete.

After the successful participation of some community members in maintaining Kensington Plaza, they have decided to form a formal non-profit organization called "the Kensington Stewards" in 2013. The Kensington Stewards describes the organization as "a group of Kensington, Brooklyn, neighbors who volunteer time, energy and creative ideas to introduce Kensington's many communities to one another so that they may discover others' traditions and cultures and gain an appreciation of them" (1) (The Kensington Stewards, 2019). They are official partners of Kensington Plaza and Avenue C Plaza. Their fiscal sponsor is Open Space Institute meaning that they allocate a certain percentage of donations for Kensington Stewards. The interviewees said that they use the money to fund some events in Avenue C Plaza.



Figure C.6 Three different states of Avenue C Plaza: before the plaza in 2014, interim plaza in 2016, and permanent plaza in 2019.

Source: Google Maps Street View

The interviewees indicated that the DOT asked for some major changes on the design such as eliminating the pond and the painted concrete. The designer of the selected design refused to make these changes. This situation led to the elimination of the selected design. After the elimination of the design, the interviewees said that city officials

presented a few site plans and asked Kensington Stewards to choose one. One of the interviewees said that “they basically just asked where we want to have rocks, planters, and benches.” However, both interviewees said that they are fine with the final design because it works for needs of the community such as gatherings for public events. They also think that the painted concrete and the pond would need too much maintenance work and funding. They consider that since they are a non-profit organization with a little funding, this task would be too difficult for them.

C.2 Design

NYC DOT installed Kensington Plaza as an interim plaza in 2012. Temporary design of Kensington plaza included some benches, planters, trees, and boulders. In 2012, the interim design included a total of 4 benches. There were two benches on each side of the sidewalk. Two boulders were located at the center under a tree for the interim plaza; and they have remained for the permanent design as well. In addition to two existing trees on the sidewalk, two more trees were added to the interim plaza. A few small planters also existed on the site during the interim process.

It can be said that permanent Kensington Plaza was created without a major construction. The plaza was designed by the designers of New York City’s Design and Construction Department. The permanent design included four tree pits with existing trees, six planters, four benches, and two boulders (Figure C.7). Because the curb extension was recently done on the side of Beverly Road; and a new ground cover was made prior to the plaza for that reason, the ground cover of the plaza has remained still for the permanent plaza design. In the permanent design, a bench on the side of Beverly Road was moved to

the Church Street side; and another bench was added to the same side of the plaza. Planters were replaced with large size planters included flowers and small size shrubs. It is significant to note that there were six large planters on the site in the summer of 2018 whereas only two planters existed in the summer of 2019.

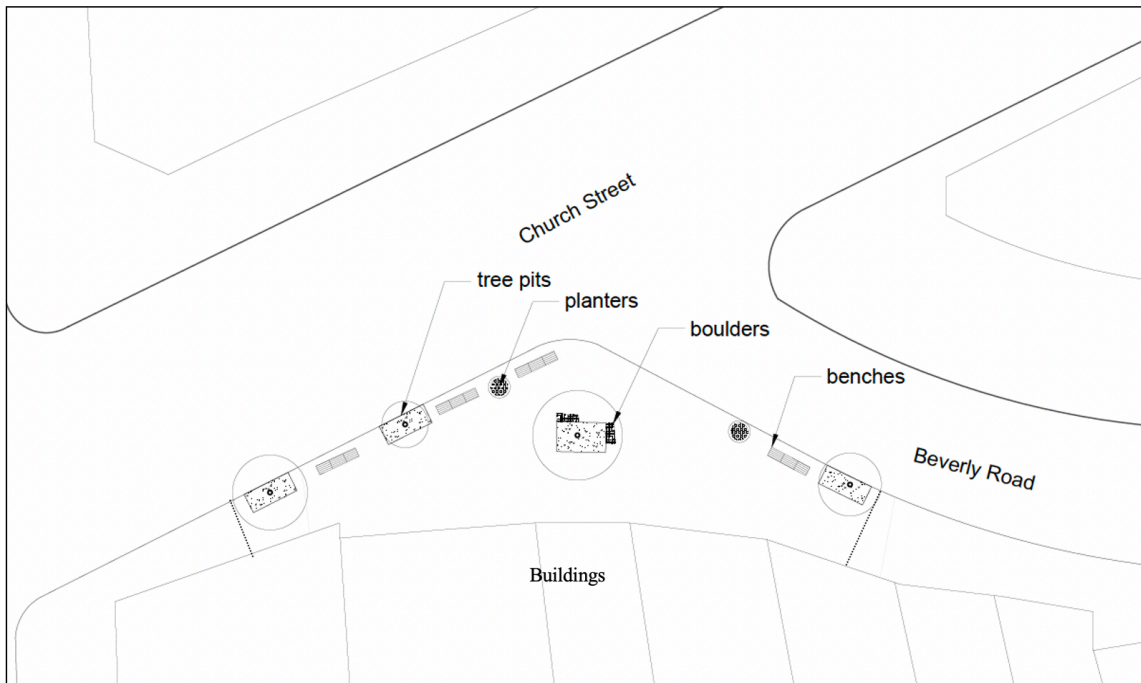


Figure C.7 Site plan of Kensington Plaza.

All benches on the site are under direct sunlight during most hours of the day. On the other hand, two boulders under the tree at the center are protected from the sunlight for most hours of the day. Therefore, less people used benches compared to boulders. Site observations illustrated that benches were occupied mostly by one person and rarely by two people whereas they were never occupied by three people at the same time. Boulders were usually occupied by more than one person at any time of the day. People who brought their own chairs to sit in the shady area from the adjacent building were seen in some observation sessions. Figure C.8 provides images from the site showing the effects of protection from the sun in the uses of seating.



Figure C.8 Images from Kensington Plaza showing the use of benches and boulders in the same observation days.

Avenue C Plaza was built as an interim plaza in 2016 remaining on the site for about a year. The interim design included several planters, boulders, café tables and chairs, and umbrellas on a triangle shape area (Figure C.9). In 2017, NYC DDC designed the permanent plaza with brand new concrete sidewalk and included standard plaza elements such as chairs, tables, and umbrellas. Avenue C Plaza has twenty-three large size planters, eighteen chairs, six tables, six boulders, and three umbrellas. In addition to these, a brand-

new concrete ground cover was made for the plaza. Since the plaza was designed without trees, the plaza is under direct sunlight during the daytime.

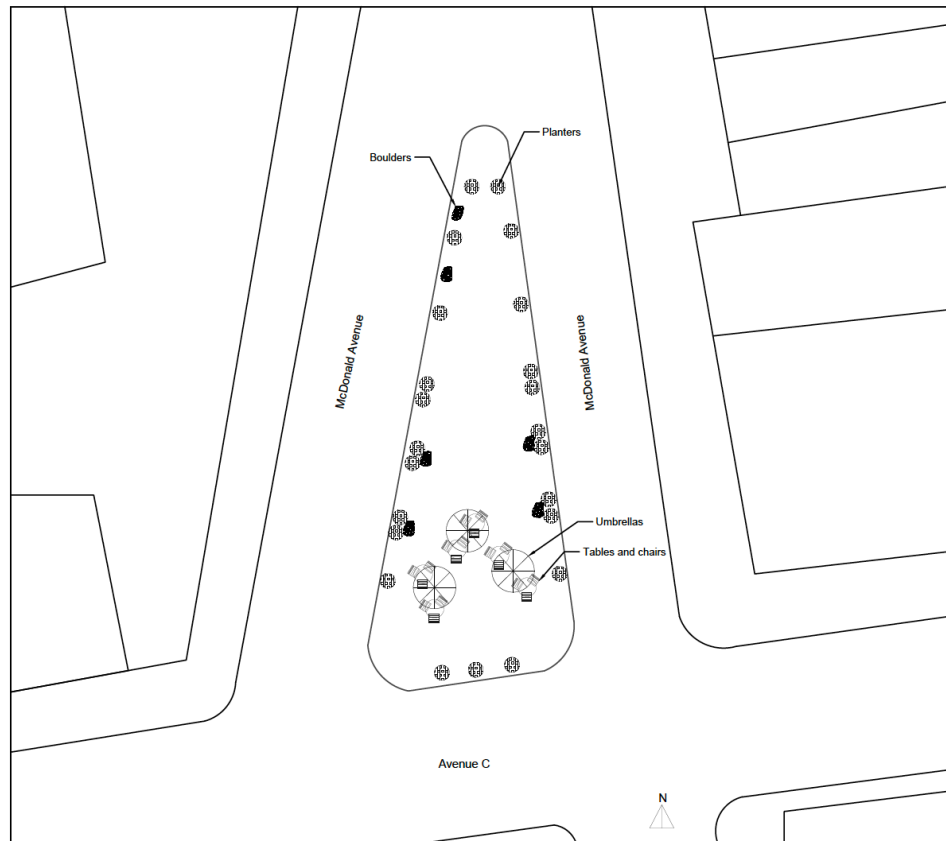


Figure C.9 Site plan of permanent Avenue C Plaza.

Protection from the sun during the daylight is only possible with three umbrellas that often cover for three tables and some chairs around them. On the other hand, umbrellas provide poor protection from the sunlight particularly in the early evenings because the sun angle comes from sides of the umbrellas (Figure C.10).



Figure C.10 Umbrellas are not sufficient to prevent the overheat in Avenue C Plaza.

C.3 Use and Programming

A total of eight different site observations were conducted in Kensington Plaza during the summer of 2018 and 2019. These observations considered user counts, activity counts, and posture counts. During a total of eight on-site observations, 94 people were observed as the user of Kensington Plaza. A user survey was conducted with 43 people in Kensington Plaza in three different days and times during the summer of 2019. These surveys were conducted four times in the weekdays and 2 times in the weekends.

Site observations were conducted in Avenue Plaza in the summer of 2019. In most of these observations, Avenue C Plaza was without any occupants. In eight different observation sessions in Avenue C Plaza, I counted only 16 people, most of which stayed briefly in the plaza. Due to the extremely low daily occupancy rate in Avenue C Plaza, I was not able to collect any surveys from the users. Therefore, Avenue C Plaza was not included in the study findings due its low occupancy rate.

In Kensington Plaza, a total of 94 people was counted during the observations in the summers of 2018 and 2019. From these people, 56 were counted in weekdays while counting in the weekends included 38 people. Numbers of people who were observed between 12 pm and 1 pm, and between 6 pm and 7 pm were close resulted in 43 people during noon observations and 51 people during afternoon observations. Figure C.11 shows the number of people who were observed on weekdays and weekends, from 12 to 1 pm and 5 to 6 pm.



Figure C.11 Observation results showing the number of people in different sessions in Kensington Plaza.

Site observations resulted that Kensington Plaza was 41.5% occupied by people who are between 18 and 39 years old whereas the rate of this age group was higher in user surveys (67.6%). Based on these results, Kensington Plaza had the highest rate for younger age groups compared to other case study plazas. According to the observation results, other occupants of Kensington Plaza comprised of 18.2% between 40 and 49 years old, and 18.2% over 60 years old. Figure C.12 indicates the results for the age collected from user surveys and site observations.

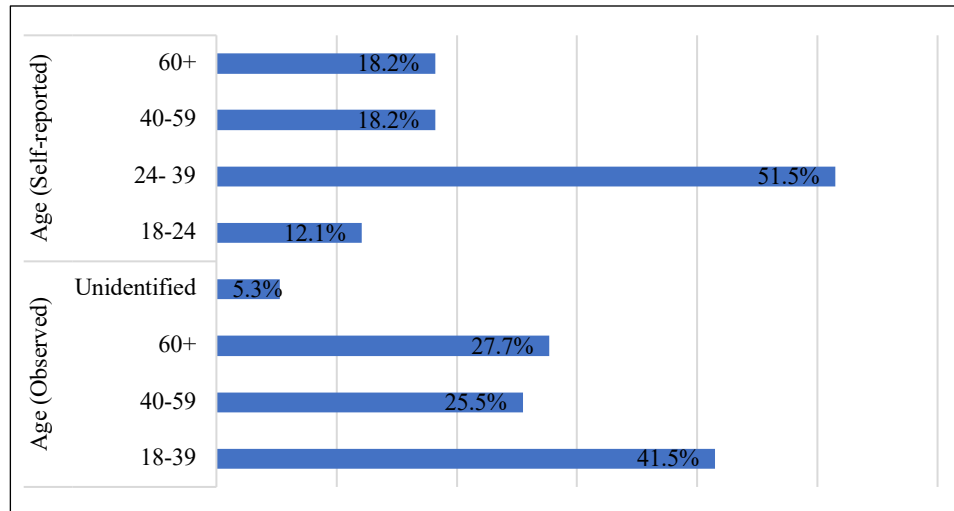


Figure C.12 The rate of people by age from user surveys and site observations in 71st Avenue Plaza.

Site observations showed that Kensington Plaza was occupied overwhelmingly by males. The female to male ratio of the users resulted in 73.4% male and 26.6% female. In terms of the difference between weekdays and weekends, the number of females in the weekday observations were larger than weekend observations. In addition to this, the number of females who were over 40 years old was higher than younger age groups both in weekday and weekend observations. In terms of racial and ethnic characteristics of users in Kensington Plaza, user surveys indicated that Kensington Plaza was the most ethnically and racially diverse plaza among case study sites. Figure C.13 illustrates the rates of racial and ethnic categories in Kensington Plaza. Whereas the rate of Whites was the highest with 33.3%, the rate of Blacks was the lowest with 6.1%. Respondents who identified themselves as others in this category were also the highest rate (15.2%) among case study plazas. These respondents specified their racial and ethnic identity as Bangladeshi, Turkish, Haitian, and Russian.

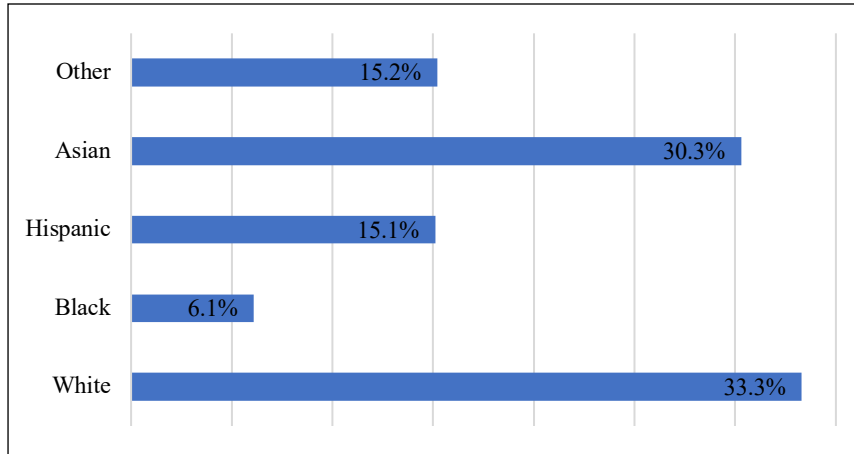


Figure C.13 Rates of racial and ethnic categories in Kensington Plaza.

Figure C.14 shows the rate of respondents for their preferences in the use of Kensington Plaza including method to get to the plaza, proximity from home to the plaza, frequency of visits to the plaza, and duration of visits. Survey results indicated that many respondents reported that they live in a 10-minute walk to the plaza and visit the plaza once a day staying less than 30 minutes. The rate of respondents who indicated their stay between 30 minutes and 2 hours was also considerable with the rate of 30.3%. Like other case study sites, most of these users was comprised of males who are over 40 years old.

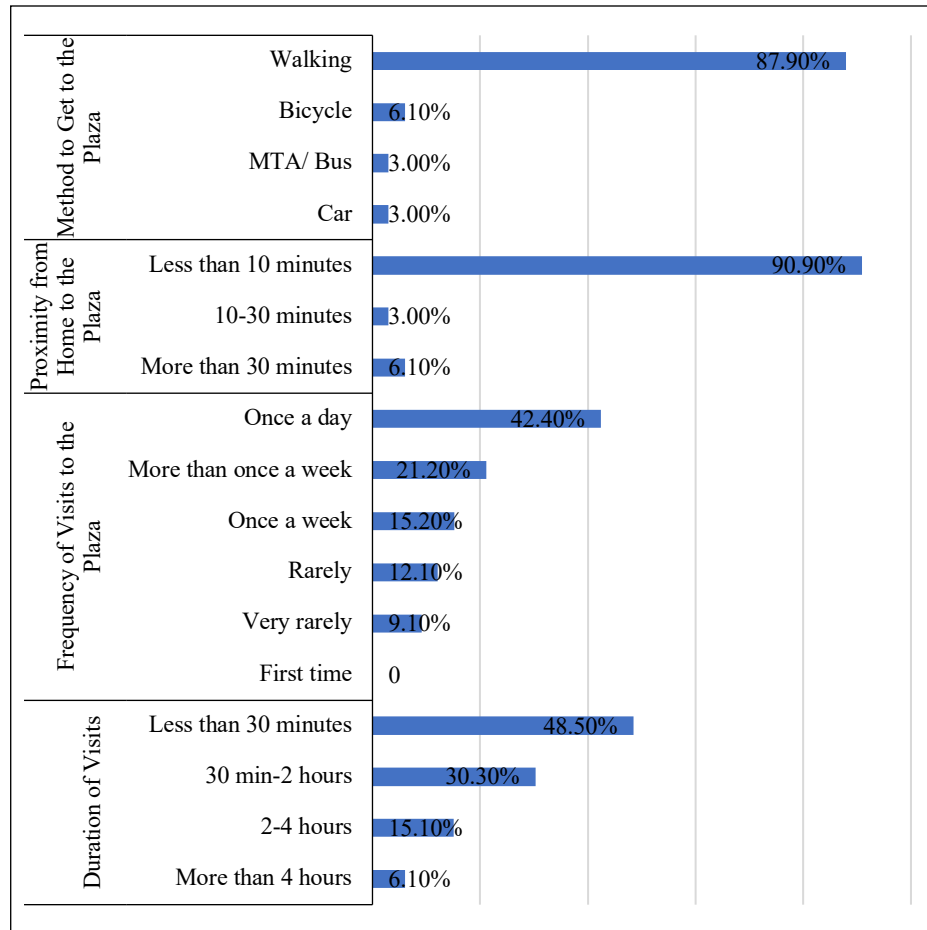


Figure C.14 Rate of respondents for their preferences in Kensington Plaza.

Both site observations and user surveys were used in order to measure socialization in Kensington Plaza. Figure C.15 illustrates items that were measured and resulted in both data collection strategies. Based on the results, people in Kensington Plaza socialized with friends and family members less than people in other case study sites. Site observation results showed that 43.6% of people were alone while 41.5% were with one person. The number of groups of more than two people in Kensington Plaza was lower than any other case study plazas. Survey respondents in Kensington Plaza rated socialization with friends and family members 3.1, and socialization with others they don't know 3.9 (Likert-type scale: (1) never, (2) seldom, (3) sometimes, (4) often, (5) almost always). The score for

socializing with friends and family was the lowest in Kensington Plaza among case study sites.

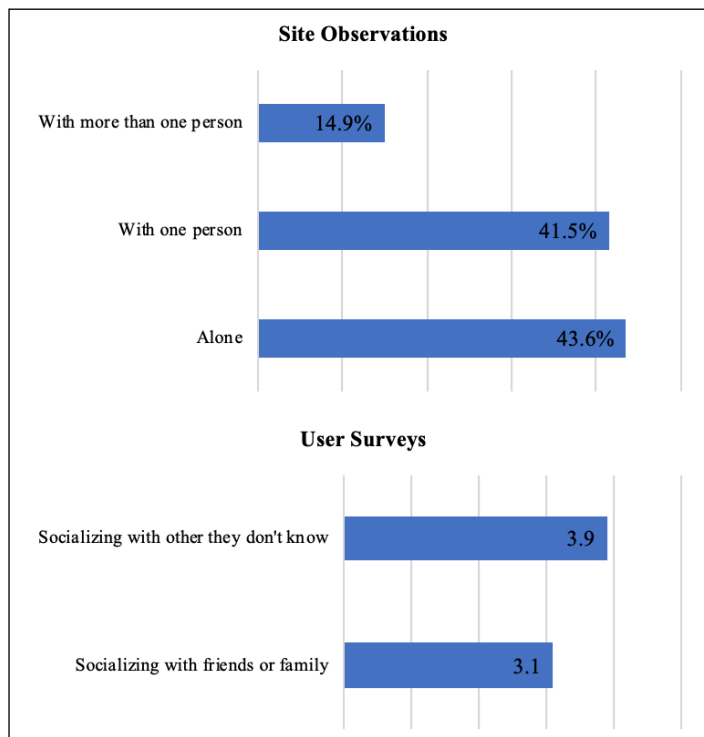


Figure C.15 Socialization items and results from site observations and user surveys.

Figure C.16 illustrates the rate of postures conducted by people in Kensington Plaza during observations. Despite other case study plazas, many people were standing in Kensington Plaza during the site observations. During the observations, 38.3% of the users were counted as standing; and 13.8% were observed in a position of standing and leaning (people who make quick pauses or stand less than a minute were not counted for the observational data). People who stand in the plaza preferred locations at the center of the plaza (under a tree), in front of stores (the building provides a shady area), and near a bench on the west side of the plaza (a tree provides a shady area). It is also significant to note that while this many people were standing in the plaza, at least two benches were empty probably because they were under the direct sunlight. Kensington plaza was confined to

provide a comfortable user experience because it was a comparatively smaller size plaza located on a highly dense sidewalk with limited seating opportunities.

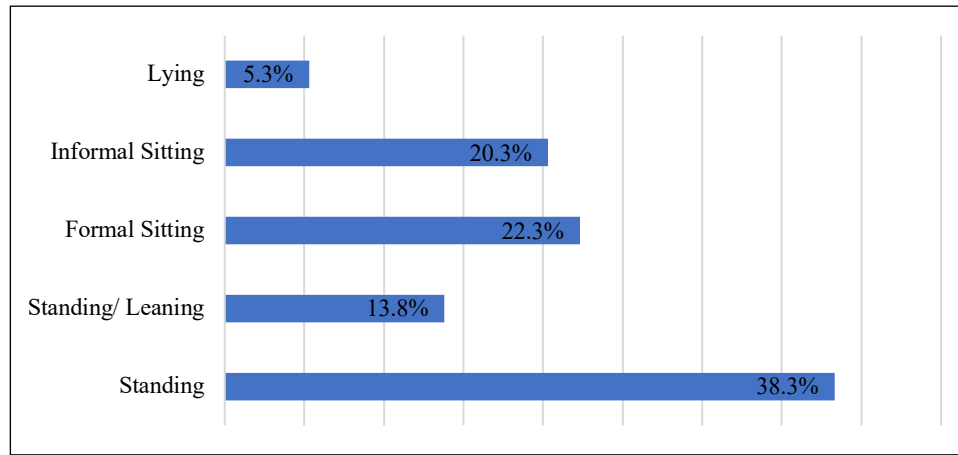


Figure C.16 Rates of postures conducted by people in Kensington Plaza.

In this study, sitting was divided into two observational categories: formal sitting and informal sitting. While formal sitting was observed by 22.3% of all observed users, the rate of informal sitting was 20.3%. The rate of people who were lying in the plaza was low with 2.9%. Lying was another activity that was practiced higher than any other plaza in this study. In Kensington Plaza, 5.3% of people were observed lying on the boulders at the center of the plaza (Figure C.17).



Figure C.17 A man lying on a boulder in Kensington Plaza.

Several different activities were observed at Kensington Plaza. Figure C.18 illustrates the rate of each activity based on the observation results. These were categorized as eating or drinking, chatting, people watching, using electronic devices, attending an event, commercial activities, and others such as reading, smoking cigarettes, and drinking alcohol. It is important to note that more than one of these activities might be conducted by the same person. For observational data, each activity was counted individually. During the observations, categorized activities were recorded 160 times in Kensington Plaza. The most occurring activities in Kensington Plaza were people chatting (41.9%) and watching (33.1%). Eating or drinking activities were practiced by 10% of the users which was the lowest rate in all case study plazas. People who got their food or drinks mostly preferred sitting on the benches and tended to occupy another seat on the bench for their food. This situation was because of absence of tables in the plaza. The rate of people who used electronic devices was also very low (10%) compared to other case study plazas. During my observations, I did not see any street vendors in the plaza.

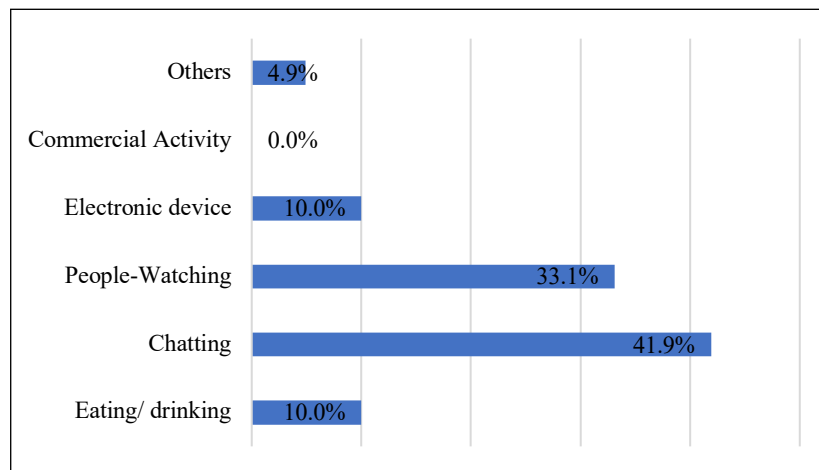


Figure C.18 Rates of activities in Kensington Plaza based on the observation results.

Avenue C Plaza had only 16 visitors during all six observations that occurred in different days between 12 am to 2 pm and between 3 pm and 5 pm. Out of 14 people, 6 sit

on chairs adjacent to tables; 3 sit on chairs without tables; and 5 sit on the boulders in Avenue C Plaza. None of these people spent more than 15 minutes in the plaza. Because the number of visitors were also few during the survey sessions in the summer of 2019, I was unable to do any surveys in the plaza. Even though I asked 11 people for the survey, no one agreed to participate in the research.

Even though Avenue C Plaza was almost empty for daily use during my observation sessions, the plaza was a very active plaza considering the number of events and attendees of these events. The Kensington Stewards are in partnership with several organizations in programming events in Avenue C Plaza. Programming in the plaza is typically made by the Kensington Cultural Council. The council includes several organizations: the Kensington Stewards, ArtBuilt, Arts & Democracy, BIPA - Bangladesh Institute of Performing Arts, The Singing Winds, and Casa Cultural. Event programming is supported, in part, by public funds from the New York City Department of Cultural Affairs in partnership with the City Council, New York City Small Business Services, and Brooklyn Borough President Eric L Adams. In programming events, other supporting organizations include Singing Winds, New York City Council Member Brad Lander, NYC Small Business Services, and National Endowments for Arts. These organizations provide financial support as well as engaging an active role with the provision of human and material resources in programming events and activities in Avenue C Plaza.

The Kensington Stewards organizes recurring events usually between April and November. Some of these events include activities such as Yoga classes, Pilates classes, and stargazing. The Kensington Stewards supplied mats and tents for Yoga and Pilates classes that occurred almost every week during the summer of 2018 and 2019. The

interviewees indicated that mats were provided by New York City Department of Transportation to support these events in the plaza. There were stargazing activities in June and September in 2018 and 2019 in the plaza. These events were held during the nighttime in partnership with the Amateur Astronomers Association of NYC providing two telescopes for the use of community during the event. The Kensington Stewards organized several Community iftars in 2018, and 2019 in Avenue C Plaza. The interviewee mentioned that these iftar organizations have attracted many people from Muslims and non-Muslims exceeding 100 people of attendance every year.

The Arts and Democracy is a non-for-profit organization supporting cultural events and art organizations specifically focusing on “immigration reform, environmental justice, equitable development, participatory democracy, and human rights” (Arts and Democracy). The Arts and Democracy has been organizing several events in Avenue C Plaza since 2016. An interviewee who has been working at the Arts and Democracy for four years reported that their aim is to combine art, culture, social justice, and participatory democracy as a tool to uplift issues of the community. For Avenue C Plaza, they specifically target women and youth to provide a space for them to call it as their own space and learn skills through programmed activities. The interviewee indicated that their events in Avenue C Plaza are funded through the New York City Cultural Affairs and the Office of Council Member Brad Lander.

The first contact of the Arts and Democracy and the Kensington Stewards occurred at the very beginning of Avenue C Plaza through an art project of Monica Jahan Bose, a Bangladeshi-American artist. She wanted to record the stories of Bangladeshi women and to have private conversations with women in public space. The intention was to bring more

women to public space; and they wanted to use the plaza for this occasion. After this first project, the Kensington Stewards and the Arts and Democracy have worked on organizing events. The interviewee said that because the Kensington Stewards do not have enough funding to provide a year-round event organization, the Arts and Democracy volunteered to do some of the event organizations in Avenue C Plaza. The Kensington Stewards and the Arts and Democracy have been organizing art events, craft workshops, concerts, and community gatherings in Avenue C Plaza since 2016. ArtBuilt also have been partnering in the organization of most of these events.

In Avenue C Plaza, ArtBuilt and Arts and Democracy are main sponsors of the programming for a full month of June every year since June 2017. Some of the events during this month are also supported by other organizations such as the Singing Winds, Casa Cultural, Bangladeshi Institute of Performance Arts, and some local institutions. An ArtBuilt Mobile Studio is located on Avenue C Plaza providing a small indoor space for some of the public events and workshops during the month of June every year. Focusing on women and youth, these events usually include painting classes, planting workshops, ethnic music and dance events (annual immigrant heritage concerts), craft workshops (sculpting and kite-making), and reading and writing workshops. Figure C.19 shows images of Kite Making event in Avenue C Plaza in July 2019.



Figure C.19 Kite Making event organized in a partnership with ArtBuilt, Arts and Democracy, and Kensington Stewards in Avenue C Plaza in July 2019.

C.4 Management and Maintenance

The community partner, Kensington Stewards, is responsible for the management and maintenance of both Kensington Plaza and Avenue C Plaza. After a year-long community-initiated maintenance of Kensington Plaza, Kensington Stewards signed a contract with Neighborhood Plaza Program has started to maintain green areas and up-keep of the plaza through ACE. Neighborhood Plaza Program has provided a coordination between the plaza partner and two non-profit organizations (ACE and GreenTeam) for the maintenance of both plazas. ACE workers are responsible for everyday cleaning of Kensington Plaza. In addition to cleaning, they also collect chairs and umbrellas in Avenue C Plaza. GreenTeam helps Kensington Stewards upkeeping the plants that are provided by Neighborhood Plaza Program.

Benches on the plaza were made from aluminum material painted with grey color. They all had partial paint corrosions due to use and direct sunlight, and pigeon and food waste at various spots. Because one bench was always occupied by a homeless man, there were only three benches left for the rest of the community. These three benches were the

ones that get direct sunlight all day whereas the bench that the homeless individual occupied was near a small tree that provides a canopy for the bench during the afternoon hours.



Figure C.20 The only bench that has some canopy from a small tree in Kensington Plaza.

During eight different site observations in weekdays (4 days) and weekends (4 days), I coincided with ACE workers in Kensington Plaza during two of the weekday observation sessions. The ACE worker swept the ground and took a rest during both observations. During four observation sessions in 2018 and 2019, I observed some trash on the benches and the ground several times (Figure C.21). In these observations, I did not see any person for the upkeep of the plaza. Overall, Kensington Plaza was less maintained compared to other case study plazas.



Figure C.21 An image from Kensington Plaza showing trash on a bench.

Unlike Kensington Plaza, Avenue C Plaza was very well maintained and consistently featured a clean environment during the site observations. This situation could be due to very light daily use of Avenue C Plaza compared to Kensington Plaza. Avenue C Plaza has the same system as the Kensington Plaza. While an ACE worker is responsible for daily up-keep of the plaza, Neighborhood Plaza Program maintains green areas. The interviewees from the Kensington Stewards indicated that An ACE employee unlocks and sets up tables, chairs, and umbrellas around 9 am and collects and locks them around 5 pm. During four observation sessions in weekdays between 3 pm and 5 pm in Avenue C Plaza, An ACE worker collected and locked tables, chairs, and umbrellas around 4 pm (Figure C.22). I did not have the opportunity to observe morning routines. When I visited the plaza on two different weekends between 3pm and 5pm, all tables, chairs, and umbrellas were piled up and locked at the corner of the plaza. The interviewees said that they have had a good communication with the Neighborhood Plaza Program in the maintenance of green

areas since the plaza was installed in 2016. The Neighborhood Plaza Program has been changing plants in the planters seasonally and maintaining them.



Figure C.22 An ACE employee collecting chairs to store them in Avenue C Plaza.

Based on the survey results, Kensington Plaza was rated with an average of 3.9 by its users. In six categories of plaza satisfaction, Kensington Plaza was rated: 4.1 for cleanliness, 4.2 for maintenance, 3.8 for safety, 2.3 for weather protection (Likert-type scale: (1) very poor to (5) very good).

APPENDIX D

KNICKERBOCKER PLAZA

Knickerbocker Plaza is in Bushwick neighborhood in the northern part of the borough of Brooklyn. Bushwick is in the territory of Brooklyn Community District 4. The district covers an area of 2 square miles with a population of 112,600 based on the 2010 U.S. Census. As of 2017, the neighborhood predominantly has a Hispanic population, mostly from Puerto Rico and the Dominican Republic (U.S. Census Bureau, 2017). The census data shows that people below the poverty line in the neighborhood are double the rate in New York.

Knickerbocker Plaza is in a highly populated district with a ratio of almost 56,317 persons per square mile. Figure D.1 shows the land uses in a ten-minute walk to the plaza. Residential uses cover most of the land use in the borders of Community District 4. Multi-family walk-ups cover most of the residential uses, while one- and two-family buildings also have a high percentage in the area. Even though open and green spaces cover a larger percentage than the city average in Brooklyn Community District 4, green spaces and parks in a radius of a ten-minute walk from Knickerbocker Plaza are limited with Maria Hernandez Park, Heckscher Playground, and Venditti Plaza. Maria Hernandez Park, formerly called Bushwick Park, is the largest open public space in a ten-minute walk to the plaza. It is located between Irving and Knickerbocker Avenues. The park features a handball court, basketball court, fitness equipment, benches, and a stage for public programs. On the other hand, Venditti Plaza is an interim plaza and it is the second DOT plaza in the neighborhood equipped with some benches, large flowerpots, and grown trees.

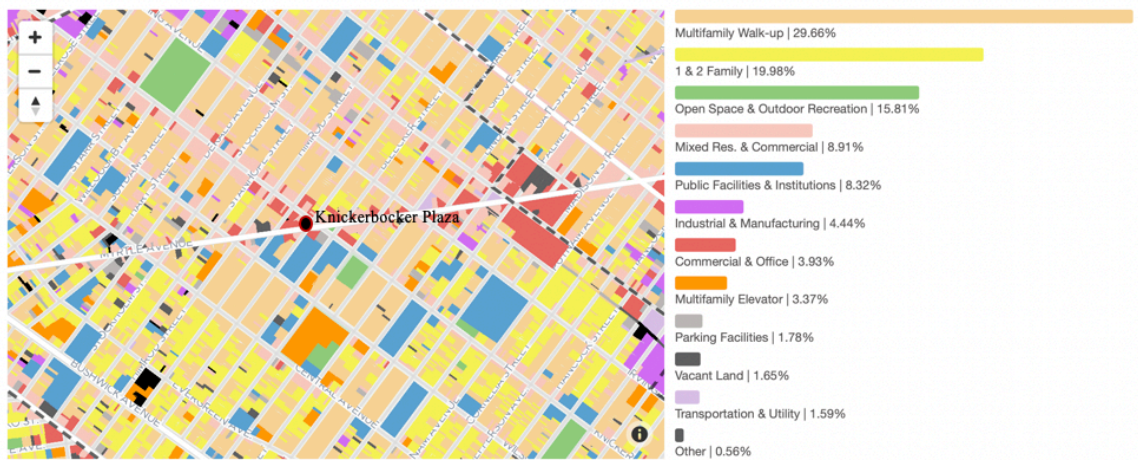


Figure D.1 Land use map of Brooklyn Community District 4 zoomed in the neighborhood of Knickerbocker Plaza.

Source: (New York City Department of Planning, 2019)

D.1 The Site

Knickerbocker Plaza is located at the intersection of Knickerbocker Avenue and Myrtle Avenue in Brooklyn. The plaza covers approximately an area of 5,400 square feet. Knickerbocker Plaza is one of the examples of “intersection plazas” that are created by using residual space between the street corner and the traffic island (Figure D.2) ("Global Street Design Guide," 2016). The plaza is in a busy intersection featuring both commercial and residential land uses. It is surrounded by a variety of commercial activities including food, technology, and clothing. New York City Police Department 83rd Precinct is at the south-east corner of the plaza while Heisser Triangle, a small memorial park, is located right across the street.

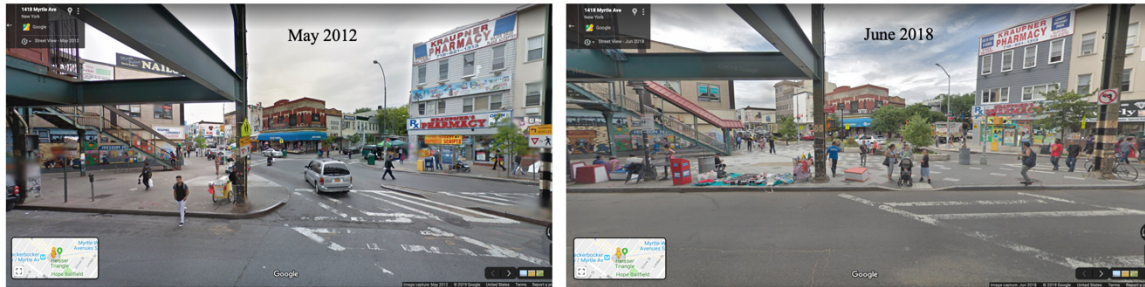


Figure D.2 Knickerbocker Plaza was created through the use of residual space between the street corner and the traffic island.

Source: Google Maps Street View

D.2 Partnership and Process

Knickerbocker Plaza was designed as a result of a traffic calming study at the intersection of Myrtle Avenue and Knickerbocker Avenue. Before the plaza, the intersection was a dangerous spot for pedestrian safety causing deadly accidents every year. As the sponsor partner, Ridgewood Bushwick Senior Citizen (RBSCC) Council applied to NYC DOT to build a permanent plaza in the intersection in 2013; and the plaza was designed as a part of traffic calming project in 2014. In 2014, the name of RBSCC changed to RiseBoro Community Partnership. The manager of Knickerbocker Plaza reported that even though she was not working at the time in RiseBoro, there were a couple of one-day plaza events held at the site. Knickerbocker Plaza is one of the few plazas that did not have a temporary plaza phase. The plaza was designed once and permanently because it was part of the traffic calming project.

D.3 Plaza Design

Knickerbocker plaza was designed by the NYC Department of Design and Construction (NYC DDC). The plaza was completed in 2015 after its design and construction process

throughout 2014. Figure D.3 illustrates the site plan of Knickerbocker Plaza based on the site survey in 2018. The plaza has five sets of three-seat benches, eight moveable chairs and three moveable tables. Benches are located adjacent to the concrete planters that contain seasonal flowers and bushes. Locations of tables and chairs in the plaza changed frequently based on the weather conditions. Moveable chairs and tables are mostly located under the elevated train tracks because it provides a shady area. Figure D.4 shows benches and chairs in Knickerbocker Plaza.

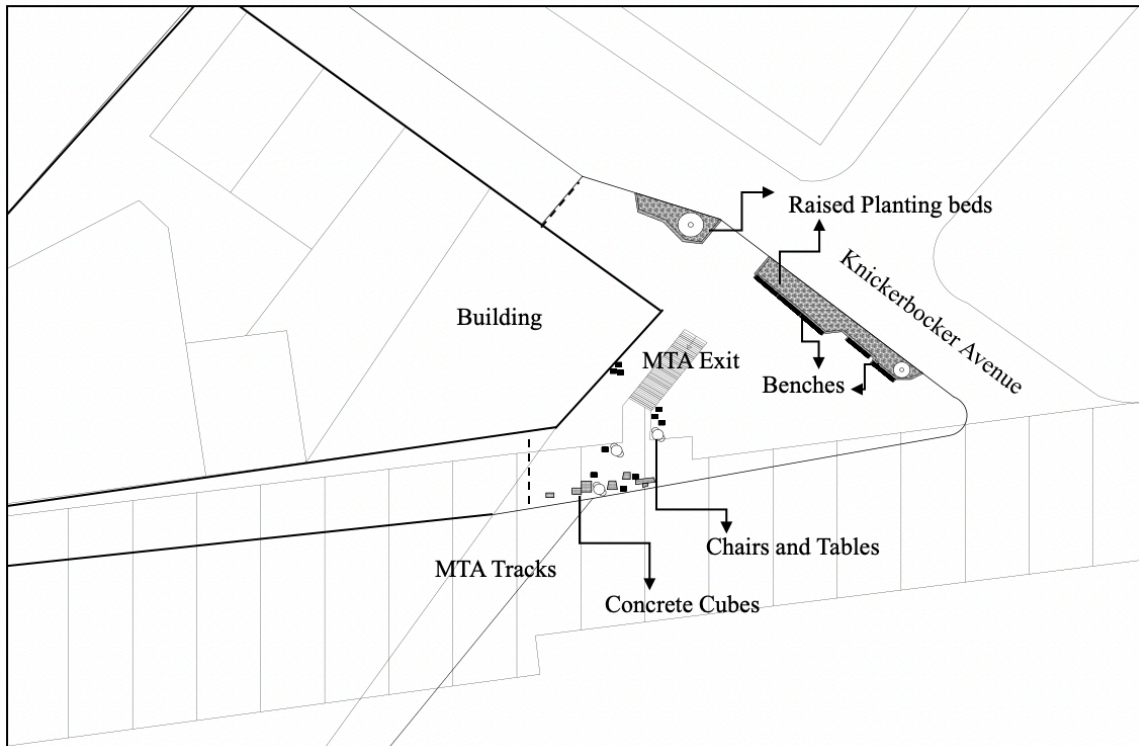


Figure D.3 Site Plan of Knickerbocker Plaza.



Figure D.4 Benches and chairs in Knickerbocker Plaza.

The plaza design includes seven concrete cubes that are painted in different colors to provide protection from vehicular traffic and extra sitting space for plaza users. During site observations in the summers of 2018 and 2019, it was observed that people mostly use concrete cubes even though these are presumably less comfortable than chairs or benches. Based on the interviews with the plaza manager and government officials from NYC DDC, the design choices in Knickerbocker plaza were made particularly emphasizing the pedestrian safety at the intersection and potential maintenance costs. This situation placed some limitations on the design concerning long-term activities in the plaza. For instance, the center area of the plaza was purposefully left empty without any plaza furniture to provide an uninterrupted pedestrian flow causing all sitting spaces at the edge of the plaza. The area under the elevated train tracks is the only shady area for users who want to stay for long hours in the plaza. Figure D.5 shows concrete cubes under the elevated train tracks in Knickerbocker Plaza.



Figure D.5 Concrete cubes in Knickerbocker Plaza.

The manager of Knickerbocker Plaza reported that the space under the elevated train tracks was useless for the first few years of the plaza due to pigeon waste on the concrete cubes. After the request of the plaza sponsor, RiseBoro, MTA stepped up and installed pigeon guards on the elevated train tracks. Concrete cubes became the most popular spot for plaza users at that time. However, plain concrete blocks were still uninviting and hard to maintain. To mitigate these issues, RiseBoro hired Mark Garcia, a professional artist, and put his artwork on these concrete cubes in 2016.

In addition to a garbage container and a water fountain, the plaza had two raised planting areas and a brand-new ground cover that differentiates the plaza space from the rest of the sidewalk. The manager interviewed for this dissertation mentioned that even though it was determined that the plaza would have bike racks, a certain amount of trash cans and recycle bins, and a concession kiosk during the design process, these items have never been installed in the plaza.

D.3 Users and Uses

After my two preliminary observations in the summer of 2018, I visited Knickerbocker Plaza for site observations in six different times during summer 2019. During my observations, I used a checklist contained items for user count, and observations of user postures and activities. I also conducted user surveys with 59 people in Knickerbocker Plaza on six different days and times in 2019. The user survey contained questions with multiple choice and Likert-type scales of questions on several topics: means of transportation to get to Corona Plaza, time of arrival to the plaza from home, frequency of visit, duration of visit, rating different aspects of the plaza, and user background (e.g., gender, ethnicity, and age).

There were eight different one-hour observation sessions in Knickerbocker Plaza. A total of 207 people was counted during the observations in the summers of 2018 and 2019. Out of these people, 171 were counted on weekdays while 136 were counted on weekends. The number of people who were observed between 12 pm and 1 pm, and between 6 pm and 7 pm was slightly different in the plaza. While 50.8% of all observed plaza users were observed between 12 and 1 pm, the rate of users who occupied the plaza between 5 pm and 6 pm was 49.2%. Figure D.6 includes the number of people who were observed on weekdays and weekends, and from 12-1 pm and 5- 6 pm.

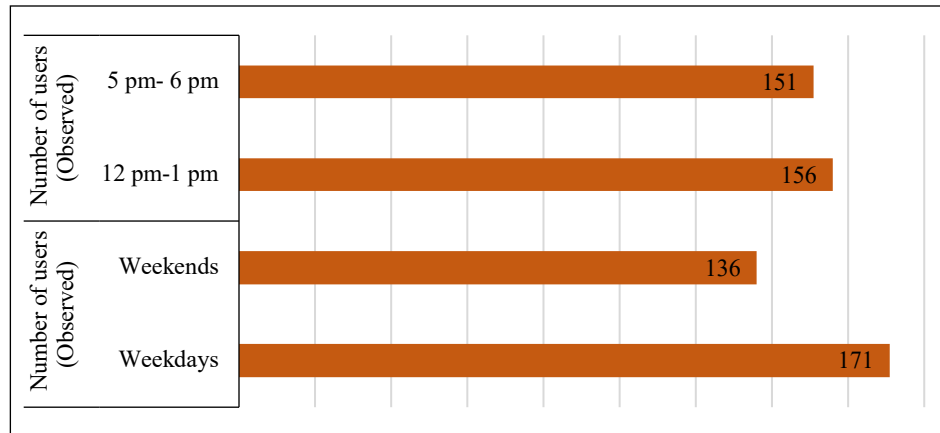


Figure D.6 Observation results showing the number of people in different sessions in Knickerbocker Plaza.

The Knickerbocker Plaza manager mentioned during the interview that the plaza was mostly occupied by older people, saying that the plaza is known in the community as the old folks’ park. Both observations and user survey results confirmed that Knickerbocker Plaza was occupied significantly more by people over 40 years old. Knickerbocker Plaza also scored highest for people over 60 years old among all case study plazas. According to the observation results, occupants in Knickerbocker Plaza are comprised of 29.1% of people between 18-39 years old, 34.8% of people between 40 and 49 years old, and 32.2% of people over 60 years old.

However, user surveys revealed slightly different results in the rates of older age groups. The site observations indicated that Knickerbocker Plaza was used more used by people between 40-59 years old, whereas the rate of people over 60 years old was higher in user surveys. On the other hand, the rate of respondents who were between 18-39 years old was lower in user surveys. Both site observations and user surveys indicated that Knickerbocker Plaza was used more used by older age groups. Figure D.7 illustrates the differences between observations and self-reported survey results for the rates of age groups. What accounts for this difference? The difference may be a result of two possible

situations: the observer bias over assessing people’s age during the observations or the higher tendency of older age groups to participate in the survey. It is important to note that even though people under 18 years old were not recorded in this study, more people from younger ages (between 12-18) were observed in Knickerbocker Plaza compared to other case study plazas.

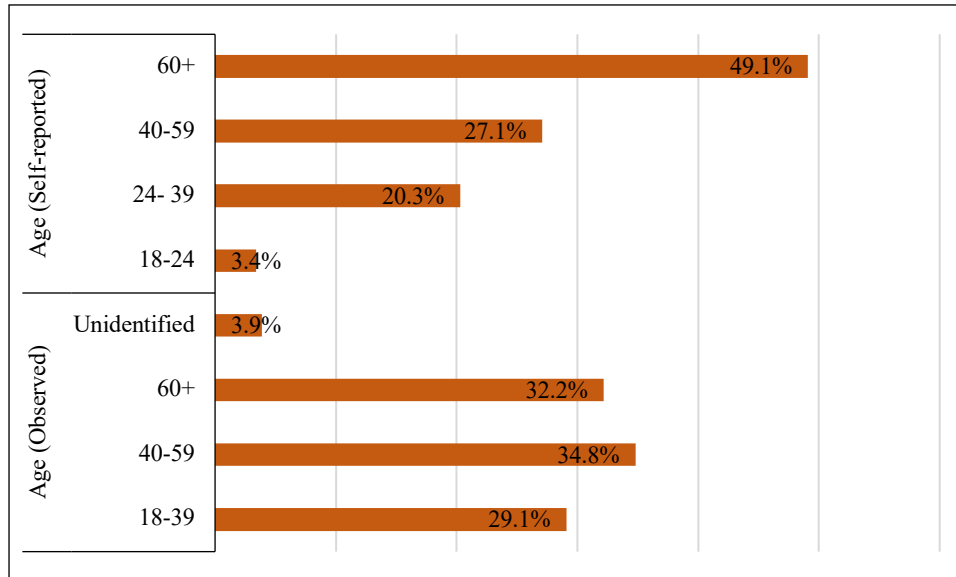


Figure D.7 The rate of people by age from user surveys and site observations in Knickerbocker Plaza.

Males occupied Knickerbocker Plaza in an overwhelmingly higher rate than females. Based on site observation results, the female and male ratio resulted in 62.9% male and 37.1% female. In terms of the difference between weekdays and weekends, the number of females in the weekend observations was larger than on weekdays observations. In addition to this, the number of females who were over 40 years old was higher than younger age groups both in weekday and weekend observations. Knickerbocker Plaza was overwhelmingly occupied by Hispanic or Latino with a rate of 67.8%, reflecting the neighborhood characteristics of Bushwick. The rate of Hispanic or Latino respondents rated highest in Knickerbocker Plaza compared to other case study sites. Respondents who

identified themselves as ‘White’ formed the second largest group in this category, rating 15.2%. Figure D.8 shows the rates of racial and ethnic groups of respondents in Knickerbocker Plaza.

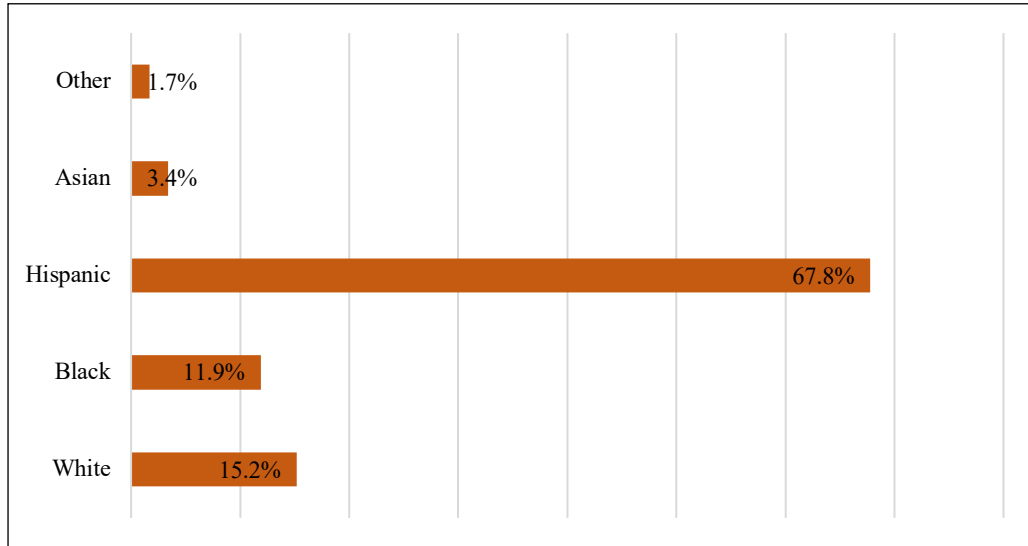


Figure D.8 Rate of racial and ethnic divisions in Knickerbocker Plaza.

Figure D.9 shows the rate of respondents for their preferences in the use of Knickerbocker Plaza, including their method to get to the plaza, proximity from home to the plaza, frequency of visits to the plaza, and duration of visits. User survey results indicated that Knickerbocker Plaza was used by the neighborhood people like other case study plazas. However, it was frequented by the same people staying in the plaza more hours than other case study sites. Based on the survey results, 77.8% of respondents reported that they live in a maximum ten-minute walk to the plaza; 88.1% of respondents said that they walk to the plaza. The plaza was visited once a day by 45.8%, more than once a week by 23.7%, and once a week by 18.6% of the plaza people. Few people indicated that they visited plaza ‘rarely’ and ‘very rarely’, resulting in a total of only 6.8% of all respondents. The first-time users were 5.1% of all respondents in Knickerbocker Plaza. The majority of people stay for more than 2 hours in Knickerbocker Plaza. 35.6%

of all respondents reported their stay between 2 to 4 hours, and 13.5% of them reported their stay more than 4 hours. People who reported a stay of more than 2 hours in Knickerbocker Plaza were mostly over 40 years old (67% of respondents who are over 40 years old).

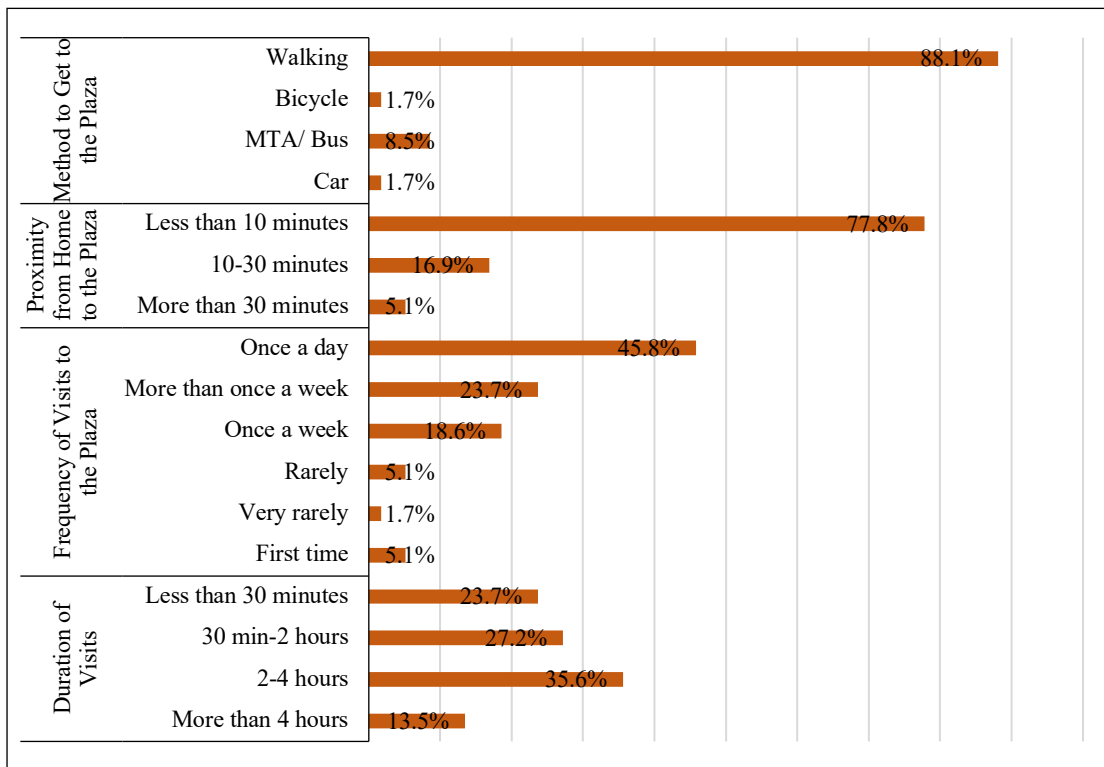


Figure D.9 Rate of respondents for their preferences in the use of Knickerbocker Plaza.

Site observations and user surveys indicated that people used Knickerbocker Plaza most frequently with friends and family members. The number of people who were with a group of more than two people was highest in the socialization category of site observations with 143 people out of 307 totals observed. The number of people who were with one person was 94, which comprised 30.6% of all observed users in the plaza. The rate of people who were alone in the plaza was 22.8%, illustrating a lower rate compared to other case study sites. Survey results provided more detail about the socialization of people in the plaza suggesting that respondents rated higher socializing with friends and family

members in the plaza (4.6) more than socializing with strangers (3.1) (Likert-type scale: (1) never, (2) seldom, (3) sometimes, (4) often, (5) almost always). Figure D.10 illustrates the numbers of people who were observed for socialization and the average rating for the identity of socialized people.

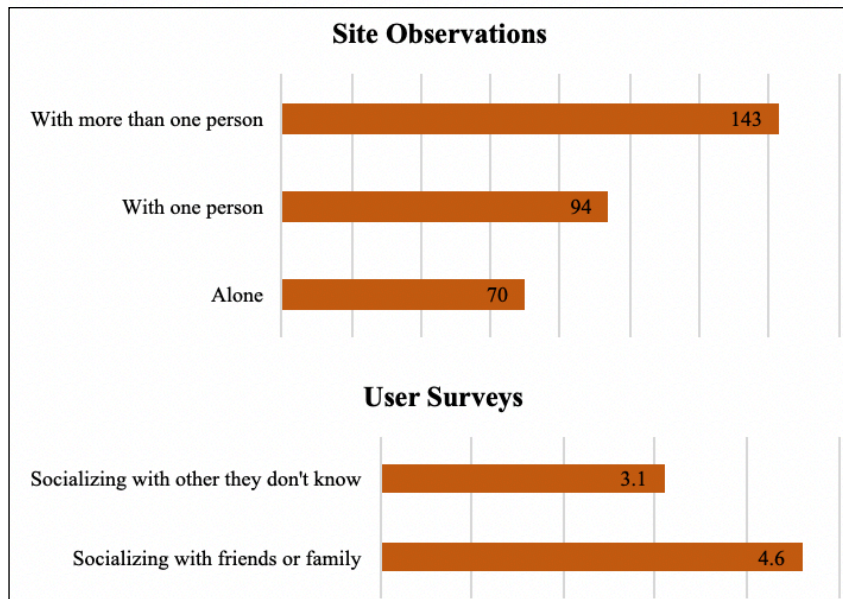


Figure D.10 Results for socializing collected from site observations and user surveys in Knickerbocker Plaza.

Figure D.11 illustrates the rate of postures observed in Knickerbocker Plaza. Like other case study sites, sitting was the most observed posture in Knickerbocker Plaza rating 78.4%. Sitting included two observational categories: formal sitting and informal sitting. Formal sitting that refers to a sitting position on a chair or concrete walls stepping feet on the ground was practiced by 51.5% of all users whereas informal sitting positions such as sitting on the ground, tables, different parts of chairs, and some concrete walls included 16.9% of sitting people in the plaza. Concrete cubes under the elevated train tracks were the most occupied form of seating whereas benches on the east of the plaza were comparatively less occupied by people. Chairs and tables were typically located near

concrete cubes under the train tracks. The weather basically determined who sits where during my observations. Older age groups who also reported a longer stay in the plaza were usually sitting on concrete cubes or chairs because benches were under the direct sun. Benches were used by people only for a few minutes on sunny days whereas, on cloudy observation days, many people were sitting on benches for longer periods. Figure D.12 shows two images that were taken on different observation days.

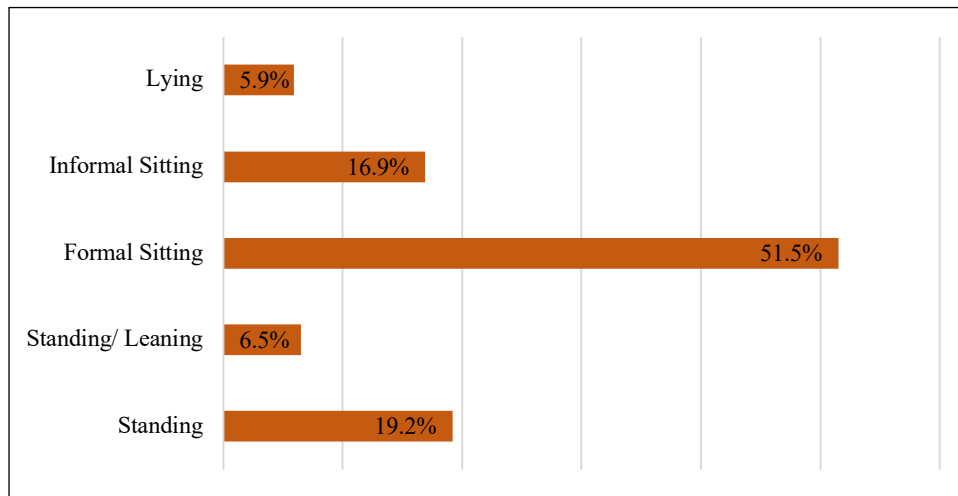


Figure D. 11 Rates of postures observed in Knickerbocker Plaza.



Figure D. 12 Differences between a cloudy day and a sunny day for the use of benches in Knickerbocker Plaza.

During the observations, 25.7% of the users were counted as standing which was also observed in two categories: standing (19.2%) and standing/leaning (6.5%). It is

important to note that people who make quick pauses or stand less than a minute were not counted for the observational data. The number of people who were lying in the plaza was 5.9%. These people were often lying on the concrete cubes.

Several different activities were observed in the plaza. Figure B.13 illustrates the rates of activities from observation results. Activities were categorized as eating or drinking, chatting, people watching, using an electronic device, attending an event, commercial activities, and others such as reading, smoking cigarettes and drinking alcohol. It is important to note that more than one of these activities might be conducted by the same person. For observational data, each activity was counted individually. During the observations, categorized activities were recorded 475 times in Knickerbocker Plaza (n=475). The most conducted activity was chatting (36.2%), featuring the highest rate in all plazas. The observation results also illustrated that people-watching (29.5%) was distinctly higher than the use of smartphones in Knickerbocker Plaza (14.1%).

The highest rate for eating/drinking was 9.7% of all activities in Knickerbocker Plaza. After Corona Plaza, the greatest number of street vendors were in Knickerbocker Plaza and comprised 5.1% of all activities. Considering that there were several street vendors selling food and fast food restaurants around the plaza, the rate of eating or drinking was low in Knickerbocker Plaza. People who got their food or drink from street vendors proceeded to somewhere else; they did not stay in the plaza. This situation was most likely because people cannot find a place to sit that either protected them from the sun or a provided comfortable eating position. Other activities in Knickerbocker Plaza typically included smoking, which comprised 4.5% of all activities.

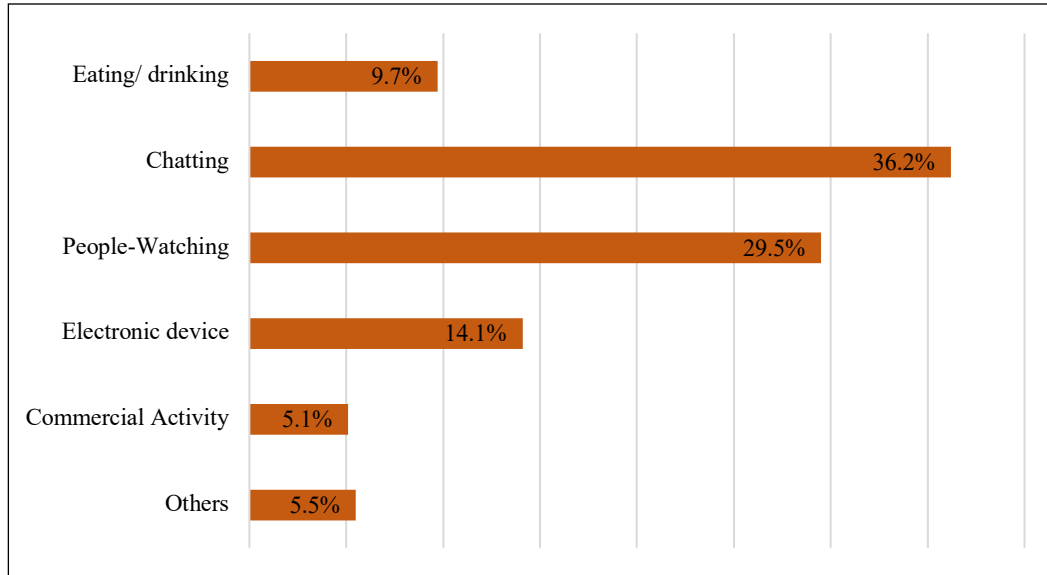


Figure D.13 Rates of observed activities in Knickerbocker Plaza (n=475).

There have been a limited amount of programmed activities and events at Knickerbocker Plaza since it was built. Plant Giveaway events were hosted on the site in 2017 and 2018. These events were sponsored by Con Edison (an Energy company) partnering with RiseBoro and the Horticultural Society of New York. These events aimed to inform the attendees about the planting and maintenance of plants and to provide stewardship in cleaning and greening Knickerbocker Plaza (Figure D.14).



Figure D.14 The event flyer and images from the event (2017).

Source: Facebook Page of RiseBoro

In 2017, HYPOTHEkids a Harlem-based initiative for the education of underserved students sponsored an event for children at Knickerbocker Plaza. HYPOTHEkids received a grant from the Charles H. Revson Foundation to use in their ‘Steam the Streets’ program. Alongside Knickerbocker Plaza, the program sponsored similar events in several other plazas in underserved neighborhoods. The event in Knickerbocker Plaza included the exploration of ants and specimens through microscopes and magnifying glasses and drawing sessions. RiseBoro (the sponsor partner) hosted the event.

In November 2018, RiseBoro organized a cleanup event in the neighborhood starting at Knickerbocker Plaza and ending at Flushing Avenue. The event was held by the participation of locals in cleaning up litters on the sidewalk, maintaining green areas, and planting new plants in the plaza.

D.4 Management and Maintenance

RiseBoro Community Partnership has been managing Knickerbocker Plaza since it was built in 2015. An employee of the RiseBoro also works as the manager of Knickerbocker Plaza. Based on the surveys with the users, the majority of users find the plaza safe any time of the day, giving it a score on average of 4.6 (Likert-type scale (1) very poor to (5) very safe). Some users mentioned only a few small instances that occurred in the past. Most users reported the plaza as a very safe place. In terms of socializing with other people in the plaza, many users reported that they socialize with friends or family members while a small number of people said that they have met a few people in the plaza. Some people who were informally interviewed in the plaza reported that they consider the plaza as a valuable gathering space with their friends daily.

Knickerbocker Plaza is designated by the NYC DOT as a high-need plaza. Funded by the NYC DOT, daily maintenance and horticultural care of the plaza are conducted by the Hort's two programs and the ACE. While RiseBoro opens the plaza in the mornings, ACE employees come to collect and lock tables and chairs, and empty trash cans in the evenings. It is significant to note that there is no daily maintenance work during weekends. During the site observations, I did not observe any maintenance personnel from ACE, even though I saw many in other studied plazas. Although the overall condition of the plaza can be evaluated as well maintained, the plaza needs maintenance work for a broken water fountain, stripped coats of benches and concrete blocks, and the cleaning of disposals at the West side of the plaza (Figure D.15).



Figure D.15 Maintenance needs in Knickerbocker Plaza.

According to the surveys with plaza users, the average rates for cleanliness and maintenance are 4.3 and 4.1 respectively (Likert-type scale: (1) very poor to (5) very good). For many of the surveyed users, the main problem of the plaza is poor climate-control and the inadequate number of chairs. Because the plaza does not feature any umbrella or other climate-control furnishings, only the Southwest part of the plaza provides an available space for a long-term sitting activity. In this area, concrete blocks and most of the moveable

chairs provide spaces for long-term sitting opportunities. Benches receive direct sunlight or rain almost all day. Particularly in the summer, benches are not preferable for long-term sitting activity due to heat from direct sunlight and overheated aluminum material of benches.

According to the manager, lack of funding is the most significant issue in the maintenance and programming of the plaza. Due to lack of funding, the sponsor partner is often unable to fix or compensate for the needs such as the broken water fountain, the maintenance of green spaces, and the cleaning and maintenance of sitting spaces. Some of these issues have been solved with the involvement of other local organizations and institutions. One of the earliest issues regarding maintenance was to find a spot for daily dumping of trash cans on the plaza. New York City Police Department 83rd Precinct stepped in and opened their dumping site for the plaza's daily disposal.

APPENDIX E

OBSERVATION CHECKLISTS OF DESIGN FEATURES, MANAGEMENT PRACTICES, AND USER ACTIVITY

Table E.1 Checklist for Design Features

Name of the Plaza.....Streets.....

Date.....Time.....Size.....

Type and Number of Seating	Moveable Chairs	Moveable Benches	Fixed Seats	Other
Type and Number of Seating	Moveable	Fixed	Other	
Material of Ground Service	Concrete	Painted Concrete	Tile	Other
Planting	None	Number of Planters and plant types:	On the Ground: Shrubs: Trees: Flowers:	
Other Amenities	Water:	Shrubs: Trees: Flowers: Artwork:	Other:	Location:
Visibility from Crossing Streets	Visible From.... Low Medium High	Visible From.... Low Medium High	Visible From.... Low Medium High	
Climate Control	Number of Umbrellas:	Number of Shading Trees:	Number of Seats under shade:	
Lighting	None	Number:	Type:	

Table E.2 Checklist for Management and Maintenance Features

Hours	Weekdays:	Weekends:	Holidays:	Other:
Surveillance Camera	Yes:	None	Other:	
Presence of Security Personnel and Numbers	Yes:	No	Location:	Other:
Presence of Maintenance Personnel and Numbers	Yes:	No	Location:	Other:
Signage of Plaza Rules	Yes:	No	Other:	Location:
Presence of Retailers	Yes:	No	Other:	Location:
Presence of Street Vendors	Yes:	No	Other:	Location:

Table E.3 Checklist for Users, Postures, and Activity Counting

USERS	Alone
	With One Person
	With More Than One Person
POSTURES	Standing
	Standing/ Leaning
	Formal Sitting
	Informal Sitting
	Lying
ACTIVITIES	Eating/ Drinking
	Chatting
	People-Watching
	Electronic Device
	Street Vendors
	Others

Table E.4 User Survey

1. How did you arrive here today?	A. Walking B. Cycling C. Public transit D. Car E. Other _____
2. How long did it take to get here?	A. Less than 5 minutes B. 5-10 minutes C. 10-30 minutes D. more than 30 minutes
3. How often do you visit here?	A. Once a day B. More than once a week B. Once a week D. Rarely E. Very rarely F. First time
4. Where do you live?	Zip code _____
5. How much time do you spend here when you visit?	A. Less than 30 minutes B. Between 1-2 hour C. Between 2-4 hour D. More than 4 hour
6. How do you rate this plaza?	Lowest- 1 2 3 4 5 -Highest
Cleanliness	1 ___ 2 ___ 3 ___ 4 ___ 5 ___
Maintenance	1 ___ 2 ___ 3 ___ 4 ___ 5 ___
Safety	1 ___ 2 ___ 3 ___ 4 ___ 5 ___
Weather Protection	1 ___ 2 ___ 3 ___ 4 ___ 5 ___
Lighting	1 ___ 2 ___ 3 ___ 4 ___ 5 ___
Socializing with others you don't know	1 ___ 2 ___ 3 ___ 4 ___ 5 ___
7. What is your gender identity?	_____
8. What is your ethnic identity?	_____
9. What is your racial identity?	_____
10. How old are you?	_____

Table E.5 Schedule of Site Observations and User Surveys in Each Plaza

Plaza	2018				2019			
	June	July	August	May	June	July	August	September
71st Ave Plaza	<u>Preliminary Observation</u>	<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm		<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm	<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm		<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm	
		<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm		<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm	<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm		<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm	
Avenue C Plaza				<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm	<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm	<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm		
				<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm	<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm	<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm		
Corona Plaza	<u>Preliminary Observation</u>		<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm		<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm	<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm		<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm
			<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm		<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm	<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm		<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm
Kensington Plaza	<u>Preliminary Observation</u>		<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm		<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm		<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm	<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm
			<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm		<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm		<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm	<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm
Knickerbocker Plaza	<u>Preliminary Observation</u>	<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm					<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm	<u>Weekday Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm
		<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm					<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm	<u>Weekend Observation</u> 12 pm-1pm 5 pm- 6 pm <u>User survey</u> 2 pm-4 pm

APPENDIX F

INTERVIEW PROTOCOLS

Interview Protocol with Officials in New York City Department of Transportation

To facilitate my notetaking, I would like to audio tape our conversations today. Could you sign this release form devised to meet our human subject requirements? Essentially, this document states that: (1) all information will be held confidential, (2) your participation is voluntary, and you may stop at any time if you feel uncomfortable, and (3) I do not intend to inflict any harm. For your information, only I will have access to the tape recording. In the analysis and published study, any problems or difficulties you describe to me about the plazas will be grouped together with similar descriptions from other respondents. In this way, the way that you describe to me these problems or difficulties will remain anonymous. This study will not bring you direct benefits outside of an opportunity to share your views and opinions. Your participation, however, will be of considerable benefit for improving the current and future pedestrian plazas so that the city residents can enjoy having a quality open space in many different locations of New York City.

I have planned this interview to last no longer than 40 minutes. During this time, I have several topics that I would like to cover. If time begins to run short, it may be necessary to interrupt you in order to push ahead and complete this line of questioning. Thank you for your agreeing to participate. Do you have any questions before we begin?

General Questions

I would like to start with some general questions to acquire information about your experience and responsibilities in the development of plazas in New York.

1. How long have you worked in your current position?
2. What responsibilities do you have in the plaza program?

As you know, I am interested in plazas of the NYC DOT plaza program. Now, I would like to

ask some general questions about the plaza program.

3. What is the purpose of the plaza program?
4. Do you think it meets this purpose?
5. Considering the design, implementation, and management processes, which part/parts does the DOT typically fund? What is the rationale for funding these parts?
6. How are the locations of the plazas chosen? Who participates in choosing the location?

Design and Implementation

I have several questions about the design of plazas.

1. What is the role of the DOT in designing the plazas?
2. What are the overarching design considerations of the DOT in the design of interim plazas?

3. What are the overarching design considerations of the DOT in the design of permanent plazas?
4. Are there any challenges in the design process of interim plazas? (If yes), what have they been? How have these challenges been met?
5. Are there any challenges in the design process of permanent plazas? (If yes), what have they been in general? How have these challenges been met?
6. Is there any possibility for pro-bono design? (If yes), have any plazas been designed pro-bono? If no, why not?
7. After the design process, what is the role of the DOT in the implementation of plazas? Could you describe the process?
8. Does the DOT regularly inspect plazas once they opened to the public? (If yes), could you describe the process?

Management

My next questions are about the management of plazas.

1. Who is responsible for on-site management of plazas?
2. Who pays for the management of the plazas?
3. Does the DOT monitor the management practices of plazas? (If yes), could you explain the monitoring process of the DOT?
4. What difficulties have arisen in the management of plazas? (If not explained), how have they been solved?
5. What is the process for holding an event in a plaza?

Partnership

My next questions are about community partnership and community participation in the creation of the plazas.

1. I would like to understand the responsibilities of community partners in the entire process of locating, developing, constructing and managing a plaza. Could you tell me what those responsibilities are at those different stages?
2. During public workshops: what role does the DOT staff play?
3. What role do community partners play in these workshops?
4. Overall, how well do you think community participation works? (If not explained), why do you feel that way? What do you think could be done to improve community participation?
5. Were there design elements that the community wants to have and the DOT rejects? (If yes), what were those elements and why the DOT rejects them?

As study sites, I am studying the design, management, use, and community participation of six plazas: Morrison Avenue Plaza in Bronx; Knickerbocker Plaza, New Lots Plaza, Kensington Plaza in Brooklyn; and 71st Avenue Plaza, and Corona Plaza in Queens. These plazas have various types of community partners including BIDs, non-profit groups, and neighborhood associations.

6. Considering this, has the type of the community partner been influential in the design development of these plazas? (If yes), could you please explain?
7. Do you have anything particular to tell me about these plazas?

Conclusion

I have a few final questions.

1. What do you think are the best qualities of the plaza program? (Why do you feel that way?)
2. What do you think are the biggest problems are at present? How do you think they could be resolved?
3. Is there anything you would like to add?

Interview Protocol with Officials in New York City Department of Design and Construction

General Questions

I would like to start with some general questions to acquire information about your experience and responsibilities in the development of plazas in New York.

1. How long have you worked in your current position?
2. What responsibilities do you have in the plaza program?
As you know, I am interested in plazas of the NYC DOT plaza program. Now, I would like to ask some general questions about the plaza program.
3. What is the purpose of the plaza program?
4. Considering the design, implementation, and management processes, which part/parts does the DDC typically fund? What is the rationale for funding these parts?

Design and Implementation

I have several questions about the design of plazas.

1. What is the role of the DDC in designing plazas?
2. What are the overarching design considerations of the DDC in the design of interim plazas?
3. What are the overarching design considerations of the DDC in the design of permanent plazas?
4. Are there any challenges in the design process of interim plazas? (If yes), what have they been? How have these challenges been met?
5. Are there any challenges in the design process of permanent plazas? (If yes), what have they been? How have these challenges been met?
6. Is there any possibility for pro-bono design? (If yes), have any plazas been designed pro-bono? If no, why not?
7. After the design process, what is the role of the DDC in the implementation of plazas? Could you describe the process?
8. Do the DDC regularly inspect plazas once they opened to the public? (If yes), could you describe the process?

Partnership

My next questions are about partnership and community participation.

1. Do designers from the DDC attend the public workshops for plazas that they are assigned to design? (If yes), what do they do at those meetings? If not, why not?
2. What role do the community partners play at these workshops?

3. Were there design elements that the community wants to have and the DOT rejects? (If yes), what were those elements and why the DOT rejects them?
 4. What do you think are the challenges posed by partnering with a non-government organization in the creation of the plazas?
 5. Overall, how well do you think community participation works? (If not explained), why do you feel that way?
- As study sites, I am studying the design, management, use, and community participation of six plazas: Morrison Avenue Plaza in Bronx; Knickerbocker Plaza, New Lots Plaza, Kensington Plaza in Brooklyn; and 71st Avenue Plaza, and Corona Plaza in Queens. These plazas have various types of community partners including BIDs, non-profit groups, and neighborhood associations.
6. Considering this, has the type of the community partner been influential in the design development of these plazas? (If yes), could you please explain?
 7. Do you have anything particular to tell me about these plazas?

Conclusion

I have a few final questions.

1. What do you think are the best qualities of the plaza program? (Why do you feel that way?)
2. What do you think are the biggest problems are at present? How do you think they could be resolved?
3. Is there anything you would like to add?

Thank you so much for your participation in my study.

Interview Protocol with Community Partners of Pedestrian Plazas

General Questions

I would like to start with some general questions to acquire information about your experience and responsibilities in the development of plazas in New York.

1. How long have you worked in your current position?
2. What responsibilities do you have in the plaza program?

As you know, I am interested in plazas of the NYC DOT plaza program. Now, I would like to ask some general questions about the role of your organization in the creation of (NAME OF THE PLAZA).

3. Why did (NAME OF THE ORGANIZATION) decide to have a pedestrian plaza in the neighborhood?
4. Who participated in making that decision?
5. What did you think the benefits of the plaza would be?
6. What possible drawbacks were considered?
7. Considering the design, implementation, and management processes, which part/parts does..... (NAME OF THE ORGANIZATION) pay for? What is the reason for funding these parts?
8. Do you have sponsors for the plaza? Who are they?

Design

1. Could you describe for me the design process for..... (NAME OF THE PLAZA)?

2. What was the role of your organization in the developing the design of the plaza?
3. Were there any challenges in the design process of permanent plazas? (If yes), what were they? How were these challenges met?
4. What was considered but then excluded in the design of the plaza? Why was that?
5. How do you feel about the final design of the plaza, as built?
6. Do city officials inspect your plaza? (If yes), could you describe the inspection process?

Management

My next questions are about the management of plazas.

1. Who pays for the management of the plaza?
2. Who is responsible for on-site management of plaza?
3. What are the official rules for using the space?
4. Are there also unofficial rules? (If yes), what are they?
5. What are the reasons for imposing these rules?
6. Who created these rules? And how?
7. How are they enforced?
8. What difficulties have arisen in the management of plaza? (If not explained), how have they been solved?
9. What activities or events do you program in the plaza? How often do those occur?
10. How do you advertise these events?
11. Who comes to these events or activities? Are there other community members who might like to come but don't? (If yes), who are they? Why do you think they don't come?
12. Can community members organize an activity or event in the plaza? (If yes), could you please describe the process for doing this? What kinds of activities or events have taken place?

Community Participation and Partnership

My next questions are about partnership and community participation.

1. I would like to understand the responsibilities of community partners in the entire process of locating, developing, constructing and managing a plaza. Could you tell me what those responsibilities are at those different stages?
2. What were (NAME OF THE ORGANIZATION)'s goals creating the plaza?
3. Have you achieved these goals? (If yes), how? (If no), why not?
4. Have there been any challenges in achieving these goals? If yes, could you describe them?
5. What do you think were the challenges posed by partnering with the city government in the creation of the plaza?
6. During public meetings: what role do..... (NAME OF THE ORGANIZATION) play?
7. Overall, how well do you think community participation works? (If not explained), why do you feel that way?

Section 5- Conclusion

I have a few final questions.

1. What do you think are the best qualities of the plaza program? (Why do you feel that way?)
2. What do you think are the biggest problems are at present? How do you think they could be resolved?
3. Is there anything you would like to add?

Interview Protocol with Police Precinct

1. Did the police play any part in the development of..... (NAME OF THE PLAZA)?
2. Do the police regularly monitor the use of the plaza- that is who is there and what is happening in it? (If yes), could you please tell me more about that?
3. Since the plaza was built, have there been any problems where the police had to be called? (If yes), what were they? How were they resolved?
4. Do you know of any other problems that have arisen regarding the use or the condition of the plaza?
5. Do you think there has been any change in the crime rate of the neighborhood since the plaza was completed? (If yes), how?
6. Overall, do you think the plaza benefit the community? (If yes), why? (If not), why not?
7. Is there anything you would like to add?

APPENDIX G

PLAZA CONFIGURATIONS

Table G.1 List of Plazas and Plaza Configurations

Name of the Plaza	Borough	Configuration Type
Albee Square Plaza	BK	Multiple
Ave C Plaza	BK	Reclaimed Plazas
Brooklyn Plaza	BK	Reclaimed Plazas
Cadman Plaza East	BK	Sidewalk-extension Plazas
Fowler Square Plaza	BK	Intersection Plazas
Fox Square Plaza	BK	Reclaimed Plazas
Frost Street Plaza	BK	Intersection Plazas
George B. Post Plaza	BK	Multiple
Hillel Place Plaza	BK	Through-block Plazas
Humboldt Plaza	BK	Sidewalk-extension Plazas
Kensington Plaza	BK	Intersection Plazas
Knickerbocker Plaza	BK	Intersection Plazas
Manhattan Avenue Plaza	BK	DPR
Marcy Ave Plaza	BK	Sidewalk-extension Plazas
Myrtle Avenue Plaza	BK	Sidewalk-extension Plazas
New Lots Ave Plaza	BK	Reclaimed Plazas
North 10th & Union Ave Plaza	BK	Intersection Plazas
Old Fulton Plaza	BK	Intersection Plazas
Osborn Street Plaza	BK	Through-block Plazas
Parkside & Ocean Plaza	BK	Reclaimed Plazas
Pearl Street Plaza	BK	Multiple
Putnam Triangle Plaza	BK	Intersection Plazas
Times Plaza	BK	Reclaimed Plazas
W12th St, Coney Island Plaza	BK	Reclaimed Plazas
Willoughby Plaza	BK	Through-block Plazas
Zion Triangle Plaza	BK	Intersection Plazas
Del Valle Square Plaza	BX	DPR
Fordham Plaza	BX	Intersection Plazas
Fordham/Kingsbridge Plaza	BX	DPR
Lou Gehrig Plaza	BX	DPR
Morrison Ave Plaza	BX	Reclaimed Plazas
Roberto Clemente Plaza	BX	Intersection Plazas
125th Street Plaza	MN	Reclaimed Plazas
185th Street Plaza	MN	Through-block Plazas
25th Street Plaza	MN	Through-block Plazas
33rd St Plaza	MN	Through-block Plazas
Astor Place Plaza	MN	Intersection Plazas
Bogardus Plaza	MN	Reclaimed Plazas
Broadway Boulevard Plaza	MN	Sidewalk-extension Plazas

Name of the Plaza	Borough	Configuration Type
Church & White Plaza	MN	Reclaimed Plazas
Counties Slip Plaza	MN	Through-block Plazas
Columbus Circle Plaza	MN	DPR
Cooper Square Plaza	MN	Intersection Plazas
Delancey Plaza	MN	Sidewalk-extension Plazas
Division Street Plaza	MN	Intersection Plazas
Flatiron Plaza	MN	Sidewalk-extension Plazas
Forsyth St Plaza	MN	Sidewalk-extension Plazas
Gansevoort Plaza	MN	Sidewalk-extension Plazas
Herald Square Plaza	MN	Intersection Plazas
Louise Nevelson Plaza	MN	Reclaimed Plazas
Madison/Worth Square Plazas	MN	DPR
Montefiore Plaza	MN	DPR
Municipal Plaza	MN	Sidewalk-extension Plazas
Pershing Square Plaza	MN	Through-block Plazas
Plaza de Las Americas	MN	Through-block Plazas
Times Square Plaza	MN	Through-block Plazas
Union Square Plaza	MN	DPR
Water/Whitehall Plaza	MN	Sidewalk-extension Plazas
Vanderbilt Plaza	MN	Through-block Plazas
Diversity Plaza	QN	Through-block Plazas
71st Ave Plaza	QN	Intersection Plazas
78th St Plaza	QN	Through-block Plazas
Beach 20th St Plaza	QN	Through-block Plazas
Corona Plaza	QN	Reclaimed Plazas
Douglaston Station Plaza	QN	Sidewalk-extension Plazas
Bliss Plaza	QN	Reclaimed Plazas
Lowery Plaza	QN	Reclaimed Plazas
Myrtle/Cooper Plaza	QN	Intersection Plazas
Liberty Ave Plaza	QN/BK	Intersection Plazas
Prince St Plaza	QN	Intersection Plazas
Venditti Square Plaza	QN	Reclaimed Plazas
Wyckoff Plaza	QN / BK	Through-block Plazas
Van Name/Van Pelt Plaza	SI	DPR

DPR: New York City Department of Parks and Recreation (Plazas of DPR are typically extension of existing parks or squares. These plazas do not fit any configuration type).

Multiple: Plazas that contain two or more configuration type.

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