

Equitable Improvements to Public Space in the Right-of-Way

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**Abstract**

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As one of the fastest growing cities in the nation, Seattle is quickly losing its potential public open space. The need to create more public space with its increasing population will only intensify.

The benefits of green space and more generally public space to public health and overall community well-being are widely known. Cities have been trying to deal with the lack of access a percentage of their populations has to public open space, especially since that percentage tends to be made up of minority and low-income populations. One potential solution to the declining public open space lies within the public right-of-way (ROW). ROW is publicly owned and supports the movement of people, goods, and services. It can serve as a vital resource with potential to be repurposed into successful public space. In Seattle, the ROW makes up 27 percent of the total land, and a large portion is currently underused, in terms of the benefits it could provide to the public. This thesis examines three Seattle Department of Transportation ROW programs that seek to encourage public space within the ROW. These programs are significant assets yet there is a distinct lack of participation in them within minority and low-income areas of the city.

Through a study of the relevant literature, precedents from other American cities, and a geospatial analysis, I provide recommendations for making these programs more equitable to foster more meaningful public space within Seattle's ROW.

# ACKNOWLEDGEMENTS

I cannot believe I am already at the end of my graduate school career. This surely has been an experience. I have learned a lot, and my interests in planning not only have been solidified but expanded. The culmination of my hard work being this master's thesis feels appropriate and well-earned, and there are a few people I want to thank for my success.

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# CHAPTER 1: INTRODUCTION

As one of the fastest growing cities in the nation, Seattle is quickly losing its potential public open space (Seattle Parks & Recreation, 2017). Although it is a city with an abundance of open space compared to other cities of comparable density (The Tim, 2007; The Trust for Public Land, n.d.), the need to create more public space with its increasing population will only intensify. The benefits of green space and more generally public space are well known (Crawford et al., 2008; Weiss et al., 2011). There are benefits to public health and overall community well-being. Cities have been trying to find solutions for the deficiency of access a percentage of their populations has to public open space, especially since that percentage tends to be made up of minority and low-income populations (Wen, Zhang, Harris, Holt, & Croft, 2013).

One potential solution to the declining public open space lies within the public right-of-way (ROW). A city's ROW supports the movement of people, goods, and services and allows access to property. ROW includes streets, sidewalks, bus lanes, bike lanes, alleys, railroads, etc. ROW is publicly owned, and it can serve as a vital resource that can be repurposed into successful public space. With movements such as Complete Streets (Zavestoski & Agyeman, 2014), cities around the globe have been developing innovative ways to reimagine ROW into space that can be utilized and enjoyed by the public. Besides mobility, streets can serve important social functions that increase the health, vibrancy, connectivity, and livability of cities (Gehl, 1987; J. Jacobs, 1961; Mehta, 2013; Whyte, 1980).

In Seattle, the ROW makes up twenty-seven percent of the total land area in the city, while Parks property only composes twelve percent (Figure 1) (Green Futures Lab, 2014). Much of it is currently underused, in terms of the benefits it could provide to the public. Most of it is geared towards the automobile, with pedestrians—particularly those with a disability—and bikers as an afterthought. Therefore, ROW has much potential to be equitably improved into successful public space. What have public officials, urban planners, and grassroots organizers done to equitably combat the need for more public space? Why have certain right-of-way improvement

programs been successful? Where should Seattle prioritize increasing public space within the right-of-way? How can Seattle more equitably implement its right-of-way improvement programs?

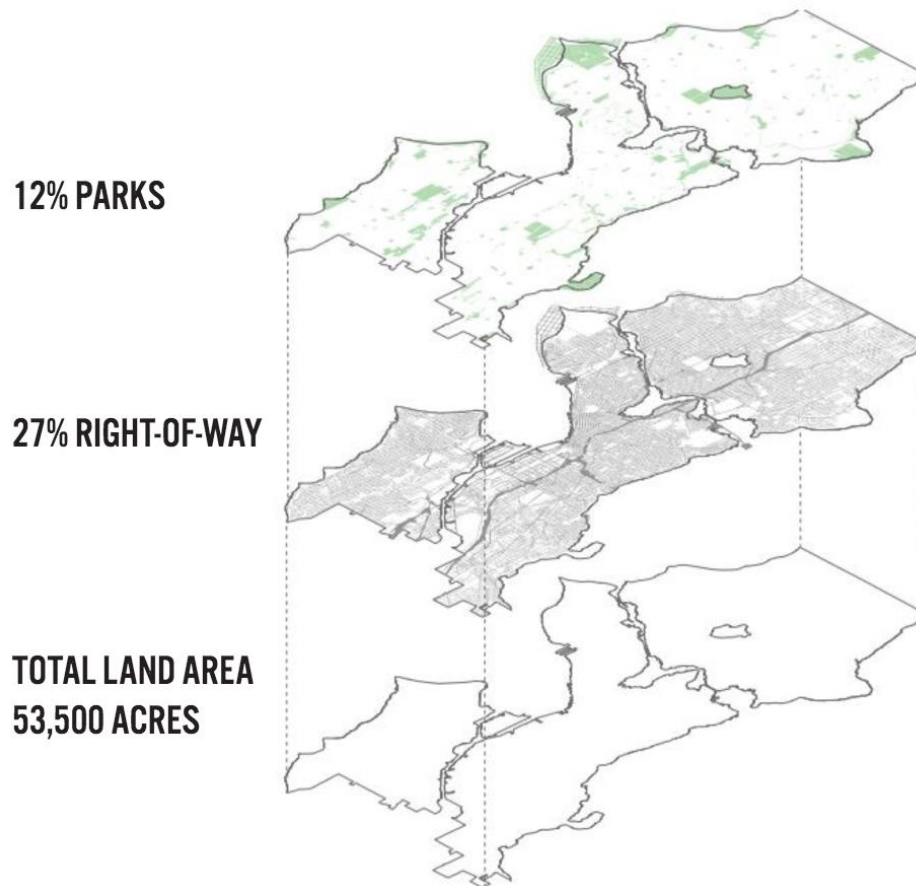


Figure 1. ROW and Parks Overlay, Seattle, 2014. Diagram: Green Futures Lab

Within this thesis, I have used a mixed-methods approach to explore the questions above. I began the qualitative research by conducting a thorough review of the literature relating to successful public space, ROW improvement, and increasing race and social equity through access to public space within the ROW. I then detailed four precedent cases looking at how programs in other cities within the United States are equitably improving the ROW, and I drew conclusions about the strengths and weaknesses of these programs. The last qualitative part was a profiling of three City of Seattle ROW improvement programs including an assessment of their functional gaps that cause them to be less equitable. I chose these specific programs because of my

interest in their goals and my familiarity with their processes due to my internship with the Seattle Department of Transportation. The quantitative portion of my thesis is a geospatial analysis of Seattle's ROW through the lenses of the ROW improvement programs. I identified the segments of the ROW that the ROW improvement programs can repurpose based on the programs' most fundamental requirements and developed indicators to prioritize the ROW segments based on their ability to increase the programs' distributive justice—which I define in the Literature Review. In the last portion of my thesis, I combine my knowledge of the programs, my lessons learned from the literature review and the precedents study, and the results of the Seattle ROW segments prioritization to provide recommendations to the City for making these programs more equitable with the intent of facilitating higher quality public space for the underserved populations in Seattle.

Since this work largely refers to equity—which has many meanings—I should establish the definition of equity I have used throughout this work. In *Planning and Diversity in the City: Redistribution, Recognition and Encounter*, Fincher and Iveson discuss how planning frameworks should address diversity in cities. By first defining diversity as differences in wealth, status, and hybridity, they provide three goals for socially just planning. The goals are: (1) redistribution of amenities to address the disparity in wealth, (2) recognition of the groups that are constantly left out of the process because of unfair status hierarchies, and (3) the arrangement of interactions between diverse people and diverse behaviors for the encouragement of building empathy (Fincher & Iveson, 2008). With her social psychology background, Low builds on those goals through her research on public space and argues that there are three dimensions of justice that need to be addressed to achieve equity. The dimensions are distributive, procedural, and interactional, and I have defined those in the Literature Review (S. Low, 2013). Lastly, in Low and Iveson's article "Propositions for more just urban public space," they establish five propositions: "redistribute resources, recognize difference, foster encounter/interaction, establish an ethic of care, and ensure procedural fairness" (S. Low & Iveson, 2016, p. 12). These propositions have composed my definition of equity.

The purpose of this work has been to generate something that can be useful for the residents of Seattle as they deal with the growth pains of an expanding city. I have identified the ROW within the city that has the most potential for being equitably repurposed into successful public space. Furthermore, I have provided recommendations to the City for making their ROW improvement programs more equitable. From my suggestions, my hope is that these programs can be used by the residents of Seattle to make something more meaningful from the public space that is already rightfully theirs: the public right-of-way.

## CHAPTER 2: LITERATURE REVIEW

This chapter is a thorough review of the literature relating to successful public space, right-of-way improvement in general, race and social equity through access to public space, and equitable improvements to the right-of-way. The lessons learned here are applied throughout the rest of the work.

First, this chapter details the meaning of public space, what makes it successful, and its associated benefits. The second section explores the ROW as public space by first discussing the overcrowding of urban areas and the loss of public space. It defines ROW and underutilized ROW and then considers how the ROW should be reimagined as a primary viable resource for public space. It investigates the benefits of ROW improvements and what determines successful ROW. The third section looks at equity in regard to public space, first by investigating the distribution of public space—the physical distance access component. It provides thoughts on social access, which examines the amenities associated with and the quality of public space. The section then sources references that provide some of the causes of less access and highlights propositions for creating a more just urban public space. The last section focuses on equity and public space in the ROW. It reviews how to turn ROW into successful public space. It also provides some feedback on current urban planning and design movements that are potentially neoliberal and not equitable. Finally, the chapter ends with a concentration on recommendations for equitable improvements to the ROW in general and then more narrowly for equitably reimagining ROW as public space.

### OVERVIEW OF PUBLIC SPACE

Before exploring the problems and solutions of public space, a general overview of the definition of public space and what deems it successful must be discussed. In a simple definition, public space is that space which is generally accessible to all people. As I will later discuss, “accessibility” is not a guarantee since as Low and Iveson point out, ‘being public’ and ‘being in

public' are not synonymous. However, the general idea of 'public space' is adequate for exploring the significance of those places (S. Low & Iveson, 2016). Another definition of public space is that space which "generates public use, and active or passive social behavior, and where people are subject to the general regulations that govern the use of space" (Mehta, 2013, p. 20).

Regardless of how public space is defined, much attention is given to the success of public space. This is normally measured by its ability to cultivate placemaking. Placemaking comes out of the approach that seeks to understand what social and psychological factors shape the perceptions of fundamental urban spaces for their users (Birch, 2011). In the *Image of the City*, Lynch discusses imageability of urban form and its ability to elicit mental images of certain elements of a city including paths, edges, districts, nodes, and landmarks. How well these elements are integrated heavily influences usage of space because of their direct effect on an individual's perception of space (Lynch, 1960). Another early scholar and proponent of placemaking was William Whyte. He found that the availability of public space was not enough to encourage use. Through his observations he was able to identify a number of features that should be considered in the design of public space, including: sittable space, access to food and sunlight, and the ease at which users could have social interactions. He believed that the sociability of a space was the most important: "What attracts people most, it would appear, is other people" (Whyte, 1980, p. 19). A more contemporary expert on public space is Jan Gehl. In *Life Between Buildings*, he also expressed his belief in the need for social activity. Further, he stressed a design that encourages people to move within as well as linger in the space (Gehl, 2011). In *Cities for People*, he published his acclaimed 12 Quality Criteria for Public Spaces, which were formed after many years of observation. The criteria are divided into three main topics: protection, comfort, and enjoyment. They follow a similar pattern to Maslow's hierarchy of needs, in that protection must be addressed before comfort and comfort before enjoyment (Gehl, 2010). Another proponent of placemaking is New York based non-profit Project for Public Spaces (PPS). PPS has identified four prime categories of characteristics that great public spaces possess: sociability, uses & activities, access & linkages, and comfort & image. Spaces should be facilitative of social interactions, visually and physically linked to their surroundings, actively programmed, and comfortable to

their users (Project for Public Spaces, n.d.). Crowhurst Lennard describes successful public space as the space that provides low-barrier and safe access for everyone, fosters a plethora of activities, increases self-esteem and a sense of belonging, facilitates stewardship of the environment, and offers enjoyment and social contact (Crowhurst Lennard, 1995). Overall, there is a rich history of research across various fields (urban planning, landscape architecture, environmental psychology, and sociology) that has sought to define good public space through its ability to be democratic, meaningful, responsive, and diverse (Mehta, 2007).

Along with successful public spaces comes many benefits. The subset of public spaces known as green space, which mostly denotes parks, offers opportunities for physical activity in urban environments, as many green spaces offer footpaths and walking trails. In the same vein, urban trails benefit the citizens who reside around them by providing another commuting mode choice (Crawford et al., 2008). Local-level access to parks that are high in acreage is associated with lower BMI, regardless of socio-demographics (Weiss et al., 2011). Studies have shown that children whose parents are low-income have a higher need for public spaces with amenities such as playgrounds since they lack access to other entertainment and exercise resources (Crawford et al., 2008). Additionally, public green space can be extremely beneficial for the environment. It can reduce pollution, noise, and temperatures, and it can act as a filter for storm water and restock groundwater. (Groenewegen, van den Berg, de Vries, & Verheij, 2006). Not only does public space benefit the environment and the physical health of its users, it has also been linked to psychological well-being and a reduction in stress (Ernstson, 2013). A number of positive social functions occur in public space including the development of social awareness, the practice of ethical conduct, the nurturing of social competence, and the exchange of ideas (Crowhurst Lennard, 1995). Because of its integral social production in the form of the organic creation of ideas, Whyte calls public space “the engine, the city’s true export” (Whyte, 1988, p. 341). Lastly, public space is vital to community, as Jacobs declares, it can “cause people to act and interact, to achieve together what they might not alone” (A. B. Jacobs, 1995, p. 312).

## RIGHT-OF-WAY AS PUBLIC SPACE

The increasing global population and the shift further towards urbanity is endangering public space in cities. Inventive problem solvers are increasing their focus on one of the more robust types of public land remaining: the public right-of-way (ROW). At this time, it is important to note that while ROW is not always synonymous with streets since railways, trails, alleys, etc. also make up the ROW, within this paper, the words ROW and streets will be used rather interchangeably. For specific purposes, the distinction is necessitated, but for the purpose of this paper, the interchangeable method must suffice since the literature referenced in this paper tends to prefer the term “street,” even though at times, it is evident that certain statements could be generalized to all ROW, or that land which the city has set aside for the movement of people, goods, and services.

As simply described by Rapoport, ROW or streets “are the more or less narrow, linear spaces lined between buildings found in settlements and used for circulation, and, sometimes other activities” (Rapoport, 1987, p. 87). Streets are the arteries of the city and have been vitally important to the overall legibility of a city. With his popular idea of a person’s mental image of a city, Lynch described streets as the thing that lends most to creating someone’s image. In a person’s mind, the linear paths are one of the most important spatial elements of the environment (Lynch, 1960). Turning to streets for the creation of more public space makes perfect sense. On a daily basis, “people depend on streets for functional, social, and leisure activities, for travel, shopping, play, meeting, and interaction with other people, relaxation and even survival” (Mehta, 2013, p. 9). The street is the most widely available type of open space in the world, and its functionality is nearly boundless (Moudon, 1987).

Even though ROW is favorable for getting even more use from the general public, since the advent of the automobile, the ROW has been thought of as a space that provides mobility for cars and a conduit for utilities. The highest importance has been placed on maintaining vehicular levels of service, with the pedestrian experience and the context of a specific street being an absent afterthought (Polanski, 2014). The ROW makes up between twenty-five to thirty-five

percent of the land area in American cities, yet its purpose is mostly limited to assist in the movement and storage of automobiles (Macdonald, 2011). Cities are gradually acknowledging ROW as an environmental and economic asset that can be beneficial for encouraging active living and healthy environments (Polanski, 2014).

The majority of the ROW has been geared towards the automobile for nearly a century. However, its large potential to meet a variety of needs and provide multiple uses remains. Newell and others state, “There is a range of possibilities opened up through the adaptive use of obsolete or underused urban infrastructure, such as rail corridors, underutilized back alleys, urban streets, abandoned transport or utility corridors...for walking and biking, informal play and exercise, and social interaction, while offering a distributed strategy for urban runoff infiltration and habitat provision” (Newell et al., 2013, p. 239). The National Association of City Transportation Officials’ Urban Street Design Guide offers guidance on how to accommodate the expanded need for ROW with emphasis on streets as public spaces, the economic impact of streets for businesses, planning for the comfort and safety of all users, and recognizing the ecology of streets (National Association of City Transportation Officials, 2013). With its potential to be multi-modal, the ROW is the epitome of a flexible urban space, and as Hack acknowledges, urban spaces are meant to facilitate community expression through a flow of interventions (Hack, 2011). Mehta summarizes the myriad of informal uses and potentially more formal uses that streets are capable of:

Streets are places for economic survival for merchants and vendors but also for panhandlers; places for dissemination of information and education for religious, political, and environmental groups; places for debate and demonstrations for worker unions and political parties but also the citizenry; places for expression of individual and group identities; places for leisure and play, but also places for refuge for the homeless; and more recently streets have been identified as spaces for nature to exist in the city and as remediative spaces for the ecological health of the city. (Mehta, 2013, p. 13)

Transitioning more ownership of the ROW to the general public is integral not only for broader range of activity, but also for helping them to maintain what rights to the ROW they already have.

Since the benefits of public space in general have already been covered, now I will focus on the benefits of successful public space within the ROW specifically. Lively local main streets create opportunities for members of the community to interact and engage daily, cultivating a sense of community. A communal street is one where residents of a neighborhood from various classes and backgrounds coexist together and look out for each other. There are different forms of sociability that can take place in the ROW. There's passive sociability, which "provides the first step in negotiating differences and developing empathy for others" (Mehta, 2013, p. 104). This is done by being exposed to numerous new and unfamiliar people and their behaviors and activities. Then there is fleeting sociability where daily encounters may lead to more familiarity and short, low-intensity interactions. These exchanges humanize the environment and begin building ties between parties that could lead to more enduring engagements (Mehta, 2013). Jacobs believes such exchanges are integral to allowing community members to begin to trust their fellow city dwellers (J. Jacobs, 1961). Whyte termed this triangulation as "that process by which some external stimulus provides a linkage between people and prompts strangers to talk to each other as if they were not" (Whyte, 1980, p. 94). Parades, street festivals, and block parties are ideal opportunities for fleeting sociability. He also mentions play as very integral since it is normally a group activity, and even observing play can lead to small interactions. The last form of sociability he outlines is enduring sociability. Most people do not come to the ROW to meet strangers, but rather to actively connect with friends and companions. Most of the time, enduring sociability does not begin in the ROW but gets brought into it. Nevertheless, activated ROW can make users and residents more civic-minded and engaged in the community, healthier, and more inclusive (Mehta, 2013).

In addition to the communal benefits, improved ROW can also have an immensely positive effect on children. Children understand streets differently from adults. Using their imaginations, they prefer to use streets for play, finding opportunities using street furniture, mailboxes, and so forth (Barker & Wright, 1966; Eubank-Ahrens, 1987). The neighborhood commercial street, with its proximity to residential areas, especially provides a good environment for parents to transition

their children into public space. By interacting with their surroundings and having ample observations of other people, experiences in public space are vital for children to learn to cope with unfamiliar situations (Gehl, 2011; J. Jacobs, 1961). Mehta provides a description of the many benefits streets as public space can have for children:

Using the street provided children with a practical understanding of the world and aided their spatial skills of comprehending space, understanding new scales and materials, orientation in large spaces, way-finding and so on. Being in the presence of many unknown others, and having to share space and objects with them armed children with skills for collaboration, cooperation and negotiation in ways of learning to accept and be accepted...Children saw and sometimes interacted with people of different backgrounds and groups, and this helped develop compassion and empathy for people unlike themselves or their familiar relatives. (Mehta, 2013, p. 139)

The ROW provides ample opportunities for children to have new experiences and become better prepared for similar occurrences they will encounter later in life.

Similar to the benefits of public space in general, there are parallels between what qualities determine successful public space in the ROW and the qualities that determine successful public space in general. A sociable street is “a street that is open to the public, where people are present throughout the day and week, engaged—individually or in groups—in a variety of active or passive social behaviors that are predominately stationary and sustained in nature” (Mehta, 2013, p. 24). He also lays out the fundamental criteria of a sociable street. Primarily, the physical surroundings and the mood must provide a suitable place to meet. Secondly, the unpronounced rules must allow for easy interactions. This is largely determined by businesses on the street, as well as the individuals and agencies who oversee and set the policies for the street (Mehta, 2013).

While this provides a basic understanding, similar to public space in general, the determination of whether a segment of ROW is truly successful varies across different groups. However, what is it that different people value in a public space? Most people value safety. Although safety is subjective, people feel safer on streets that have a human presence and where building frontages are permeable—those in which people can easily understand what is going on inside

while being outside—and visibly engaging (Whyte, 1980). Along the lines of safety, people need to feel comfortable. Continuity is key for this, in that it provides familiarity leading to a sense of security in knowing what to expect in terms of goods and services and human contact (Relph, 1976; Seamon, 1979). This is particularly true for neighborhood commercial streets, where a near constant set of people frequent the same places. For a street to be successful, people also need to feel at ease lingering. This is normally accomplished through ample sitting space. However, even in the absence of seating, people tend to gather near building walls, steps, vehicles parked near the sidewalk, and other objects on or near the sidewalk (Mehta, 2013). The ones near activity supporting businesses, especially small independent businesses, are the areas people reside in the most. Major sensory stimuli that contribute to the retention of people in public spaces in the ROW include other people and activities, but not at levels that lead to over-stimulation or become chaotic (Rapoport, 1990). In his study of three sociable streets in and near Boston, Mehta found that the blocks with wide well-maintained sidewalks, mature trees, ample shade, an assortment of types of stores, a few fixed benches, tables and chairs provided by businesses, and other street furniture such as trash cans, newspaper bins, and bicycle racks to be the most actively used. Even though he found continuity to be necessary in the long term, he says flexibility is vital in the short term. The adaptability of a space and its potential to be multidimensional is key for spaces to accommodate the diverse needs of various groups and individuals. Briefly returning to the idea of children in the ROW, a busy street is a better street. Children enjoy streets with a rich visual appeal in terms of forms, colors, and textures (Mehta, 2013).

## EQUITY REGARDING PUBLIC SPACE

Because public space has been linked to all the previously mentioned benefits, access by everyone should be equitable. As one component of public space, there has been a focus on the spatial distribution of public green spaces and the literal distance that must be traveled by individuals or communities to reach them. A study found the median distance to parks in major urban centers throughout the United States was ½ mile, and that as one goes further on the urban-rural gradient toward rural, the distance to parks increases, with the median distance to

parks of rural census tracts having been 6.2 miles. The researchers also differentiated between green space coverage and actual parks and found that even though citizens of rural areas were further away from parks, they had more green space coverage. However, they did discover one contradiction to the consensual framework around accessibility and equity. As the percentages of African Americans and Hispanics increased, distance to parks decreased (Wen et al., 2013). A couple of other studies also had the finding that areas with higher minority populations have a significantly higher number of park facilities. Nevertheless, when the size of the parks was added to the equation, it was shown that the higher the percentage of minority populations, the lower the amount of park acreage (Carrell, Chakraborty, & Allred, 2010; Weiss et al., 2011). Even if the distribution of these public amenities is proven fair, there is obviously a deeper issue of inequity in society which Low and Iveson articulate:

For example, sometimes social injustice will revolve around the redistribution of public space such as the lack of playgrounds in poorer neighborhoods. Other times, it could be the way people treat one another in a city where there is a fair distribution of space, but racist and discriminatory practices make it impossible for some people to be recognized as citizens much less treated respectfully in their day- to-day movements through public space. (S. Low & Iveson, 2016, p. 28)

Unjust access to public space is only a symptom. Though, considering how to make public space more equitable can lead to a better understanding of how to reach more equitable outcomes at-large.

Since there has been a number of studies that show that there is inequitable access to public spaces, there have been other studies that examine the reasons for this as “any deep examination of distributive justice must examine not only the nature of public space outcomes, but also the processes that generate unequal outcomes” (S. Low & Iveson, 2016, p. 17). Some believe that the lack of available space in higher density inner city areas, where low socioeconomic status neighborhoods are typically found could be one of the factors. Large parks tend to be on the urban fringe where space is more plentiful and the neighborhoods are predominately white (Crawford et al., 2008). It is also suggested that the appropriate historical and social context is needed when assessing the inequalities of green space. When

neighborhood associations advocated for tree planting while also creating discriminatory rules to reserve local properties for white owners, this led to disproportionate tree coverage in higher income white neighborhoods. The historical trends of white flight, suburbanization, and disinvestment in urban core areas are also important to note when discussing lack of urban amenities (Anguelovski, 2016).

As mentioned before, much of the conversation surrounding access to public space has dealt with the spatial component of access. While examining the physical distance to public space is important, there has also been research into the so-called “social accessibility” of public space. Social access refers to the sociodemographic characteristics such as safety, traffic, walkability, and unfavorable land uses of the neighborhood surrounding the public space that may have a direct effect on whether the space is utilized. A few studies have considered social access and how it relates to park access. One study found that the better walking access to parks of low-income and minority neighborhoods was offset by higher crime (Cutts, Darby, Boone, & Brewis, 2009). Another study found that deleterious land uses such as noisy industrial facilities, odorous or unkempt vacant lots, dilapidated buildings can inhibit travel-by-foot and discourage use of public space (J. Jacobs, 1961). In their 2011 study, Weiss et al. reasserted the percentage of African American residents in a neighborhood was positively related to the number of parks. However, once the neighborhood disamenity measures (traffic hazards, noxious land uses, and high crime rates) were factored, the relationship became negative. When Byrne conducted a survey of the Latino population in Los Angeles, he found other constraints that kept the residents from visiting parks included “absence of shade, parking shortages, poison oak, overcrowding, litter, lack of companions, experiences of racism and sub-standard facilities” (Byrne, 2012, p. 603). Other researchers have also found that there are health-related and motivational and psychological factors at play as well that can inhibit usage of public space. Influences such as disease, mental disability, self-discipline, and attitudes of one’s social circle are listed (Parks, Housemann, & Brownson, 2003).

Also, the quality a public space itself can vary from neighborhood to neighborhood. Public spaces that do not have strong community support are not going to be well-maintained (Cranz, 1978). Public spaces will continue to be perceived as unjust if people are continually left out of the decision-making processes that shape their use. This has been proliferated by direct forms of exclusion that puts decision-making behind doors, as well as indirectly through the rules of participation that systematically favor some groups over others (S. Low & Iveson, 2016).

With the discussion of social access to public spaces, the various preferences of different social and racial groups towards public spaces must also be considered. There are a few studies that examine if different groups prefer more urban or more rural natural settings. In a study of African American and White residents of Detroit, it was found that African Americans preferred urban parks, whereas Whites preferred traveling more to surrounding regional parks. One of the reasons assigned to African American residents' preference for city parks was because of the lack of transportation (West, 1989). Kaplan and Talbot also found that African Americans generally desire greater levels of upkeep and order and for the public space designs to be more formal with more open spaces and better visibility (Kaplan & Talbot, 1988).

In reference to the conversation of public space preferences, studies have observed what different user groups prefer in terms of public space function and the activities associated with the space. One study found that African Americans favored when public spaces had a recreation purpose over a conservation purpose (Payne, Mowen, Orsega-smith, & Orsega-smith, 2002). Participation in team-sports and socializing activities were rated highly as activities African Americans enjoy when they visit parks (Floyd, McGuire, Noe, & Shiness, 1994). In a study of Asian, Latinos, African Americans, and Whites in Chicago, Gobster found that all minority groups were more likely to participate in social and active behaviors than Whites: "Picnicking was a frequent activity of Latinos and Asians; other frequent passive social activities included talking and socializing by African Americans, engaging in organized festivals and parties by Asians, and watching organized sports by Latinos" (Gobster, 2002, p. 147). The visual characteristics of a

public space were found to be another concern of different social groups. Latinos and Asians prefer a scenic view with greenery, water, and other natural features (Gobster, 2002).

An extremely important preference in terms of public space that has been cited by multiple researchers is the concern of representation and ethnic sensitivity. In one study, Korean and Hispanic subjects emphasized wanting more availability of information in their language, a greater presence of other users of their ethnic group, and for more awareness of their customs by park management (Ho et al., 2005). The desire for greater representation can be seen in the use patterns in terms of social group size and composition by different groups. In a Chicago study, the Whites' average group size was 1.6, whereas for minority groups, African American groups averaged 3.7, Latinos averaged 4.4, and Asians averaged 5.0 (Gobster, 2002). In relation to the concern for more awareness of various racial and ethnic group customs by park management, there is a correlation between the mismatch of the ethno-racial characteristics of park staff and other users, as well as Anglo-normative park programming, and lower levels of park visitation (Dahmann, Wolch, Joassart-Marcelli, Reynolds, & Jerrett, 2010; Roberts & Rodriguez, 2001). Byrne found that the "racialization of some park landscapes" has happened because of social exclusion caused by lack of ethnic representation (Byrne, 2012). Low's studies have found that the particular norms of groups who claim status as "host" can have real effects on the use of public space by certain groups. What is considered normal can even be generalized into regulations that explicitly or implicitly discriminate specific migrant groups by targeting their associated sights, smells, sounds, and practices (S. Low, 2000; S. M. Low, 2006).

Recognition is extremely important as other studies conducted in New York allude. Observations from Times Square and Herald Square suggest that Senegalese vendors, those experiencing homelessness, immigrants searching for work, panhandlers, and some groups of young people of color are not even recognized as legitimate public space users by those managing the space (Chesluk, 2008; S. Low, 2013; Miller, 2007). Along the same lines of recognition and exclusion is the problem of the fear of "the other." The other can take the form of the poor, migrants, young people, racial minorities, or terrorists. The fear of those believed to be different or disorderly is

constantly spurring attempts to secure and militarize public space. This has been accomplished through policing strategies such as “zero tolerance,” the emphasis on “quality of life” violations such as loitering and graffiti, and the introduction of new surveillance technology like closed-circuit television (Fassin & Gomme, 2013; Iveson, 2010; Lippert & Walby, 2013).

Regarding these persistent issues of unjust public spaces, what can be done? Undoubtedly, there is not a single answer. Whyte believed the attempts of public space to exclude “undesirables” only made spaces less accommodating and inviting to all people. He felt a more effective tactic for dissuading nuisance behaviors was a design that encouraged ongoing stewardship (Whyte, 1980). In a broader than solely public space approach, Fincher and Iveson have tackled the question of urban social justice in *Planning and Diversity in the City: Redistribution, Recognition and Encounter*. Within their work, they have framed the three types of diversity that characterize cities: differences in wealth, status, and hybridity—the extent of possible identities for any one group. To address diversity, they have offered three goals for more just cities: (1) redistribution of space, amenities, and services to address the disparity in wealth; (2) recognition of the identities that are constantly diminished in unjust status hierarchies; and (3) arrangement of opportunities for people to relinquish the chains of fixed identities through encounters with diverse people and practices (Fincher & Iveson, 2008). All three are essential for creating a more just city. Distributive justice—addressed in the first goal above—is important. However, procedural justice—the way minority groups are recognized and treated in the decision-making process—is also of significance. Lastly, interactional justice deals with promoting respectful and safe interactions between diverse groups to break down stereotypes and build empathy, which should lead to more equitable outcomes as well (S. Low, 2013).

Although Iveson maintains these goals are worth working toward, in a separate paper he and Low solely focus on public space and discuss the hard truth that there will never be a panacea:

Of course, this is a tricky business—there is no simple formula for ‘just public space’ that can be applied across cities and their diverse neighborhoods in different geographical contexts. Nevertheless, we think that in order to have a greater impact on planning and governance practices and urban policymaking, a clearer moral and philosophically based argument and

evaluative framework is necessary...We propose that the provision of more just public space can be achieved through processes that seek to redistribute resources, recognize difference, foster encounter/interaction, establish an ethic of care and ensure procedural fairness (S. Low & Iveson, 2016, p. 12).

Through their five propositions for “just public space” given above, they hope to encourage policies and practices that will lead towards a fairer provision of public space and eventually towards a fairer society. Public space is fundamental because “if public spaces are not socially just in a number of ways, an unjust politics of exclusion, rather than of inclusion will continue through the current regime of urban civility” (S. Low & Iveson, 2016, p. 27).

## EQUITY AND PUBLIC SPACE IN THE RIGHT-OF-WAY

As noted earlier, reimagining the uses of the ROW has received considerable attention. One of the more popular movements for transforming the ROW for the purpose of public space but also just for making it more multi-modal and truly tapping its potential has been the Complete Streets Movement (Bain, Gray, & Rodgers, 2012). This movement has been championed because of its assault on the automobile and its attention to efficiency which promises environmental and economic benefits. However, what has drawn less attention but more cognitive dissonance is the possible inequitable outcomes of such a movement. ROW improvement and activation is not immune to environmental gentrification. Environmental gentrification is the process of land revaluation and displacement caused by some greening or sustainability initiative—most commonly associated with the introduction of more green space—that does not give enough attention to the social justice dimension of environmental sustainability (Dooling, 2008). Essentially, mostly white, mostly middle to upper income individuals disproportionately benefit from the changes associated with the Complete Streets movement at the expense of traditionally underserved communities. Guthman describes how sustainability initiatives tend to appeal to activists who end up being the gentrifiers and “lack a consciousness about the political dimension and whiteness of their discourse and practices,” reaffirming such movements still favor the social and racial majority (Guthman, 2008, p. 187). Chapple articulates how misleading and tempting the Complete Streets movement can be:

In an architect's rendering of a lively street, or a livable place, we rarely see the trucks that are transporting goods made by locals, or the family struggling to get the kids to school on time. Yet, behind every iconic great place—the walkable neighborhoods of San Francisco, the boulevards of Paris—is an urban economy that supports and is supported by low-income workers and their families operating under severe mobility constraints. (Chapple, 2014, p. 302)

Several variables including the suburbanization of poverty and the distance needed to travel versus the time it takes to get there—especially for low wage workers who have to devote even more time to work—are increasing auto-dependence. Whenever a street is stripped of some of its auto-capacity to make way for a new bike lane, it may unduly affect low-income residents. PDR (production, distribution, and repair) businesses tend to provide the majority of low-wage jobs. Not only do these businesses tend to locate in areas with poor transit accessibility, but where they do locate, “they need sidewalk space for staging and driveways and streets for loading goods” (Chapple, 2014, p. 292). Diminishing auto-capacity unfavorably affects low-income residents by making it harder to get from one destination to the next, and it can also have a negative effect on PDR businesses. If these businesses are forced to move elsewhere by encroaching gentrification and the growing political pressure to convert long-standing industrial areas to mixed-use areas, the adverse effect on low-income workers becomes even more exaggerated. Also, vehicular miles traveled by the trucks these businesses require will increase as well. In turn this diminishes the environmental rewards Complete Streets promises (Chapple, 2014).

Fundamentally, the Complete Streets movement and other New Urbanist ideals have been co-opted as neoliberal tools to expand a city's role in the global economy by attracting the Creative Class, which furthers gentrification and displacement (Zavestoski & Agyeman, 2014). The same inequitable practices that have infiltrated access to public open space in general extend into public space in the ROW. Langegger writes of how the increased regulation of street space in North Denver has increased the appeal of the neighborhood to outsiders by suppressing the cultural traditions of lowriding and cruising practiced by the large Latino community that has lived there for so long (Langegger, 2014). Brand notices a similar thing has happened in New

Orleans with the redesign and “completion” of Claiborne Avenue which runs through a couple of historically African-American neighborhoods. New noise ordinances, increased requirements for permitting, and constraints on food trucks has meant that the long-time cultural practice of second lines—a local tradition in which the spectators form a second line behind the brass band marching in the street—has begun to diminish (Brand, 2014). Brand laments, “What once were community norms are being challenged by new bureaucratic norms and economic expectations, limiting the capacity of these second lines to roam freely through the streets of the neighborhood” (Brand, 2014, p. 259). From the examples above, it is clear that there are times when a street has already been a successful public space and a cultural hotspot for years. However, if the enforcement of new rules essentially makes previous cultural customs a nuisance, the question arises of whose culture gets to determine how streets are used or reinvented. While the Complete Streets movement purportedly seeks to lessen the role of the car, mobility is still stressed, therefore strengthening the idea that the street belongs to those who contribute to economic efficiency via their movement (Lee, 2014). The thought that these types of movements are politically neutral because of their supposed environmental and economic benefits must be dismantled, or urban planners and city officials will continue to back them and increase urban inequity and injustice.

Regardless, all redesign of ROW is not unjust, and there are recommendations for how to be more equitable with ROW improvements. One fairly simple approach is to consider regional economic patterns when replanning urban street space. When a region’s low-income residents are already experiencing accessibility challenges, and research has shown that auto-ownership has an extremely positive impact on employment outcomes, a more equitable approach might be to actually increase automobile access among the poor. If the goal really is to reduce vehicular miles traveled, the focus should be on high-income drivers (Chapple, 2014). Schweitzer and Taylor have shown that low-income drivers are still less likely to drive as much as higher income individuals, so a vehicle miles traveled tax would at least be less regressive than some other taxes like the sales tax (Schweitzer & Taylor, 2008). If the Complete Streets movement persists, the focus cannot remain solely on mobility. It should be assessed by the allocation of

the redevelopment projects, partners engaged in making the projects happen, and the social, cultural, and economic resources required to make the new livable streetscapes occur (Zavestoski & Agyeman, 2014). Mehta's idea of the "ecology of streets" offers a valuable lesson and an alternative to Complete Streets. To consider a street as ecology is to understand it as a complex, fluid, and interconnected web of various activities and phenomena. It is supported and thrives by a diverse set of people, values, and models of control and compromise. He admonishes "not to think of the street as complete and in a state of equilibrium, but to recognize the street as a place in flux with some level of conflict" (Mehta, 2014, p. 97). One tangible tactic for making ROW design more equitable, especially in low-income, already gentrifying neighborhoods, is to begin by interacting with long-term residents to hear their concerns. Cadji and Alkon also suggest affordable housing and rent control as mechanisms that would assist long-term residents in being resilient and avoiding displacement (Cadji & Alkon, 2014). Grassroots community groups can be extremely beneficial as well. However, in the end, deep injustices will require commitments and effective planning at higher levels of city planning and authority (Zavestoski & Agyeman, 2014).

Unfortunately, the users of the space are almost always different from the designers of the space. While some of the designers try to keep the users' wants and needs in mind, they offer a complex mix of concerns and expertise:

Designers are usually trained to focus primarily on the physical aspects of the environment, while social scientists are interested in human interactions but largely ignore the physical qualities of space; planners may be concerned about equal access and opportunities in space; while public authorities focus on keeping the place easily manageable, safe and clean. Nevertheless, to make sociable streets, guidelines must address all these aspects of the street. (Mehta, 2013, p. 189).

Regardless of which camp each of these actors lies, a better understanding of how to turn ROW into equitable public space is necessary. The first and most important consideration is for the city to transfer more control of the street, especially the neighborhood commercial street, to actual businesses and users of the street. In *Living Streets: Strategies for Crafting Public Space*, Bain et al. encourages placemaking for public streets but cautions that context is key in deciding the use

and design of a public space (Bain et al., 2012). Giving the genuine users of the street more ownership of the public spaces will increase stewardship and help ensure the correct context is considered and the community's particular ideals are truly valued. Another point of understanding is the accessibility of the ROW. This entails not only local neighborhood access but also access from other neighborhoods and districts within the city and region. A successful segment of ROW is well-connected. Additionally, the street should provide comfortable access for the less able, such as people in a wheel-chair and those with visual impairments. Mehta says, "A street that is easily accessible by foot affords equitable access to most people and reinforces its publicness" (Mehta, 2013, p. 190). Adding to the conversation of successful public space and equity, Gobster examines the possibilities created when public spaces that serve as boundaries between distinct communities are effective. He believes the facilities provided by these places must be visible, attractive, and inviting. When this is effectively done, he thinks public spaces can be a catalyst in process of creating a greater, more harmonious and diverse community (Gobster, 1998). This definitely can and should be applied to the ROW, as it has been used too often to be a delineator for division rather unity. Mehta also describes the interactions of different groups in the public ROW and how the ROW should be a place for "all the publics" including the less fortunate and more nuanced. The design of the ROW should not exile or try to hide them; rather, as a public commons, it should be a space that everyone has a right to (Mehta, 2013). In time, the truly successful segments of ROW will become anchors of the community, well-known gathering places, and incubators of sociability.

## REFLECTION

Through my review of the literature, I have covered how public space is broadly defined, what benefits it provides, and what makes it successful. Lush green parks are favorable, but they are not the only public spaces a city can provide. I discussed the potential for the ROW to provide similar benefits and what should demarcate its success. I reviewed the complexities of access to public space. Physical access is only one component; the quality of the space and the preference of its users—whether someone who is a minority, low-income, less-able, or even a child—comprise what makes the public space socially accessible. I learned about the movement to

create more just cities through creating more just public space. The examination of distributive justice is only the first step. The causes for the lack of distributive justice elicit even further scrutiny. The issues with public space concerning its intended user and the authorities responsible for its management offer lessons for the effort toward equity at-large. I gathered my definition for equity from the works of Iveson, Fincher, and Low. Equity in relation to public space can be achieved through processes that aim to reallocate resources, acknowledge differences, promote respectful encounters, encourage empathy, and guarantee procedural justice (Fincher & Iveson, 2008; S. Low, 2013; S. Low & Iveson, 2016). Lastly, I considered how the ROW has the opportunity to be the ultimate setting for equitable placemaking because of its ubiquity and flexibility. In the revered *Death and Life of Great American Cities*, Jane Jacobs was well aware that “streets and their sidewalks, the main public places of a city, are its most vital organs” (J. Jacobs, 1961, p. 27) As such a fundamental part of an urban area, the way it is treated by those with the power to change it truly matters for the sake of the whole conurbation.

## CHAPTER 3: METHODS

This chapter explains the reasoning behind my methodology and the various steps I have taken to arrive at my answers. My hope is that the City of Seattle will be able to apply my findings in their effort toward a more equitable city.

With this thesis, I aimed to answer the question, how can Seattle make its right-of-way improvement programs more equitable to foster higher quality public space? The objectives were to (1) delve into the issues of the lack of public space facing cities and the associated inequities, (2) discover best practices for making ROW improvement programs more equitable, (3) identify areas of Seattle where the three City of Seattle ROW programs should prioritize outreach from an equity perspective, and (4) offer recommendations for how to make these programs more equitable to cultivate successful public space in the ROW. These are the supporting questions that guided my research:

- What have public officials, urban planners, and grassroots organizers done to equitably combat the need for more public space?
- Why have certain right-of-way improvement programs been successful?
- Where should Seattle prioritize increasing public space within the right-of-way?
- How can Seattle more equitably implement its right-of-way improvement programs?

### METHODOLOGICAL APPROACH

My thesis was completed through a mixed methods methodology. This means I collected and analyzed both qualitative and quantitative data followed by a connection of both sets of data

(Creswell, 2014). This technique is commonly used by those with a transformative worldview—the belief that research should be political with an underlying agenda to address social oppression (Mertens, 2010). Since my thesis seeks to mend the racial and social injustice surrounding urban public space, I wanted a well-rounded understanding of my research problem to form my suggestions for interventions.

The first part of the qualitative portion involved a literature review. I used the knowledge I gained about ROW as equitable public space to select the programs for my precedents study. The real-world applications of the equitable promotion of high quality public space in the ROW allowed me to draw conclusions about the strengths and weaknesses of these programs. The last qualitative part was a profiling of three City of Seattle ROW improvement programs including an assessment of their functional gaps that cause them to be less equitable. The quantitative portion was a geospatial analysis of the ROW within Seattle, which permitted me to assess where the three ROW programs can be implemented based on required criteria. This was followed by a prioritization of the ROW segments with the aim of fair distribution of these programs. By combining all the results, I was able to provide recommendations for making the three ROW programs more equitable in their promotion of higher quality public space.

## Reviewing the Literature

Qualitative research seeks to answer open-ended questions. The researcher is able to inductively draw general themes and meaning from the collected data (Creswell, 2014). As stated above, my thesis is largely qualitative. The literature review, the precedents study, and the profiling of the three ROW programs are all qualitative in nature. A thorough qualitative evaluation allows my work to arrive at an answer regarding a social issue that is difficult to measure with numerical data.

The previous chapter's literature review was developed through a thorough search on the University of Washington's University Libraries site for a search of scholarly articles and books relating to general search terms such as "public space," "green space," "public space in the right

of way,” “public space and streets,” “equity in the right of way,” “equity and urban public space,” and others of similar topic (University of Washington, n.d.). From the references sections of these articles and books, I also pulled sources.

Within the review, I covered successful public space, ROW improvement, and increasing race and social equity through access to public space. Within that chapter, I detailed the meaning of public space, what makes it successful, and its associated benefits. In the second section, I explored how the ROW should be reimagined as a primary viable resource for public space. I investigated the benefits of ROW improvements and what determines successful ROW. The third section looked at equity in regard to public space, first by examining the physical distribution of public space and then the amenities associated with and the quality of public space. I sourced references that provide some of the causes of less access, and then I highlighted propositions for creating a more just urban public space. My last section focused on equity and public space in the ROW. Lastly, I concentrated on recommendations for equitable improvements to the ROW in general and then more narrowly for equitably turning ROW into public space.

## Gathering and Evaluating Precedents

By giving me a better idea of what constitutes equitable considerations regarding improvements to the ROW, the literature review helped to inform my selection of four precedents that showcase how programs in other cities have been effective with equitable ROW improvement. Through a diligent internet search of public space programs that specifically seek to improve the ROW, I was looking for the precedents to have (1) applicability within Seattle and to the programs I evaluate in my thesis, (2) missions, goals, and policies that are explicitly equitable—the program needed to have shown ways in which it had made high quality public space accessible to those communities who need it most, (3) some government-affiliation—this caused me to limit my search to USA only programs because municipal governmental structure in the U.S. is fairly analogous across the board, and (4) creative solutions that I felt offer profound insights. Once I found programs that fulfilled these criteria, I chose four that represent a diverse range of models.

All the sources for my precedents study mainly consists of program websites, program manuals, and then any articles or blog posts I could find that discussed the programs at length. In my evaluation for each precedent, I provide an overview of the program, its local government affiliation, its equitable goals and policies, and its self-reported dreams for its future. Then I provide my thoughts on its lessons for equitable practice, its gaps for improvement, and any issues it poses for replicability. The precedents chapter ends with a breakdown of the lessons learned from the four programs, including their most equitable practices and how well they lend themselves to being replicable.

## Profiling the ROW Programs and Determining Gaps

The last fully qualitative step began with a profiling of three City of Seattle public space in the ROW programs. Each program is coordinated by the Public Space Management (PSM) team of the Street Use division of the Seattle Department of Transportation (SDOT). Because of my internship with the PSM team, I have gained some familiarity with these programs. I am unsure of the exact number of programs that PSM has due to there being no official list, but each program pertains to Seattle's ROW. In my selection of the three programs I have chosen to highlight within this work, I was looking for programs that (1) I have some familiarity with due to my scope of work with my internship, (2) have identifiable gaps for improvement, (3) offer a distinct type of ROW improvement—Play Streets is a temporary street closure, Pavement to Parks is a permanent street closure, and Planting in the Right of Way is not a closure at all but more of a beautification of the streetscape, and (4) have not recently undergone any in-depth analysis, to reduce redundancy of findings—Parklets & Streateries was evaluated by University of Washington Master of Urban Planning graduate Ellie Smith in 2016 (Smith, 2016) and Painted Street Murals was assessed by another UW MUP graduate Cheryl Klotz in 2017 (Klotz, 2017).

To write the program profiles chapter, I mostly relied on information available to the public via a quick google search of the program. However, my first-hand, mostly informal knowledge of the programs and their coordinators due to my internship allowed me to identify the gaps. In the

precedents chapter, I gave a brief introduction to each program including the program's goals and policies. Next, I provided the program's siting criteria and design guidelines, followed by a description of the application process. Lastly, I outlined what I observe as equitable practices currently carried out by the programs as well as the programs' gaps for improvement, which I eventually addressed with my final recommendations.

## Analyzing the ROW within Seattle

Quantitative research is the practice of taking variables and quantifying them to measure their relationship to answer closed-end questions (Creswell, 2014). Within my thesis I ask the question, where should Seattle prioritize increasing public space within the ROW? This question pertains to the distributive justice of public space. As stated in my literature review, distributive justice is not the cure-all for urban inequity. However, my findings inform priority areas where the barriers of injustice can begin to break down.

To answer the question, I conducted a geospatial analysis of the ROW within Seattle. First, I captured segments of ROW where the ROW programs can be implemented based on their required siting criteria. Following that, I prioritized these segments based primarily on their ability to achieve distributive justice, but also factored in the programs' goals. I used Esri's ArcMap for the analysis, and all the layers were acquired through the City of Seattle's Open Data portal (City of Seattle, n.d.-a).

For Play Streets and Pavement to Parks, I reduced the City's Streets layer, creating two new layers based on each program's requirements for siting. The Play Streets layer includes the two Street Types named Neighborhood Yield and Urban Village Neighborhood Access, as defined by the City's Streets Illustrated Guide (Seattle Department of Transportation, 2017b), and streets that are adjacent to residential zoning. This fulfills the siting criterion for Play Streets that states the street should be residential-oriented with minimal traffic. The layer excludes arterials and transit routes, as the program will not permit play streets on these streets either (Seattle Department of Transportation, 2016).

The Pavement to Parks layer is the Streets layer minus unpaved streets since it would not be “pavement” to parks without this distinction. I also omitted transit routes since those streets would not be considered underutilized, which is a measure used by the program for siting a new project. Lastly, I omitted steep streets—slopes greater than 5 percent—and streets without curb ramps to fulfill the ADA accessibility requirement of Pavement to Parks projects (Seattle Department of Transportation, 2017c).

For Planting in the Right of Way, I reduced the City’s Sidewalks layer. I excluded all sidewalks without planting strips. I then eliminated any sidewalk with underground utility lines since digging up utility lines is prohibited (Seattle Department of Transportation, 2017a). Figures 20, 21, and 22 in Appendix A provide the steps I took in ArcMap to create these Potential ROW layers. Each Potential ROW layer is a collection of ROW segments that have potential for improvement through the program because they meet the most basic requirements. A segment is defined as one block since this is how the Seattle Streets and Sidewalk GIS layers are already organized, e.g., Main St between 1<sup>st</sup> Ave and 2<sup>nd</sup> Ave with the Sidewalks layer adding the side of the street it is on, e.g., N Side.

With those three layers, I created a scoring system using indicators for prioritizing the segments based on ability to increase distributive justice and the programs’ goals and recommended criteria. For the Play Streets layer, this included identifying segments that are in census tracts defined as high priority by the Office of Planning and Community Development’s Equitable Development Implementation Plan—a supplement to the Comprehensive Plan that provides a framework of race and social equity to eliminate institutionalized racism in Seattle. This plan contains two maps (Figures 26 & 27 in Appendix C) displaying priority areas in relation to high displacement risk and low access to opportunity (Seattle Office of Planning & Community Development, 2016). These areas are not near previous locations of play streets, are in urban villages, are near multi-family residences, are not adjacent to arterials, are in census tracts where majority of households are family households, are in dense census tracts, are in census tracts where a large percentage of the population is under 18, and are in the gaps identified through

the Parks Gap Analysis—an assessment that shows what areas of Seattle are not within ½ mile walk of parks or other open space opportunities (Seattle Parks & Recreation, 2017).

For the Pavement to Parks layer, the prioritization indicators included identifying segments that are in census tracts that are defined as high priority by the EDIP, are near public transit, in parks gaps, are not near other Pavement to Parks sites, are in urban villages, are near retail, have high volumes of pedestrian traffic, have a history of bike and pedestrian collisions, and are shorter than typical street segments.

Finally, for Planting in the Right of Way, the segments were prioritized by whether they are in census tracts identified as high priority by the EDIP, are absent of street trees, have planting strips greater than six feet wide, are in food deserts, are not near P-Patches, are not near contaminated sites, are not on an arterial, are in parks gaps, and are near multi-family residences.

The indicators referenced above are described in more robust detail in the Geospatial Analysis of Right-of-Way within Seattle chapter. The specific ArcMap process I followed can be found in Figures 23, 24, and 25 in Appendix A.

Segments of ROW are assigned numbers using a binary system. If they are characterized by the indicator, they are given a 1. If not, they are given a 0. Adding these numbers together creates the Priority Score. The scoring system allows for the highest composite score for a segment of ROW to be a 10, with the higher scores being segments of ROW that should be prioritized by the City. The higher scores denote segments that, if improved through a program, would increase the program's distribution equitably and fulfill goals and recommended siting criteria of the program.

After scoring the segments, I discussed my findings, highlighting which areas of the city should be highest priority for introducing these ROW programs. I considered the implications of the

trends regarding the locations of the higher priority segments. I also created a list and a map of the highest priority segments of ROW across all programs. These are the ones that scored a 10 through the prioritization of the Play Streets layer and 9 for the Pavement to Parks and Planting in the ROW layer, since they had no segments that scored a 10. To achieve a broader range of recommended areas and tie them to specific neighborhoods, I extracted the 8s and 9s from the Planting in the ROW and Pavement to Parks layers and the 9s and 10s from the Play Streets layer and cross-referenced these with Seattle's neighborhoods. I created a table with the five neighborhoods that had the most high-priority segments for each program. I took the top two neighborhoods from each program to offer a close-up view of the segments' prioritization, and I also added demographic census data to make the results more useful if the program coordinators were to implement the programs in those areas. Furthermore, it gives a better general idea of the characteristics of the people who reside in the areas that score highly for prioritization based on my indicators.

## Making Recommendations

Within the Recommendations chapter, I make general recommendations for how to facilitate more equitable City programs. I follow this with contextualized, specific recommendations for each of the three ROW programs that address the gaps I identified in the program profile chapter. The literature review and the precedents study informed my suggestions from my conclusions drawn about best practices. The geospatial analysis allowed me to provide recommendations for where outreach should occur. I also researched programs and services provided throughout Seattle that either share goals with the programs or seem to have potential for a mutually beneficial relationship with the programs, and these discoveries were added to the recommendations as well. The geospatial analysis informed the community-based organizations I suggest.

## LIMITATIONS

While I am satisfied with my results, there are some limitations to consider. One deals with my precedents study. While I believe my search of source materials provided me with an abundance

of information, all my sources are secondary, with much of the information produced by the program sponsors themselves. Therefore, the reporting of the programs' successes is not entirely objective. For none of the programs was I able to find a report detailing an extensive evaluation of the program's function and process.

Another limitation is the lack of data regarding current gardens in the planting strip as supported by the Planting in the Right of Way program. Since not all gardens require a permit—which is a positive attribute of the program nonetheless—their current distribution cannot be measured. However, I am almost positive that the gardens are not equitably dispersed throughout the city since my geospatial analysis revealed that previously permitted Play Streets and previously installed Pavement to Parks have been disproportionately located in the areas of the city that have higher access to opportunity (Figure 28 in Appendix C).

Also concerning my geospatial analysis of the ROW, the analysis I conducted for the Pavement to Park program does not account for non-street segments of ROW. A few current Pavement to Parks sites and NYC Plaza Program plazas have been formed from non-street portions of ROW. These islands of residual ROW are typically leftover in areas where two different city grid patterns merge or where there is a wide turning lane. Since they are not streets, they are not included in Seattle's Streets GIS layer, which is what I distilled all the potential Pavement to Parks sites from. I could not think of a way to incorporate the residual portions of ROW into my analysis.

Additionally, I also was unable to formally interview the coordinators of the Seattle programs due to scheduling conflicts and the fact that one of the coordinators left the Public Space Management team during the writing of this. Therefore, another assumption is that the gaps I have identified and the recommendations I have given are new information. Or at the very least they have not been formally recognized in a published report, externally or internally. Along the same lines, without full knowledge of each program's capacity and resources, it is hard to predict the feasibility of my suggestions.

Another disclaimer deals with the Seattle Race and Social Justice Initiative (City of Seattle, n.d.-b). As part of this initiative, the Office for Civil Rights has created a Racial Equity Toolkit, which “lays out a process and a set of questions to guide the development, implementation and evaluation of policies, initiatives, programs, and budget issues to address the impacts on racial equity” (City of Seattle, n.d., para. 1). While I believe it should be used to evaluate all the programs for which I provided recommendations, I did not consult it when formulating my proposals. This was because I wanted to draw my own conclusions, as part of the learning opportunity a thesis offers. Since I was unable to conduct a full-blown equity analysis on each Seattle ROW program, my assumption is that they are inequitable. The gaps I identify are supported by the literature review and the precedents study, but as long as institutionalized racism persists, inequity is maintained at subliminal levels in all processes. Consequently, there is no way I have addressed every injustice of these programs.

I should also clarify the framing of my Planting in the Right of Way recommendations. Even though I know the program supports ornamental as well as edible gardening in the planting strip, most of my recommendations relate to edible gardening. I have chosen this focus since food security is an equity issue, although I realize placing beautiful gardens in planting strips in areas with less green space provides benefits as well.

Also relating to my recommendations, I do not address the fact that there are members of our society who do not have access to the internet. While internet access is not a requirement to participate in any of the programs, much of the information about them is only available online. As someone born in the early 90s, it is difficult for me to think of processes prior to the internet. Even though I know digital inequity is still an issue for which Seattle is seeking solutions (City of Seattle, 2017a), I chose not to explore recommendations regarding providing materials in a hard copy format.

Lastly, as a cis-gender, straight passing, middle-class, white male, I can never understand the full-extent of what it is like to be a member of a minority population. While I have done my best to educate myself, my equity recommendations come from a privileged perspective. Before being considered for implementation, they should be reviewed by people from more representative populations.

## CHAPTER 4: PRECEDENTS STUDY

Within recent years, more cities have begun looking into imaginative ways for providing more successful public spaces within their ROW. Many ideas have come to fruition, and I have profiled four of them within this chapter. The last section of this chapter is a compilation of the primary lessons learned from the four programs, including their most equitable practices and how well they lend themselves to being replicable.

During my selection process, I was looking for programs that fit specific criteria. First, I wanted programs whose missions, goals, and policies were explicitly equitable. Taking from Iveson, Fincher, and Low's approach to equity that I discussed in the Introduction and Literature Review, equity can be achieved through processes that aim to reallocate resources, acknowledge differences, promote respectful encounters, encourage empathy, and guarantee procedural justice (Fincher & Iveson, 2008; S. Low, 2013; S. Low & Iveson, 2016). Second, the program had to be a tool for creating public space within the ROW. Third, I was searching for programs that have some government-affiliation and have applicability to the current Seattle programs I evaluate in this work. This caused me to limit my search to USA only programs because municipal governmental structure in the US is fairly analogous across the board. LA Green Grounds is an exception to the government-affiliation criterion, but that is explained in its section. Lastly, all my precedents offer creative solutions and a diverse range of models.

## THE UNI PROJECT

Founded by wife-husband duo Leslie and Sam Davol via a Kickstarter campaign in New York City in 2011, the Uni Project is a nonprofit dedicated to enlivening public spaces across the city by



Figure 2. A Uni, New York, 2018. Photo: The Uni Project

introducing environments for learning. With a custom-designed “Uni,” they are able to pop-up in parks, plazas, and other public spaces in and out of the ROW to offer opportunities for reading, drawing, and hands-on learning. A variation of a stage case and designed by architecture and design firm Höweler + Yoon, a Uni (Figure 2) is a portable container that opens up to reveal different experiences for the public (The Uni Project, 2018). The initial program READ involves a Uni that holds a curated selection of books and stools for sitting and reading. Growing from its success, the Uni

Project has now added DRAW, EXPLORE, SOLVE, and BUILD programs, each with their respective tailored Unis (The Uni Project, n.d.-e).

## Relationship to Local Government

A sign of their success, the Uni Project has developed strategic partnerships with NYC’s transportation and parks departments, which has increased their efficiency and expanded their social impact. One-third of the project’s deployments have been held in NYC Plazas, and they are regularly seen at two of NYC DOT’s permitted event programs: Play Streets (Figure 3) and Weekend Walks. The project also partners with community organizations, all of which has allowed the program to have a profound impact in the city’s ROW (The Uni Project, n.d.-e, 2013).

## Equitable Goals and Policies

Along with the organization’s broader goals of trying to make education a more noticeable, more pleasurable part of urban life while strengthening NYC neighborhoods, it also prioritizes underserved locations. The project seeks outcomes that lessen the education achievement gap,

reduce urban social isolation, and increase sense of community. For 2018, they have outlined two overarching diversity goals. The first and most fundamental is to serve a diverse range of New Yorkers. To be able to meet the needs of the ever-diverse public of NYC, this involves being more inclusive with staffing and program development. One way this is being achieved is by hiring New Yorkers who come from or reside in the communities where the Uni Project works. As a result, as the program expands its reach, the team becomes more diverse. In 2017, about 87% of the individuals working and volunteering at the Uni Project were people of color and 56% were women. They want to maintain this diversity and add to it. The second goal is to craft installations that are welcoming to all. This means breaking down any physical, psychological, or social barrier to participation. Every member of the public should be able to find something inside the Uni to which they relate. Again, the selection of staff supports this goal, along with the designers and developers who formulate the creative solutions (The Uni Project, n.d.-a).

When working with community organizations, they offer a sliding scale that allows Unis to be an affordable amenity. With such a flexible, portable tool, they are able to pop-up in intimate, residential settings and prominent, bustling venues alike, providing a professional staff and a host of support volunteers.



Figure 3. Uni at a NYC Play Street, New York, 2013. Photo: The Uni Project

The online application form to request a visit from the Uni Project lists market, park, playground, playstreet, plaza, private, school, sidewalk, street festival, and of course an “other” option as all possible set-up locations (The Uni Project, n.d.-d). As they self-proclaim, they are “only entity providing programming in such a wide variety of public spaces in New York City” (The Uni Project, n.d., para. 4). As for the costs to the public, everything is absolutely free. The Uni Project receive its funding from

individuals, foundations, corporations, and the local government. They also receive a small amount of income from program fees and the sales of their Uni kits, which they will ship anywhere in the world (The Uni Project, n.d.).

## Program Future

Throughout the Uni Project's history, they have successfully had 500 deployments in 140 different public spaces in NYC. Of the neighborhoods where they have deployed, 85% of them have been primarily composed of low-to-moderate income residents. Within the foreseeable future, the Uni Project has no plans of halting its mission. They plan to expand their reach throughout the city and innovate more new programs. Excited to be on the forefront of a new approach to activating public space, they want to continue promoting a culture of learning. They also hope to make more Uni kits available to partners everywhere, so the Uni Project's model can have even more widespread implementation (The Uni Project, n.d.-e).

## Lessons for Practice

In an article written for BRIGHT Magazine, Sam Davol details what he believes works about the Uni Project. With even a small altercation, such as placing a portable reading station that contains engaging materials and moveable seating in the middle of a plaza, people are drawn in and are apt to stay a while (Davol, 2016). Offering a self-guided experience and eschewing lengthy instructions, Unis are welcoming and non-intimidating. Especially when introducing such an activity in an underused, under-stimulated place, staff at the Uni Project have noticed high levels of participation. Davol says he wants each experience at a Uni to be "one of discovery, agency, and happiness" (Davol, 2016, para. 16). He compares the often "hardscapes" of public spaces with sturdy benches and planters that are firmly anchored down to the "softer" materials he and the rest of the staff are able to provide. Because of their ability to monitor the materials (even if from afar), they are able to offer special, even delicate, items, which sends a signal of trust and respect to the users. They have observed the respect they give is most often reciprocated (Davol, 2016). Another admirable and effective goal of theirs is the intent to hire staff who are representative of the communities in which they deploy. This definitely encourages

more participation from the public. Another strength is the standardized implementation of a uni deployment because of its simple yet effective design. This offers an ideal partnership for city governments since the concern of unpredictability which increases liability is minimal. It also allows unis to be set up in a broad array of places.

## Gaps and Issues for Replicability

The Uni Project wants more widespread implementation of Unis across the country and the world, yet a new Uni seems to cost around \$6000 (The Uni Project, n.d.-b). This is a large ask, for many smaller organizations that could benefit their communities with a Uni. Since the Uni Project seems to be able to receive so much funding, it should set up a grant program or have information to provide to organizations about techniques they have used to secure donations themselves.

However, their amount of funding leads to my questions about its replicability. When deliberating the Uni Project's implementation in another city, it is unclear how it would fair. The founders are undoubtedly passionate about making learning public and accessible, and I am certain there are other individuals with similar vigor in other localities. However, the connections and the resources the Davols possess could be a rarity. After all, Sam Davol is the cellist for a fairly well-known indie pop band, The Magnetic Fields. A relatively young non-profit that is able to support 3 full-time and 7 part-time staff members is somewhat atypical. Many municipalities would like to partner with such a non-profit as the Uni Project, but not all are capable of supporting them financially. Even though the Uni Project was not originally partnered with the city government, the Uni Project acknowledges the partnership has made a pronounced difference in the expansion of their efforts with the financial backing and aid in deployments the City provides.

## THE STREET PARKS PROGRAM

Established in 2004, the Street Parks Program is a partnership between the non-profit San Francisco Parks Alliance (SFPA) and San Francisco Public Works (SFPW). Its mission is to support

the creation and conservation of community-managed open spaces on publicly-owned land. The program converts underutilized sections of land in San Francisco into vibrant gardens and parks that are overseen by members of the community. Most sections of land are in the ROW and include sidewalks, stairways, traffic circles, medians, traffic bulges, and other parts of unmaintained ROW. The sizes and functions of Street Parks vary as each one is developed to meet the needs of the community it serves. Functions include ornamental gardens, community meeting spaces, wildlife habitat, and places of recreation (San Francisco Parks Alliance, n.d.).

## Relationship to Local Government

As a SFPW program, SFPW is tasked with confirming that parcels are owned by them and appropriate for transforming. SFPW also provides help with materials such as tool loans for site workdays and services such as green waste pick-up. The Parks Alliance's role is to use its experience in community organizing, open space management, and volunteer coordination to provide advice on these matters to the Street Parks groups. Additionally, even though Street Parks is a shared program of SFPW and the Parks Alliance, the Parks Alliance also aids community groups in activating land under the jurisdiction of other public entities such as Caltrans, San Francisco Public Utilities Commission, San Francisco Municipal Transportation Agency, and San Francisco Recreation and Parks (San Francisco Public Works, n.d.).

## Equitable Goals and Policies

With the provision of abundant support to members of the public, the Street Parks Program (SPP) seeks to be an equitable avenue for turning underused public land into successful public



Figure 4. "January Planting Day 2015," San Francisco, 2015. Photo: Athens Avalon Greenspace Facebook page

space in the community partner's own neighborhood. As long as a community member has a few interested neighbors, an ideal location, and is devoted to maintaining the Street Park for at least three years, SFPA will offer

extensive guidance for the whole process. This includes help with paperwork, permitting, and budget preparation. The application is available on the SFPA website, and a detailed manual describing all the information about the program, including application instructions, safety guidelines, maintenance help, and planting tips, is also posted. Since the procedure can be fairly expensive—Street Parks’ budgets have ranged from \$10,000 to \$300,000—they provide information on in-kind materials that are available to Street Park groups and funding and grant opportunities. Furthermore, if the group chooses to pursue major grant funding, SFPA will serve as the fiscal sponsor, which includes another slew of benefits, such as fundraising consultation with development staff, donor acknowledgement and setup of online donation pages, assistance with establishing connections to public officials, training with community engagement tactics, provision of staff to testify at Commission and Board of Supervisors hearings in support of projects, and other logistical services. Twenty-three out of the 136 Street Parks are fiscally sponsored by SFPA.

The program is set up to lower many of the barriers faced by members of the public when trying to nurture a public amenity. Other assistance for Street Parks groups includes free mulch provided by the city, and as mentioned before, SFPW will pick up green debris after a workday (Figure 4). SFPA and SFPW will also schedule a workday and gather volunteers for the community members as needed. They even offer free practical workshops, specifically for Street Parks groups. If a new water meter has to be installed, which can be the case for some unimproved segments of ROW, SFPW will cover the water bill for the first three years. One additional commitment to equity is the program’s partnership with Mission Neighborhood Center, Inc. (MNC). MNC sponsors the Clean & Green Crew, a job training program for young adults who have had obstacles in obtaining employment. SPP hires the Clean & Green Crew to provide maintenance at some of the Street Parks sites (Athens Avalon Greenspace Facebook page, 2015; San Francisco Public Works, n.d.).

## Program Future

Since 2004, the Street Parks Program has allowed for over 136 sections of public land to be turned into community public spaces, including some of San Francisco’s famous public staircases (Figure 5). In the Recreation & Open Space Element of the San Francisco General Plan that was published in 2014—cited below—the City of San Francisco expresses interest in Street Parks and other smaller landscaped areas being the City’s new potential for offering opportunities that raise awareness of ecology and the natural world. As places that can host demonstration gardens, educational signage, and interpretive artwork, they would like for these uses to be emphasized in the future.

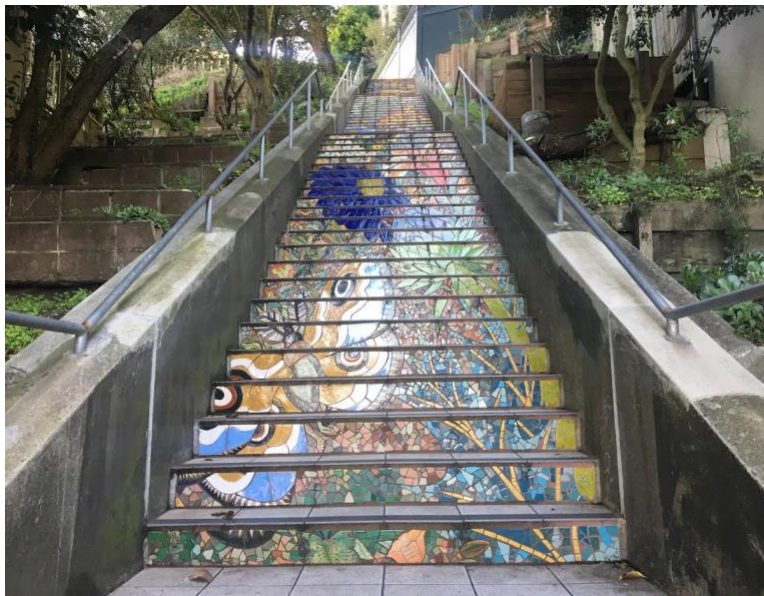


Figure 5. Street Park Staircase, San Francisco, 2018. Photo: Per la Mente

Additionally, they would like for SPP and similar opportunities for community-based stewardship and conservation to target youth and high-need areas, in particular. They believe an evaluation of public property, including identifying vacant and underutilized properties, would be helpful in expanding SPP. This would aid the City in building awareness in communities where opportunities exist to improve the community’s neighborhood spaces. They would also like to improve their tool lending library system, in an effort to lower one more barrier volunteers face when trying to clean up parks and make landscape improvements (City of San Francisco, 2014; Per La Mente, 2018).

## Lessons for Practice

The Street Parks Program offers a few lessons for how governments can partner with private entities to empower grassroots community groups that wish to foster a public space. The small, loosely organized groups are normally made up of volunteers who are passionate about a cause.

Because of minimal labor costs and an ability to inspire in-kind donations, these groups are positioned to have large impacts at a low cost. When it comes to managing a public space, the broad involvement of stakeholders of a grassroots group can promote sense of community and increase organizational- capacity for future community organizing efforts. Along with the detailed Street Parks Guidelines manuals and the offer to help the groups every step of the way in creating an activated public space on public land, the SFPA's offer to function as the group's fiscal sponsor is the program's most necessary service. With lack of funding being the largest obstacle most grassroots groups face, this provision can be extremely beneficial. The free practical workshops offered on topics such as fundraising, plant selection, and care that are specifically for Street Parks groups are another excellent amenity.

## Gaps and Issues for Replicability

While SPP provides a substantial amount of support to community groups, it does not completely set the groups up to have the capacity to handle the amount of work it takes to manage a public space. The simple and low-cost nature of grassroots organizations can prove to be a weakness just as much as it can be a strength (City of San Francisco, n.d.). It is still more likely that high-resource communities will be much more capable of picking up where the program drops off. Grassroots groups heavily depend on people's free time, experiences, and connections. Those groups in wealthier communities are typically more able to secure substantial financial donations from neighbors and businesses and tend to have better connections for obtaining corporate sponsorship. They also are more likely to have experience in organizational management and marketing. The financial and managerial burdens may prove to be too heavy for grassroots organizations in lower income areas. SPP would be better suited to help those groups most in need if it could devote more energy to supporting groups in assembling volunteers, managing clean-up, landscaping, and hosting events.

The Street Parks Program is a public-private partnership between SFPW and SFPA. As stated in San Francisco's Public Space Stewardship Guide, public-private partnerships are tricky since each case is unique and there are sometimes apprehensions over privatization of a public space,

project, or resource (City of San Francisco, n.d.). While the agreement for SPP seems to be working well, it does not mean a similar agreement would work for other municipal governments.

## NEIGHBORHOOD PLAZA PROGRAM

One of the more successful and acclaimed underutilized ROW to successful public space programs has been the NYC Plaza Program, which is a program of NYC Department of



Figure 6. "Parkside Plaza, from installation to opening day," New York, 2015. Photo: Neighborhood Plaza Program Facebook page

Transportation (NYC DOT). It could have very well served as one of my precedents, however, I wanted to highlight a lesser known, equity-focused auxiliary to that program. Started in 2013, the Neighborhood Plaza Program (NPP) seeks to assist local plaza managers with their daily operations to ensure the NYC Plazas are able to excel in every NYC community (Figure 6) (Neighborhood Plaza Program Facebook page, 2015). Supported by the

NYC-based non-profit the Hort, the NPP supplies horticulture, daily sanitation, and technical assistance to the city's plazas that need it the most. Founded in 1900, the Hort is a self-described "community of urban gardeners" whose "programs and projects encompass urban farming, rooftop gardening, container vegetable production, bioremediation, storm water abatement, landscape design, vocational training, horticultural therapy and environmental literacy" (Idealist, n.d.-b, para. 2). Mostly located on residual segments of the ROW, which include slip lanes, redundant streets, wide intersections, etc., the plazas are built by the city, but managed by local community groups. (The Hort, n.d.).

## Relationship to Local Government

The Hort is under contract to the NYC DOT to sponsor the Neighborhood Plaza Program. Each plaza has a local partner, which is often a business improvement district or a community-based organization. In most cases, the NPP is in close contact with the City Council members from the districts where the plazas are located. In terms of financial donations and staff resources, councilmember support has been an integral part of the success of the program.

## Equitable Goals and Policies

The Neighborhood Plaza Program's main mission is equitable since it seeks to support the plazas in the neighborhoods that are most underserved, so those neighborhoods can have a public space of similar quality to those plazas with the most financial backing. The city will not install a plaza without an accompanying maintenance partner, so areas without much capacity often find it harder to introduce or maintain a plaza. NPP combines direct service with advocacy and works closely with the low-capacity plaza partners to supply essential tools to build and grow bonds with local businesses, to host cultural events, and to increase knowledge of how to nurture clean, beautiful public spaces. (Diversity Plaza, n.d.).

NPP's model realizes that community organizations obviously want to provide a successful public space for their community and that they are excellent leaders of public space activation and programming. Unfortunately, that role requires funding. With this in mind, NPP attempts to remove the burden and costs associated with maintenance and cleanup, so the organizations can focus their efforts and funds on the programming elements of plaza stewardship. NPP even supports the programming aspect with targeted advisory services around sponsorships and marketing. NPP offers their services on a sliding scale. Each year, they incur costs of about \$50,000 per plaza, yet only charge an average of \$11,000 per year to each partner.

As mentioned before, NPP provides a subsidized maintenance service that uses a workforce training model (Figure 7) (Urban Omnibus, 2015).

This is provided through its GreenTeam program, which is another equitable practice of the Hort. The GreenTeam program provides short and long-term job-related training to at-risk youth, young adults, ex-offenders, and



Figure 7. "Corona Plaza with Hort and Neighborhood Plaza Partnership work crews on hand," New York, 2015 or earlier. Photo: Urban Omnibus

homeless youth. As the Hort's urban greening workforce, the team works year-round on projects involving plant care, landscape design, and garden maintenance. Not only gaining an understanding of professional horticulture, they also learn responsibility, time management, and workplace professionalism. The GreenTeam cares for most of the NPP plazas. However, for those not cared for by them, the Hort provides maintenance through another equity-focused program called the GreenHouse program, which engages formerly incarcerated individuals from Rikers Island Correctional Facility in transitional employment. Sanitation services are provided through a partnership with the Association of Community Employment Programs (ACE), another workforce development program that supplies full literacy training and job placement. Members of their program also receive help with whatever obstacle they might have to keeping a job, be it taxes, childcare, or something else (The Hort, n.d.).

## Program Future

At the beginning of 2018, there are 73 NYC Plazas throughout the city, and 14 of them are NPP Plazas. In a 2015 interview with Urban Omnibus, NPP Managing Director Laura Hansen said the program wished to support at least six more plazas in the near future (Urban Omnibus, 2015). She also said that by 2020 or before, the program would like to know precisely how much it costs to maintain a plaza, what issues are unique to low-income areas, and what are realistic

expectations for the NYC Plaza Program revenue mechanisms, local fundraising, volunteer time, in-kind donations, and partnerships. If that information can be quantified, then Hansen believes it would be evident that plazas need ongoing public support to last. Even if the data could just be persuasive enough to show that a public funding stream is necessary to cover the cost of maintenance for plazas managed by a non-BID or a low-budget BID, she would be happy. Furthermore, she frankly stated, “I think it would be great if we could solve the funding and maintenance problem so that NPP becomes obsolete” (Urban Omnibus, 2015, para. 24).

Another goal NPP is working towards is cultivating partnerships between high- and low-resource plazas to create joint sponsorship or grant application packages that benefit both places. This is a tricky process since each plaza has an individual contract with the city, but they believe it is worth pursuing since corporations tends to direct sponsorship funds to the most iconic plazas with the most use. NPP is also interested in creating hyper-local workforce development arrangements in which the plaza maintenance jobs go to those who reside in the plaza’s neighborhood. This is something in which many communities have expressed a strong interest. Since NPP is currently unable to offer such an arrangement, they are exploring training models for those who are interested in developing and managing workforce development programs of their own (Urban Omnibus, 2015).

Related to the equity of NYC Plazas and the Neighborhood Plaza Program, I need to mention the OneNYC Plaza Equity Program (ONYCPEP), which was announced in a press release in November 2015. At a ribbon cutting ceremony for the Plaza de las Americas, DOT Commissioner Trottenburg announced the ONYCPEP as a \$1.4 million technical assistance and maintenance program for 30 designated medium and high need plazas citywide. Medium- and high-need plaza partners are defined as “those organizations that have limited organizational-capacity, small operating budgets, and lack experience in public space management and the plaza they maintain is located in a neighborhood with an insufficient amount of open space, low to moderate income, and that endures a significant amount of pedestrian traffic adding to the maintenance burden” (City of New York, 2015, para. 18). The press release stated medium-

needs partners would receive up to \$20,000 while high-needs partners would receive up to \$80,000 in the form of management and maintenance materials, services, and programs, with each partner working closely with NYC DOT to develop a plan that meets their specific needs. Support from the program includes maintenance services such as daily cleaning, softscape management, and horticultural care. Technical assistance given to the partners comprises help with navigating city permitting systems, event planning, and trainings in fundraising, fiscal management, public relations, and other matters that improve their ability to sustain their plaza. The program supplies up to three years of assistance, with the intention that partners will be able to roll off as their capacity to manage their plaza increases (City of New York, 2015). The ONYCPEP seems like the exact public support for plazas Laura Hansen expressed a strong interest for in her March 2015 interview, only eight months before this press release. While I have been unable to find definitive evidence, it seems that NPP might now receive part of its funding from the ONYCPEP. In a more recent press release from July 2017 that announces the beginning of construction for Diversity Plaza, it is stated that NPP provides its maintenance services to its 14 plazas via the ONYCPEP. After further research, it also remains unclear what entity, if not NYC DOT itself, provides the services for the 16 other plazas cited to receive support from the program (City of New York, 2017).

## Lessons for Practice

The Neighborhood Plaza Program serves as a model for a maintenance and technical assistance partnership and shows what can be done to address resources disparities between neighborhoods and their local organizations. Normally, the most challenging aspects of public space management for community organizations are maintenance and stewardship. Because of the services NPP is able to offer, the plaza partners are able to funnel their resources towards programming and placemaking. The partnership also allows for the beneficial exchange of ideas and best practices. This lends significantly to ensuring the longevity of the space. One service provided by NPP that could be most essential is the organizational-capacity building. Since the partners are taught how to more efficiently grow and fundraise, they will have a much better chance of being self-sufficient in managing the plaza if NPP is no longer able to provide for them.

## Gaps and Issues for Replicability

A potential weakness of the model shown by NPP is the less centralized approach to management. As stated in San Francisco’s Public Space Stewardship Guide, if roles and responsibilities are not explicitly outlined between the sponsor and each partner organization, there is the risk that some details will get passed over or that some projects will become unmanageable (City of San Francisco, n.d.).

Although endorsed by NYC DOT, NPP was initially almost fully supported by private funding. In fact, the organization was launched with the help of a JPMorgan Chase Foundation \$800,000 grant. Securing a funding partnership might be a difficult but necessary step for the NPP model to be replicated. The cost to provide services to the partners will continue to be high for NPP. Fortunately, NPP is sponsored by the Horticultural Society of New York, with its long history of advocacy and fundraising for public space management. It also has the capacity to have 3 full-time staff members dedicated to the program, and it is able to utilize its pre-existing workforce-training programs for the maintenance services NPP offers. Non-profit organizations that fit those particular specifications may be hard to find in other cities. Additionally, as mentioned for the Street Parks Program, a similar public-private agreement to the one between the Hort and NYC DOT to create NPP may pose issues for replication since every public-private partnership has distinctive qualities.

## LA GREEN GROUNDS

Founded in 2010, LA Green Grounds (LAGG) is a grassroots organization of volunteers devoted to helping residents of South Los Angeles transform their front yards and parkways—what L.A. terms the area between the sidewalk and the street—into edible landscapes and urban farms. The program began when one of the founders Ron Finley, self-described “Gangsta Gardener,” started planting an edible garden in the parkway near his home (Figure 8) (Berl, 2017).

Technically illegal without a permit from the Bureau of Street Services, Finley was told he needed to remove his garden or pay the \$400 permit fee. However, even with a permit, the height

restriction of 36” and the restrictions on the type of plants that could be placed in the park way jeopardized his garden. After requesting a hearing, Finley launched a petition to grow support for his garden. With almost 1,000 signatures and media buzz, L.A. officials canceled the hearing and told him his garden could stay (The Ron Finley Project, n.d.).

Inspired by these events, Finley, a master gardener named Florence Nishida, and another member of the South L.A. community named Vanessa Voblis founded the LA Green Grounds program. Their mission is to advocate for others similar to Finley who desire to grow their own food in a neighborhood where access to affordable, healthy food choices is lacking. L.A. Green Grounds says, “Our program is a fine example of building intentional communities, reimagining neighborhoods and encouraging sustainable living practices and so much more” (LA Green Grounds, n.d., para. 1).



Figure 8. "Ron Finley in a garden outside his home in Los Angeles," Los Angeles, 2017. Photo: Emily Berl for the *New York Times*

## Relationship to Local Government

Unlike the other precedents mentioned above, LAGG has a less formal relationship with the local government. There is no partnership between a department of the City of L.A. and LAGG. The only relationship to local government the group possesses is a rapport they have formed with a couple of councilmembers. These councilmembers sponsored the motions to eliminate the permitting fee and allow edible plant materials in the parkway, which was finally passed in 2015. The program is decidedly grassroots, being composed completely of volunteers, and is dedicated to advocating for the food justice, anti-hunger, anti-poverty, and environmental movements in the city (Idealist, n.d.-a).

While my ultimate purpose for the precedent section of this thesis was to explore programs that could be implemented by the City of Seattle, I still chose to include LAGG because there are times when the best solutions for a city arise out of grassroots movements. Although they are forced to exist within the confines of city legislation, to an extent, grassroots programs tend to be much less complicated than municipal-led programs because they are not held to the same standard as a public entity. This allows them to be more accessible to the average resident of a city, and the change they inspire normally happens much faster. In fact, cities should do more than just allow grassroots programs to exist and prosper, but also offer more assistance with their noble goals.

## Equitable Goals and Policies

Using advocacy and leveraging expertise, LAGG seeks to empower South L.A.'s communities. They believe every Green Grounds garden should serve as an example for the neighborhood where it is located. It should inspire others to join the movement, and the food it produces should be available to everyone. The visibility of the gardens is meant to inspire conversations among neighbors, hopefully leading to a stronger sense of community. Each garden also includes a sign with the program's branding and contact information.

LA Green Grounds wants to help anyone who is a resident of South L.A. and is willing to put forth the work to be able to set up a garden. A LAGG coordinator will assist applicants through every stage of the process, including the planning of what they refer to as a “Dig-in.” A Dig-in is an event where the applicants invite family, friends, and neighbors to spend about 5 hours on a weekend morning transforming a front lawn or parkway into an edible garden. LAGG provides the tools, seeds (both of which are donated), and additional volunteers. All they require of the applicants is that they participate in another applicant’s Dig-in. Garden recipients are invited to take part in LAGG’s harvest exchange, in addition to their sustainable living workshops and other education opportunities for how to keep their gardens flourishing (Figure 9) (LA Green Grounds Flickr, n.d.). The non-fenced LAGG Teaching Garden offers free classes to the public, and there is an abundance of fresh produce available at no cost. Although they are unable to assist those who dwell outside of South L.A. in creating a garden at this time, their website offers a step-by-step guide detailing how to begin a similar service in any community.



Figure 9. Class taught by LA Green Grounds co-founder Florence Nishida, Los Angeles, 2017. Photo: LA Green Grounds Flickr

## Program Future

So far, LA Green Grounds has helped residents of South L.A. install more than 35 gardens. LA Green Grounds is pleased with its progress since its inception, especially their propagation of the idea of growing your own food in South L.A.. While they have been able to alleviate some of the food insecurity in their community, there is undoubtedly more to be done. Noticing the

challenges to maintaining a garden long-term, they hope to provide participants with more know-how and encourage them to put forth a stronger effort. They have found that the applicants who really like to cook seem to be the most successful, so they have added food preservation and cooking classes. LAGG also realizes it could do more if it had at least one full-time paid staff member, which is not possible without funding. They do hope the work will continue to spread exponentially, one garden at a time, as more awareness is raised and more community members become empowered.

After receiving acclaim from a TED talk (TED, 2013), Ron Finley has since left LAGG to pursue the Ron Finley Project. His dream is to build “HQ,” an urban garden in South Central L.A. that will serve as a paragon of a diverse fruit and vegetable sanctuary. He says, “HQ will create a myriad of jobs for local residents, and this plot of land will be a self-sufficient ecosystem of gardening, education, cooking, business learning and management. The community will get their hands dirty together, shovel together, work together and be healthy together” (The Ron Finley Project, n.d., para. 6).

## Lessons for Practice

Similar to the Street Parks Program in San Francisco, the potential of grassroots organizations is large because of their lack of labor costs and passionate workforce. LA Green Grounds obviously has a zealous crew. Their advocacy efforts leading to a policy change, with the removal of the permitting fee and the allowance of edible materials, is a testament to their willpower. Also, the creation of over 35 gardens in their nearly eight years of existence is no small feat for an organization that runs almost exclusively off in-kind donations. The virality of Ron Finley’s TED talk and the media coverage that followed has undoubtedly helped them expand, but the program’s story and process is inspirational nonetheless. Although they encountered bureaucracy with the permit requirement, the overall lack of formality significantly decreases the barriers to producing a public space that provides a myriad of benefits within an extremely short timeframe.

Unlike with SPP, the equity of high-resource participants versus low-resource participants is less of a concern with LAGG since LAGG is more entrenched within the community, therefore more aware of the particular needs of each participant. This allows for more guidance and also better knowledge of how to amend the program to make it better. A grassroots program that covers a limited area is preferable since there is less strain on resources. However, I am sure LAGG would be willing to share programmatic tips if a similar grassroots group formed in another area of the city, given it already produced a manual for hosting Dig-ins.

## Gaps and Issues for Replicability

Also comparable to SPP, the grassroots organizational structure can be limiting. Without fixed responsibility and proper funding, LAGG has not been able to expand its efforts as far as it would prefer, and it has noticed that some gardens have struggled to survive. Leaders have observed the challenges of maintaining a committed corps of workers as well.

The issues for replicability lie in what it takes to maintain a grassroots program like LAGG. A few like-minded people with some skilled-experience and commitment to improve their neighborhood was the basis for this program to create successful public spaces. However, to turn it into a successful program that continues to fulfill its mission one garden at a time without substantial backing, passion and resourcefulness are absolutely necessary. The dedication exhibited by the leadership of LAGG is special, as many organizations are unable to subsist by such marginal means.

## LESSONS LEARNED

These precedents display innovative processes for fostering high quality public space in a city's ROW. Since all of them have been mostly successful in their endeavors, they offer valuable insights and lessons. The Uni Project models how uncomplicated, temporary installations can be engaging and enliven a broad array of contexts. It strives toward equitable participation by hiring staff who are representative of communities where it deploys. The Street Parks Program brings community stakeholders together, increasing organizational-capacity for future community

organizing efforts. It seeks to help grassroots groups by serving as their fiscal sponsor and guiding them towards financial independence. The Neighborhood Plaza Program handles the maintenance responsibilities, so the partners have more capacity to program and activate the plazas. It also leverages many years of public space stewardship and non-profit management experience to teach partner programs how to be more self-sufficient. LA Green Grounds supplies a simple and cost-efficient way to transform a public space and create a neighborhood amenity. Its passion is to serve the community where it was born.

The items I have outlined above are actions that should be emulated. However, these programs are not without fault, and they pose challenges for replication. One of the Uni Project's goals is to expand its reach outside of New York City, but it should provide more support to those interested in helping them reach this target. A large portion of its success is due to New York City's financial support, yet many municipalities are unlikely unable to provide this sort of backing. The Street Parks Program should distinguish between high-resource and low-resource communities in terms of the help it provides, so it can make sure the low-resource partners are receiving the additional support they most likely require. Furthermore, the successful partnership between San Francisco Public Works and San Francisco Parks Alliance may be hard to replicate in other cities. In the same vein, the Neighborhood Plaza Program partnerships are loosely organized, and responsibilities are not always clearly outlined. NPP also takes on extremely high costs of plaza maintenance, which would be even higher without the Hort's pre-existing maintenance team program, and that type of funding could be challenging to reproduce. One of LA Green Grounds weaknesses is its informal organizational structure, but its passionate and resourceful team that would be hard to find elsewhere continue its mission. Table 1 summarizes what I believe are each program's greatest strength, most equitable practice, biggest gap for improvement, and largest issue for replicability.

Table 1. Lessons Learned from Precedents

	<b>The Uni Project</b> <i>New York, NY</i>	<b>The Street Parks Program</b> <i>San Francisco, CA</i>	<b>The Neighborhood Plaza Program</b> <i>New York, NY</i>	<b>LA Green Grounds</b> <i>Los Angeles, CA</i>
Greatest Strength	Introduces uncomplicated, temporary installations that can be implemented in a broad array of contexts	Provides an avenue for many community stakeholders to collaborate	Allows partners to funnel more resources toward programming and activating plazas	Supplies a simple and cost-efficient way to transform a public space
Most Equitable Practice	Hires staff who are representative of communities where the Uni Project deploys	Offers to function as group's financial sponsor	Teaches partners how to be more self-sufficient	Shows dedication to serving the community where it originated
Biggest Gap for Improvement	Has not identified an easy, cost-efficient way to achieve widespread implementation of its model worldwide	Does not distinguish between high-resource and low-resource communities with amount of support provided	Maintains a less centralized approach to management	Lacks proper funding and strong organizational structure
Largest Issue for Replicability	Requires substantial financial support that many municipalities may be unable to offer	Is a public-private partnership	Assumes extremely high costs of plaza maintenance	Managed by an extremely passionate and resourceful team

## CHAPTER 5: PROGRAM PROFILES

This chapter presents an overview of the three ROW programs I have chosen to discuss within my thesis. This introduces them and their program objectives, gives siting criteria and design guidelines, and explains what the process consists of when applying to be a participant. It also covers what I perceive as practices that are already equitable in nature as well as shortcomings of the programs, which are eventually addressed in the Recommendations chapter. Similar to the Precedents Study, I maintain my definition of equity from the Introduction and measure equitable practices as those that aim to reallocate resources, acknowledge differences, promote respectful encounters, encourage empathy, and guarantee procedural justice (Fincher & Iveson, 2008; S. Low, 2013; S. Low & Iveson, 2016)

As I discussed in the Methods chapter, in my selection of three programs I have chosen to highlight within this work, I was searching for programs that (1) I have some familiarity with due to my scope of work with my internship, (2) have identifiable gaps for improvement, (3) offer a distinct type of ROW improvement—Play Streets is a temporary street closure, Pavement to Parks is a permanent street closure, and Planting in the Right of Way is not a closure at all but more of a beautification of the streetscape, and (4) have not recently undergone any in-depth analysis, to reduce redundancy of findings.

## PLANTING IN THE RIGHT OF WAY

Planting in the Right of Way is a program supported by the Public Space Management (PSM) team of the Street Use Division of the Seattle Department of Transportation (SDOT). In areas where the planting strip—the Seattle term for the area between the sidewalk and the curb—is unpaved, this segment of the ROW provides an excellent opportunity for introducing vegetation (Figure 10)

(Seattle Department of Transportation, n.d.-c). Vegetable gardens, ornamental plants, and rain gardens are all encouraged by this program. PSM offers support and guidance—including answering any questions an applicant may have and offering site plan templates (Seattle



Figure 10. Planting in the Right of Way, Seattle, 2018. Photo: Seattle Department of Transportation

Department of Transportation, n.d.-b) as aid in the planning of a project—to individuals and groups who wish to garden in the planting strips adjacent to their properties. Gardening in other ROW areas—that are not the planting strip—is possible but typically requires a permit and associated permit fees (Seattle Department of Transportation, 2017a).

### Program Objectives:

- Increase the use of the right-of-way for food production and gardening
  - Promote community stewardship of neighborhood open space
  - Reduce stormwater runoff
  - Ensure safety and mobility of the traveling public
  - Beautify our shared streetscapes
- (Seattle Department of Transportation, n.d.-c)

## Siting Criteria & Design Guidelines

To garden in the planting strip, the City's siting criteria is fairly minimal. The City only requires that there be no conflict with underground utilities or large tree roots. The design guidelines are more thorough:

- Planting -
  - Plants should have a maximum mature height of 3 feet
  - Plants within 30 feet of an intersection should have a maximum mature height of 30 inches
  - Plants within 10 feet of a driveway should have a maximum mature height of 30 inches
  - Under trees, plants should not be installed within 4 feet of the trunk
  - If there is a parking lane next to the planting strip, there should be an 18 inches wide landing strip that is flush with the curb; it may be planted with low-growing groundcover or turf, a mulched surface, or set with pavers, bricks, or stepping stones
- Raised Beds & Fixed Objects -
  - Fixed objects, including raised beds, should be set back at least 1 foot from the sidewalk edge, 3 feet from the curb face, and 5 feet from utility poles, fire hydrants, and other utility structures
  - Planting strips must be at least 6 feet wide to install raised beds
  - Maximum height of raised beds is 18 inches
  - Maximum length of raised beds is 40 feet
  - Allow 3 feet between raised beds for pedestrian access between the street and sidewalk
  - On streets without a sidewalk or curb, raised beds should be set back 11 feet from the edge of pavement
  - Raised beds should not be made with creosote-treated timber, which is toxic; other types of treated lumber are also not recommended
- Street Trees -
  - Specific trees such as fruiting cherry, apple, and pear are prohibited since there is a safety risk when fruit falls on the walkway
  - Refer to the SDOT's Street Tree Manual (Seattle Department of Transportation, n.d.-e) for further explanation on planting and maintaining street trees
- Plant Selection -
  - Native and drought-tolerant vegetation is recommended
  - Avoid plants that obstruct the sidewalk or reduce visibility at intersections and driveways  
(Seattle Department of Transportation, 2017a, p. 1-2)

## Application Process

To install vegetation in the planting strip, a permit is not required. However, if someone wishes to install trees or raised beds, they should apply for a free Street Use permit and follow the permit application process.

The following materials are required when applying for a permit:

- A completed Street Use Construction Permit Application Form
- A list of plants potentially being used
- A Right of Way Impact Site Plan with the length and width of the proposed garden in the planting strip
- An Urban Forestry Application if you propose to prune, remove, or add new street trees

If any parking spaces need to be used during installation for the storing of equipment or materials, Temporary “No Parking” Signs will need to be placed in those spaces 72 hours before work begins. If there is an existing tree in the planting strip, protection fencing should be placed at a minimum of 4 feet diameter around the trunk. For maintenance, Seattle Municipal Code requires the adjacent property owner to maintain the vegetation in the closest planting strip, so an upkeep plan should be established (Seattle Department of Transportation, 2017a).

## Equitable Practices

Planting in the ROW does have some equitable practices that should be commended. One is the fact that a permit is not required to garden in the planting strip under many circumstances. A barrier that LA Green Grounds fought hard to overcome in Los Angeles is a non-issue in Seattle. Additionally, even though a permit is required for installing a raised bed or planting a tree, it comes at no cost to the applicant. Another admirable component of the program is a regularly updated web page that serves as a useful resource (Seattle Department of Transportation, n.d.-c). Its provision of a Client Assistance Memo (Seattle Department of Transportation, 2017a). This detailed document was my source for much of the information above. The web page also provides site plans and templates to assist in the planning of any projects (Seattle Department of Transportation, n.d.-b). This can be useful for aid in fulfillment of the site plan requirement for all

projects that necessitate a permit. The page also links to an extensive list of recommended plants that will not grow over 3 feet—the maximum height regulation. The list contains information about the conditions that allow the plant to prosper as well (Seattle Department of Transportation, 2010). Finally, the program is a simple and low-barrier program that allows beautification of the ROW, sustainable food production, and environmental conservation.

## Gaps for Improvement

The last positive attribute I mentioned above is precisely why I believe the program has so much potential and why I have identified these areas where it could improve. The first issue is its overall lack of partnerships. My precedents show that partnership enable a program to address its shortcomings by partnering with programs that have strengths in those areas. Another problem I have with the program is its lack of mechanisms that recognize differences in resources of potential participants. Also, the program does not conduct outreach in areas of the city where this program is needed most. An additional gap is the amount of information it does not provide. Although the web page, Client Assistance Memo, and the recommended plants list are useful resources, they are not enough. It also does not provide any materials in a language other than English. Another probable issue is the amount of regulation; there may be an excess of rules for what can be introduced into the planting strip. Also, the program does not perform a sufficient job of encouraging community interaction. Lastly, one of the most significant issues I have with the program is its disregard for its potential to support food production. I have addressed all of these in the Recommendations chapter.

## PAVEMENT TO PARKS

Pavement to Parks is another program supported by the PSM team of SDOT. It is technically a sub-program of the Adaptive Streets program (Seattle Department of Transportation, n.d.-a).

The Pavement to Parks program is one of many programs across the United States inspired by



Figure 11. First Hill Pavement to Parks site, Seattle, 2015.  
Photo: Capitol Hill Seattle Blog

the NYC Plaza Program. It seeks to turn underutilized ROW into public space, most often in the form of plazas. Pavement to Parks projects aim to use quick and effective strategies to create public spaces that will serve as social spaces and active zones and that will promote partnerships and community stewardship (Figure 11) (Adan, 2015; Seattle Department of Transportation, 2017c).

Program Objectives:

- Provide a useful and active neighborhood public space
  - Allow communities to test out new ideas
  - Enhance safety for all road users
- (Seattle Department of Transportation, n.d.-a)

### Siting Criteria & Design Guidelines

Pavement to Parks projects are implemented in underused ROW. The forms of underused ROW that are transformed are typically slip lanes, redundant streets, or skewed intersections. It is recommended they be placed in close proximity to retail, mixed-use, and medium-to-high density residential land uses. Other suitable siting criteria include in places of high existing pedestrian activity, where there are gaps in access to parks or other open spaces, and where there are existing curb ramps to meet ADA accessibility requirements.

The design guidelines are as follows:

- Pavement to park projects shall have durable, slip-resistant ground surfaces

- Edge treatments such as flexible bollards, large planters, concrete/stone barriers, art, or other large objects shall be placed along the perimeter of the plaza to clearly define the public space from the street and restrict vehicles; these elements should be tall enough to be visible to motorists, yet not so large that pedestrians are obscured or otherwise unable to see motorists
- Site furniture shall occupy the space and could consist of anything needed to make the space usable and comfortable for the community, including tables, chairs, shelter, art, and landscape
- Surface treatments and furnishings shall allow for normal drainage within the plaza area
- The plaza space shall be free of parking and motor vehicles; accommodations for vehicle parking, loading, and food trucks should be made on the edge of plazas where necessary
- Pavement to park projects shall meet ADA access requirements; installations shall be prohibited in areas that have vertical obstructions, such as curbs, without curb ramp access along an edge of the installation
- Pavement to park projects shall provide a tactile guide strip along the edge of the new ‘curb line’ to indicate the edge of the roadway to vision impaired pedestrians
- Bright or colorful treatments are preferred in order to enliven the space and delineate it as pedestrian-only  
(Seattle Department of Transportation, 2017c)

## Application Process

SDOT funds the design and construction of Pavement to Parks projects. This normally costs around \$70,000, although the cost is dependent on its size, materials, fiscal partners, and maintenance. SDOT relies on neighborhood groups and community partners—usually business improvement districts (BID), non-profits, or private businesses—to program the space and provide the ongoing maintenance. SDOT sets up a unique maintenance agreement with the community partner based on the specific site. These agreements address cleanliness, vegetation, amenities, and activation.

Projects are selected annually, and SDOT prioritizes spaces based on gaps in public open space, safety needs, race and social justice factors, as well as noting locations of future capital projects (Seattle Department of Transportation, n.d.-a). I must note that the prioritization portion of my geospatial analysis is independent of this process. Other than the information just provided,

SDOT's process is opaque and not easily available to the public. I also was unable to connect with the coordinator to gather more information. The performance of installed Pavement to Parks is measured through user and pedestrian surveys, observations of user activity, traffic data, reporting from the neighborhood partners, business feedback, and internal SDOT feedback (Seattle Department of Transportation, n.d.-a).

## Equitable Practices

There are some attributes of the Pavement to Parks program that are equitable and deserve commendation. First, it seeks to reclaim space for pedestrians. By making a space car-free, it enhances the safety of pedestrians. Second, since the program revitalizes underused space, it encourages sustainable and adaptive reuse in some of the densest areas of the city. Third, it requires all projects to comply with ADA accessibility standards. Finally, because the Seattle Department of Transportation completely funds the entire design and construction process, the program offers huge cost-savings for the community partners in their creation of a public space.

## Gaps for Improvement

Like Planting in the ROW, the areas for improvement for Pavement to Parks deal with the program's deficiency of partnerships. There are no partnerships with organizations that could assist the community partners and free some of the capacity of Pavement to Parks. Along the same lines, the program does not provide many services to the partners in the form of workshops or financial advice. Also similar to Planting in the ROW, there are no mechanisms that recognize the differences of the community partners. Another issue is the fact that current program sites are disproportionately in areas that are considered higher access to opportunity—see Figure 28 in Appendix C. There also seems to be lack of information about the program, and its processes are not transparent. It also does not provide any materials in a language other than English. An additional gap is the design guidelines, which do not provide enough direction for how the sites should be designed to encourage placemaking. Lastly, it is unclear whether there is an assessment of the impacts the project will have on its surroundings. I speak to these gaps in the Recommendations chapter.

## PLAY STREETS

Play Streets is also a program supported by SDOT's PSM team. The program allows residents to limit car traffic on neighborhood streets for more space to play and engage in physical activity. PSM provides guidance through the permit application process. They also offer activation ideas and provide guidelines that ensure every play street is as safe and enjoyable as possible (Figure 12) (Seattle Department of Transportation, n.d.-d).



Figure 12. Seattle Play Street, Seattle, 2018. Photo: Seattle Department of Transportation

### Program Objectives:

- Encourage use of neighborhood streets for safe, active play
- Promote social interaction between neighbors of all ages
- Provide additional public space in areas where parks or private yards are limited
- Ensure local access into and out of homes during play street events (Seattle Department of Transportation, 2017c)

### Siting Criteria & Design Guidelines

Play streets should be located on residential-oriented streets with minimal automobile traffic. They are not required to take up the full block, but they are not allowed to be longer than one block. They should not be located on arterials or public transit routes. Significant neighbor support and where there are gaps to parks or other public open space are also recommended.

To host a play street, there are certain barricading and signage guidelines which to adhere. They are as follows:

- Barricades - For barricading, there are two options:

1. Use personal trash bins or furniture
2. Rent barricades from local providers
  - o For either barricade type, they should be placed with these requirements:
    - 5 feet spacing or less in between each of the objects
    - Elements need to be at least 3 feet tall
    - Link objects together with banners, rope, streamers, etc.
    - At both ends of the block
  - o During the play street event, it is crucial that at least one adult remains near each of the barricades so that they can answer any questions people may have or move barricades if people need local access to their homes
- Signage - When a host receives their play street permit, PSM provides them with two sets of signs that need to be placed at the ends of their play street
  1. Play street sign: This sign lets passers-by know that a play street is happening that they can come participate in; it also provides contact information for SDOT in case they want more information about the program
  2. Street closed sign: This sign lets drivers know that the street is closed except to local access
- Adjacent to Arterials - If a play street abuts an arterial, a host will need to use 'Type 3' barricades at the arterial intersection  
(Seattle Department of Transportation, 2016, p. 7)

## Application Process

A Play Street permit comes at no cost to the applicant. However, the organizer or host is responsible for arranging and funding (possibly through the collecting of donations from neighbors) any activities that occur during the play street. These materials compose the permit application:

- Application form - This is the main application form which asks for some basic information about contact name, address, and when the play street will occur
- Site map - This map shows which block is to be temporarily closed and where barricades will be placed
- Outreach method - To make sure that neighbors know about the host's play street plans, a copy of whatever method used to contact the neighbors should be submitted
- Signature sheet (optional) - If a play street will occur more than once a month, it is recommended that a roster of support from the neighbors on the block is submitted in addition to the copy of the outreach method

The most a play street can occur is three times a week. They are limited to 6 hours per day and should end before 10:00p.m. or dusk, whichever is earlier. Applications are accepted year-round, but permits will be issued for a maximum of 6 months at a time. Permits are issued in two seasons to adjust for changes in school scheduling and the amount of daylight. The summer season is April through September, and the winter season is October through March (Seattle Department of Transportation, 2016).

## Equitable Practices

The Play Streets program is a superb resource for Seattle, and it currently carries out a number of equitable practices. One equitable practice is that it issues free permits. For someone to host a play street, the only costs they are responsible for is if they decide to pay for items to program the space or to provide snacks to their neighbors. Play streets can serve as incubators of neighbor interaction and community building. Similar to a block party, they allow residents of the host block and neighboring blocks to come together and have exchanges that might not otherwise occur. They also create opportunities for collaboration through planning the events. The frequency of street closures that the permit allows further increases these chances for contact and cooperation. Another equitable practice is the program's requirement for neighbor buy-in. This promotes neighbor interaction and consensus building, both of which are likely to result in more camaraderie. One of the program's most equitable practices is its provision of information. The program maintains a frequently updated website that includes a Play Streets Handbook (Seattle Department of Transportation, 2016), a current map of all the recurring Play Streets, three Frequently Asked Questions documents for different stakeholders, three templates for neighbor outreach, and more (Seattle Department of Transportation, n.d.-d). Of the three programs, I feel Play Streets is the most equitable and has the most potential as a low-barrier resource for cultivating successful public space in the ROW.

## Gaps for Improvement

Furthermore, from the previous sentence above I do not believe Play Streets requires as much room for improvement as the other two programs. However, there are a few gaps. Similar to the other two, Play Streets could also benefit from partnerships with organizations that have compatible missions. Like Pavement to Parks, an unfair amount of previous Play Streets has occurred in areas that are considered higher access to opportunity—see Figure 28 in Appendix C. This relates to the lack of outreach and advertisement the program has done. Lastly, even though the program provides a lot of information, there is always room for more transparency and additional guidance. It also provides no materials in languages besides English. I suggest ways to fill these gaps in the Recommendations chapter.

## CHAPTER 6: GEOSPATIAL ANALYSIS OF THE RIGHT-OF-WAY WITHIN SEATTLE

This chapter outlines the geospatial analysis of the right-of-way in Seattle I conducted. It provides more detail on the criteria and the indicators I chose to prioritize the portions of right-of-way. I end the chapter by discussing and displaying my findings. Appendix A provides the specific process using Esri's ArcMap software through which I conducted this analysis.

I have completed a geospatial analysis of Seattle's ROW to capture segments of ROW where the three City of Seattle ROW improvement programs can be implemented based on their required siting criteria. As stated in the Methods chapter, a segment is defined as one block since this is how the Seattle Streets and Sidewalk GIS layers are already organized, e.g., Main St between 1st Ave and 2nd Ave with the Sidewalks layer adding the side of the street it is on, e.g., N Side. A further step allowed me to prioritize the segments of the ROW where these programs should be encouraged to make the programs' allocation of improvements more equitable. This prioritization highlights locations where future outreach efforts should focus. It also zooms in to a couple of neighborhoods for each program to display some demographic information that would be useful in conducting outreach in these high priority areas. However, it can also be leveraged for improvements and readjustments of program operations, especially in regard to where the City should seek out grassroots groups and community partners, which I have explained further in the Recommendations chapter.

### PLANTING IN THE RIGHT OF WAY

The Planting in the Right of Way guidelines specifically pertain to the planting strip, the area between the curb and the sidewalk. I had to reduce the City's Sidewalks layer to only features with pervious planting strips. I also had to delete features that intersect underground electricity lines. With this layer of all the potential segments of ROW in which someone could garden, I applied the indicators for prioritization. If a ROW segment fell within the description of the indicators, it received a +1 toward its overall Priority Score.

A ROW segment received a +1 for the *Highest Priority* indicator if it was in a census tract defined as Highest Priority by combining the Office of Planning and Community Development's (OPCD) Risk of Displacement and Access to Opportunity Indices (Seattle Office of Planning & Community Development, 2016). These indices were an in-depth analysis done by OPCD to highlight where the most vulnerable populations—higher risk of displacement and lower access to opportunity—are located within Seattle. See a map of these areas in Appendix B. ROW segments were given a +1 for the *Highest Priority & Second Highest Priority* indicator if they were in census tracts defined as Highest Priority or Second Highest Priority by OPCD's indices. This was to ensure the segments in the Highest Priority tracts received at least a +2 Priority Score. The *Parks Gap* indicator indicated segments that are within the gaps identified through the Parks Gap Analysis of the 2017 Parks and Open Space Plan (Seattle Parks & Recreation, 2017). The segments are not within a 10 minute or ½ mile walk of parks or other outdoor green space opportunities. These gaps are some of the most important places to add greenery and to promote high quality public space. The *P-Patches* indicator showed segments that are not within a 10 minute or ½ mile walk of P-Patch community gardens, therefore, these areas have a deficiency in community gardening opportunities. A segment received a +1 for the *Arterials* indicator if it was not located on an arterial. Arterials increase the risk of pollution to adjacent soil and are unpleasant places for gardening. The *Planting Strip* indicator showed planting strips that are at least 6 feet wide, which a planting strip must be in order to install a raised bed. Segments received a +1 for the *Multi-Family* indicator if they are adjacent to multi-family buildings. Residences of these buildings have less lawn or backyard space for planting gardens. The *Trees* indicator highlighted the segments that have 0 street trees. Gardening in planting strips is not encouraged around existing street trees, however planting street trees where there are none is encouraged. A segment was given a +1 for *Food Desert* indicator if it was not within 1 mile of a grocery store. Therefore, the segment's surrounding area is a potential food desert. Gardens in planting strips could be a nearby viable source of fresh produce. Finally, a +1 was given to segments for the *Contaminated Site* indicator if they were not within 500 feet of a contaminated site as defined by the City of

Seattle layer data. They are less likely to have contaminated soil that could grow unsafe produce. All of this information is summarized in Table 2.

**Table 2. Planting in the Right of Way Indicators’ Descriptions and Reasons for Selection**

<b>Indicator</b>	<b>Description</b>	<b>Reason for Selection</b>
Highest Priority	In a census tract defined as Highest Priority	Defined by combining the Office of Planning and Community Development’s Risk of Displacement and Access to Opportunity Indices; these indices were an in-depth analysis done by OPCD to highlight where the most vulnerable populations—higher risk of displacement and lower access to opportunity—are located within Seattle
Highest Priority & Second Highest Priority	In census tracts defined as Highest Priority or Second Highest Priority	To ensure the segments in the Highest Priority tracts received at least a +2 Priority Score
Parks Gap	Within the gaps identified through the Parks Gap Analysis of the 2017 Parks and Open Space Plan	Not within a 10 minute or ½ mile walk of parks or other outdoor green space opportunities; these gaps are some of the most important places to add greenery and to promote high quality public space
P- Patches	Not within a 10 minute or ½ mile walk of P-Patch community gardens	These areas have a deficiency in community gardening opportunities
Arterials	Not located on arterials	Arterials increase the risk of pollution to adjacent soil and are unpleasant places for gardening
Planting Strip	At least 6 feet wide	A requirement for installing a raised bed
Multi-Family	Adjacent to multi-family buildings	Residences of these buildings have less lawn or backyard space for planting gardens
Trees	Have 0 street trees	Gardening in planting strips is not encouraged around existing street trees, however planting street trees where there are none is encouraged
Food Dessert	Not within 1 mile of a grocery store	The surrounding area is a potential food dessert; garden in planting strips could be a nearby viable source of fresh produce

Contaminated Site	Not within 500 feet of a contaminated site as defined by the City of Seattle layer data	These segments are less likely to have contaminated soil that could grow unsafe produce
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## PAVEMENT TO PARKS

Since Pavement to Parks seeks to turn underused “pavement” into parks, I took the City’s Streets layer and removed all unpaved streets. I also omitted transit routes because those streets would not be considered underutilized, which is a measure used by the program for siting a new project. Lastly, I removed streets with a slope greater than 5 percent and streets without curb ramps since Pavement to Parks sites should be ADA accessible. This new layer of all the potential segments of ROW that could become a Pavement to Parks project is what I applied the indicators to for prioritization. If a ROW segment fell within the description of the indicators, it received a +1 toward its overall Priority Score.

As described for Planting in the ROW, ROW segments received a +1 for *Highest Priority* if they were in a census tract defined as Highest Priority. The same was true for segments that were indicated as *Highest Priority & Second Highest Priority* if they were in census tracts defined as both Highest Priority and Second Highest Priority. Also stated above, *Parks Gap* segments are within the gaps identified through the Parks Gap Analysis. The *Pavement to Parks* indicator highlighted segments not within a 10 minute or ½ mile walk of a current Pavement to Parks site; therefore, placing one here would increase the program’s distribution. A segment was indicated by *Shorter Segments* if it had a length of less than 200 feet. Since the program is looking for residual streets, a shorter than average street is more likely to be redundant and more easily removed from auto traffic.

The *Urban Village* indicator showed a segment was in a designated urban center, urban center village, hub urban village, or residential urban village. These are areas of the city where growth, development, and density are encouraged, which means it is more vital to repurpose underused space in these areas (Seattle Office of Planning & Community Development, 2013). Segments received a +1 for *Retail* if they were within 50 feet of retail establishments. These small parks

have a better chance of being active if located near retail. The *Transit* indicator indicated segments within ½ mile of 2 or more bus stops. Proximity to transit ensures the future Pavement to Parks sites are located in denser areas where people will be walking by on the way to and from the bus stop. *Pedestrian Volume* was assigned to segments located in OPCD pedestrian-designated zones, where pedestrian-oriented uses are strongly encouraged (Seattle Office of Planning & Community Development, n.d.). A segment was given a +1 for *Collision History* if it has had or was intersecting a street segment that has had a bike or pedestrian collision in the past 3 years. It is more vital that these segments be closed to auto-traffic to increase safety. These points are summarized in Table 3.

**Table 3. Pavement to Parks Indicators’ Descriptions and Reasons for Selection**

<b>Indicator</b>	<b>Description</b>	<b>Reason for Selection</b>
Highest Priority	In a census tract defined as Highest Priority	Defined by combining the Office of Planning and Community Development’s Risk of Displacement and Access to Opportunity Indices; these indices were an in-depth analysis done by OPCD to highlight where the most vulnerable populations—higher risk of displacement and lower access to opportunity—are located within Seattle
Highest Priority & Second Highest Priority	In census tracts defined as Highest Priority or Second Highest Priority	To ensure the segments in the Highest Priority tracts received at least a +2 Priority Score
Parks Gap	Within the gaps identified through the Parks Gap Analysis of the 2017 Parks and Open Space Plan	Not within a 10 minute or ½ mile walk of parks or other outdoor green space opportunities; these gaps are some of the most important places to add greenery and to promote high quality public space
Pavement to Parks	Not within a 10 minute or ½ mile walk of a current Pavement to Parks site	To increase the program's distribution
Shorter Segments	Have a length of less than 200 feet	A shorter than average street is more likely to be redundant and more easily removed from auto traffic
Urban Village	In designated urban center, urban center village, hub urban village, or residual urban village	Growth, development, and density are encouraged in these areas; therefore, it is more vital to repurpose underused space here

Retail	Within 50 feet of retail establishments	To ensure the small parks have a better chance of being activated
Transit	Within ½ mile of 2 or more bus stops	To ensure these sites are located where people will be walking by frequently to and from the bus stop
Pedestrian Volume	Located in OPCD pedestrian-designated zones	Pedestrian-oriented uses are strongly encouraged in these areas
Collision History	Has had or is adjacent to a street that has had a bike or pedestrian collision in the past 3 years	To increase safety

## PLAY STREETS

From the City’s Streets layer, I first selected only streets with the types Neighborhood Yield or Urban Village Neighborhood Access, which are defined by Streets Illustrated (City of Seattle, 2017b). These are the ideal residential streets for which to host a play street. I excluded all arterials, transit routes, or streets with a slope greater than 5 percent for safety and ADA accessibility. I used the indicators to prioritize this layer of all the potential segments of ROW that could become a play street. Like the other two programs, if a ROW segment fell within the description of the indicators, it received a +1 toward its overall Priority Score.

For the Play Streets ROW segments, the *Highest Priority*, *Highest Priority & Second Highest Priority*, and *Parks Gap* indicators functioned the same as above for Planting in the ROW and Pavement to Parks. The *Play Streets* indicator showed segments that were not within 422 feet—the average block length in Seattle—of previous play streets, so the program’s distribution would increase. ROW segments received a +1 for *Arterials* if they were not abutting an arterial, since play streets adjacent to an arterial requires a Type 3 barricade, which is literally and figuratively an extra barrier to participation. The *Urban Village* indicator highlighted segments in a designated urban center, urban center village, hub urban village, or residential urban village. These are areas of the city where growth, development, and density are encouraged, which means it is more vital to repurpose underused space in these areas. A ROW segment was given a +1 for *Multi-Family* if it was in close proximity to multi-family or mixed-use zoning. Residents of

these buildings have less lawn or backyard space, so they could use extra space for activity. *Density* showed those segments that were in census tracts where density is greater than 10 persons/acre. Again, people who reside in these areas have less space for play and exercise. ROW segments received a +1 for *Family Households* if they were in census tracts where the majority of households are defined as family households, so there are more likely to be both children and adults who could benefit from a play street. Finally, the *Children* showed segments in census tracts where the percent of the population under 18 is more than 16 percent, which is the Seattle 2010 census mean. This was to reiterate play streets should occur in the areas with more children. I have provided an annotated version of these descriptions in Table 4.

**Table 4. Play Streets Indicators’ Descriptions and Reasons for Selection**

<b>Indicator</b>	<b>Description</b>	<b>Reason for Selection</b>
Highest Priority	In a census tract defined as Highest Priority	Defined by combining the Office of Planning and Community Development’s Risk of Displacement and Access to Opportunity Indices; these indices were an in-depth analysis done by OPCD to highlight where the most vulnerable populations—higher risk of displacement and lower access to opportunity—are located within Seattle
Highest Priority & Second Highest Priority	In census tracts defined as Highest Priority or Second Highest Priority	To ensure the segments in the Highest Priority tracts received at least a +2 Priority Score
Parks Gap	Within the gaps identified through the Parks Gap Analysis of the 2017 Parks and Open Space Plan	Not within a 10 minute or ½ mile walk of parks or other outdoor green space opportunities; these gaps are some of the most important places to add greenery and to promote high quality public space
Play Streets	Not within 422 feet of previous play streets	To increase the program’s distribution
Arterials	Not abutting arterials	Play streets adjacent to an arterial require a Type 3 barricade, an extra barrier to participation
Urban Village	In designated urban center, urban center village, hub urban village, or residual urban village	Growth, development, and density are encouraged in these areas; therefore, it is more vital to repurpose underused space here

Multi-Family	Adjacent to multi-family buildings	Residences of these buildings have less lawn or backyard space, so they could use extra space for activity
Density	In census tracts where density is greater than 10 persons/acre	People who reside in these areas have less space for play and exercise
Family Households	In census tracts where the majority of households are defined as family households	There are more likely to be both children and adults who could benefit from a play street
Children	In census tracts where the percent of the population under 18 is more than 16 percent	To reiterate play streets should happen in areas with more children

## FINDINGS

The results reveal many potential locations where the ROW programs can be implemented based on their criteria requirements. This is not surprising considering the city’s ROW is rather expansive. Knowing the programs can be employed somewhere is different than knowing if they should be employed there. The prioritization of these segments of ROW seeks to provide guidance for where these programs should be applied to increase the programs’ distributive justice and make them more equitable.

### Planting in the Right of Way

After applying the indicators, the highest Priority Score received for a segment of ROW from the Planting in the ROW layer is a 9 out of 10 since no segments satisfied every indicator. The map shown in Figure 13 reveals all the areas the program can be implemented and what ROW segments—which in this case are planting strips—should be prioritized. The southern parts of the city contain the most higher-priority planting strips. The five highest priority planting strips—with a Priority Score of 9—from my analysis are located in the neighborhoods of High Point (3), Dunlap (1), and Haller Lake (1) (Figure 19).

Due to my indicators, I know the highest priority planting strips are located in the areas where the people there have a higher risk of displacement and lower access to opportunity (Seattle Office of Planning & Community Development, 2016). The planting strips are also in gaps identified through the Parks Gap analysis, meaning they are not within a 10 minute walk of parks or other open space opportunities (Seattle Parks & Recreation, 2017). They are not near P-Patch community gardens, grocery stores, contaminated sites or located on arterials. These planting strips are wide enough to install a raised bed and currently have no street trees. Lastly, they are near multi-family housing.

The two neighborhoods with the most high-priority planting strips—Priority Score 8 or 9—are High Point and Columbia City, 17 and 10 respectively (Figure 14). Table 5 shows the four other highest priority neighborhoods for Planting in the ROW as Seward Park (6), Dunlap (4), Haller Lake (4), and Holly Park (4). In Figure 14, High Point and Columbia City appear fairly analogous. The high priority planting strips are located in areas further from parks. They are also in areas of high poverty, high percent of population that speaks languages other English, and high percent people of color. High Point seems like it would have even more opportunities for planting on public land in the right of way if my analysis had considered more than just planting strips since the neighborhood is obviously deficient in sidewalk space. For both neighborhoods, the wealthiest and least diverse census tracts—most southwest for High Point and most southeast for Columbia City—have larger shares of low priority planting strips. Vice versa is true for Columbia City with the poorest and most diverse census tract having the largest share of high priority planting strips. However, the census tract that takes up the largest area of High Point and has the most high-priority planting strips has lower numbers than the western census tract. Again, this is most likely due to the shortage of sidewalks and consequently lack of planting strips in the neighborhood.

## Pavement to Parks

After scoring the segments of ROW for Pavement to Parks, the highest Priority Score is a 9 out of 10 due to not a single segment fulfilling all my indicators. Figure 15 shows all the ROW

segments—street segments in this case—that have potential to become Pavement to Parks projects and then how they have been prioritized. Compared to Planting in the ROW, the higher priority segments are more dispersed throughout the city’s denser and more commercial areas. The 21 highest priority streets—with a Priority Score of 9—from my analysis are located in the neighborhoods of South Delridge (6), North Beacon Hill (3), Dunlap (2), Industrial District (2), Highland Park (2), Atlantic (1), South Park (1), Holly Park (1) Rainier Beach (1), Columbia City (1), and Bitter Lake (1) (Figure 19).

Similar to Planting in the ROW, because of the indicators I used, I know these higher priority streets are located in areas where the people have a higher risk of displacement and lower access to opportunity, and they are not within a 10 minute walk of parks and other open space opportunities. They are also not near current Pavement to Parks sites. They are close to retail establishments and bus stops. These streets are in Urban Villages (Seattle Office of Planning & Community Development, 2013) and zones where pedestrian uses are encouraged (Seattle Office of Planning & Community Development, n.d.). Finally, these streets have been involved in pedestrian or bike collisions in recent years, but they are short, residual streets that are ready to be converted to pedestrian-only traffic.

The two neighborhoods with the most high-priority streets—Priority Score 8 or 9—are Industrial District and North Beacon Hill, 35 and 22 respectively (Figure 16). Table 5 shows the three other highest priority neighborhoods for Pavement to Parks as South Delridge (14), Atlantic (8), and South Park (8). Figure 16 gives a good comparison between the heavily industrial Industrial District and the heavily residential North Beacon Hill. Like Planting in the ROW, the high priority segments are located in areas that are deficient in parks. Also, like Planting in the ROW, the rate of poverty, percentage of those who speak languages other than English, and percent people of color are all rather high. The central census tract of Beacon Hill with South McClellan Street has a high number of high priority segments, and this seems to be due to its high density, and high percentages of poor, non-white, and non-English speaking populations. The numbers for the census tract north of there are all slightly lower but still higher than the numbers of the

Industrial District. Even though the main census tract of the Industrial District has lower percentages of non-white and non-English speaking populations but only a slightly higher percentage of poverty compared with the central census tract of North Beacon Hill, its high priority street segments seem to stem from its serious lack of parks or other public space opportunities. As evidenced by its name, there is a large amount of industrial use in the area, and the workers would definitely benefit from more public space. It also is a significantly large neighborhood in terms of square miles, and this probably contributes to its large amount of high priority street segments as well.

## Play Streets

After applying my indicators and scoring the segments of ROW for Play Streets, the highest Priority Score received is a 10 out of 10. Figure 17 displays all the ROW segments—street segments in this case as well—that could be Play Streets and then their prioritization. Again, the higher priority segments are more dispersed throughout the city, but there are concentrations in far north Seattle and far south Seattle. The six highest priority segments of ROW from my analysis are located in the neighborhoods of Haller Lake (3), Olympic Hills (1), Bitter Lake (1), and Pinehurst (1) (Figure 19).

Similar to the two programs above, my indicators tell me these higher priority street segments are located in areas where people have a higher risk of displacement, lower access to opportunity, and are not within a 10-minute walk of parks and other open space opportunities. These segments are also not near locations of previous play streets and not adjacent to arterials, but they are in Urban Villages. Additionally, they are near multi-family housing in dense, children heavy areas.

The two neighborhoods with the most high-priority streets—Priority Score 9 or 10—are South Delridge and First Hill, 12 and 10 respectively (Figure 18). Table 5 shows the four other highest priority neighborhoods for Pavement to Parks as Dunlap (9), Haller Lake (8), Bitter Lake (6), and North College Park (6). In Figure 18, it is evident that South Delridge and First Hill differ greatly in

terms of density, yet both should be considered high priority for future play streets. Although it makes more sense since the majority of the high priority street segments in First Hill are located in the census tract that is most similar in numbers to the two South Delridge census tracts. Like the two other programs' results, the high priority tracts are not near parks. Additionally, the poverty level, percentage of people that speak languages other than English, and percentage of people of color in these high priority neighborhoods are still high. Even though First Hill is a rather small neighborhood, its location near downtown and within the tighter grid system means its block lengths are shorter therefore lending to a higher concentration of individual street segments.

## Conclusions

The last map (Figure 19) gives the specific segments of ROW that were scored as the highest priority for each program. These are Priority Score 9s for Planting in the ROW and Pavement to Parks and score 10s for Play Streets. This map shows the coordinators of these programs specific locations in which to conduct outreach and promote activation. Obviously, the segments neighboring the high priority ones are ideal as well since much of my analysis consisted of approximate relational distances. A table with more information and the scoring of each segment is in Appendix D.

The information about the top priority neighborhoods for each program given in Figures 14, 16, and 18 display a trend of high priority segments being located in diverse areas with high rates of poverty and high percentages of people that speak languages other than English. This provides some insight for how to conduct outreach in these high priority areas. Better representation of the populations trying to be reached to needs to be seen in those performing the outreach. Materials need to be translated into the languages spoken by those whom the programs are trying to serve. Financial barriers should be lowered as well, and this information can be used in the search for more funding opportunities.

Another interesting finding is shown in Figure 19. The vast majority of the Pavement to Parks and Planting in the ROW segments are in south Seattle, while all the Play Streets segments are in far north Seattle. Since the information in Table 5 was used to create Figure 18, and it captured a broader view of the higher priority trends by accounting for not just the highest priority segments but also for the 8s for Planting in the ROW and Pavement to Parks and the 9s for Play Streets, it is revealed that Play Streets 9s—and subsequently the highest priority neighborhoods—tend to be more heavily located in south Seattle. However, regardless of north or south, it is clear from all the maps that as a whole the outskirts of the city deserve the most attention from these programs.

As stated previously in this chapter's introduction, the purpose of this analysis is to increase the distributive justice of these programs. Distributive justice, in this instance, is the redistribution of high quality public space to address the disparities in wealth among residents of Seattle (Fincher & Iveson, 2008). Solely addressing the distribution of these programs will not ensure they are equitable. However, it does bring them one step closer to guaranteeing they are equitably promoting successful public space in Seattle.

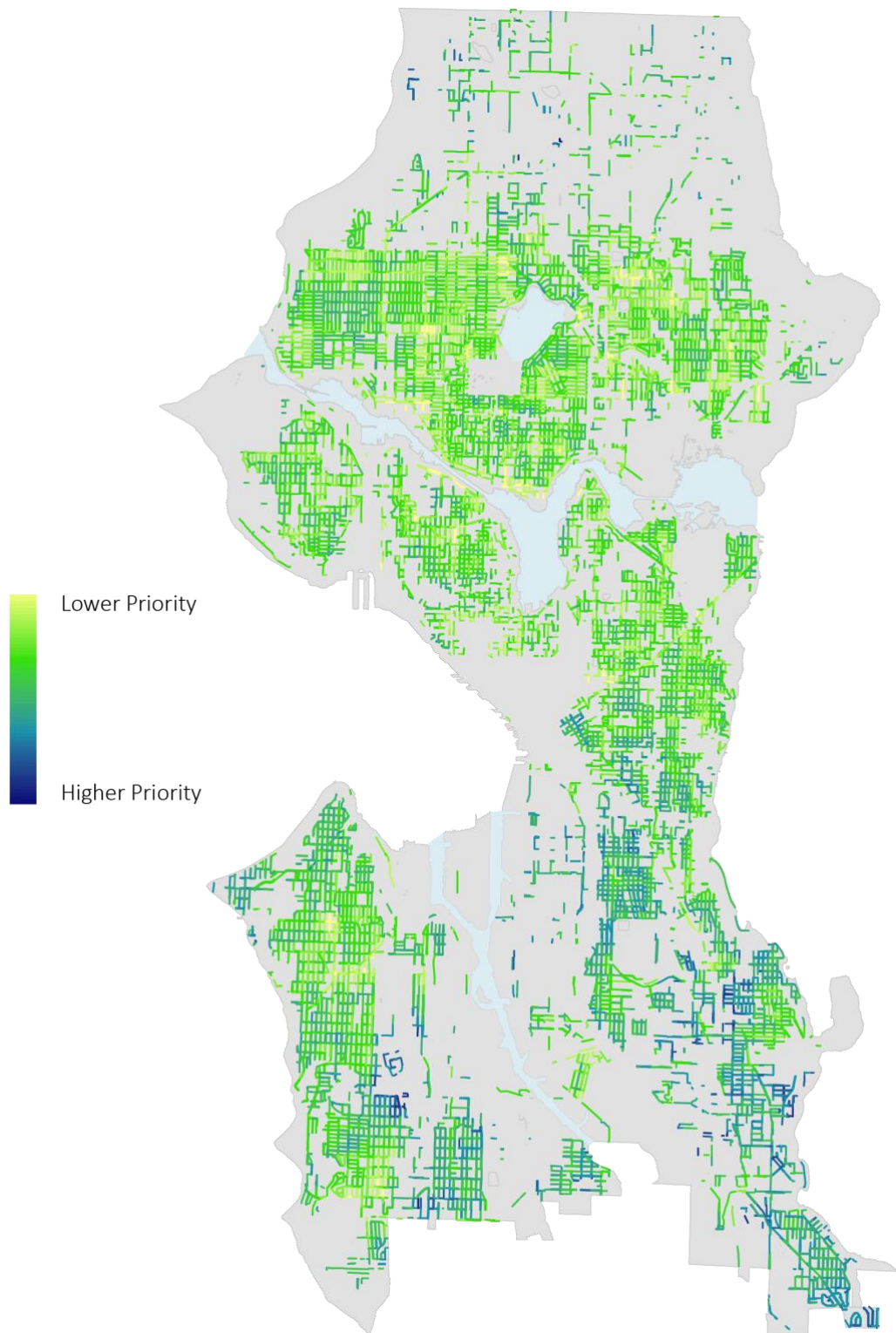
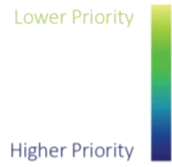
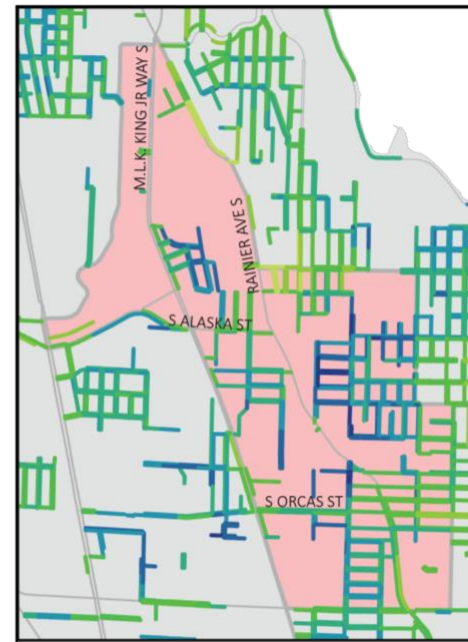


Figure 13. Prioritization for Planting in the Right of Way



High Point

0 .3 Miles



Columbia City

0 .6 Miles

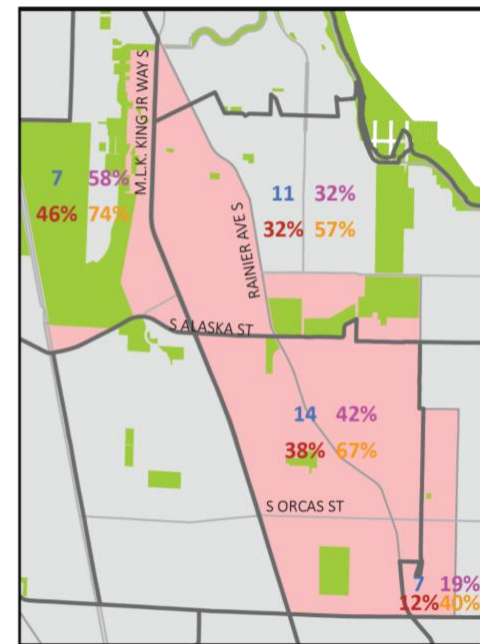
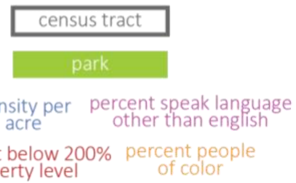
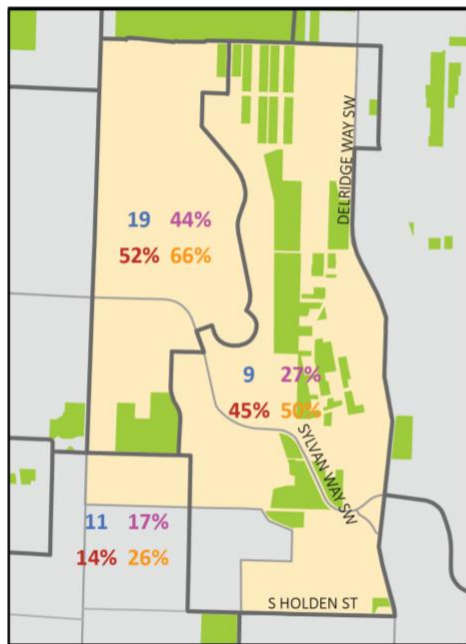
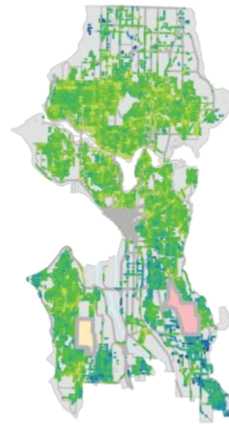


Figure 14. High Priority Neighborhoods for Planting in the Right of Way

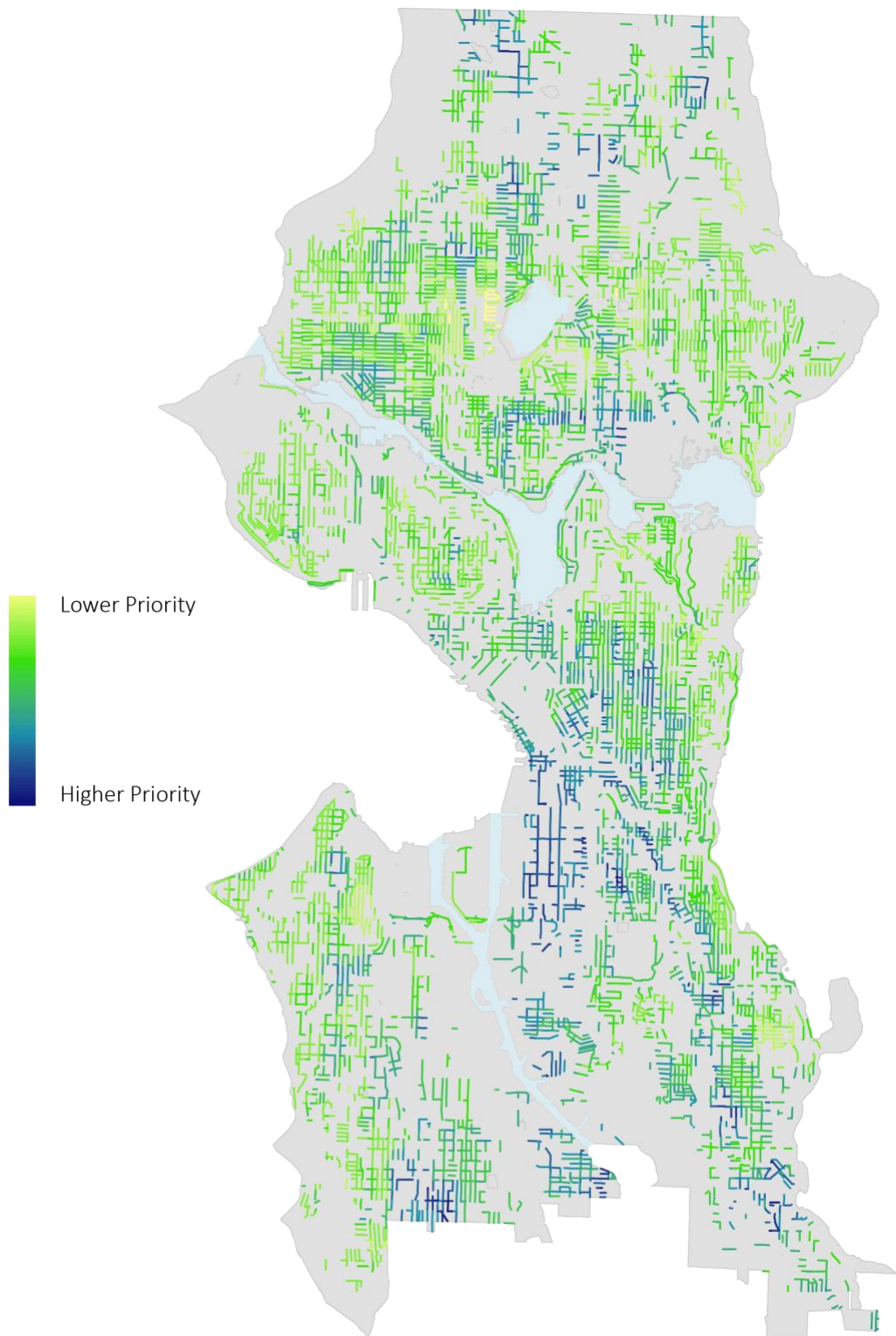


Figure 15. Prioritization for Pavement to Parks

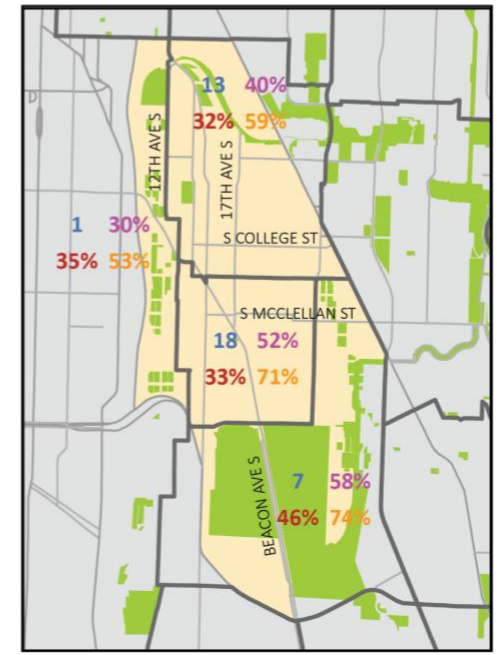
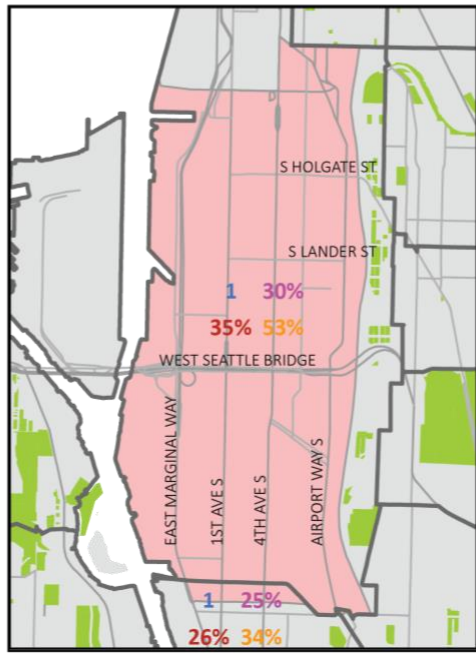
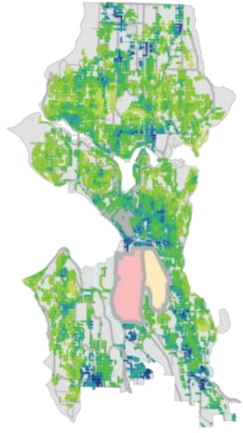
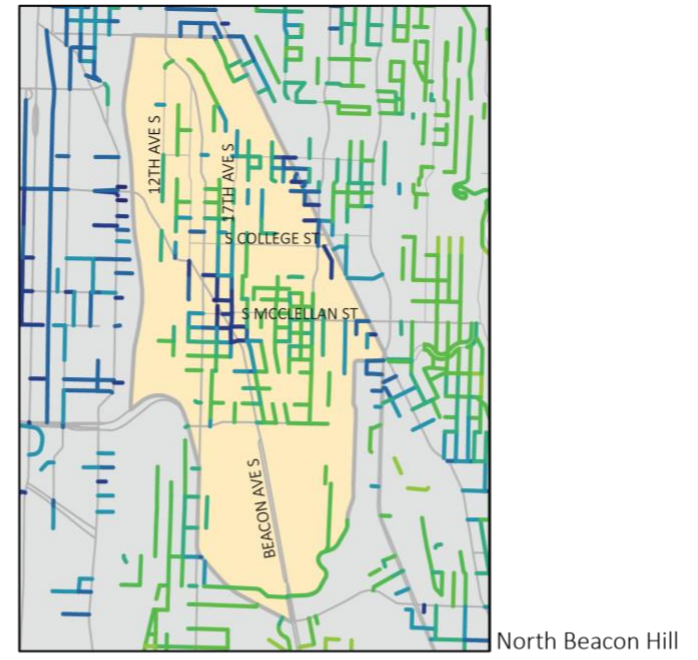
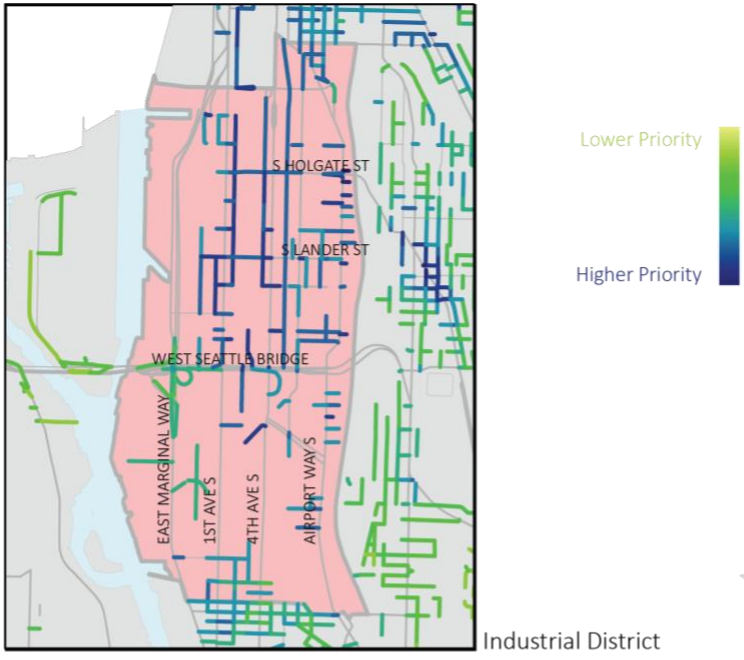


Figure 16. High Priority Neighborhoods for Pavement to Parks

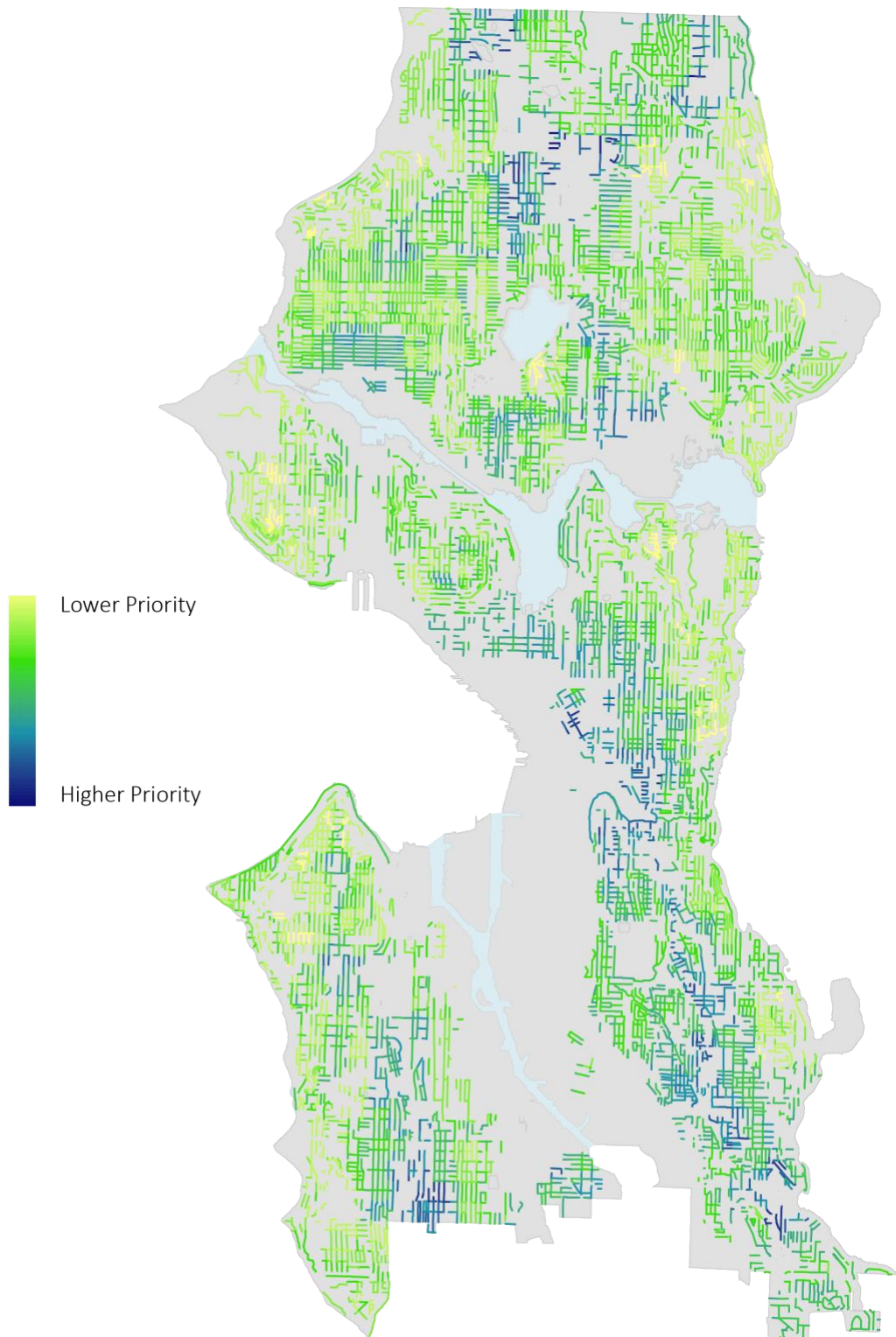
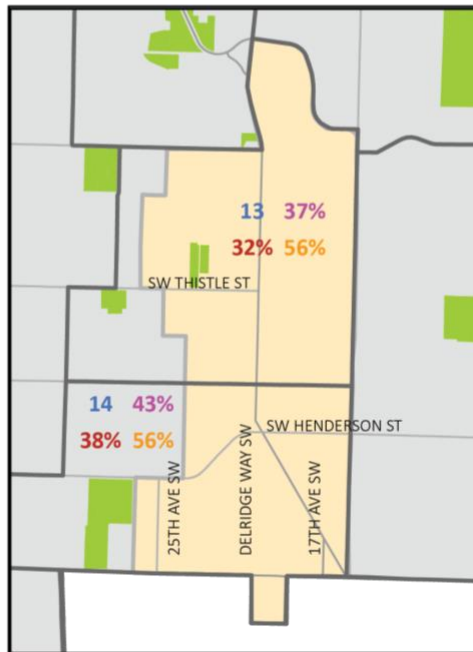
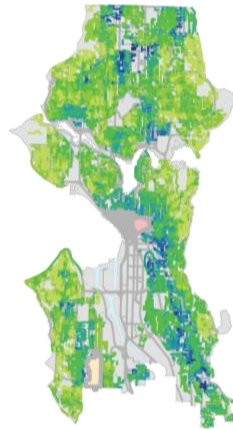
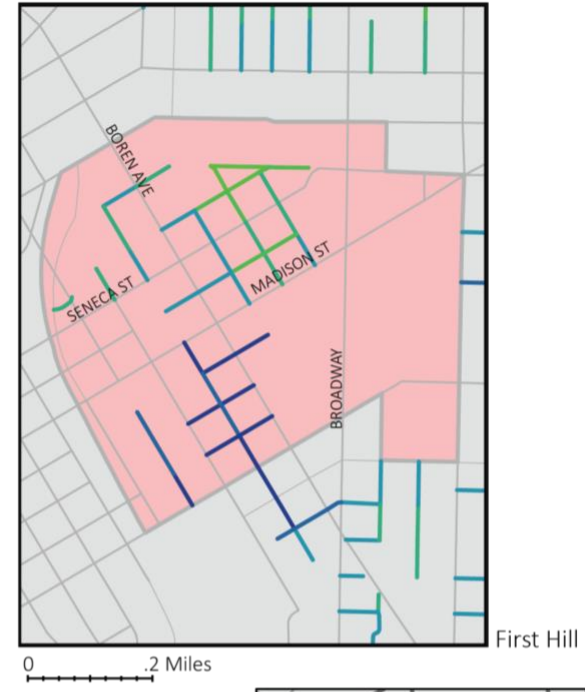
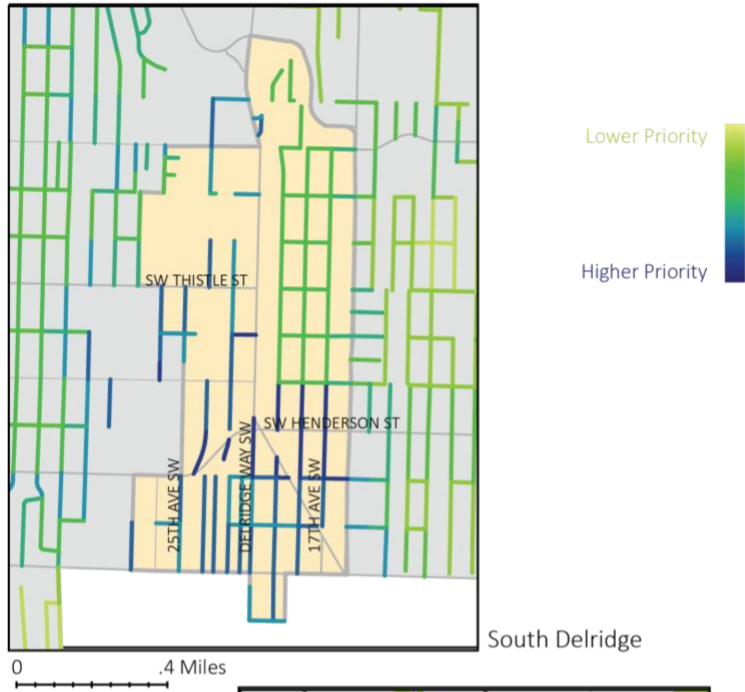


Figure 17. Prioritization for Play Streets



census tract

park

density per acre

percent speak language other than english

percent below 200% poverty level

percent people of color

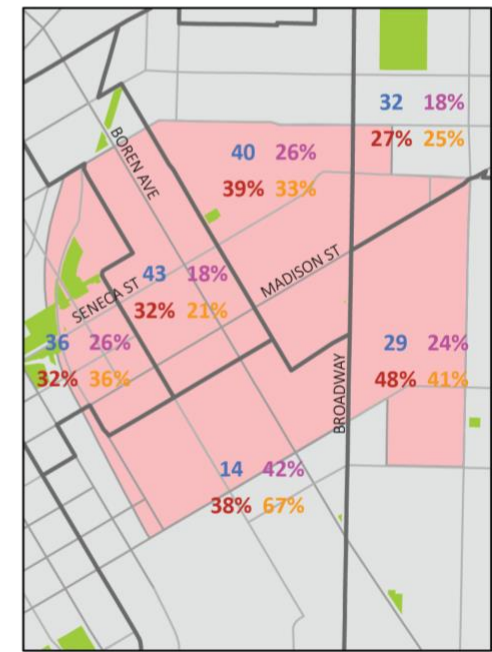


Figure 18. High Priority Neighborhoods for Play Streets

Table 5. Highest Priority Neighborhoods for each Program by Number of High Priority ROW Segments

ROW Program	Neighborhood	Number of Segments
Planting in the Right of Way	High Point	17
	Columbia City	10
	Seward Park	6
	Dunlap	4
	Haller Lake	4
	Holly Park	4
	Pavement to Parks	Industrial District
North Beacon Hill		22
South Delridge		14
Atlantic		8
South Park		8
Play Streets	South Delridge	12
	First Hill	10
	Dunlap	9
	Haller Lake	8
	Bitter Lake	6
	North College Park	6

## PLANTING IN THE RIGHT-OF-WAY

- 1 Wabash Ave S between Rainier Ave S and S Rose St, NE Side
- 2 SW Othello St between Shinkle Pl SW and 28th Ave SW, N Side
- 3 SW Myrtle St between 28th Ave SW and 29th Ave SW, N Side
- 4 SW Myrtle St between 28th Ave SW and 29th Ave SW, S Side
- 5 Corliss Ave N between N 113th Pl and N 114th St, E Side

## PLAY STREETS

- 1 NE 130th St between 28th Ave NE and 30th Ave NE
- 2 N 140th St between Aurora Ave N and Midvale W Ave N
- 3 N 115th St between Meridian Ave N and Corliss Ave N
- 4 N 113th St between Meridian Ave N and Corliss Ave N
- 5 N 112th St between Meridian Ave N and Dead End
- 6 8th Ave NE between NE Northgate Way and NE 115th St

## PAVEMENT TO PARKS

- 1 22nd Ave S between S Jackson St and Dead End
- 2 S Plum St between Airport Way S and Dead End
- 3 S Holgate St between Airport N Way S and Dead End
- 4 S Concord St between 14th Ave S and Dead End
- 5 16th Ave S between S Lander St and Beacon Ave S
- 6 16th Ave S between Beacon Ave S and S McClellan St
- 7 S Lander St between Beacon Ave S and 16th Ave S
- 8 S Myrtle St between M L King Jr Wr Way S and M L King Jr Er Way S
- 9 S Director St between Rainier S Ave S and Dead End
- 10 S Rose S St between Rainier S Ave S and Wabash S Ave S
- 11 S Roxbury St between 51st Ave S and Renton Ave S
- 12 S Edmunds St between 37th Ave S and Rainier Ave S
- 13 SW Cambridge St between 15th Ave SW and 16th Ave SW
- 14 16th Ave SW between SW Barton St and SW Cambridge St
- 15 SW Barton St between Delridge Way SW and 20th Ave SW
- 16 21st Ave SW between Delridge S Way SW and SW Henderson St
- 17 17th Ave SW between SW Cambridge St and Delridge Way SW
- 18 Delridge Way SW between 17th Ave SW and SW Roxbury St
- 19 Delridge Way SW between SW Cambridge St and 17th Ave SW
- 20 SW Barton St between 18th Ave SW and Delridge Way SW
- 21 N 135th St between Linden Ave N and Aurora Ave N

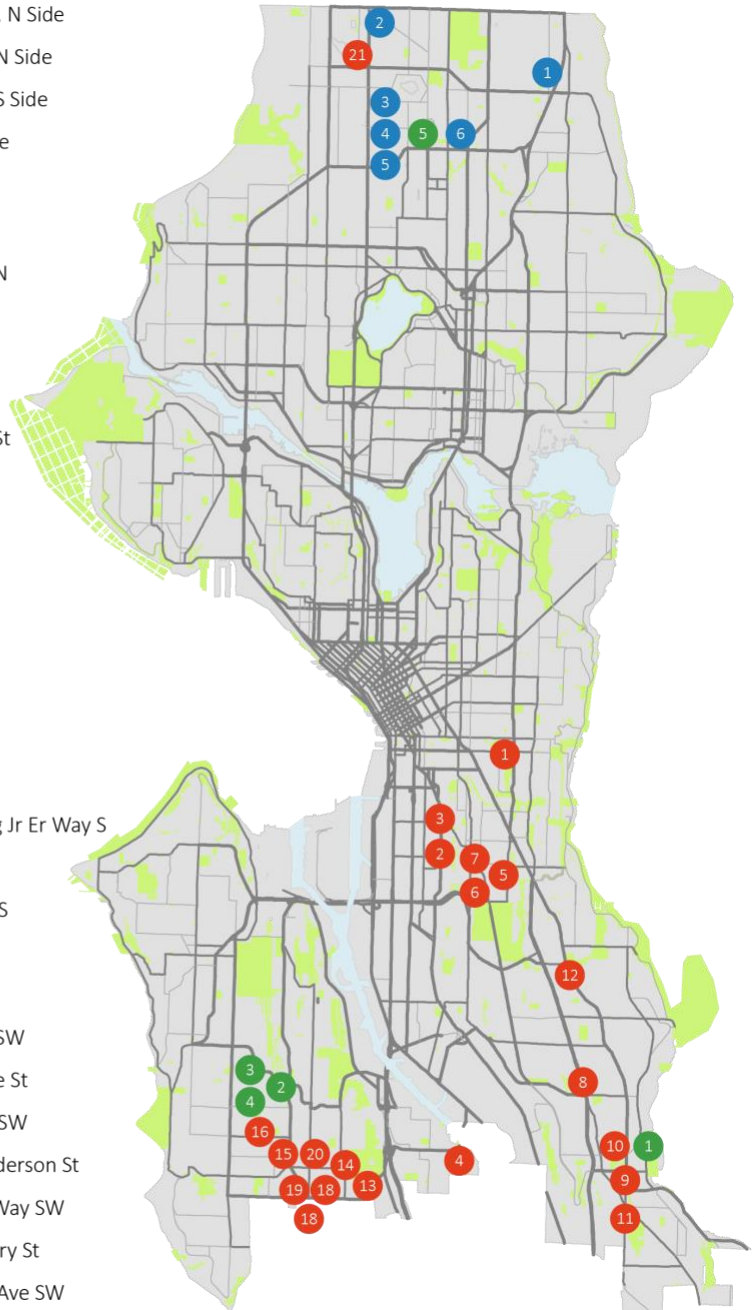


Figure 19. Priority Locations

# CHAPTER 7: RECOMMENDATIONS

This chapter contains the recommendations I have made for making the three City of Seattle right-of-way programs more equitable to cultivate higher quality public space throughout the city. I have addressed the gaps for improvement I highlighted in the Program Profiles chapter. I have attempted to be as comprehensive as possible.

These recommendations can be applied to a range of programs, whether pertaining to public space, ROW improvements, or neither. These are a compilation of the broad lessons about equitable practices I have gleaned while writing this work. I believe these suggestions would help make any program more equitable in Seattle or elsewhere. The first paragraph of each recommendation provides a general description and the sources from my literature review and precedents study. Following that, I have provided contextualized and specific recommendations for the Seattle right-of-way programs. For some of the recommendations, I have not provided specific suggestions for one or more of the programs; however, the recommendation still applies generally to all of them.

## Prioritize partners and communities

When providing extensive support, be aware of the resource needs of the different groups being served. If possible, categorize partners, so more support can be given to those with the highest need. Create a sub-program that has the sole focus of helping the partners and communities with less resources access the program. Equity is about the redistribution of amenities to the places that need it most. Fill the gaps (City of New York, 2015; City of San Francisco, n.d.; Fincher & Iveson, 2008; S. Low, 2013; S. Low & Iveson, 2016; The Hort, n.d.; The Uni Project, n.d.-e).

### **Planting in the Right of Way**

Prioritize specific neighborhoods. Following my geospatial analysis, it is clear there are areas of the City that implementation of Planting in the ROW would be more beneficial. The five highest priority segments of ROW from my analysis are located in the neighborhoods of High Point (3),

Dunlap (1), and Haller Lake (1). The six neighborhoods with the most high-priority planting strips—Priority Score 8 or 9—are High Point (17), Columbia City (10), Seward Park (6), Dunlap (4), Haller Lake (4), and Holly Park (4). The poverty level demographic information displayed in Figure 14 can be expanded and used to garner more funding opportunities

## **Pavement to Parks**

Since all Pavement to Parks projects require a maintenance agreement with a community host, consider these partners' unique interests and needs. Similar to the NYC Plaza Program, categorize partners into high-, medium-, and low-need. NYC defines medium- and high-need partners as “those organizations that have limited organizational-capacity, small operating budgets, and lack experience in public space management and the plaza they maintain is located in a neighborhood with an insufficient amount of open space, low to moderate income, and that endures a significant amount of pedestrian traffic adding to the maintenance burden” (City of New York, 2017). Acknowledge that not all partners are equal and lend support to those with a higher strain on resources. Also use this categorization to cultivate partnerships between high- and low-need partners. Low-need partners could assist high-need partners with advice for maintenance, marketing, event planning, and more. These duos might also be able to apply for joint sponsorship or grant packages that would benefit both sites. As I discussed in the Program Profiles chapter, the City says it has developed its own set of prioritization criteria to determine the best locations for new Pavement to Parks projects (Seattle Department of Transportation, n.d.-a). I was not able to obtain that information nor is it publicly accessible. I am interested to know if my geospatial analysis delivers comparable results. The 21 highest priority segments of ROW from my analysis are located in the neighborhoods of South Delridge (6), North Beacon Hill (3), Dunlap (2), Industrial District (2), Highland Park (2), Atlantic (1), South Park (1), Holly Park (1), Rainier Beach (1), Columbia City (1), and Bitter Lake (1). The five neighborhoods with the most high-priority streets—Priority Score 8 or 9—are Industrial District (35), North Beacon Hill (22), South Delridge (14), Atlantic (8), and South Park (8). Consider the South Delridge Community Group as a partner in that neighborhood (South Delridge Community Group, n.d.). Also, use the

poverty level demographic information displayed in Figure 16 to acquire more funding resources.

## **Play Streets**

Prioritize specific neighborhoods. My geospatial analysis reveals areas of the city where Play Streets outreach should occur. The six highest priority segments of ROW from my analysis are located in the neighborhoods of Haller Lake (3), Olympic Hills (1), Bitter Lake (1), and Pinehurst (1). The six neighborhoods with the most high-priority streets—Priority Score 9 or 10—are South Delridge (12) First Hill (10), Dunlap (9), Haller Lake (8), Bitter Lake (6), and North College Park (6). Focus outreach for the program in these areas and look for community-based partners. As stated for the two other programs, expand the poverty level demographic information shown in Figure 18 to make a case for more funding.

## **Encourage and advocate for grassroots groups**

Grassroots groups should be encouraged, and in the capacity that their mission aligns with the program's mission, the program should do its best to support them. Grassroots organizations are usually extremely dedicated and passionate about a particular cause. They are low cost because they normally do not require compensation for their efforts. Additionally, the local neighborhood grassroots groups are particularly aware of the needs of the communities in which they are based since they are composed of members from those communities. Another advantage of being more contained to one locale is the lesser strain on resources. Nevertheless, interactions between groups in different communities should be encouraged for exchange of ideas and best practices. One of the best ways to assist grassroots groups is by helping them increase organizational capacity. Organizational-capacity building is vitally important since this teaches the groups how to grow more efficiently and fundraise, which will aid them in being more self-sufficient should the City lose the capability to support them. If the City is able to provide targeted advisory services around financial sponsorships and marketing, this will help grassroots groups significantly, especially if these services are provided for free or on a sliding scale (City of

San Francisco, n.d.; Goodling & Herrington, 2014; LA Green Grounds, n.d.-b; Mehta, 2013; San Francisco Public Works, n.d.; The Hort, n.d.).

### **Planting in the Right of Way**

One such organization is Clean Greens, which is run by residents of Seattle’s Central District neighborhood. Its mission is to supply, fresh affordable produce to the neighborhood’s residents. They could help garner participation in Planting in the ROW in the Central District (Clean Greens, n.d.). Another community-based organization is Beacon Food Forest. Residents of Beacon Hill came together to build Beacon Food Forest, which eventually became a part of the City’s P-Patch program—detailed more below. Connected to the community and interested in helping others who want to build food gardens, they would be a good partner (Beacon Food Forest, n.d.). Alleycat Acres is not based in a particular community, but it is decidedly grassroots. It is an urban agriculture collective that seeks to transform underused spaces into sustainable urban farms. It already has created multiple small farms located in planting strips and other parts of the ROW. With the City’s assistance, they could build even more (Alleycat Acres, n.d.). Partner with Tilth Alliance. Although not a grassroots group, it is connected to many of the community grassroots groups that advocate urban agriculture. A partnership with them could be beneficial in many ways. I have detailed the organization more below.

### **Play Streets**

Partner or at least connect with Kids Outside Alliance, which is a volunteer-team whose goal is to support Seattle area youth-in-nature non-profits. As an organization that connects groups that are passionate about getting children outside, either they or one of their partner organizations would be interested in spreading the word about Play Streets. Search for a partner organization that desires to become experts in the program application and permitting process and would assist neighbors and community groups with coordination (Kids Outside Alliance, n.d.).

## Partner with experts

If there is an organization that is passionate about the spaces your program is creating or services you are offering, partner with that organization. Provide them with all the information they need so they can spread the word about your program. They will also become experts in how the permitting and implementation process works. Partner with non-profits or advocacy organizations that have a long history of fundraising and activism since their expertise in these areas can be bountifully beneficial. If possible, reallocate funds from the process of trying to become experts to these organizations that are actual experts. For example, if they offer a service such as an applicable class to your program's cause but it costs money, subsidize the class fees. Also, leverage existing services provided by other City departments. Break down silos and work together as one entity (City of San Francisco, n.d.; LA Green Grounds, n.d.-b; San Francisco Parks Alliance, n.d.; The Hort, n.d.; The Uni Project, n.d.-e).

### **Planting in the Right of Way**

Seattle Public Utilities already has a web page that references Planting in the ROW and provides information on growing food in planting strips. They have also made a manual titled Growing Food in the City. Gauge their interest in helping to conduct more outreach about Planting in the ROW (Seattle Public Utilities, n.d.). Take advantage of Department of Neighborhoods (DON) Community Liaisons, which are a team of professionals who are meant to represent the diversity of the City. They assist in the City's outreach and engagement to ensure these efforts are respectful and appropriate for all. They provide translation services, constituent support at City events, expertise on cultural concerns and barriers, and community workshops facilitation (Seattle Department of Neighborhoods, n.d.-a). DON also has a P-Patch program, which is another community garden program. There are even P-Patches located in the ROW—although not in the planting strip. See if P-Patch program coordinators are interested in setting up gardens in planting strips (Seattle Department of Neighborhoods, n.d.-b). Partner with GROW. Associated with the P-Patch program, GROW presently owns or co-owns six of Seattle's P-Patches that are not located on public property. GROW already works with the City and is committed to creating new community gardens. GROW provides a variety of services including providing tools and

seeds, issuing small grants to organizations that increase the availability of healthy food for low-income people, liability insurance for community gardens, and fiscal sponsorship service (GROW, n.d.). Partner with Seattle Parks and Recreation's Urban Food Systems Program, which supports multiple events and programs related to ensuring access to healthy food and building community. One service they provide is Community Education Gardens. There are 11 sites throughout Seattle—mostly in underserved areas—where community members can learn to garden through lessons and practice. See if the program coordinators are interested in sponsoring classes that specifically teach how to garden in planting strips (Seattle Parks & Recreation, n.d.). Partner with Tilth Alliance. Tilth Alliance is a sustainable food culture organization based in Seattle that unites farmers, gardeners, and environmental advocates. It offers hands-on education opportunities for people of all backgrounds and ages. It is a fairly large organization with many resources. Inquire if they are interested in teaching classes about gardening in planting strips. As mentioned above, Tilth Alliance already provides support to many grassroots groups. Lastly, it manages Garden Hotline—sponsored by Seattle Public Utilities—which is a service that will answer all gardening questions. Tilth Alliance has a lot of potential as a primary Planting in the ROW partner (Tilth Alliance, n.d.). See if Trees for Seattle or Parks and Recreation has excess mulch it would be willing to share with participants or if they are interested in setting up a garden tool sharing system.

### **Pavement to Parks**

Partner with Tilth Alliance. Already mentioned above in my recommendations for Planting in the ROW, Tilth Alliance is a sustainable food culture organization based in Seattle that unites farmers, gardeners, and environmental advocates. It offers hands-on education opportunities for people of all backgrounds and ages. It is a fairly large organization with many resources, and it provides support to many grassroots groups and non-profits. It is very similar to the Hort, which is the NYC-based organization that NYCDOT funds to support the Neighborhood Plaza Program. Assist them in receiving a corporate donation and look into setting up a similar program to NPP with them. Tilth Alliance has a lot of potential as a primary Pavement to Parks partner (Tilth Alliance, n.d.). Partner with the Office of Economic Development to connect with the Workforce

Development Team. This team has a network of partners that help Seattle residents who might otherwise have trouble finding employment get the education and training they need to obtain high quality work. Like the Hort is able to provide through its GreenTeam program (The Hort, n.d.), the Workforce Development Team could help Pavement to Parks get connected to an organization that would create a maintenance team for the project sites (Seattle Office of Economic Development, n.d.).

## **Play Streets**

Partner with The Seattle Public Library system. The Uni Project lists SPL as one of their partners in other cities and says they created two Uni Towers for them in the summer of 2014 (The Uni Project, n.d.-c). See if SPL would be interested in getting more Unis and then deploying at nearby play streets. Take advantage of Department of Neighborhoods (DON) Community Liaisons, which are a team of professionals who are meant to represent the diversity of the City. They assist in the City's outreach and engagement to ensure these efforts are respectful and appropriate for all. They provide translation services, constituent support at City events, expertise on cultural concerns and barriers, and community workshops facilitation (Seattle Department of Neighborhoods, n.d.-a). Partner with the Seattle Housing Authority or similar organizations. Partner with one of these organizations and allow the on-site staff of the multi-family buildings to be the host of a play street. As coordinators within these communities, they have the adequate experience and resources it takes to be a host. This would also ensure the program is supplying an amenity to those who need it most since the residents of a multi-family building might not have ample outdoor space for play and physical activity (Seattle Housing Authority, n.d.).

## **Make information more available**

Create how-to, easily digestible manuals. Provide free practical workshops. Use multiple avenues of communication and outreach. Translate materials into multiple languages; this should be a top priority if you want your program to have a wide reach. Provide as much transparency and

guidance as possible (City of New York, 2015; LA Green Grounds, n.d.-b; San Francisco Public Works, n.d.; The Hort, n.d.; The Uni Project, n.d.-e).

### **Planting in the Right of Way**

Create a manual with similar information or link to SPU's Growing Food in Planting strips web page. It contains useful information about watering a planting strip garden, winter garden care, the best foods to grow in the planting strip, what materials are best for building raised beds, what type of soil to use, and more (Seattle Public Utilities, n.d.). Include graphics that better explain the height and clearance limits similar to Tacoma's Planting in the Rights-of-Way page (City of Tacoma, n.d.).

### **Pavement to Parks**

Provide more transparency in regard to site selection and steps potential partners could take to be chosen. One web page says projects are selected based on community-driven efforts (Seattle Department of Transportation, 2017c), but further explanation of how a potential partner could advocate for themselves would be beneficial. The NYC Plaza Program accepts applications on an annual basis. Also, offer more information about current project sites and their partners. Provide ongoing services to all partners, especially those with the most need. Provide advisory services and workshops. Place utmost importance on increasing the partners' organizational-capacities and their abilities to receive funding, as these are what partners struggle with most. Specific tasks that partners normally need assistance with are assembling volunteers, managing a maintenance schedule, landscaping, or programming/hosting events. Ensure a community partner's greatest strength are being leveraged. This is their knowledge of the specific community where they are located and their commitment to promoting a successful public space. Ensure roles between the City and the partner are explicitly outlined and that the partner is aware of all its responsibilities. If a maintenance workforce cannot be created through a partnership with a non-profit, provide training to interested partners that teaches them how to create hyper-local workforce development teams. If the maintenance jobs could go to those who

reside in the project's neighborhood, this could create an added benefit of having a Pavement to Parks site.

## **Play Streets**

Do some advertising for the program. ParentMap, a website with information for families in the Puget Sound, published an article about Play Streets last summer (ParentMap, n.d.). However, there are many parent-focused publications in Seattle, and Play Streets is an excellent free resource that needs more press. Get a write up in *Seattle's Child*, which is a monthly magazine for Seattle parents and the opportunities for children the city offers. The Play Streets FAQ page mentions the Neighborhood Matching Fund, which provides matching dollars for projects and events planned by community members. Applications are accepted for a broad array of projects. Provide detailed information on how to apply with tips for getting accepted. Supply a Play Street version template of the application.

## **Analyze each program through an equity lens**

Standardize an equity evaluation then conduct an in-depth review of every program. Assess the program's current practices and its reach and distribution. Review the steps involved for someone to participate in the program. Remove any steps that are not absolutely necessary. Try to make program participation as simple and low-cost as possible. Avoid excess rules and regulations. Show respect to participants and treat them like responsible stewards; this respect will most often be reciprocated. In addition to evaluation of the program's process, the effects of the implementation of the program should be considered as well. City programs generally provide benefits and amenities to areas of the city or the city as a whole. However, when adding an amenity to low-income and underserved areas, steps should be taken to ensure that amenity does not fuel gentrification and displacement (City of New York, 2015; Curran, 2013; Dooling, 2008; LA Green Grounds, n.d.-b; S. Low & Iveson, 2016; Mehta, 2007; The Hort, n.d.; The Uni Project, n.d.-e).

## **Planting in the Right of Way**

Aside from the distributional analysis I have completed, a further assessment of the program's steps required for participation and its overall process should be completed. One potential evaluation goal could be to look to remove excess regulations. While there are liability reasons for setback and plant-type requirements, these requirements should not be overly strict, as they are barriers to participation. Conduct a survey of known participants to see ways the program could be improved.

## **Pavement to Parks**

Be aware of environmental gentrification. Evaluate placement of Pavement to Parks sites. Think about the effects a Pavement to Parks project will have in the context of the community in which it is placed. Ask if it will primarily benefit the residents who currently live there or if it will be enjoyed by the newcomers and the gentrifiers. Even though this issue is normally associated with the cleaning of a brownfield or a new park (Anguelovski, 2016), when adding an amenity to low-income and underserved areas, steps should be taken to ensure that amenity does not fuel gentrification and displacement. One of the best ways to do this is to work closely with current members of the community when designing a project and transferring as much control as possible to them.

## **Play Streets**

In full disclosure, as part of my internship with the Seattle Department of Transportation, I have worked closely with the coordinator of the Play Streets program. As I write this, I am aware that an equity analysis of the program is already in progress.

## **Arrange opportunities for interaction**

Promote programs that encourage people from diverse groups to respectfully engage and interact and provide avenues for neighborhood stakeholders to collaborate. This will lend to the breaking down of fixed ideas and prejudices. The success of these exchanges can reverberate throughout the rest of society (Crowhurst Lennard, 1995; Fincher & Iveson, 2008; Gobster, 1998;

LA Green Grounds, n.d.-b; S. Low, 2013; S. Low & Iveson, 2016; Mehta, 2007, 2014; Project for Public Spaces, n.d.; San Francisco Parks Alliance, n.d.; The Hort, n.d.; The Uni Project, n.d.-e; Whyte, 1980).

### **Planting in the Right of Way**

Encourage all gardens in the ROW, but especially community gardens. These can be places where neighbors come together and interact. Additionally, if possible, set up a system that would allow garden locations to be documented. This could be used for different gardens' stewards to connect and exchange resources and ideas. It could also be used to set up centralized harvest exchanges between all the gardens of a neighborhood. Planting in the ROW gardens could be incubators of community cohesion.

### **Pavement to Parks**

Pavement to Parks sites have potential to serve as wonderful neighborhood plazas. These sites can be programmed to be gathering spaces and places to build community. Ensure partners are knowledgeable of techniques for fostering these spaces. Some sites with the most potential to be Pavement to Parks projects are already informal gathering spots. With help from the City, their role could be solidified and even improved. Ensure quality design of Pavement to Parks sites. Allow the design to be context-specific and culturally appropriate. However, make sure the design encourages stewardship of the space. Promote accessible design that inspires favorable behaviors rather than discourages nuisance behaviors. As a public space, everyone should feel comfortable there. There should be plenty of sittable space to incite people to hang there. People are more likely to be drawn to a place where there are other people. Access to food nearby and appropriate amounts of sunlight and shade are advantageous as well (Gehl, 2011; Mehta, 2013; Project for Public Spaces, n.d.; Whyte, 1980).

## **Consider the social and cultural context**

When implementing a program in any area of the city, the social and cultural context of the neighborhood or community should be considered. Consider their specific desires and needs.

These can be discovered by garnering public feedback and from connecting to influential stakeholders. Know what methods of communication are preferred. Transfer as much control of the process as possible to the community but continue providing support. This will help ensure the products of the program are democratic, approachable, and diverse (Bain et al., 2012; Fincher & Iveson, 2008; Goodling & Herrington, 2014; S. Low, 2013; S. Low & Iveson, 2016; Mehta, 2007, 2013, 2014; Morhayim, 2014; The Uni Project, n.d.-e).

## Ensure all staff are committed to equity

One of the best ways to ensure an equitable program is for the developers of the program to be passionate about making it equitable. For members of staff to have a foundation and background in equity building is a plus. However, offering trainings and workshops are also effective. One of the best practices is to hire staff from the communities that are in need of being served. With their knowledge of the community and intrinsic connections, they will be more in tune with the community's needs (LA Green Grounds, n.d.-b; The Uni Project, n.d.-e). This recommendation should be applied to all the programs and to municipal government in general.

## CHAPTER 8: CONCLUSIONS

This chapter concludes this work. I have provided my reflections about the writing process, and I have given suggestions for further research. I have summarized the main themes of my thesis and the lessons it holds for practice. Lastly, I have written a conclusion statement that reinforces the purpose of all my hard work.

### REFLECTION

This thesis has been enjoyable to write. I am glad I got to research something which I truly find interesting. Race and social equity and successful public spaces are two issues that piqued my curiosity and attracted me to urban planning in the first place. Through this thesis, I was able to combine these interests and uncover actual practical solutions.

My literature and precedent research process was thorough, and I learned a tremendous amount about successful public space and how to make it more equitable. Although finding precedents that fit my criteria was not easy, I am glad I continued searching and discovered some fascinating programs. Seeing such effective programs excites me for my future career in planning.

The geospatial analysis process was tedious, but my ArcMap skills are better than ever. Although there is always a need to ground truth data, I really feel like there is a lot of untapped potential relating to big data for urban planning. The technology to produce informed solutions more efficiently is there; it just needs to be applied. I hope to explore that more throughout my career.

I am appreciative for my internship with the Seattle Department of Transportation and how it opened my mind to the possibilities of the public right-of-way. I sincerely believe the ROW is an extraordinary resource and for far more than its mobility purposes. The ROW should be seriously considered as an answer for the public space troubles a city may face.

## SUGGESTIONS FOR FURTHER RESEARCH

As I mentioned in my limitations in the Methods chapter, the City of Seattle has the Racial Equity Toolkit (City of Seattle, n.d.-c), which I did not consult for this work because I wanted to draw my own conclusions. However, I believe it is an excellent resource as part of its protocol calls for involving the stakeholders in the evaluation process. Getting feedback from current and potential participants of these programs would have been exceptionally beneficial in informing recommendations to make these programs more equitable.

Speaking of toolkits, I think the Public Space Management team should create a toolkit based on Iveson and Low's propositions for more just urban public spaces (S. Low & Iveson, 2016). While I used the definition of equity outlined in the propositions, my methods are far from standardized. I believe taking the Racial Equity Toolkit a few steps further and applying a similar format specifically to address public space has considerable merit. In fact, University City District in Pennsylvania is in the process of creating an auditing tool named Just Spaces that would assess their public spaces using Low's work (Zeglen, 2017). However, it aims to be a tool for assessing sites; I think a tool for assessing programs could be extremely useful as well.

Another process that I would like to standardize and make more applicable to more programs would be the method I used for the prioritization of the ROW segments. Since the ROW makes up such a large portion of a city's land area and programs have limited resources, prioritizing segments for improvement can help efficiently funnel those resources to the areas that need it most.

## LESSONS FOR PRACTICE

As Seattle continues to grow, its public space woes will continue. This work has referenced the undeniable benefits public space provides from being an incubator of community cohesion to positively affecting a person's psychological well-being. Existing public space must be preserved, and new sources of public should be explored. The streets and sidewalks of a city should be considered as solutions because of their prevalence and their flexibility that invites change.

However, in improving the ROW to accommodate multiple functions, equity should be considered. Furthermore, any assessment of the equity of public space should address needs and preferences of minorities, those who are low-income, and those who are less able. Doing so will promote more equitable public which cultivates more equitable cities.

Public officials, urban planners, and grassroots organizers in New York City, Los Angeles, and San Francisco have been improving the ROW in creative, successful, and equitable ways to address the need for more public space in their cities. From the Uni Project's introduction of simple and temporary installations that activate the ROW while making learning enjoyable to the Neighborhood Plaza Program's devotion to emboldening community partners in their efforts to supply quality public space, these programs present lessons from which Seattle can learn.

Seattle's ROW could be the ultimate conduit for equitable public space, and the City's ROW programs are the appropriate tools. They are performing in the right direction, but there are noticeable gaps for improvement. I firmly believe they have huge potential, and with the aid of this thesis, I hope that potential is realized.

Currently, there are areas of Seattle—mostly far north and far south Seattle according to my analysis—that have problems that improved ROW could address. There are areas without parks and green spaces to run and play, areas without plazas and places to gather, and areas without nearby access to quality fruits and vegetables. All people deserve places to play, places to congregate, and places to get sustenance.

## CONCLUSION

Using the definition of equity that I gathered from the works of Fincher, Iveson, and Low which I have referenced throughout this work, I have sought to apply its meaning to the Seattle ROW improvement programs and provide sound recommendations. Through my suggestions, my hope is that these programs can: (1) redistribute quality public space to the areas of the city that

need it most, (2) recognize and empower the diverse peoples of the city, and (3) arrange opportunities for respectful encounters that cultivate empathy. By achieving these goals, the residents of Seattle can make something more meaningful from the public space that is already rightfully theirs: the public right-of-way.

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# APPENDIX A: ArcMap Processes

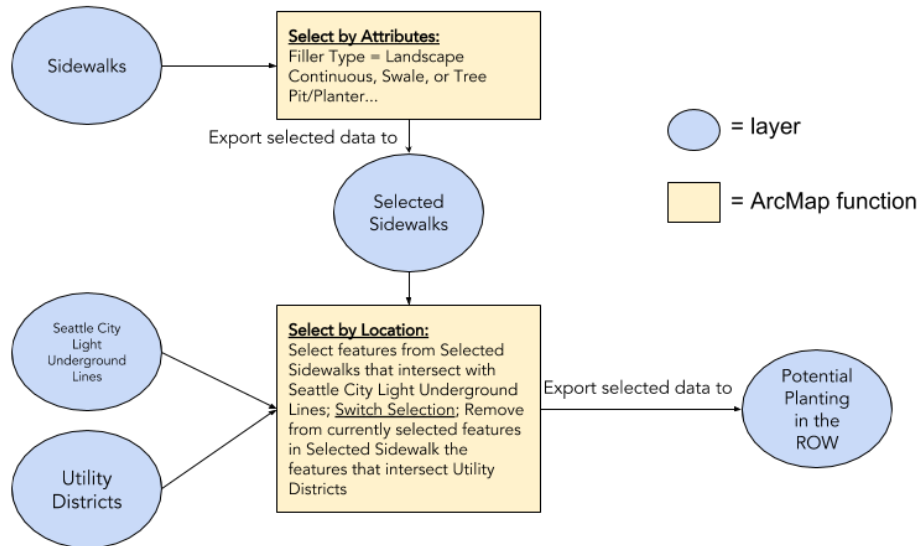


Figure 20. ArcMap Process for Creation of Potential Planting in the Right of Way Layer

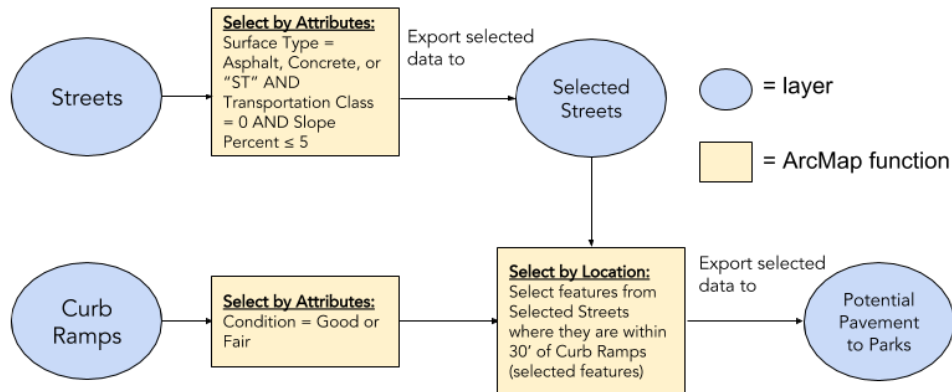


Figure 21. ArcMap Process for Creation of Potential Pavement to Parks Layer

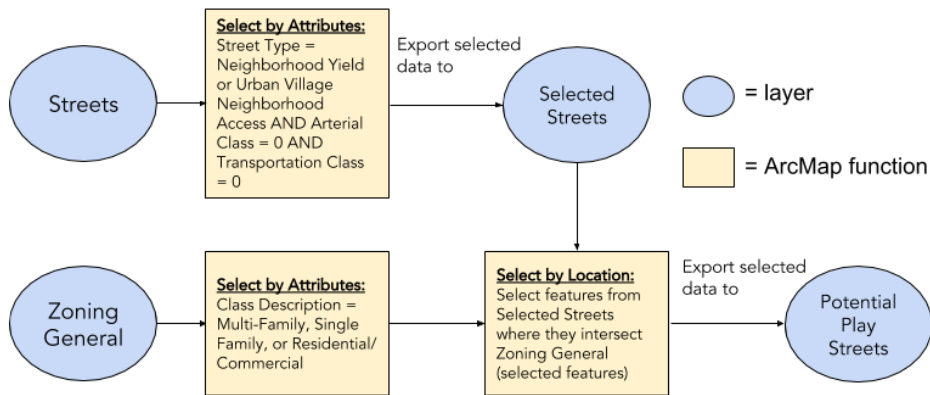


Figure 22. ArcMap Process for Creation of Potential Play Streets Layer

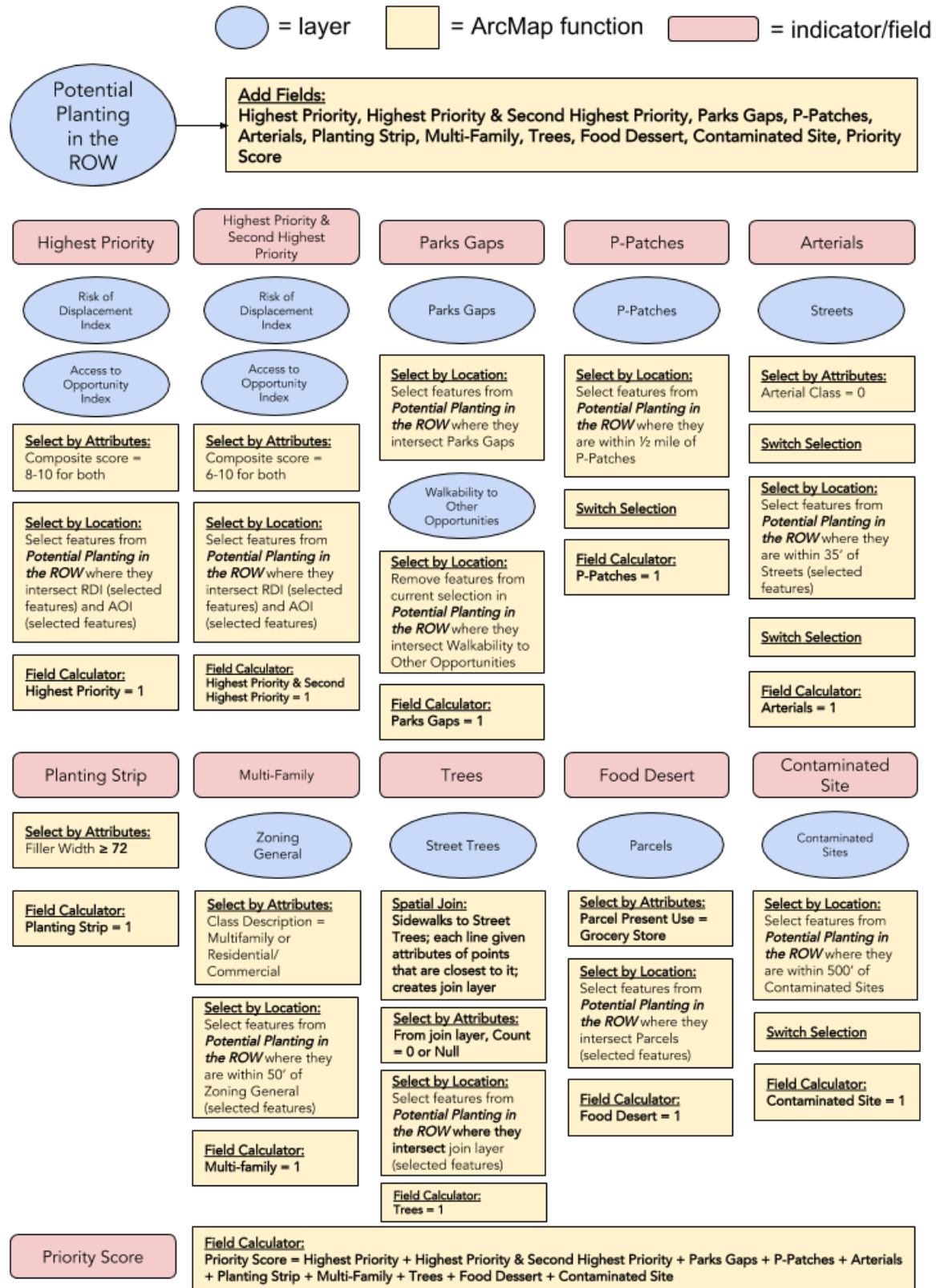


Figure 23. ArcMap Process for Prioritization of Potential Planting in the Right of Way Layer

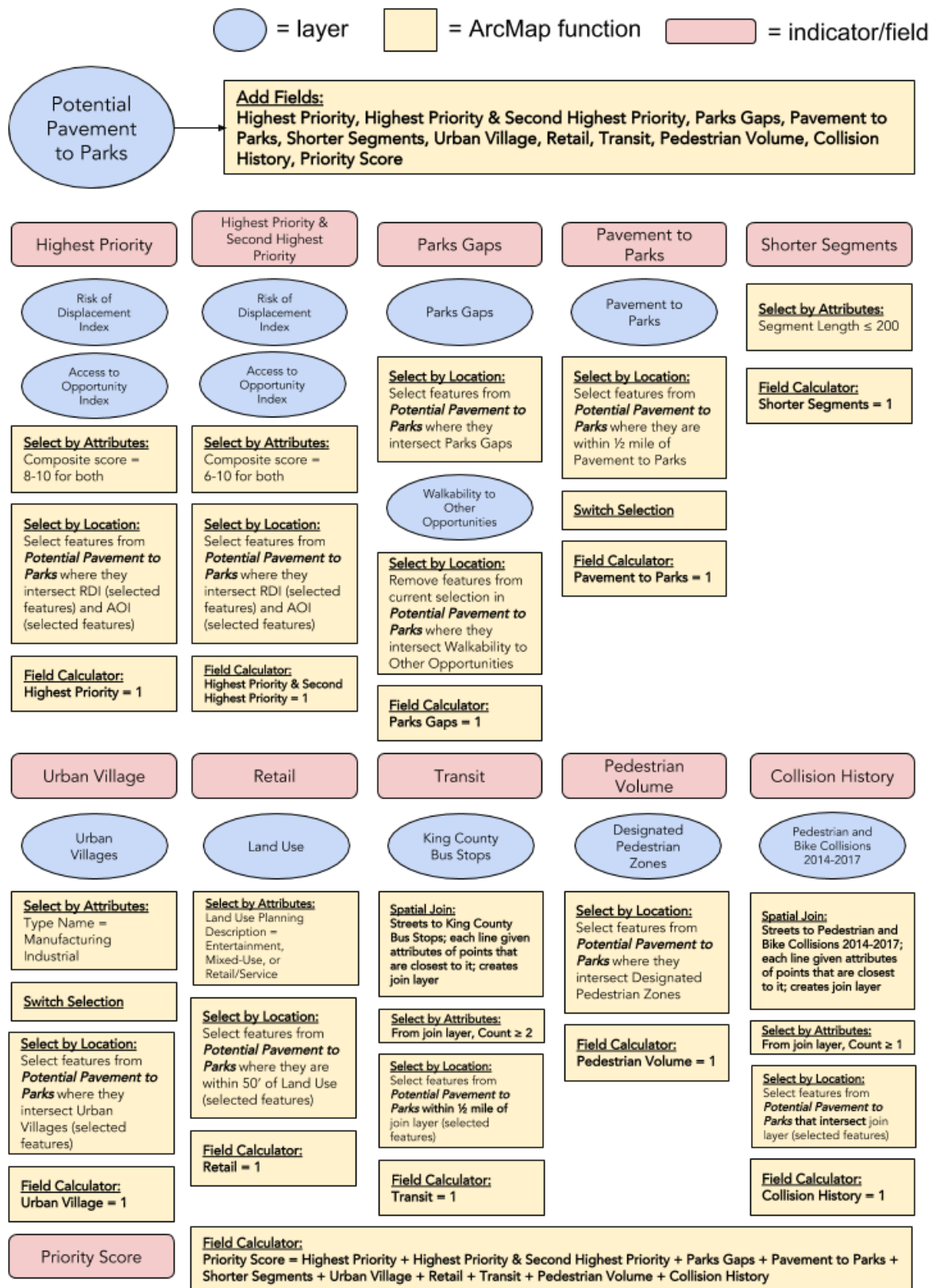


Figure 24. ArcMap Process for Prioritization of Potential Pavement to Parks Layer

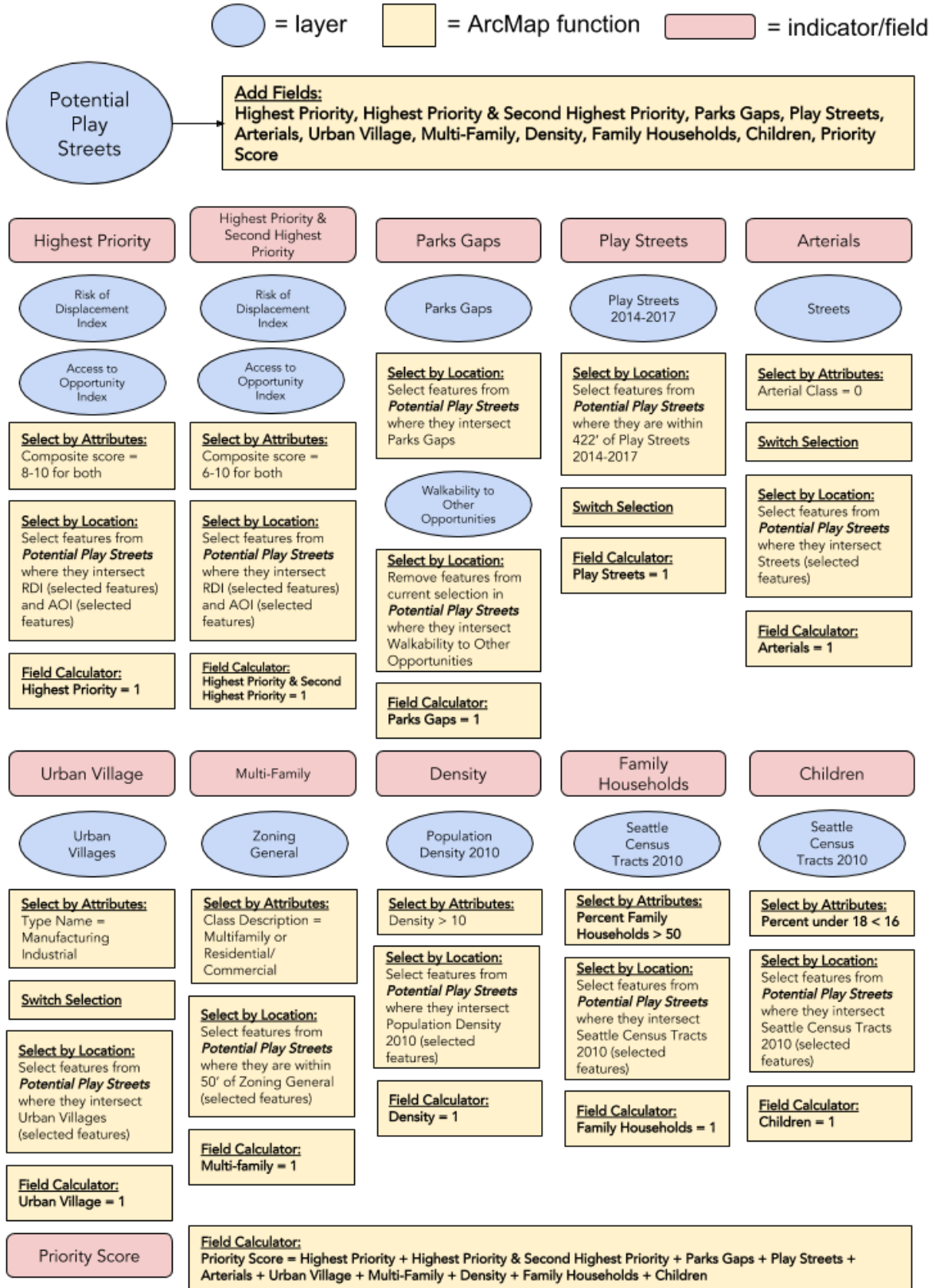


Figure 25. ArcMap Process for Prioritization of Play Streets Layer

# APPENDIX B: Equitable Development Implementation Plan Maps

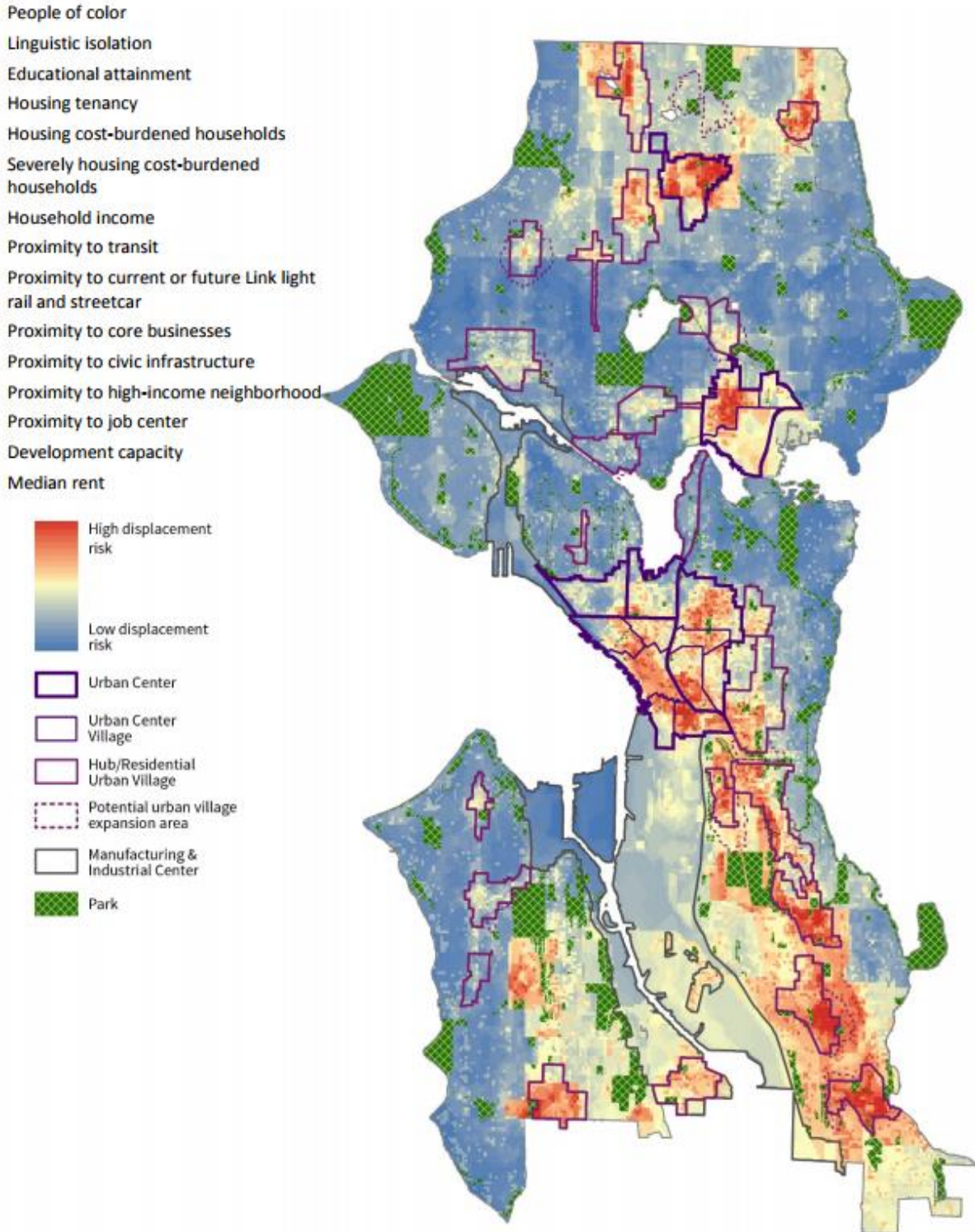


Figure 26. Risk of Displacement Index, Seattle, 2016. Map: Seattle Office of Planning and Community Development

- School performance
- Graduation rate
- Access to college or university
- Proximity to a library
- Proximity to employment
- Property appreciation
- Proximity to transit
- Proximity to current or future Link light rail and streetcar
- Proximity to a community center
- Proximity to a park
- Sidewalk completeness
- Proximity to a health care facility
- Proximity to a location that sells produce

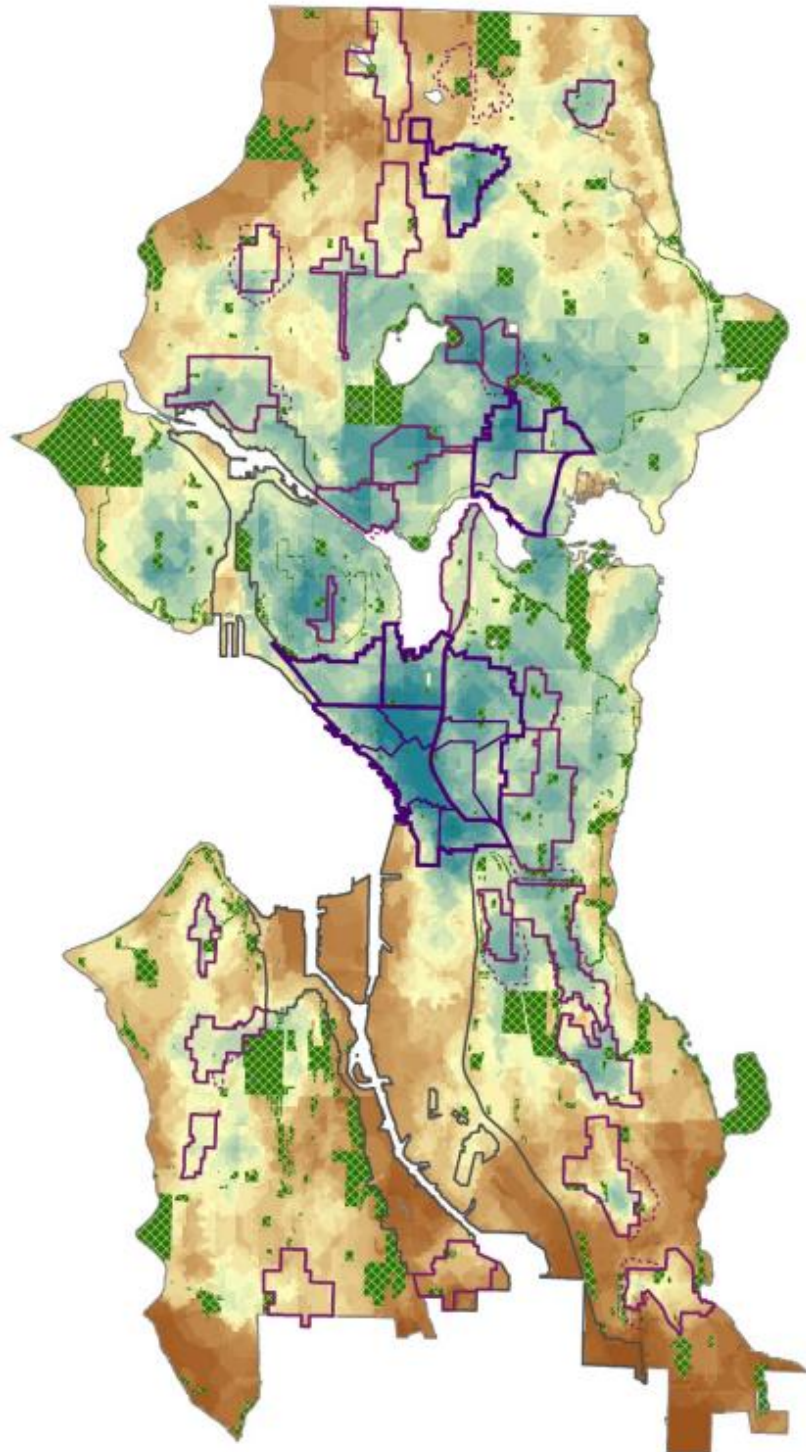
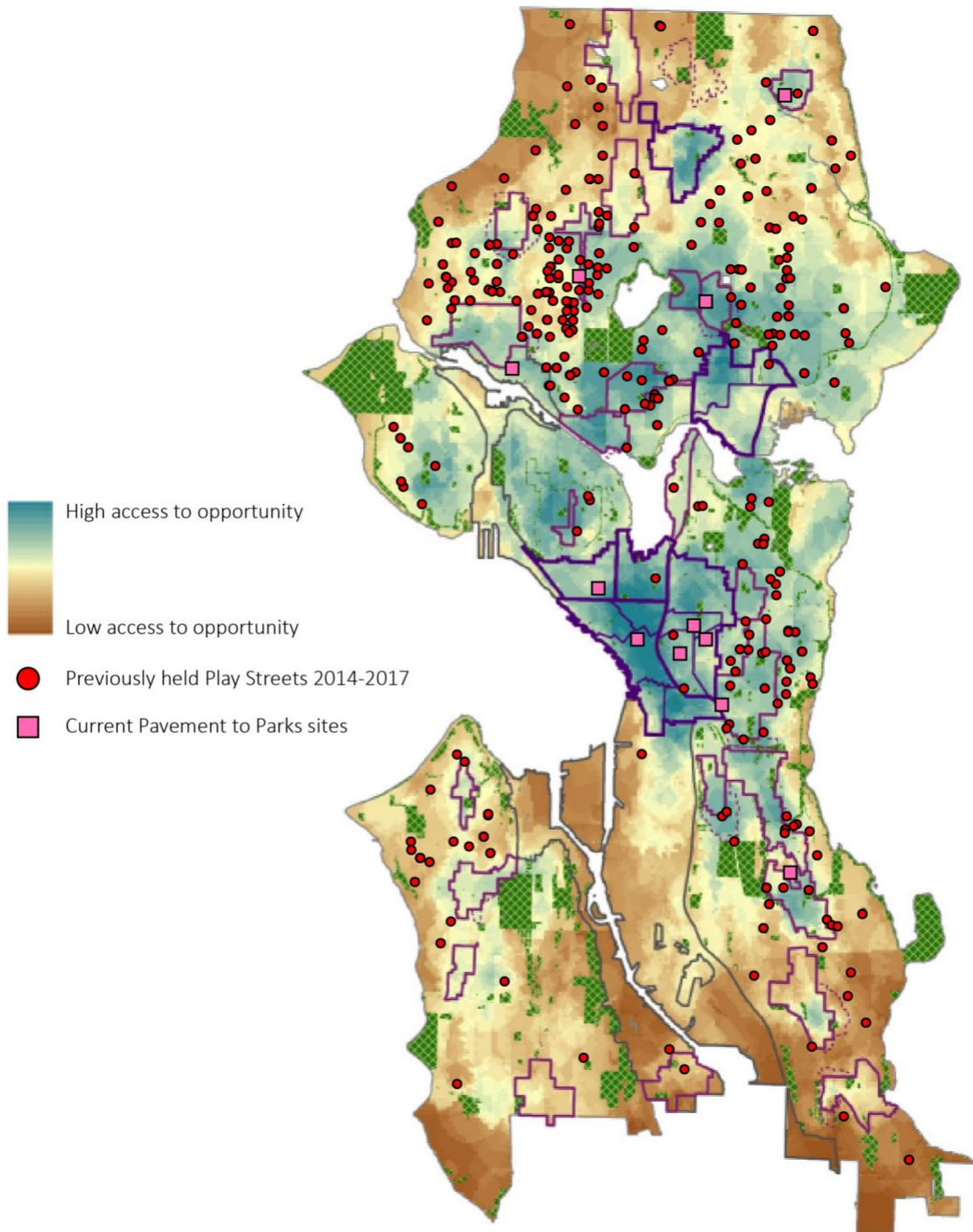


Figure 27. Access to Opportunity Index, Seattle, 2016. Map: Seattle Office of Planning and Community Development

# APPENDIX C: Distribution of Pavement to Parks and Play Streets



\*this analysis was not completed for Planting in the Right of Way due to the lack of data about current gardens in the planting strip

Figure 28. Access to Opportunity Index with Distribution of Pavement to Parks and Play Streets

# APPENDIX D: Priority Segments

Table 6. Planting in the Right of Way Priority Segments

	Location Description	Neighborhood	Broader Neighborhood	HIGHEST PRIORITY	HIGHEST PRIORITY & SECOND HIGHEST PRIORITY	PARKS GAPS	P-PATCHES	ARTERIALS	PLANTING STRIP	MULTI-FAMILY	TREES	FOOD DESERT	CONTAMINATED SITE	PRIORITY SCORE
1	Wabash Ave S between Rainier Ave S and S Rose S St, NE Side	Dunlap	Rainier Valley	1	1	1	1	1	1	1	1	0	1	9
2	SW Othello St between Shinkle Pl SW and 28th Ave SW, N Side	High Point	Delridge	1	1	0	1	1	1	1	1	1	1	9
3	SW Myrtle St between 28th Ave SW and 29th Ave SW, N Side	High Point	Delridge	1	1	0	1	1	1	1	1	1	1	9
4	SW Myrtle St between 28th Ave SW and 29th Ave SW, S Side	High Point	Delridge	1	1	0	1	1	1	1	1	1	1	9
5	Corliss Ave N between N 113th Pl and N 114th St, E Side	Haller Lake	Northgate	1	1	1	1	1	1	1	1	0	1	9

Table 7. Pavement to Parks Priority Segments

	Location Description	Neighborhood	Broader Neighborhood	HIGHEST PRIORITY	HIGHEST PRIORITY & SECOND HIGHEST PRIORITY	PARKS GAPS	PAVEMENT TO PARKS	SHORTER SEGMENTS	URBAN VILLAGE	RETAIL	TRANSIT	PEDESTRIAN VOLUME	COLLISION HISTORY	PRIORITY SCORE
1	22nd Ave S between S Jackson St and Dead End	Atlantic	Central Area	1	1	0	1	1	1	1	1	1	1	9
2	S Plum St between Airport Way S and Dead End	Industrial District	No Broader Term	1	1	1	1	1	1	1	1	0	1	9
3	S Holgate St between Airport N Way S and Dead End	Industrial District	No Broader Term	1	1	1	1	1	1	1	1	0	1	9
4	S Concord St between 14th Ave S and Dead End	South Park	No Broader Term	1	1	1	1	1	1	1	1	0	1	9
5	16th Ave S between S Lander St and Beacon Ave S	North Beacon Hill	Beacon Hill	1	1	0	1	1	1	1	1	1	1	9
6	16th Ave S between Beacon Ave S and S McClellan St	North Beacon Hill	Beacon Hill	1	1	0	1	1	1	1	1	1	1	9
7	S Lander St between Beacon Ave S and 16th Ave S	North Beacon Hill	Beacon Hill	1	1	0	1	1	1	1	1	1	1	9
8	S Myrtle St between M L	Holly Park	Beacon Hill	1	1	0	1	1	1	1	1	1	1	9

	King Jr Wr Way S and M L King Jr Er Way S													
9	S Director St between Rainier S Ave S and Dead End	Dunlap	Rainier Valley	1	1	1	1	0	1	1	1	1	1	9
10	S Rose S St between Rainier S Ave S and Wabash S Ave S	Dunlap	Rainier Valley	1	1	1	1	1	1	1	1	0	1	9
11	S Roxbury St between 51st Ave S and Renton Ave S	Rainier Beach	Rainier Valley	1	1	1	1	1	1	1	1	0	1	9
12	S Edmunds St between 37th Ave S and Rainier Ave S	Columbia City	Rainier Valley	1	1	0	1	1	1	1	1	1	1	9
13	SW Cambridge St between 15th Ave SW and 16th Ave SW	Highland Park	Delridge	1	1	1	1	0	1	1	1	1	1	9
14	16th Ave SW between SW Barton St and SW Cambridge St	Highland Park	Delridge	1	1	1	1	0	1	1	1	1	1	9
15	SW Barton St between Delridge Way SW and 20th Ave SW	South Delridge	Delridge	1	1	1	1	1	1	1	1	0	1	9
16	21st Ave SW between Delridge S Way	South Delridge	Delridge	1	1	1	1	1	1	1	1	0	1	9

	SW and SW Henderson St													
17	17th Ave SW between SW Cambridge St and Delridge Way SW	South Delridge	Delridge	1	1	1	1	1	1	1	1	1	0	9
18	Delridge Way SW between 17th Ave SW and SW Roxbury St	South Delridge	Delridge	1	1	1	1	0	1	1	1	1	1	9
19	Delridge Way SW between SW Cambridge St and 17th Ave SW	South Delridge	Delridge	1	1	1	1	1	1	1	1	1	0	9
20	SW Barton St between 18th Ave SW and Delridge Way SW	South Delridge	Delridge	1	1	1	1	1	1	1	1	0	1	9
21	N 135th St between Linden Ave N and Aurora Ave N	Bitter Lake	No Broader Term	1	1	1	1	0	1	1	1	1	1	9

Table 8. Play Streets Priority Segments

	Location Description	Neighborhood	Broader Neighborhood	HIGHEST PRIORITY	HIGHEST PRIORITY & SECOND HIGHEST PRIORITY	PARKS GAPS	PLAY STREETS	ARTERIALS	URBAN VILLAGE	MULTI-FAMILY	DENSITY	FAMILY HOUSEHOLDS	CHILDREN	PRIORITY SCORE
1	NE 130th St between 28th Ave NE and 30th Ave NE	Olympic Hills	Lake City	1	1	1	1	1	1	1	1	1	1	10

2	N 140th St between Aurora Ave N and Midvale W Ave N	Bitter Lake	No Broader Term	1	1	1	1	1	1	1	1	1	1	10
3	N 115th St between Meridian Ave N and Corliss Ave N	Haller Lake	Northgate	1	1	1	1	1	1	1	1	1	1	10
4	N 113th St between Meridian Ave N and Corliss Ave N	Haller Lake	Northgate	1	1	1	1	1	1	1	1	1	1	10
5	N 112th St between Meridian Ave N and Dead End	Haller Lake	Northgate	1	1	1	1	1	1	1	1	1	1	10
6	8th Ave NE between NE Northgate Way and NE 115th St	Pinehurst	Northgate	1	1	1	1	1	1	1	1	1	1	10