

Perceptions of safety and plant diversity preferences:
a case study of high vacancy neighborhoods

by

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ABSTRACT

Many problems of urban vacancies exist throughout the world. Vacant lands can evoke negative images, deterioration, danger, and they are even known to promote crime. They can reduce sense of belonging within a community and in the end, reduce the quality of life of the residents. However, vacant lands have the potential to bring positive images, such as, biodiversity of flora and fauna to cities. Using ecological functions and ecosystem services as a driver for change, this study applies theories such as Crime Prevention Through Environmental Design (CPTED) and Cues to Care to examine how vacant lots can be repurposed to improve safety and reduce opportunities for criminal activity to occur. This study focuses on two high-vacancy neighborhoods of northeast Kansas City and uses a photo survey to assess community members' perceptions of safety along densities and diversity of 'cared for' native vegetation within vacant lots. Past research has used images to test perceptions of safety within lots that showed different methods of 'cleaning and greening' and CPTED strategies.

This research expands upon past studies and examines how proposing different levels of vegetative diversity affects perceived safety and preferences of residents. Out of 43 survey participants, almost half (48.8%) preferred the most diverse planting option. Although most participants preferred a highly diverse space, many (62.8%) wanted the space to be properly maintained with plantings in groups. A large percentage of residents (65%) preferred a space that allows clear viewing lines through the site where activities happening in the space can be seen from the street. Findings from this study supported the development for a Strategic Framework that defines vacant lots and connections for future implementation that have the possibility to restore patches of habitat and community spaces within the neighborhoods. Considering the neighborhoods' needs, this plan includes planting and program guidelines for the chosen vacant lots that can be used as a general tool for vacant lots in other neighborhoods of similar characteristics.



PERCEPTIONS OF
S A F E T Y

AND

PLANT DIVERSITY

P R E F E R E N C E S

A CASE STUDY OF HIGH VACANCY NEIGHBORHOODS

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ABSTRACT

Many problems of urban vacancies exist throughout the world. Vacant lands can evoke negative images, deterioration, danger, and they are even known to promote crime. They can reduce sense of belonging within a community and in the end, reduce the quality of life of the residents. However, vacant lands have the potential to bring positive images, such as, biodiversity of flora and fauna to cities. Using ecological functions and ecosystem services as a driver for change, this study applies theories such as Crime Prevention Through Environmental Design (CPTED) and Cues to Care to examine how vacant lots can be repurposed to improve safety and reduce opportunities for criminal activity to occur. This study focuses on two high-vacancy neighborhoods of northeast Kansas City and uses a photo survey to assess community members' perceptions of safety along densities and diversity of 'cared for' native vegetation within vacant lots. Past research has used images to test perceptions of safety within lots that showed different methods of 'cleaning and greening' and CPTED strategies.

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CHAPTER

INTRODUCTION

1

Introduction

Cities around the world are experiencing problems of urban vacancy. The United States especially struggles to keep land in use. Research shows that on average, about 15% of the land in US cities is deemed vacant or abandoned, which is almost equivalent to the area of Switzerland (Branas et al. 2018; Pagano and Bowman 2000; Garvin et al. 2012). Vacancy in U.S. cities is caused by many reasons—sprawl after the invention of the automobile after World War II (Harnik 2010) and significant industrial decline (Sampson et al. 2017). Not only do vacant lands decrease property values of surrounding lots within the community, but they can also evoke negative images, such as, abandonment, emptiness, and sometimes danger (Bowman and Pagano 2004; Biasi 2017). Research suggests that with an abundance of urban vacancies, crime can increase (Garvin et al. 2012; Cui and Walsh 2015; Branas et al. 2018). Urban vacancies increase rates of crime by segregating communities in terms of social and visual disconnect—inhabitants of the neighborhood have less sense of belonging, and a reduced quality of life (Ross and Mirowsky 2001; Sampson et al. 2017; Garvin et al. 2012).

There have been many studies that show maintenance of vegetation, increased tree canopy, and the implementation of green infrastructure—consequently ecological habitat networks—promotes a reduction in criminal activity. This maintenance implies that the subsequent street, block, or lot is cared for, which in turn, deters criminals (Troy et al. 2012; Donovan and Prestemon 2012; Nassauer 1995, 2009; Nassauer and Raskin 2014; Kondo et al. 2015b; Kondo et al. 2017; Heinze et al. 2018).

This study focuses on two high-vacancy neighborhoods in Northeast Kansas City, Missouri as a case study to examine perceptions of safety within the community and define strategies to discourage criminal opportunities, with a focus on increasing ecological patches and corridors. An analysis of selected vacant lots and their future programmatic uses in these neighborhoods of Kansas City will be completed to examine possible solutions for implementation. By using theoretical frameworks as a basis for planning and design such as Crime Prevention Through Environmental Design (CPTED) (Jeffery 1971; Newman 1972) and Cues to Care (Nassauer 1995), among others, the proposed design of these lots will not only be an addition and revitalization to community spaces of interaction, but also as a place to increase habitat and ecological networks. Figure 1.1 outlines the issues, considerations, and theories that form the base for this research that lead up to the end goal—the strategic framework.

There are many plans and policies in place within Kansas City, Missouri to help communities take control of their vacant lots—the Heartland Conservation Alliance’s ‘Vacant to Vibrant’ program, the KCMO Land Bank, and DRAW Architecture + Urban Design’s Guidebook for infill Lot Improvement Strategies. My report expands upon these programs and examines residents’ perception of safety and fear of crime around vacant lots and how these perceptions can be influenced by increased diversity of native vegetation, maintenance, and ecological design. Using a photo survey to test these topics, residents were able to rate their perceptions of safety for differing quality, quantity, and possible interactions with planting designs. This survey also examined what activities and programs are most important to have in the neighborhood. In the end, data collected from this photo survey, together with the information gained from the neighborhoods, informs the strategic framework for what these neighborhoods deem as safe ecological interventions and desired activities within the vacant lots of Northeast Kansas City.

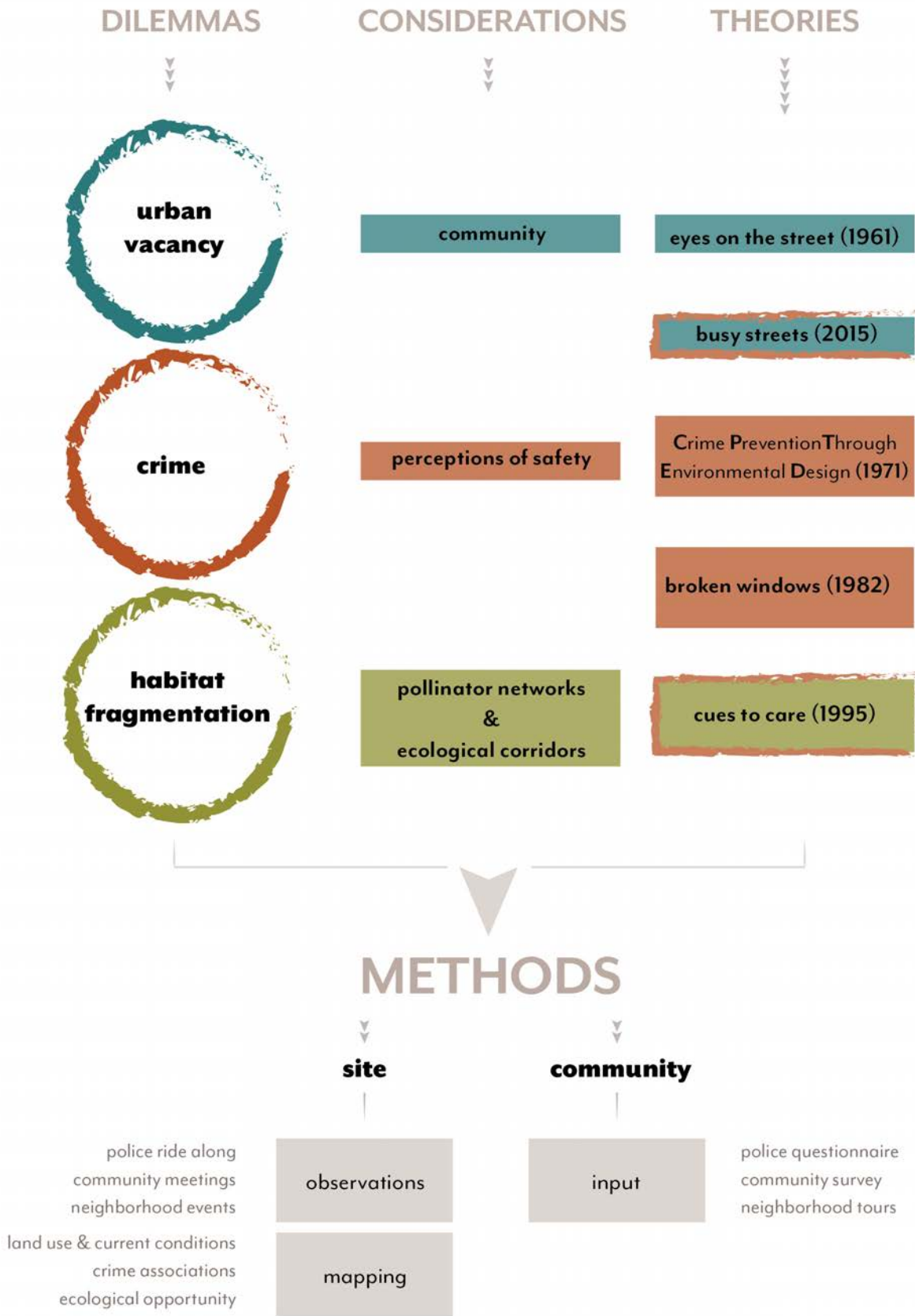


FIGURE 1.1

Project Roadmap

STRATEGIC FRAMEWORK

SELECTED VACANT LOT & CORRIDOR PLAN



VACANT LOT GUIDELINES

↓
planting



↓
programming



↓
Lykins and Sheffield
Focus Areas

CHAPTER

LITERATURE REVIEW

2

FIGURE 2.1
Literature Map

community

busy streets
eyes on the street
physical / social (dis)order
community
well-being
homelessness
vacancy +/-

safety

broken windows
perceptions of safety
fear of crime
crime
defensible space
CPTED
vacancy -

habitat

cues to care/maintenance
pollinator networks
ecological corridors
fragmentation
cleaning/increase greening
native plants
vacancy +

- Harnik 2010
- Newman 1972
- Jacobs 1961
- Ross & Mirowsky 2001
- Gesler et al. 2002
- Frank et al. 2003
- Aiyer et al. 2015
- Pagano & Bowman 2000
- Bowman & Pagano 2004
- Corner 2001
- Daskalakis & Perez 2001
- Pearsall & Lucas 2014
- South et al. 2018
- Heinze et al. 2018
- Boessen & Chamberlain 2017
- Bogar & Beyer 2015
- Branas et al. 2011
- Branas et al. 2016
- Branas et al. 2018
- Browning 2009
- Cui et al. 2015
- Garvin et al. 2012
- Kelling & Coles 1997
- Cozens et al. 2005
- Kondo et al. 2015a
- Kondo et al. 2015b
- Kondo et al. 2016
- Kondo et al. 2017
- Hohl et al. 2019
- Sampson & Raudenbush 1999
- Sampson & Raudenbush 2004
- Sampson 2012
- South et al. 2015
- Whitzman 2007
- Abdullah et al. 2013
- Biasi 2017
- Chang 2011
- Donovan & Prestemon 2012
- Marzbali et al. 2012
- Rupp et al. 2019
- Sohn 2016
- Troy et al. 2012
- Wolfe & Mennis 2012
- Helfand et al. 2006
- Nassauer 1995
- Nassauer 2009
- Nassauer 2011
- Nassauer & Raskin 2014
- Sampson et al. 2017
- Scarfone 2014
- Rainer & West 2015
- Henderson 1987
- Bailey et al. 2014
- Woodbury 2020
- MDC 2012
- Richardson et al. 2016
- Spiesman et al. 2016
- Spiesman & Inouye 2013
- Spiesman & Gratton 2016

Literature Review

Urban Vacancy

Many cities all over the United States struggle with vacancy (Branas et al. 2011, 2018; Garvin et al. 2012). Vacant land can symbolize many qualities and perceptions such as decreased property values, despair, abandonment, decay, emptiness, stress, and sometimes danger (Bowman and Pagano 2004; South et al. 2018; Garvin et al. 2012). These ‘negative images’ and perceptive qualities illustrate that the city has deteriorated within the post-industrial era (Bowman and Pagano 2004). Vacancies tend to have higher densities in areas of low-resources, low-income, and marginalized communities (South et al. 2018; Heartland Conservation Alliance 2013; Branas et al. 2011). Residents in these high vacancy zones experience these spaces daily which contributes to increased levels of stress and a lowered sense of community cohesion (South et al. 2018; Garvin et al. 2012). Vacant or blighted properties are usually located in the ‘wrong’ place according to policy makers and city officials. Sometimes they are oddly shaped or too small for useful development (Bowman and Pagano, 2004). With many negative connotations defining vacant land, it is difficult to see the positives.

On the other hand, vacancies can be seen as an enormous opportunity for cities and their surrounding region for many reasons. They can be places of hope and reinvention, a ‘stage on the road’ to renewal, a chance for expansion, and future beneficial use (Pagano and Bowman 2000; Bowman and Pagano 2004; Sampson 2012; Garvin et al. 2012). In many vacant lots, natural assets emerge through time such as indigenous flora and fauna. With this unintended formation of habitat, benefits arise such as reduced heat island effect, increased biodiversity, increased rainwater absorption, areas of pollinator regeneration, and decreased rates of erosion (Nassauer and Raskin 2014).



FIGURE 2.2

(left) Vacant Lot with overgrown vegetation, blocking views through the site.

FIGURE 2.3

(right) Vacant Lot with evidence of dumping and neglect.

Vacancy: A Problem

Cities with high vacant lot densities negatively affect perceptions of safety (Branas et al. 2018; South et al. 2015). A council member from Philadelphia stated that vacant lots are the “‘red flag’ that a neighborhood has become undesirable” (Bowman and Pagano 2004, 92). Serious problems like violence and crime can stem from vacant, blighted land continuing onto nearby properties (Branas et al. 2018; Boessen et al. 2017). Figure 2.3 shows an example of a vacant lot with evidence of dumping and neglect.

There are multiple ways that vacant lands can induce criminal activity, such as decreased lines of sight due to dense vegetation, shown in Figure 2.2, and high sloping topography. Overgrown vegetation within vacant lots provides places for drug users to hide and escape from police intervention (Branas et al. 2018; Garvin et al. 2012; Wolfe and Mennis 2012). On the other hand, people believe that spontaneous vegetation limits the ease of escaping from predators and criminals (Bogar and Beyer 2015). Because of this invasion of vegetation and high sloping topography, programmatic activities and uses are limited. Without reason for people to visit these lots, they will most likely remain vacant and attract unwanted users. This is a slippery slope to long-term vacancy which is known to have stronger effects on violence and crime rates (Cui and Walsh 2015).



FIGURE 2.4

Empty and Abandoned housing that increases distancing between neighbors.

Residential surveillance, or ‘Eyes on the Street’ (Jacobs 1961), is limited by density of vacant properties in neighborhoods. Higher densities of vacancy directly affect distancing between houses, leading to less opportunity for a ‘neighborhood watch’. This lack of surveillance provides criminals and squatters with gathering places for illegal activities (Cui and Walsh 2015; Boessen et al. 2017). These illegal activities occur more often in these vacant lots because of the unlikely circumstance of being spotted or snitched on by neighbors (Branas et al. 2018; Garvin et al. 2012; Boessen et al. 2017). Neighborhood planning that does not provide good grounds for social cohesion, responsibility, or stability can lead to “social diseases’ such as accidents, homicides and alcohol-related deaths” (Gesler et al. 2002, 59).

Vacancy: An Opportunity

A large body of literature recognizes the importance for greenspace and overall nature on health and wellbeing (Gesler et al. 2002; Richardson et al. 2016; South et al. 2018; Bogar and Beyer 2015; Kondo et al. 2015a; Kondo et al. 2017). Well maintained and programmed neighborhood outdoor space leads to increases in social activity (South et al. 2018). Outdoor space that is open for public use supports community interaction (Bowman and Pagano 2004) which can be applied through the use and clean-up of vacant lots. For a space to be successful, it needs to be meaningful to the community. Vacant lots can be utilized to increase park space, food production through community gardens, green infrastructure, and tree canopy. Looking at vacant land as an asset, it can also provide for neighborhood culture revitalization (Pearsall and Lucas 2014), job creation and transportation infrastructure improvements (Pagano and Bowman 2000).

Vacant land can be a huge resource towards endeavors for environmental education by ways of natural classrooms (Bowman and Pagano 2004). Even when a lot is not physically in use, native flora and



FIGURE 2.5

Vacant lot utilization through the use of a community orchard.

fauna can persist to bring forth biodiversity. If a vacant lot is taken under the community's wings, it is with expectation that maintenance will occur which exhibits that 'Cues to Care' (Nassauer 1995) are present.

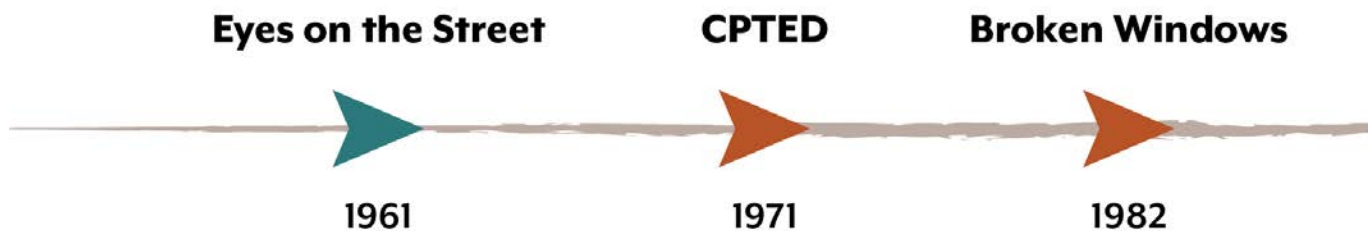
A different way to observe vacant land is to see it as "absent of explicit purpose yet ripe with a sense of expectancy" (Daskalakis and Perez 2001), meaning that even though it is inherently empty, doesn't mean it will always be that way—there will undoubtedly be a future use. Land will always be a resource, one might say an 'opportunity', no matter how beaten up it has become (Bowman and Pagano 2004). James Corner explains vacant lands as "free of the excesses of design, composition, or representation, these blank and open fields invite the participation of all the city's residents" (Corner 2001). Even if the lot is not owned by anyone in the community, sometimes residents will take it in their own hands to utilize the space for personal use—this is known as 'blotting' (Arboret et al. 2008).

Theoretical Frameworks

There are many characteristics in the urban environment that influence how people perceive a place as “hostile or friendly, attractive or ugly, and vibrant or dull” (Frank et al. 2003). A great number of theories and solutions exist that focus on preventing crime within vacant lots. It is important to realize how one design strategy that works for one lot, will not work for all—just like “a solution for one city is not a solution for all cities” (Bowman and Pagano 2004, 89). Most solutions consider ‘cleaning and greening’ lots to promote the perception that a lot is used and taken care of (Branas et al. 2018; Bowman and Pagano 2004; Bogar and Beyer 2015). Supplementing the ‘cleaning and greening’ strategy, research has shown that including Crime Prevention Through Environmental Design (CPTED) standards—territoriality, surveillance, access control, and maintenance—to vacant lots promotes a better sense of safety and less fear of crime (Biasi 2017).

Other solutions for crime deterrence include promoting neighborhood interaction and cohesion through activating streets and spaces to create opportunities for more ‘Eyes on the Street’ (Jacobs 1961; Whitzman 2007; Frank et al. 2003; Bowman and Pagano 2004). In this section, five theoretical frameworks—that include topics of crime prevention and increased neighborhood interaction—will be discussed in chronological order: ‘Eyes on the Street’ (1961); ‘Crime Prevention Through Environmental Design (CPTED)’ (1971); ‘Broken Windows Theory’ (1982); ‘Cues to Care’ (1995); and ‘Busy Streets Theory’ (2015). Exploring these theories will help us understand what strategic solutions for implementation are most feasible for the Lykins and Sheffield neighborhoods.

FIGURE 2.6
Theoretical framework timeline



Eyes on the Street (1961)

Surveillance was very important to Jane Jacobs (1961). She was a key advocate for open gathering spaces in cities with the goal of facilitating places for community bonding and increasing “eyes on the street”. Even though Jacobs (1961) was more focused on the physical environment of the street—for example, large-scale buildings with many windows for people to look out of and watch what was happening below—this strategy of surveillance can still be utilized within single-use residential neighborhoods. Jacobs (1961) discussed that an array of land uses could foster more street activity leading to an overall increased surveillance of the area. By providing spaces and programs within vacant lands along streets for people and communities to interact, the community will become safer and residents will have a better quality of life. There have been many studies that find communities with higher levels of proximity and connectivity between activities have more people and bicyclists out and about (Frank et al. 2003). Streets are one of the main infrastructural puzzle pieces that form the cohesion of community. Social activity on streets is very important to maintain this cohesion. Although the concept that dense social ties and networks helps diminish criminal activity, it appears to not always be true—just as dense social networks can provide positive ways for community to interact, they can also promote flows of criminal communication (Browning 2009).

Vacant or abandoned houses within a community can reduce the ‘eyes on the street’ by not having someone to occupy that space—or worse, having criminals on the inside looking out. Encouraging residents and businesses to create inviting entrances, porches, and yards to where windows from the structure are visible is one way to promote a sense of natural surveillance within the neighborhood.

Cues to Care



1995

Busy Streets



2015

Crime Prevention Through Environmental Design (1971)

Crime Prevention Through Environmental Design (CPTED) builds upon Jane Jacobs work and includes topics of psychology and architecture. Both theories support social interaction and positive behaviors (Jeffery 1971; Cozens et al. 2005). The main focus of CPTED is to create 'defensible space' (Newman 1972) to minimize opportunities for criminal behavior with better housing and lot feature design (Newman 1972; Bogar and Beyer 2015). The four CPTED standards include: territoriality, surveillance, access control, and maintenance (Jeffery 1971; Biasi 2017).

Considering that vacant lots tend to promote fear of crime within a neighborhood (Bowman and Pagano 2000), it is important to utilize certain CPTED standards for situational crime prevention (Biasi 2017). These standards have the capability to impact certain crime types, such as, robbery, physical assault, sexual assault, and harassment (Branas et al. 2011; Troy et al. 2012; Marzbali et al. 2012) since these crime types typically happen outdoors (Biasi 2017). Although applying certain CPTED standards can help reduce crime, they will not always work on every criminal—especially ones that are 'under the influence' (Cozens et al. 2005).

Some strategies to adopt from these standards to reduce fear of crime include fencing, artwork, signage, lighting, clearly defined paths, and designed flower beds (Biasi 2017). Research has shown that incorporating more CPTED standards within vacant lots can increase sociability (Abdullah et al. 2013) and perceptions of safety compared to simply 'cleaning and greening' (Biasi 2017).

Broken Windows Theory (1982)

The 'broken windows' theory discusses how signs of disorder can encourage more criminal activity to take place within a neighborhood (Wilson and Kelling 1982; Kelling and Coles 1997; Sampson and Raudenbush 2004). Some signs of disorder, or visual cues of a neighborhood in decline, include graffiti, public drinking, and evidence

of trash within unkempt yards and lots, among many others (Sampson 2012; Wilson and Kelling 1982; Kelling and Coles 1997; Sampson and Raudenbush 2004). These signs may indicate that the residents of this area are unwilling to participate in the betterment of the community, let alone show that they care how the neighborhood is presented to outsiders. Research shows that residents of low-income and high-crime neighborhoods prefer to have better police protection to reduce violence and criminal activity (Sampson and Raudenbush 1999).

While the ‘broken windows’ theory is focused on signs of disorder or neglect within an area and how these signs have the potential to attract more crime, a juxtaposing theory exists to promote the beauty and maintenance of a place—Cues to Care (Nassauer 1995). Busy Streets (Aiyer et al. 2015) is another theory that expands on the discussion of ‘broken windows’ and examines community interaction and improvement.

Cues to Care (1995)

Research shows that people assume unkempt lots are unsafe because no one is there to provide surveillance (Bogar and Beyer 2015; Branas et al. 2018). By implementing defined landscape strategies within vacant lots, ‘Cues to Care’ will be evident (Nassauer 1995, 2009, 2011). This care suggests that the neighborhood is willing to invest in their properties and overall aesthetic (Sampson et al. 2017; Nassauer 2011). Landscape care can have a ‘halo effect’ which allows residents and visitors of neighborhoods to infer the stability of a community (Nassauer 2011). These ‘Cues to Care’ will allow for vacant lots to have ecosystem services that are aesthetic to the community (Nassauer and Raskin 2014).

One of the simplest ways to show a lot is cared for is cleaning up trash and debris. This is an inexpensive way to start taking back lots for utilization. Other ways to show that improvements are taking place include grading the land, mowing dense vegetation, and installing fences around the perimeter (Branas et al. 2016). The result of mowing

a vacant lot consists of a ‘greened’ lot that, as studies show, leads to enhanced feelings of safety, reduced illegal dumping, lower levels of violence and crime, lower levels of stress, and increased social cohesion (Branas et al. 2011; South et al. 2015; Kondo et al. 2016). Greened alleys, new grass, addition to street trees, and increased access of public space produced these feelings (Branas et al. 2018; Branas et al. 2016; South et al. 2018; Bowman and Pagano 2004; Bogar and Beyer 2015; Troy et al. 2012; Wolfe and Mennis 2012). Although it is important to realize that greening lots helps neighborhood residents feel safer, what other implementations to these vacant lands can promote social cohesion and healthy communities?

Busy Streets Theory (2015)

The ‘Busy Streets’ theory focuses on creating spaces within urban environments that engage residents in their neighborhood’s revitalization (Aiyer et al. 2015; Heinze et al. 2018; Rupp et al. 2019; Hohl et al. 2019). This concept is most relevant to neighborhoods or places that “once thrived” and are now neglected—communities where the ‘broken windows’ theory is seen first-hand (Aiyer et al. 2015).

People’s decision to leave their homes and “walk, jog, bicycle, or socialize on the street” is based on how safe they perceive the street—site design elements determine this perception (Frank et al. 2003). Sometimes a ‘busy street’ is not always safe. Streets that entertain the occurrence of criminals may promote drugs, prostitution, and theft, among others (Aiyer et al. 2015). Features within streets that spur social activity are opportunities for sitting to have a conversation, places that offer the ability to eat or drink, people watching, and others (Frank et al. 2003).

Allowing vacant lands to function as public space can be a huge asset to the community. Not only does public space allow neighbors to interact on ‘face-to-face’ levels, but it supports the areas where ‘life happens’ (Bowman and Pagano 2004; Branas et al. 2018). Vacant lots are not

the only spaces where life can be improved—streets are the pathways that support a more connected neighborhood and also provide a place where the neighborhood can express its identity. Research has shown that successful public space can be attributed to being located in areas of high movement and activity—this means that well-integrated greenspace adjacent to existing pedestrian and vehicular circulation (or streets) will not only be more popular, but will have increased perceptions of safety and surveillance (Dalton and Hanson 2010). Some planning interventions that promote social inclusion include “public events like activities in local parks, block parties, school fetes, and walking clubs” (Whitzman 2007, 2728).

It is important to keep in mind the quality of neighborhood facilities. Even if a facility, such as public space, is close in proximity to homes and commercial areas, the low quality of the space could deter visitors and therefore promote criminal activity (Frank et al. 2003). Maintaining neighborhood facilities such as vacant lot transformations, parks, and the like through community interaction and support—also known as ‘community engaged greening’ (Heinze et al. 2018)—will not only keep the residents engaged and increase feelings of safety (Hohl et al. 2019) but, extend the longevity and function of a place.

Theoretical Framework Strategies to Utilize

This study builds upon the ideas drawn from ‘Busy Streets Theory’ (Aiyer et al. 2015) like ‘community-engaged greening’ (Heinze et al. 2018), implementing CPTED standards (Biasi 2017), and ‘Cues to Care’ (Nassauer 1995). Biasi (2017) used images to test perceptions of safety within lots that showed different methods of ‘cleaning and greening’ and CPTED standards. Some of these standards included fencing, art installations, increasing trees and maintained flower beds, and added lighting elements. This research expands upon this study, among others, and examines how proposing specific densities and maintained diversity of native vegetation along with pathway interaction affects perceived safety.

Sustaining Low Maintenance and Grant Funding

Maintenance and the Importance of Native Plants

There is a significant body of evidence that states through the use of designing with native plants, sites of implementation can support more biodiversity while using less energy and financial resources for maintenance and upkeep (Henderson 1987; Helfand et al. 2006; Bailey et al. 2014; Rainer and West 2015; Woodbury 2020; MDC 2012). Native plants in the region of Kansas and Missouri are plant types historically located as “part of the tall grass prairie, riparian woodland, and oak-hickory forest plant communities” (MARC and APWA 2012). Not only are native plants better at performing within their areas of origin, but they also reduce chemical use, water use, and pollution compared to mown grass lawns (Helfand et al. 2006; Bailey et al. 2014; Woodbury 2020; Rainer and West 2015; MDC 2012).

To sustain a low maintenance ‘regime’, not only is it important to choose native species, but to choose the right types of plants that require less upkeep. Using shorter plants, like grasses and groundcovers, will not only curb maintenance demands but also lower costs (Woodbury 2020; Bailey et al. 2014). Plants that live longer, that tolerate variable conditions, and can be harmoniously placed near other species will also contribute to a low maintenance and low-cost regime (Woodbury 2020). Instead of implementing a traditional garden style planting (which requires a substantial amount of maintenance, time, and money), creating a ‘designed plant community’ can promote high levels of diversity while keeping time commitment and costs low. This type of plant community can be referred to as a ‘tossed salad’ and it allows plants to migrate within the plant bed—instead of past approaches to maintenance that require taking care of each individual plant, the plant community is taken care of as a whole (Woodbury 2020; Rainer and West 2015).

Not only do native plants lower maintenance and associated costs, but they provide critical habitat for local pollinators and wildlife (Henderson 1987; Bailey et al. 2014; Spiesman et al. 2016). In order to increase

ecological function of a space, a high number of plant species, or diversity, is necessary. One of the most important pollinators in native plant communities and agricultural systems are bees because they often provide the most pollen delivery to flowers (Spiesman et al. 2016). Wildlife and pollinators have specific requirements for survival which include “flowering plants that produce nectar, pollen, and shelter” (Bailey et al. 2014). The ‘Optimal Foraging Theory’ suggests pollinators can choose to “focus their effort on the most abundant species...in order to maximize net energy intake” (Spiesman and Gratton 2016). Considering that pollinators are in decline, it is ever more important to increase and connect native plant community habitats throughout urban environments (Bailey et al. 2014; Rainer and West 2015; Spiesman and Inouye 2013; Spiesman et al. 2016)—vacant lots can be the solution to current habitat fragmentation.

Grant Opportunities and Helpful Organizations

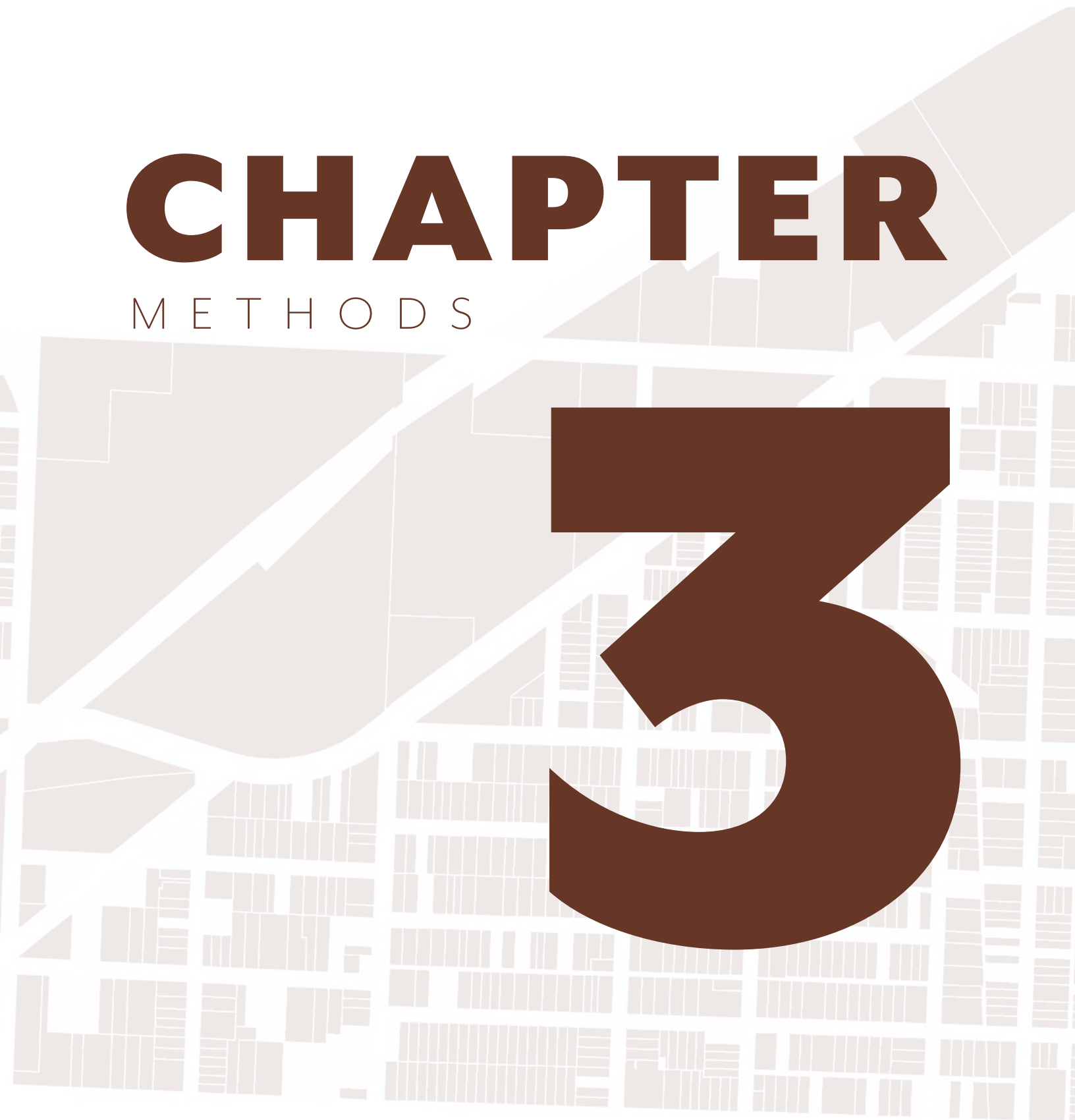
After a vacant lot has been chosen for revitalization, it is important to reach out to organizations and resources that support future improvements. There are many organizations in Kansas City, Missouri that provide resources like advice and funding along the way. Some of these include, but are not limited to, the Urban Neighborhood Initiative, the Heartland Conservation Alliance, the KCMO Land Bank, the Missouri Department of Conservation, KCMO Neighborhood Cleanup Assistance Programs, KC Water Services Leaf and Brush Collection, Kansas City Community Gardens, the Giving Grove, Deep Roots, Heartland Tree Alliance, Cultivate KC, and Bridging The Gap (Heartland Conservation Alliance 2013).

There are many native plant nurseries in the Kansas and Missouri region that can help establish native gardens. Some of these include Missouri Wildflowers Nursery, Sow Wild Natives, and City Roots. Reaching out to these organizations and businesses can help jump start the process of vacant lot revitalization.

CHAPTER

METHODS

3

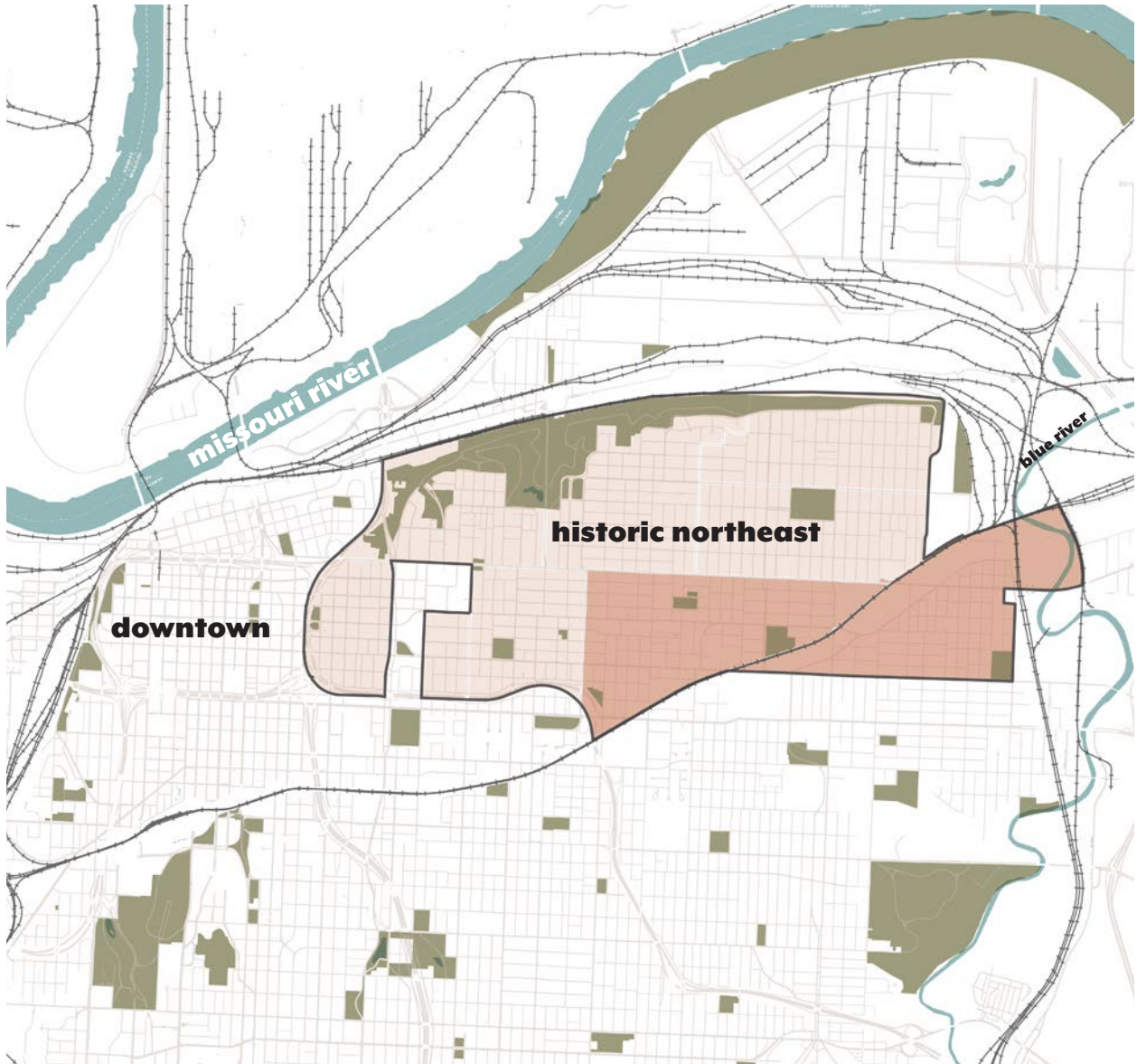


Methods

Overview and Study Area

The study was conducted within the Lykins and Sheffield neighborhoods of what is known as the Historic Northeast of Kansas City, Missouri—shown in Figure 3.1. In Kansas City, there are thousands of vacant lots and properties. There are estimated to be 5,000 vacant lots, in addition to 13,000 single-family vacant homes (Heartland Conservation Alliance 2013)—Over 3,000 of these parcels are owned by the Land Bank (KCMO Land Bank; Spencer 2014a, 2014b). The abundance of urban vacancy in Kansas City lies east of Troost Avenue and north of Bush Creek running east to the Blue River—the general area where Lykins and Sheffield are located. This vacancy contributes to blight, diminished quality of life for residents, and a \$33.6 million loss in revenue annually (Heartland Conservation Alliance 2013).

Majority of vacant properties within Kansas City are in low-income urban areas (Heartland Conservation Alliance 2013). In relation to the rest of Kansas City, Missouri, Lykins and Sheffield are considered low-income (US Census Bureau 2018).



SCALE 1" = 5,000'-0" 📍

- Lykins and Sheffield
- Remaining Historic Northeast Neighborhoods
- Historic Northeast Boundary
- Parks
- Rivers and Bodies of Water
- Roads
- Rail Roads

FIGURE 3.1
Kansas City Historic Northeast
Neighborhoods.

Lykins

History and Culture

The neighborhood of Lykins was named after the first legal mayor of Kansas City, Missouri—Dr. Johnston Lykins. Situated in the heart of the Northeast neighborhoods, Lykins has many notable buildings and rich history along its streets—9th street and Benton Boulevard to name a few. Benton Boulevard was planned throughout 1896 to 1908 where it was positioned to be “the main north-south route on the east side of Kansas City” (Lykins Neighborhood Association 2000). This boulevard was originally within the planning works of George Kessler in his Kansas City Park and Boulevard System (Mobley and Harris 1991).

There were quite a few parks planned within the Kessler Park and Boulevard System in the Historic Northeast. One of them, known as Lykins Square, like its name would suggest is located in Lykins. The land for Lykins Square was acquired in 1913—a total of about 5 acres—which was fronted by Lykins School. This school was ultimately demolished in the 1950s and the land where the school once sat, now sits vacant awaiting a future purpose (Northeast Kansas City Historical Society 2014; Lykins Neighborhood Association 2000). Freeway park is another important piece of land, one that not many neighborhood residents might know about. This park is situated on the north side of I-70 and on the southern portion of the Lykins boundary and sports magnificent views to the south (Lykins Neighborhood Association 2000).

In the 21st century, Lykins is striving to become a more sustainable community by incorporating more urban agriculture, home and building restoration, and park revitalization (Northeast Kansas City Historical Society 2014). Today, it is evident within the neighborhood that these aspirations are starting to come to fruition.

Current Demographics

Lykins contributes 4,939 people, or about 1.0%, to the overall population of Kansas City, Missouri. Within Lykins, there are about 2,091 households—this means that there is an average of 2 people per residence. Racial and ethnic proportions are seen in Figure 3.3. The median household income within Lykins is about \$24,000 compared to Kansas City’s overall median household income of \$54,372. (US Census Bureau 2018; Data USA 2018).

Sheffield

History and Culture

The neighborhood of Sheffield in Kansas City, Missouri was named after a city in South Yorkshire, England. Many homes in Sheffield date back to the late 1890s but were not built as extravagant as other neighborhoods in the Northeast. (Northeast Kansas City Historical Society 2014).

Within the 21st century, factories and businesses along the Blue River started closing which limited job opportunities and inevitably caused Sheffield to become a less desirable place to live. It wasn't until 2013 that Sheffield participated in its first homes tour—this brought many people to see the neighborhood (Northeast Kansas City Historical Society 2014). One well-known landmark of the neighborhood stands to this day—Saint Stephen's Roman Catholic Church—now known as "Our Lady of Peace Catholic Church". Another well-known landmark for the neighborhood--Henry Clay Grade School (1906-1977)—does not exist anymore but has since been turned into a "16-house subdivision site" (Northeast Kansas City Historical Society 2014).

Some important assets to the neighborhood of Sheffield include Sheffield Park. This park was originally conceived by George Kessler as "one of the three neighborhood parks on the east side of the city" (Lykins Neighborhood Association 2000). This park features amazing topography and other unique site characteristics but, it is in need of revitalization.

Currently, the neighborhood association is working on painting murals and panels throughout the community that feature colors of blue and red with white stars as a consistent theme for Sheffield. This could be the start of Sheffield coming back to life and showcase the neighborhood's 'sense of place'.

Current Demographics

Sheffield contributes 2,841 people, or about 0.6%, to the overall population of Kansas City, Missouri. Within Sheffield, there are 1,234 households—this means that there is an average of 2 people per residence. Racial and ethnic proportions of this population demographic are seen in Figure 3.3. The median household income within Sheffield is about \$11,900 compared to Kansas City's overall median household income of \$54,372. (US Census Bureau 2018; Data USA 2018).



FIGURE 3.2
The neighborhoods of Lykins
and Sheffield within the Historic
Northeast of Kansas City, Missouri.

-  Neighborhood Parcels
-  Parks
-  Roads
-  Neighborhood Boundaries
-  Railroads
-  Blue River

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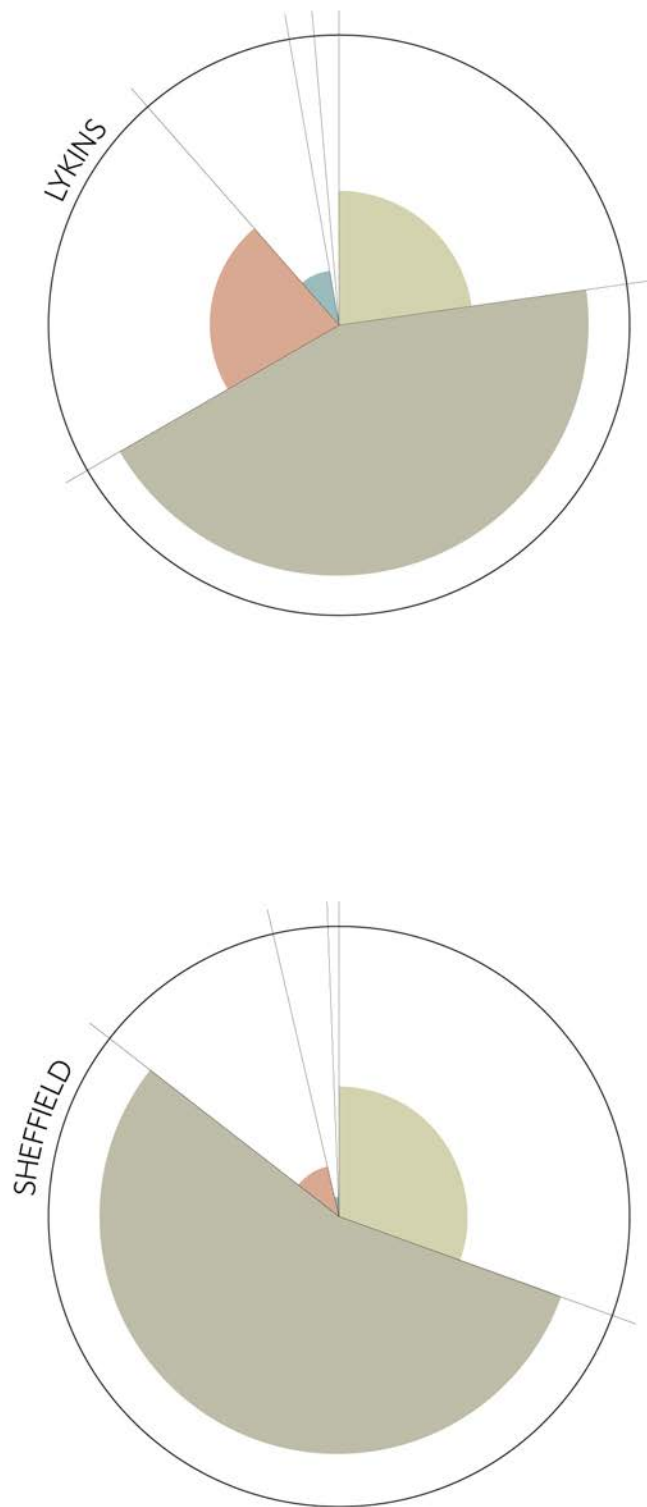
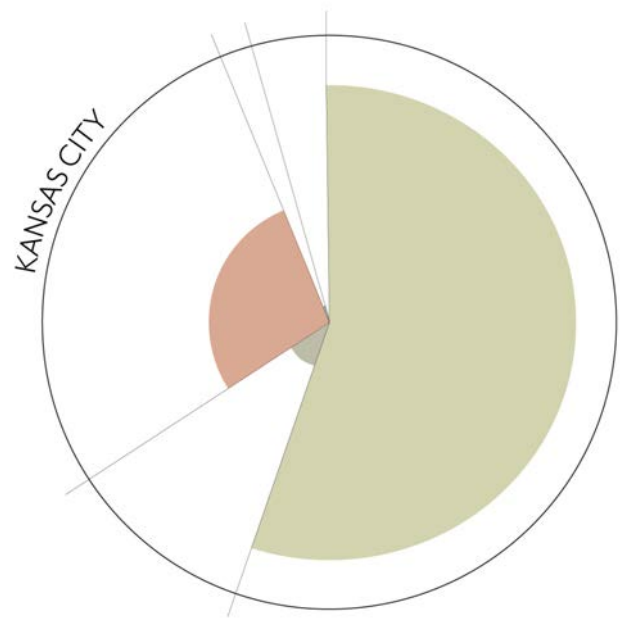


FIGURE 3.3

Demographics: Race and Ethnic Diversity of Lykins, Sheffield, and Kansas City, Missouri.



- White
- Hispanic or Latino
- Black or African American
- Asian
- Other

Data and Analysis

Site

Visits and Observations

Site visits were taken over the course of two semesters to get an idea of the current condition of both neighborhoods. These site visits were taken individually, or with locals from the neighborhood. Residents discussed their ambitions while allowing me to visit the neighborhood in a comfortable manner.

Attending community meetings and local neighborhood events such as vacant lot cleanups allowed me to get a sense of the community cohesion at work.

Mapping

Instruments of data collection for the site include programs like ArcMAP, ArcGIS Online, Google Earth Pro and Google Maps. Additional data was gathered from MARC, Kansas City Open Data Portal, and the KCMO Police Department.

Land use and Crime Association

The study site was analyzed by comparing locations of crime, areas of high slope, vacant lots, community amenities, dense or overgrown vegetation, street lighting, and land uses (commercial, residential, civic space, and industrial). The locations of these items were layered to find possible associations between criminal activity and built or natural features within the landscape. All vacant lots will be used in this analysis for exploring associations, as well as within the design of the Strategic Framework to show current owners of the lots what problems exist and what solutions can be implemented. The vacant lot data used for this analysis was downloaded from the Kansas City Parcel Viewer in September of 2019. This vacant lot data used for this project does not include vacancy with structures or abandoned houses.

Using the Kansas City Open Data portal to access recent crime data, incidents of crime were geolocated within ArcMAP to determine location frequency. By selecting attributes of the Incident Based Reporting System (IBRS) codes for different crime types, the most frequent types were discovered. This data was brought to ArcGIS Online to create heat maps to visualize where the most frequent crime types occur.

Ecological Corridor Opportunity

The Heartland Conservation Alliance has developed a mapping tool to view vacant lots that are given an 'eco-score'. This tool helped determine which vacant lots were suitable for different types of design interventions. Lots with high 'eco-scores' have a better chance at being a place for ecological restoration while lots with low 'eco-scores' can be used for other community amenities (Heartland Conservation Alliance 2013). Vacant lots that are located within the 100-yr or 500-yr floodplain were conserved for ecological restoration.

The Greater Kansas City Green Region Explorer on ArcGIS online has critical layers to analyze, such as, Green infrastructure priorities for ecological and social need, Ecological Values, Forest Conservation and Restoration, and existing and proposed MetroGreen Corridors (MARC 2019). These layers were analyzed within appropriate vacant parcels to be utilized for ecological patches and corridor connections.

People

Police Ride-Along

One police ride-along was set up with the East Patrol Division in Kansas City, Missouri. A map of where this patrol boundary is in comparison to others within Kansas City is seen in Figure 3.4. This ride-along was scheduled on a weekend to avoid viewing neighborhoods where most people are gone or at work. A ride along shift can last up to ten hours which allowed for observation of the neighborhoods during both day and evening hours. This ride-along provided a safe and accessible visit to the neighborhoods where I had the opportunity to critically assess community cohesion and different groups of people that were outside.

The police ride-along was analyzed by observing community interactions along the route through the neighborhood area. The location, neighborhood, and time of day was documented and analyzed when observing different interactions and groups. Some factors that affect perceptions of safety include different genders, ages, and sizes of groups. For example, more elderly, women, and children present in outdoor spaces indicates that the area is perceived as a safer place. If there was no one outside, or there were no women or children walking around, the area was assumed to be less safe. Due to time restrictions, this ride along was completed in colder weather. Considering this factor, usual neighborhood interactions might not have been taking place. The police officer's comments about the neighborhood were used to inform proper analysis of perceived safety within the neighborhood area.

Police Questionnaire

Information received from two police officers from the East Patrol Division within Kansas City, Missouri allowed me to understand important neighborhood dynamics of the Historic East. These questionnaires gave me insight to what types of vacant lots the officers see as most troublesome along with what types of people are most frequently out and about. The questionnaires are presented in Appendix C.

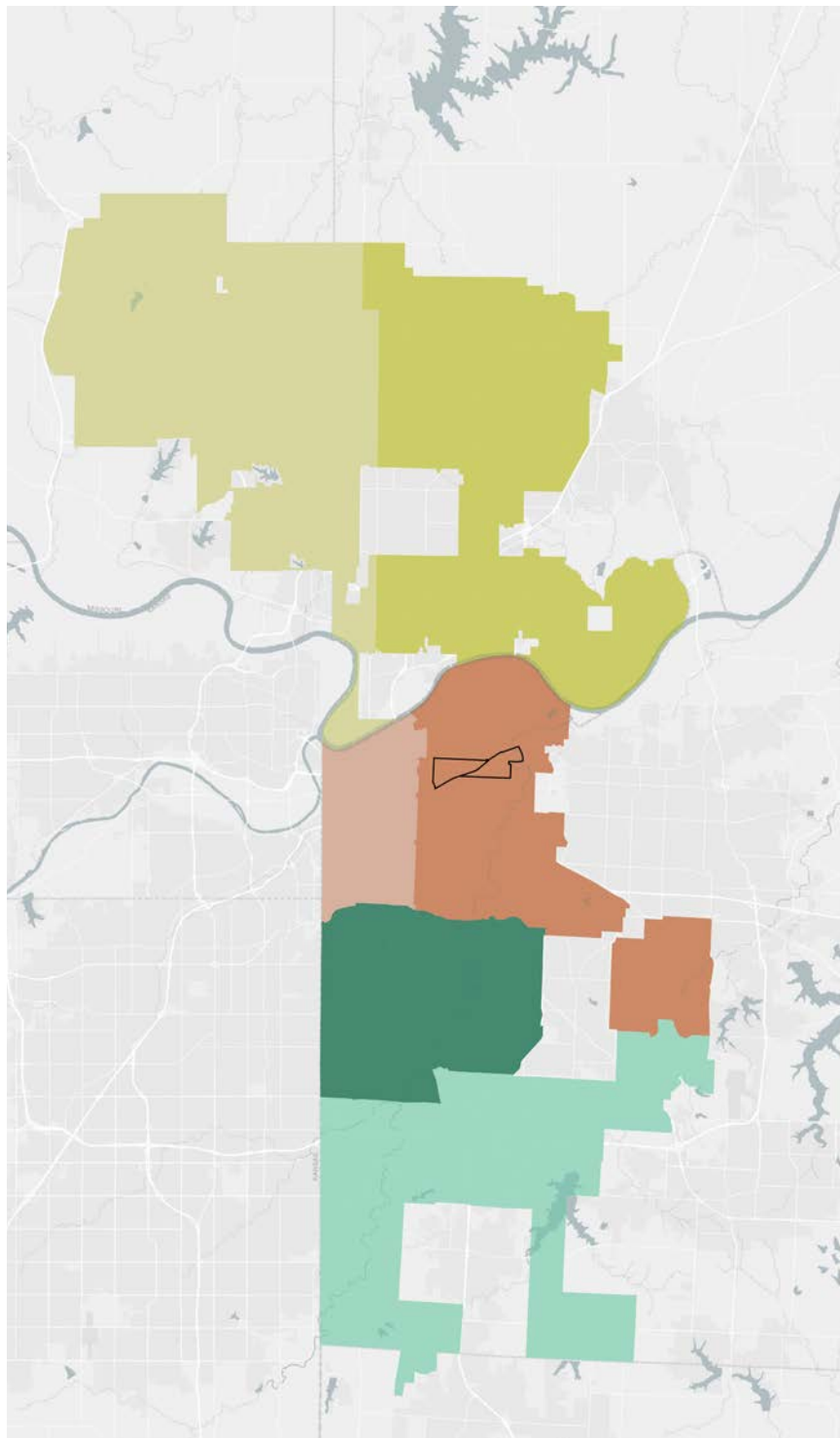


FIGURE 3.4

Kansas City Missouri Police Patrol Boundaries

- East Patrol
- Metro Patrol
- Central Patrol
- South Patrol
- Shoal Creek Patrol
- North Patrol
- Study Site Boundaries

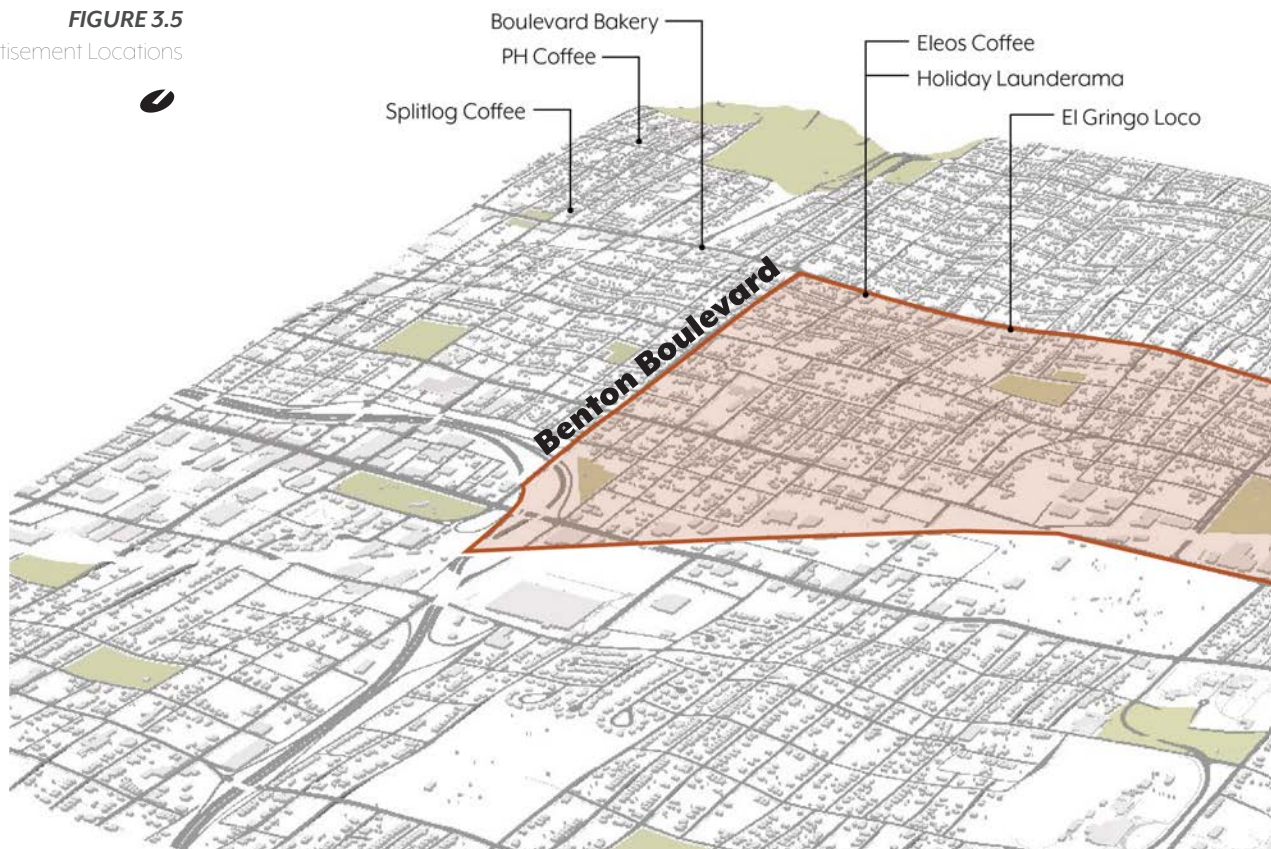
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Community Survey

A survey was developed for the Lykins and Sheffield neighborhoods and surrounding area to assess perceptions of safety, fear of crime associated with vacancy, and preferences for intervention—specifically assessing native vegetation, ecological designs, and desired activities. Eligible participants of this survey include residents above 18 years of age from the Lykins and Sheffield neighborhoods, along with residents of adjacent neighborhoods. Anyone that lives within the Historic Northeast can also participate. The sample goal of this survey was to obtain 100 responses. In order to increase the possibility of participation, survey advertisements were created and distributed throughout the neighborhood area. These advertisements are seen in Figure 3.6 and their strategically placed locations are seen in Figure 3.5. This survey could be completed both online—through Qualtrics—or in-person through a physical copy. The survey was offered in both English and Spanish.

This survey was analyzed to determine what densities and diversity of native vegetation residents prefer without increasing their fear of crime.

FIGURE 3.5
Survey Advertisement Locations




Other analyses of this survey were completed by assessing residents' preferences for maintenance, paving, views, and CPTED standards. Photos within the survey were created using Adobe Photoshop. An original image of a vacant lot from the neighborhood area (captured from Google Street View) was formatted to show different densities of vegetation and biodiversity, maintenance, paving and open view choices, and different CPTED standards (lighting, fencing, gardening, and signage). Importance of desired activities, feelings of overall neighborhood safety, and community interaction were also examined from survey responses.

Using this community survey and strategies from the discussed theoretical frameworks as tools for planning and design ideation within vacant lots of the neighborhoods, a strategic framework was developed. This framework outlines what vacant lots are best suited for implementation relating to the community's needs. It also specifies what desired programmatic activities will take place along with planting guidelines for native vegetation to support community interaction, improve perceptions of safety, and promote ecology and pollinator habitats. This survey is located within Appendix C.

possibilities for vacant lots survey

to participate...
snap this code →



or use this link →

https://kstate.qualtrics.com/jfe/form/SV_748pgKIVGjuO4Zv

have questions? contact Elsa Stoffel
elastoffel@ksu.edu
708.785.0216




FIGURE 3.6
Survey Advertisement



CHAPTER

ANALYSIS & FINDINGS

4



4.1

SITE VISITS

AND OBSERVATIONS

Visits

Over the course of the past six months, a handful of visits and observations of neighborhood dynamics were completed within Lykins, Sheffield, and the general area of the Historic Northeast. Visits were taken starting in late Summer to mid-Winter—this presented great opportunities to observe the neighborhoods in different seasons. Not only were these visits beneficial for site observations, but they provided many opportunities for physical community survey completion. A timeline of these visits and meetings are show in Figure 4.2. This time frame allowed for examination of different neighborhood dynamics. If the weather was pleasant (warm and sunny), more residents and visitors were out and about—people observed ranged from women and children to men and elderly. If the weather was not pleasant (cold, rainy, or snowy), not many people were outside participating in activities. This time frame also allowed sufficient inspection of ‘signs of disorder’ including trash, debris, maintenance, and general upkeep of the area. From the first visit, it was clear that this area of Kansas City, Missouri was not ‘kept up’ as well as other, more affluent, neighborhoods.

FIGURE 4.1

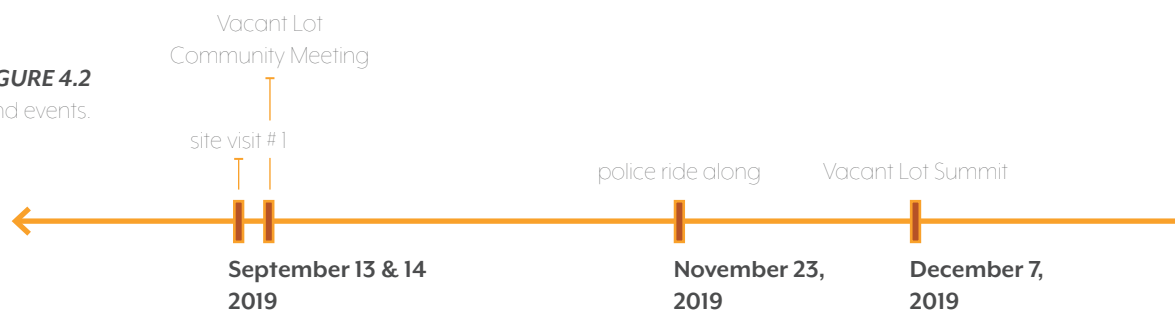
Community Orchard near Sheffield Place Campus. (Stoffel, 2020)



Upon first impression of the site, feelings of safety were low. Unfamiliarity with the area made for a more frightening and tense experience. As more site visits were taken, familiarity with the neighborhoods increased as well as perceptions of safety. The second visit taken was a police ride along with the Kansas City Police Department (KCPD) East Patrol Division—this allowed for observation of the area from a comfortable point of view. There is a limitation with viewing any neighborhood from behind the windows of a police vehicle—residents might be hesitant to continue in their usual activities if they feel like police officers are watching or patrolling the area. Other visits taken were guided by highly-engaged residents—this gave great insight to future neighborhood plans and ambitions for the area, along with observations of existing conditions and what specific lots are in major need of transformation or cleanup. An image of an existing community orchard within Sheffield is shown in Figure 4.1.

FIGURE 4.2

Timeline of site visits, meetings, and events.



Meetings and Events

It is obvious that the neighborhoods of Lykins and Sheffield are taking steps to better the life of their residents by promoting community engagement through meetings, monthly vacant lot clean-ups, and park revitalization. Participation in a monthly vacant lot cleanup event for Lykins demonstrated that residents are willing to put in work to make their neighborhood a more functional and livable place. Figure 4.3 shows the excitement and engagement of Lykins during the February vacant lot cleanup event. By attending multiple community meetings, it was clear that residents are very interested in reducing crime rates, increasing feelings of safety, tackling ‘signs of disorder’ and promoting neighborhood engagement. Images of a lot cleanup completed by a local resident are shown in Figures 4.4 and 4.5.

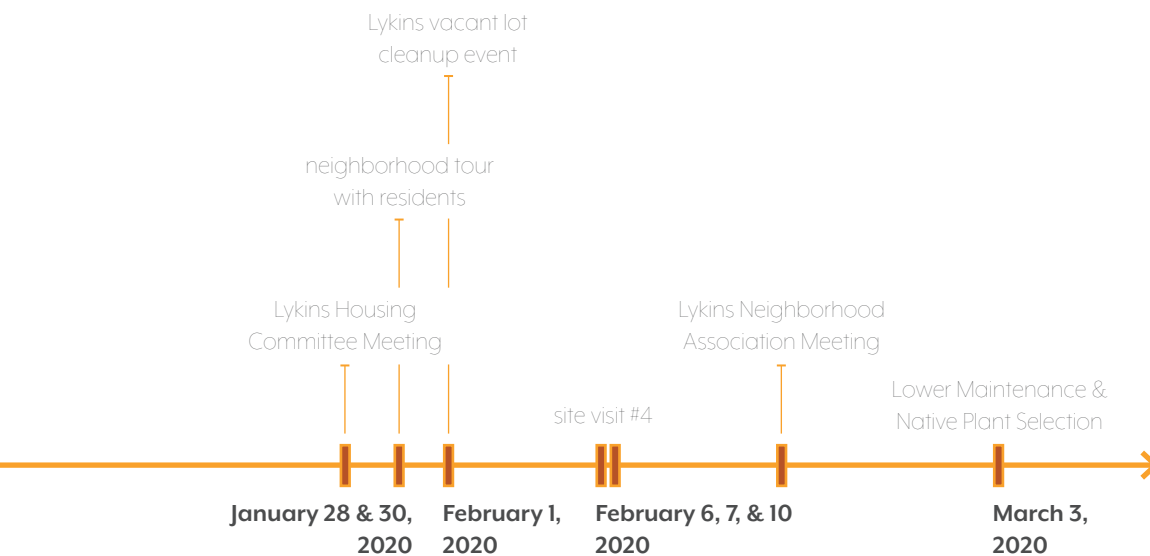


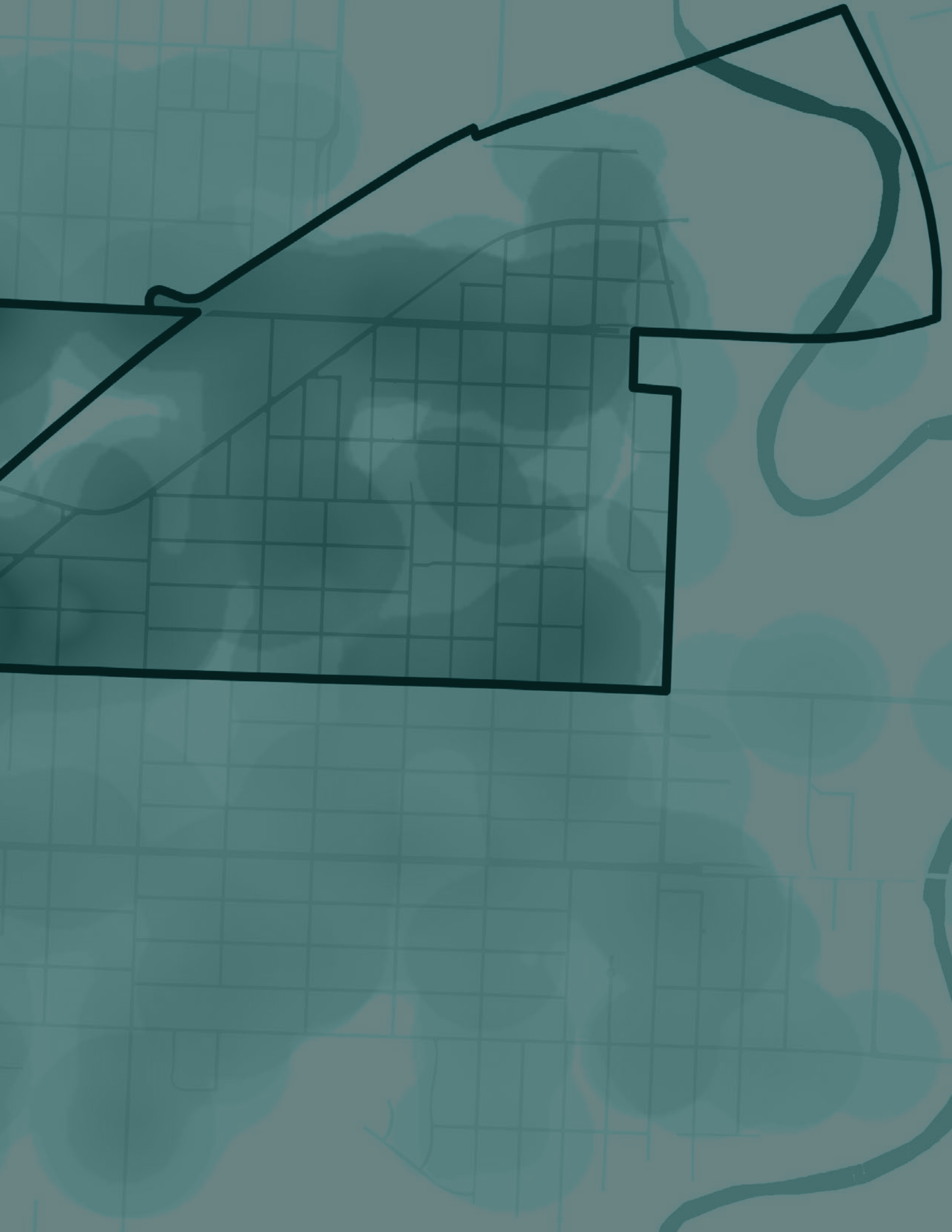
FIGURE 4.3
Community Engagement within Lykins at a monthly vacant lot cleanup event. (Lombardii, 2020)



FIGURE 4.4
(left) Abandoned ‘Jungle’ Lot. (Google Street View, 2019)

FIGURE 4.5
(right) Abandoned ‘Jungle’ Lot transformation. (Stoffel, 2020)





4.2

MAPPING

S I T E

vacancy

crime

community assets

appropriate lots for selection

ecological value

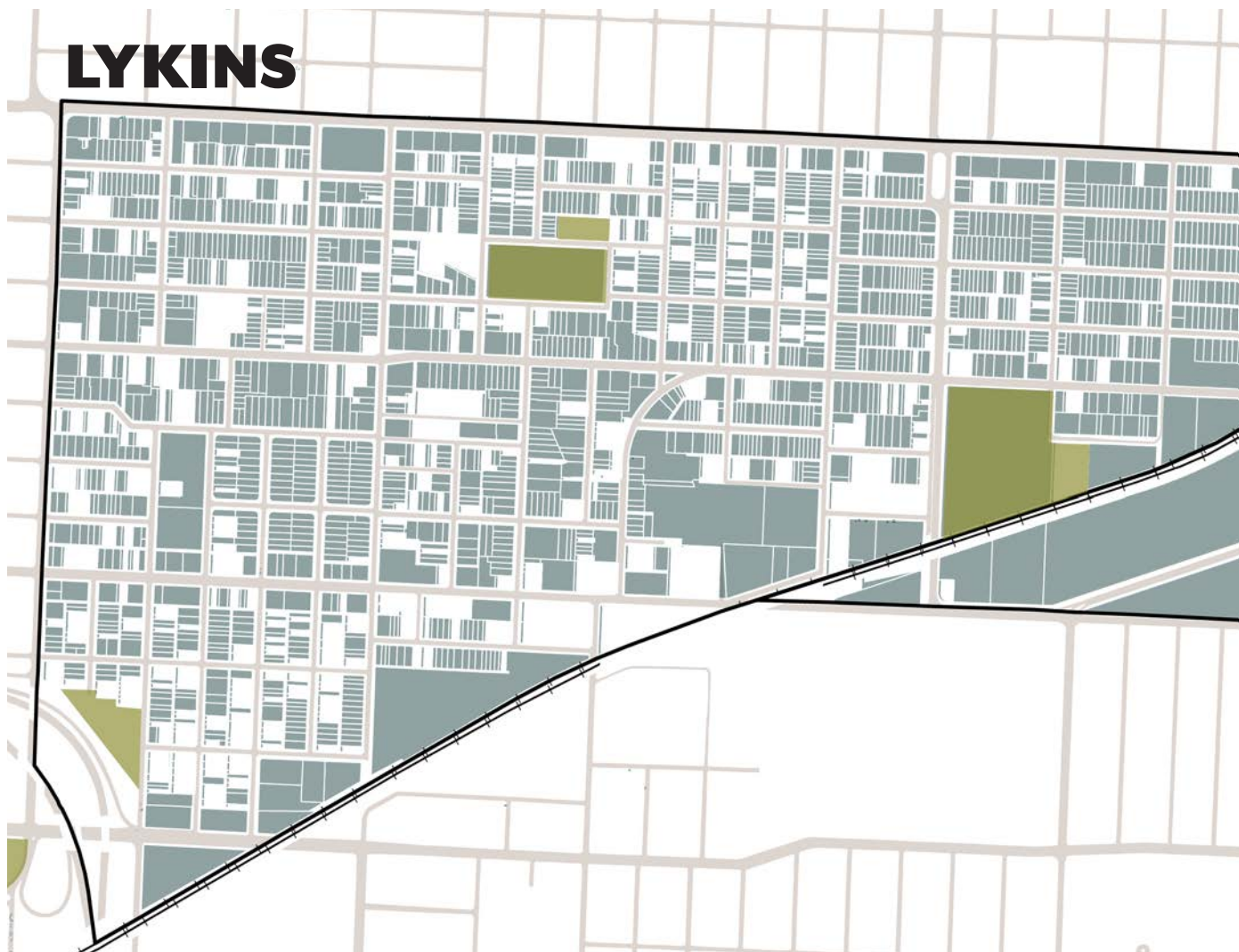
Site Mapping

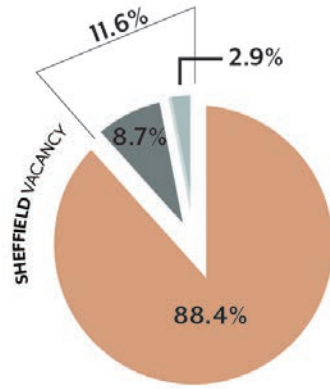
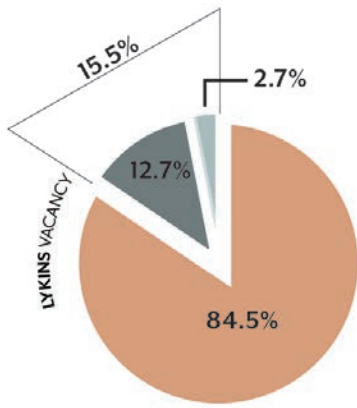
Vacancy

The average amount of vacant land within both Lykins and Sheffield is around 14%. A breakdown of each neighborhood's vacancy is presented to the right in Figure 4.7. Figure 4.6 shows where current vacant lands are located throughout the site.

Although vacancy can be considered a problem in many areas, these neighborhoods are striving to become more sustainable by increasing urban agriculture, revitalizing parks, and cleaning up and restoring these lots.

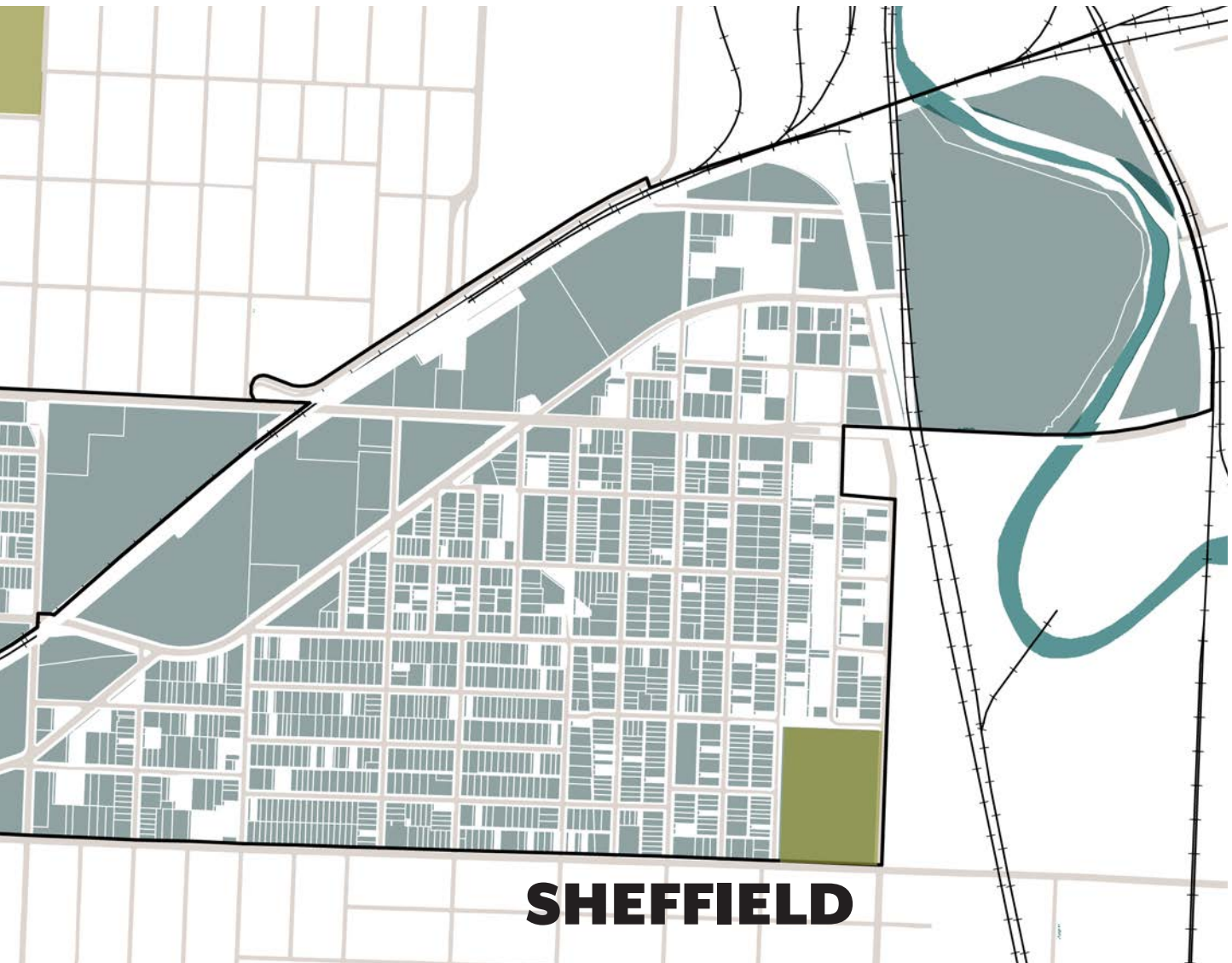
FIGURE 4.6
Vacancy in Lykins and Sheffield





- occupied parcels
- general vacancy
- land bank

FIGURE 4.7
Vacancy Percentages in Lykins and Sheffield



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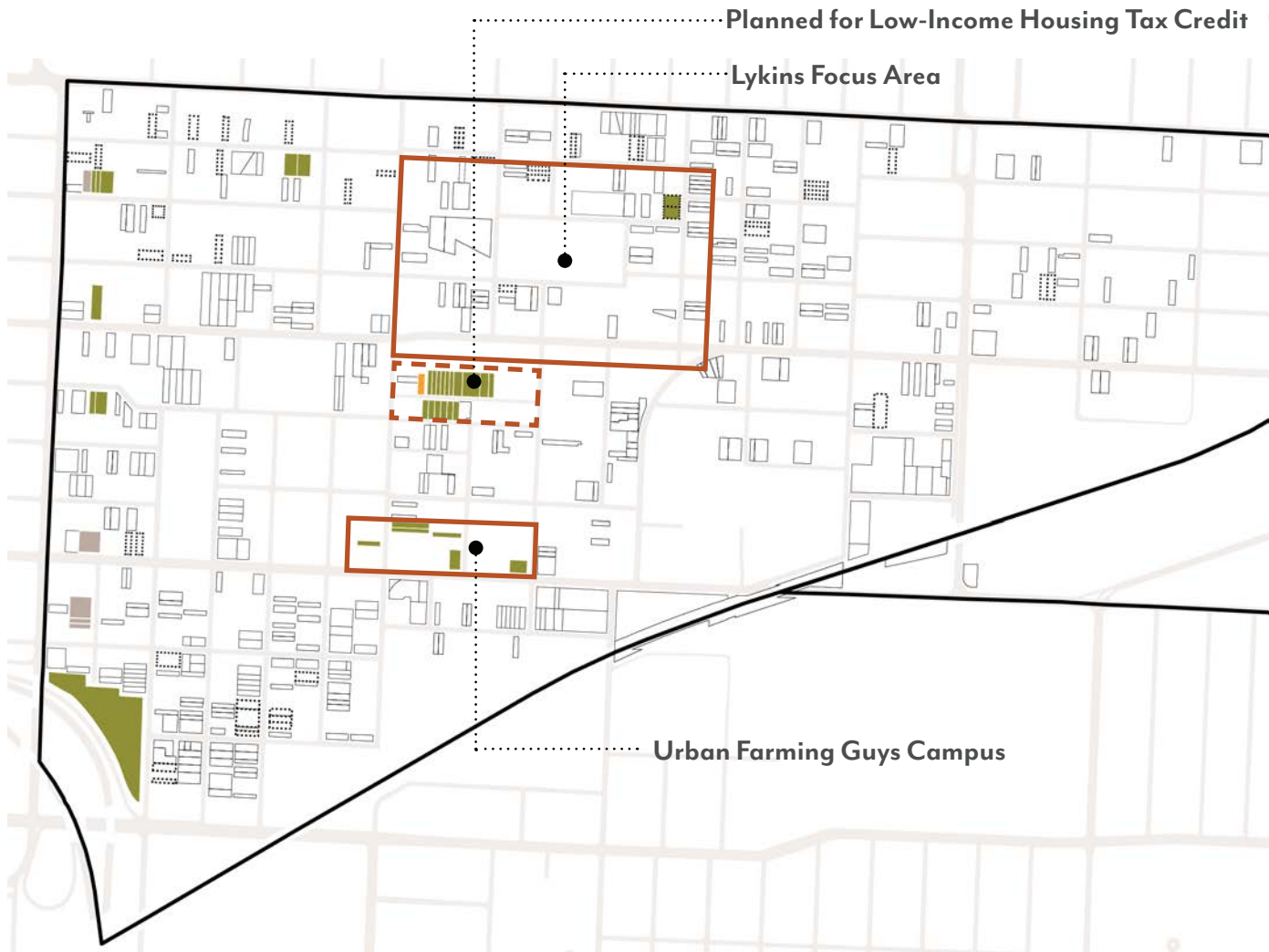
- vacant lots
- roads
- parks
- neighborhood boundaries
- neighborhood parcels
- railroads
- Blue River

Vacant Lot Current Uses

While most vacant lots are not currently being used, there are a few of lots that are being put to productive uses. These uses include community gardening, parking lots, and informal recreational fields. Located in the Northeast News newspaper, a resident of the Historic Northeast boasted of the pride he has for his community and how he uses a nearby vacant lot for practice with a soccer club he founded (Northeast News 2020). Residents have fenced specific lots for personal uses—some of these lots are owned by those residents, while some are still owned by the KCMO Land Bank. There is evidence of homeless camps within overgrown areas of the site. Not all homeless camps have been located within Figure 4.8, but camps that were seen during site visits or through Google Street View.

FIGURE 4.8
Vacant lot current uses

Lykins has many plans for revitalization in the works. The area surrounding Lykins Square Park has been a focus within this past year and planning has been underway to secure some of the adjacent vacant lots for pocket



parks, gardens, and the Lykins Neighborhood Association Office. The area that is planned for Low-Income Housing, is currently a large community garden. Considering this future development, it is important to propose more productive gardens within the strategic framework to support the community's needs.

While Lykins has many plans in the works, Sheffield needs support and resources to get the ball rolling. The Sheffield Place 'Campus' is an area of focus for the neighborhood. This campus includes a vacant lot that is being utilized as an orchard. The neighborhood needs a community event space and this space would work well below the Independence Avenue overpass.



- all vacancy
- fenced vacant lots / 'blotting'
- parking lots
- homeless camps
- community gardens
- current focus areas
- roads
- neighborhood boundaries

SCALE 1" = 1,000'-0"



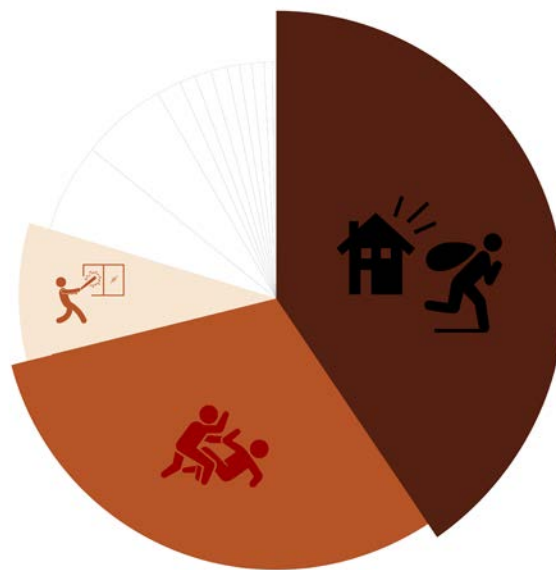
Crime

Kansas City is safer than only two percent of most U.S. cities (Areavibes 2010-2019; Neighborhood Scout 2000-2020). The top three crime types within Kansas City, Missouri—as well as the neighborhoods of Lykins and Sheffield—according to an Incident Based Reporting System (IBRS) are (1) Larceny, Burglary, Robbery; (2) Assault; and (3) Criminal Damage to Property (Open Data KC 2019; Kansas Bureau of Investigation 2012). Figure 4.9 shows the proportion of these three types within the site area. Figure 4.10 shows crime report ‘hot spots’ within Kansas City, Missouri for all types of crime.

In relation to the rest of Kansas City, Missouri, the neighborhoods of Lykins and Sheffield are considered low-income (US Census Bureau 2018). Studies show that low-income neighborhoods have higher tendencies for criminal activity (Chang 2011; South et al. 2018). Most burglaries are also known to be committed by people with low income (Chang 2011).

FIGURE 4.9

Top 3 crime types in the neighborhood area of Lykins and Sheffield.



- **1.** Larceny / Burglary / Robbery
- **2.** Assault
- **3.** Criminal Damage to Property

FIGURE 4.10
Crime Report Density within
Kansas City, Missouri

- high
- medium
- low

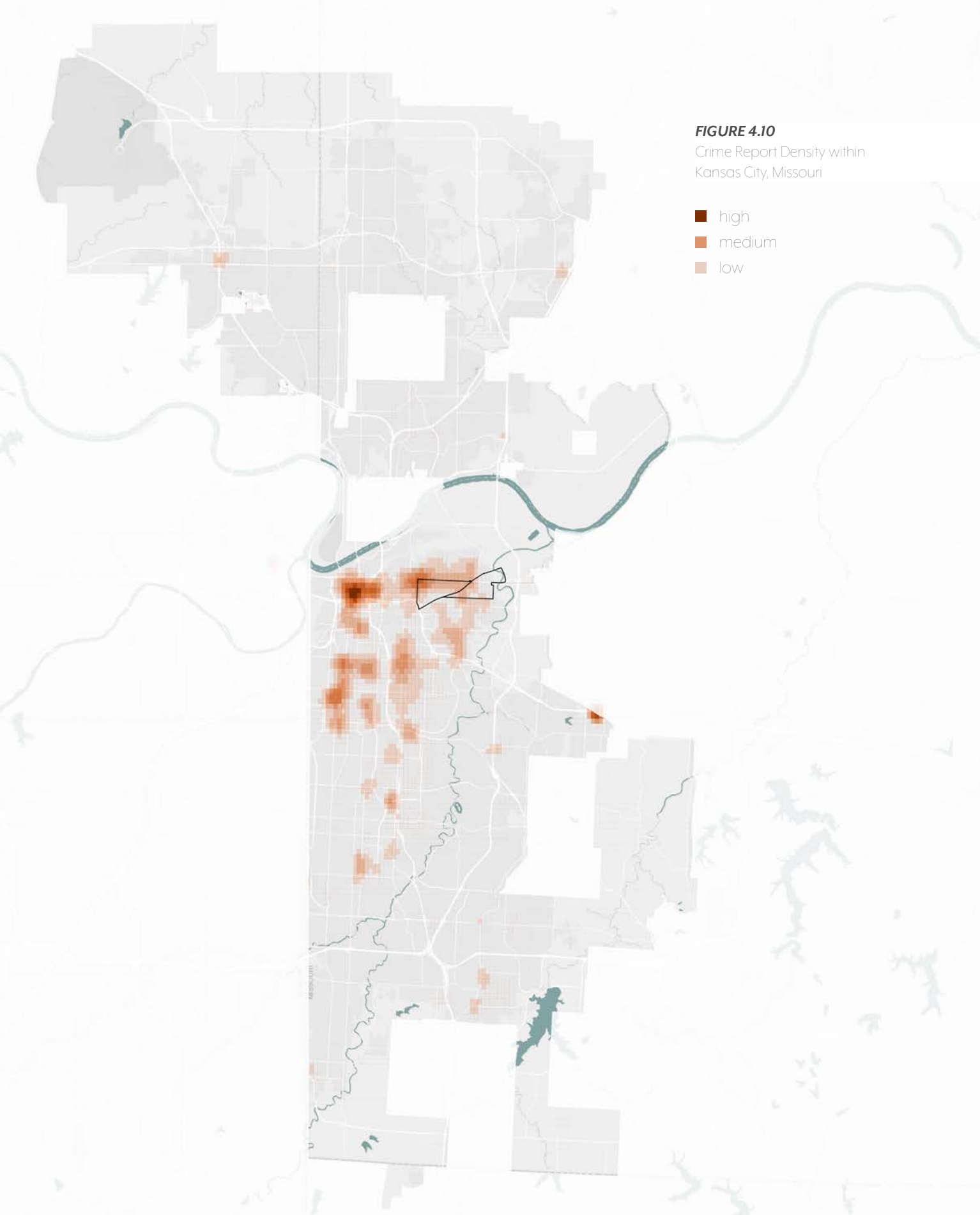


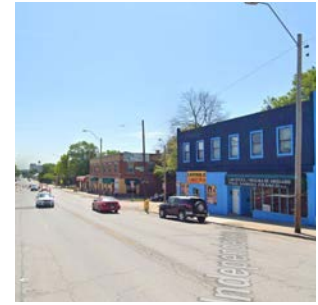
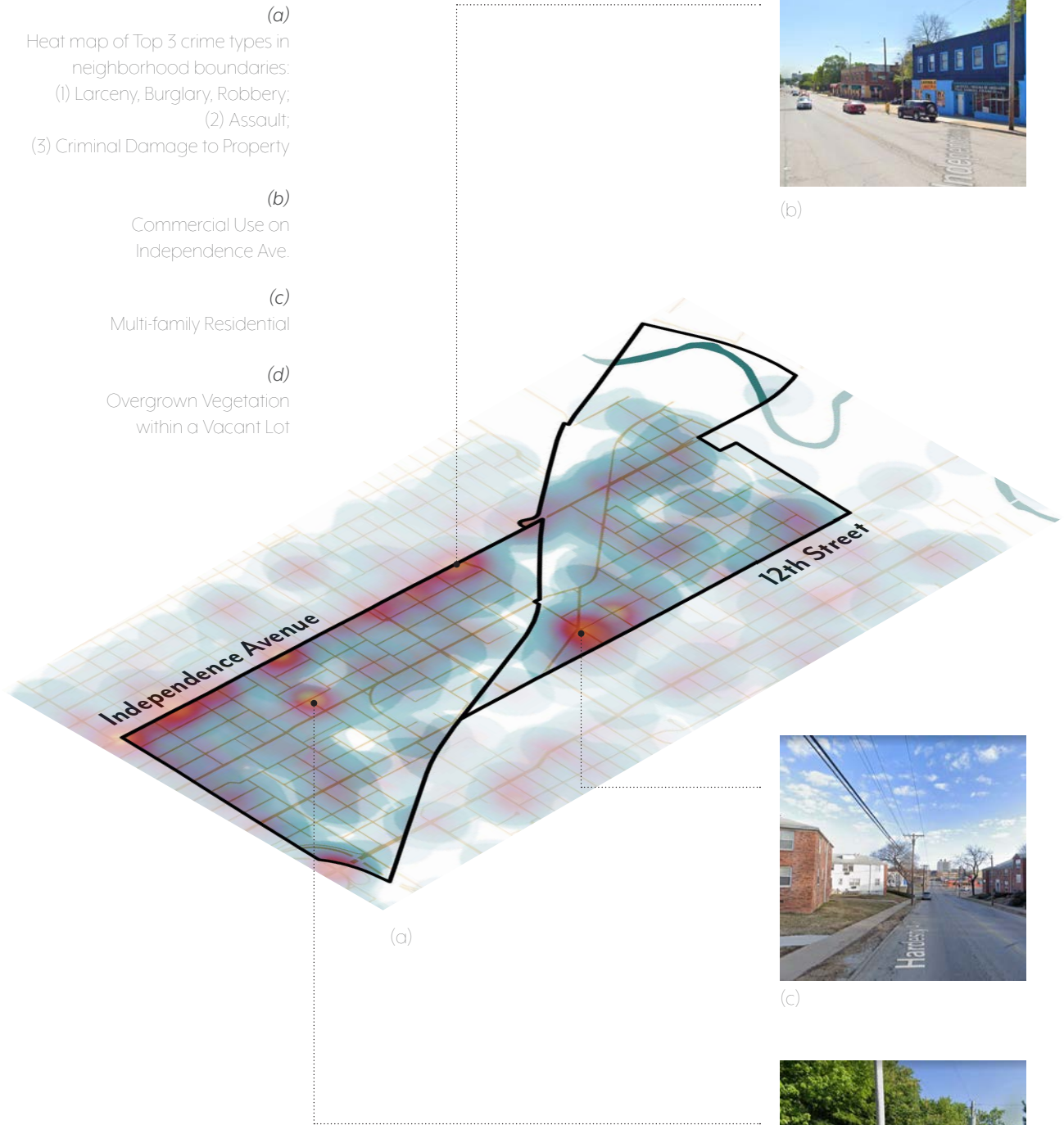
FIGURE 4.11

(a)
Heat map of Top 3 crime types in neighborhood boundaries:
(1) Larceny, Burglary, Robbery;
(2) Assault;
(3) Criminal Damage to Property

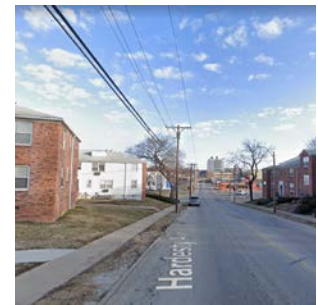
(b)
Commercial Use on Independence Ave.

(c)
Multi-family Residential

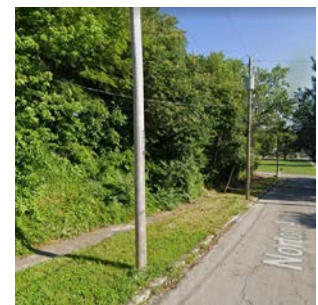
(d)
Overgrown Vegetation within a Vacant Lot



(b)



(c)



(d)

SCALE 1" = 3,000'-0"



The neighborhoods of Lykins and Sheffield display many ‘signs of disorder’ which have the possibility to promote incidences of crime (Wilson and Kelling 1982). Signs observed consist of graffiti, trash along sidewalks or strewn throughout lots, vacant houses that look like they could fall apart at any second, and an abundance of overgrown vegetation. In order to improve perceptions of safety within these neighborhoods, it is necessary to decrease these signs of physical disorder.

Responses from the police questionnaire mention vacant lot types, such as, densely vegetated or overgrown spaces, weedy parking lots, and abandoned structures contributing to locations of crime reporting. Densely vegetated or wooded areas also provide refuge for homeless camps. All responses stated that vacant properties do not directly influence criminal activity, but they can provide ‘safe havens’ because of the lack of care or maintenance. Figure 4.12 shows top crime type hot spots within vacant lots of the neighborhoods. Figure 4.11 shows the types of land-uses present within crime hot spots.

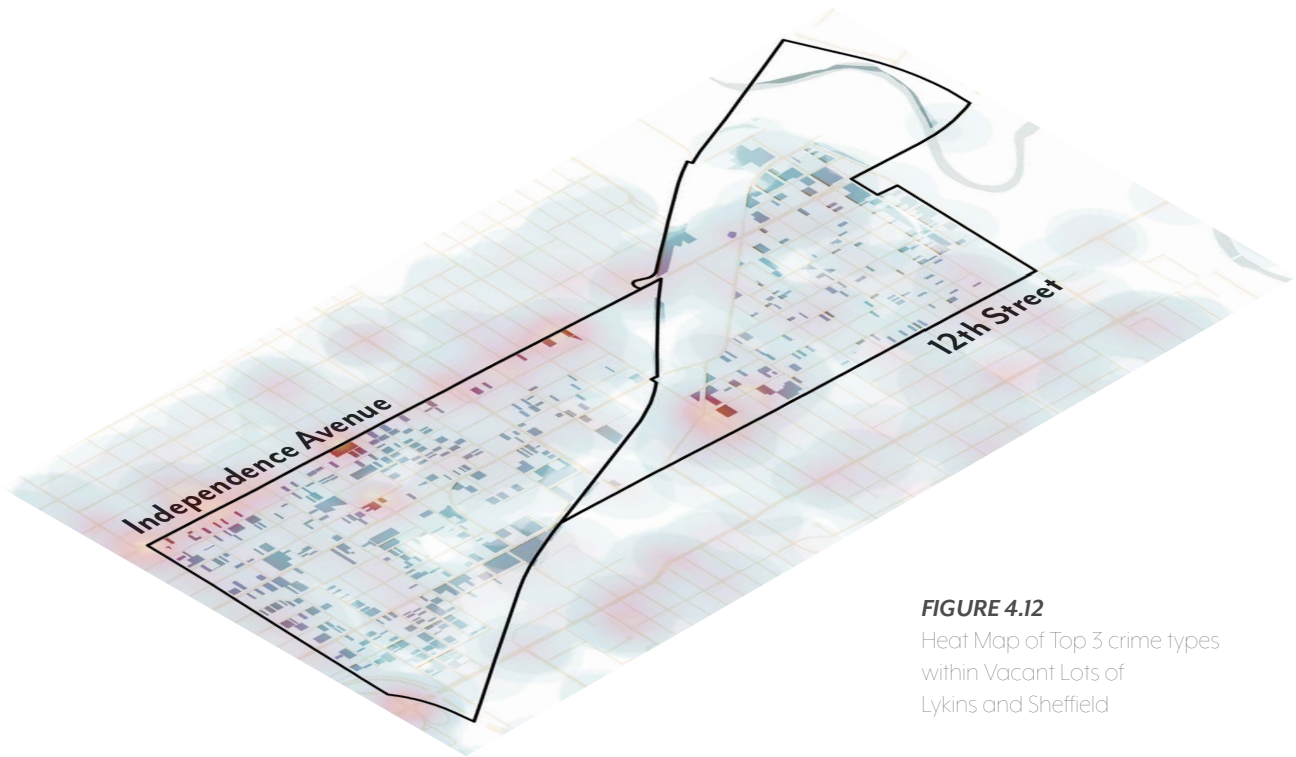


FIGURE 4.12
Heat Map of Top 3 crime types
within Vacant Lots of
Lykins and Sheffield

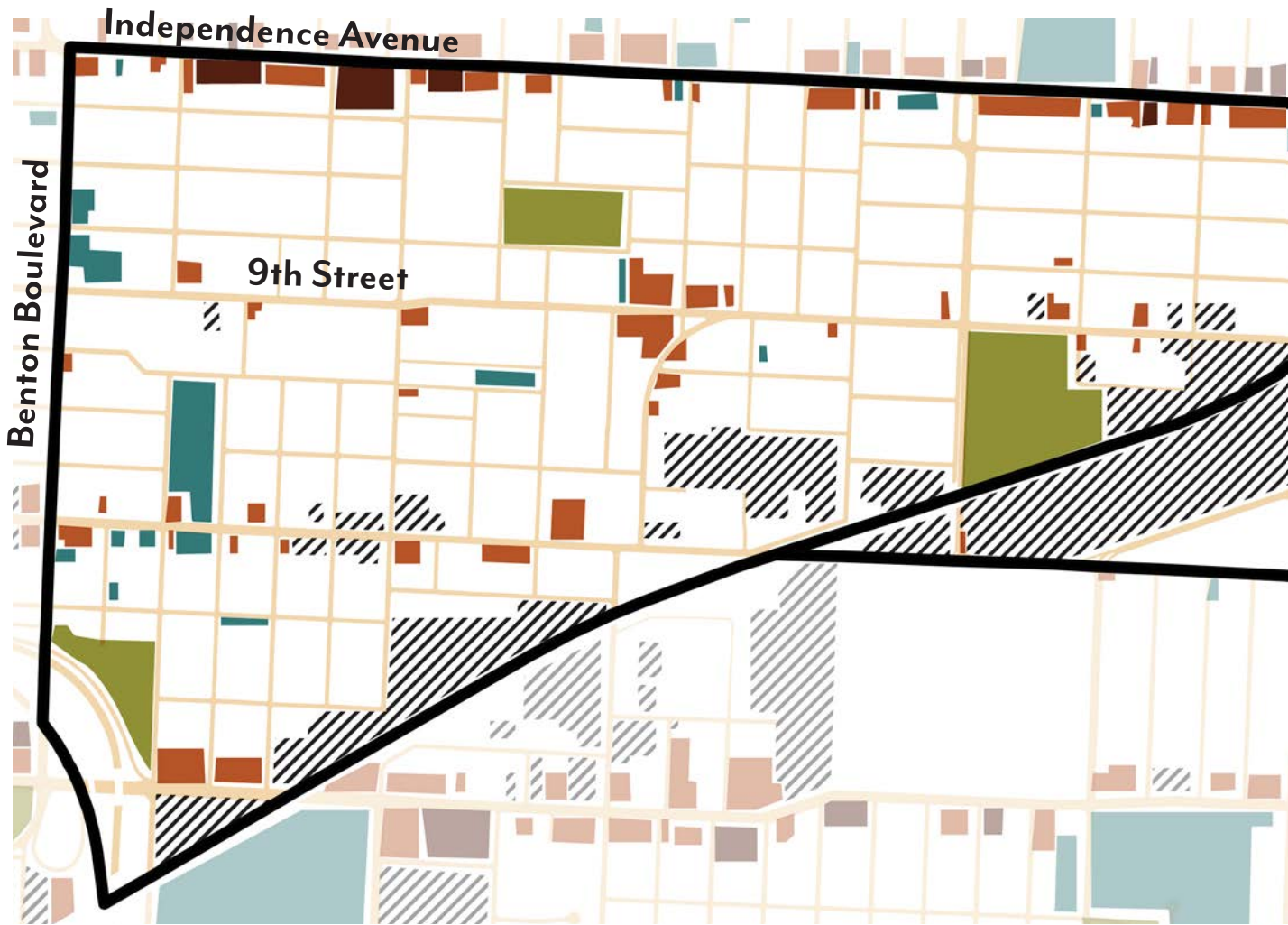
SCALE 1" = 3,000'-0"



Land Use and Crime Associations

Lykins is bordered by Independence Avenue, while it cuts through Sheffield. Independence Avenue's land use within these neighborhoods is mostly commercial, including retail stores, shopping centers, and fast food businesses. Studies show that commercial land-uses can promote burglary (Sohn 2016). It is clear from Figure 4.11 that most crime in these neighborhoods occurs along the Independence Avenue corridor. The mixed land use within the corridor, shown in Figure 4.13, hosts many opportunities for panhandlers and homeless people to wander about and interact with the public. Although this is seen as 'public disorder' (Wilson and Kelling 1982; Sampson 2012), there are many 'eyes on the street' (Jacobs 1961) from car traffic and local businesses to allow for an increased sense of safety.

FIGURE 4.13
Existing Land Use within
Lykins and Sheffield



The increase in 'eyes on the street' along commercial corridors also presents a larger opportunity for more people to report crime which could be associated with denser hot spots. Compared to other areas of the site where 'eyes on the street' are significantly reduced, such as industrial zones or lots with overgrown vegetation, crime hot spots appear to be less dense, or non-existent.



- Parks / Gardens
- Churches, Schools, Community Centers, Libraries
- Commercial
- Office
- Industrial
- Roads
- Neighborhood Boundaries
- Blue River

SCALE 1" = 1,000'-0"



Community Assets

Art Presence

- FIGURE 4.14 (top)**
- (a)
Art Presence and Culture
- (b)
Sheffield Mural Theme
(Stoffel, 2020)
- (c)
Independence Avenue Mural
(Stoffel, 2020)

Murals provide a substantial presence of art and culture throughout the Historic Northeast. Mural locations are surrounded by an eighth mile walking distance, shown in Figure 4.14a. Areas that are not highlighted in pink can be referred to as a ‘zone of absence’ for this specific community asset. Vacant lots can contribute to a stronger artistic and cultural presence throughout the neighborhoods.

Currently, there is more of an artistic presence within the Lykins neighborhood; Sheffield is working on activating more of this presence through thematic murals with a consistent theme of red, blue, and white stars—this theme is shown in Figure 4.14b. Many murals are visible while driving down Independence Avenue—one of these is shown in Figure 4.14c. Most railroad underpasses on the shared border of Lykins and Sheffield have murals or cultural artwork showcasing the many nationalities of the area. Considering Sheffield does not have as large an art presence as Lykins, it is important to feature more art opportunities within the vacant lots of the strategic framework.

Fresh Food Availability

- FIGURE 4.15 (bottom)**
- (a)
Fresh Food Availability
- (b)
Local Grocer: Gringo Loco
(Stoffel, 2020)
- (c)
12th Street Community Garden.
(Stoffel, 2020)

Throughout the Lykins and Sheffield neighborhoods, fresh food is accessible through small, ethnic grocers, Aldi, and seasonally through community gardens. In Figure 4.15a, locations of grocery stores are surrounded by a quarter mile walking distance, while community gardens are surrounded by an eighth mile walking distance. Because fast food joints generally do not contribute to a healthy community and lifestyle, this map does not show their locations.

Gringo Loco, a smaller ethnic grocer along Independence Avenue is shown in Figure 4.15b while the 12th Street Community Garden (part of the Urban Farming Guys Campus) is shown in Figure 4.15c. Selected vacant lots within the strategic framework can be utilized for the support of more community gardens, or places where pop-up markets and food trucks can occupy temporarily.



(b)



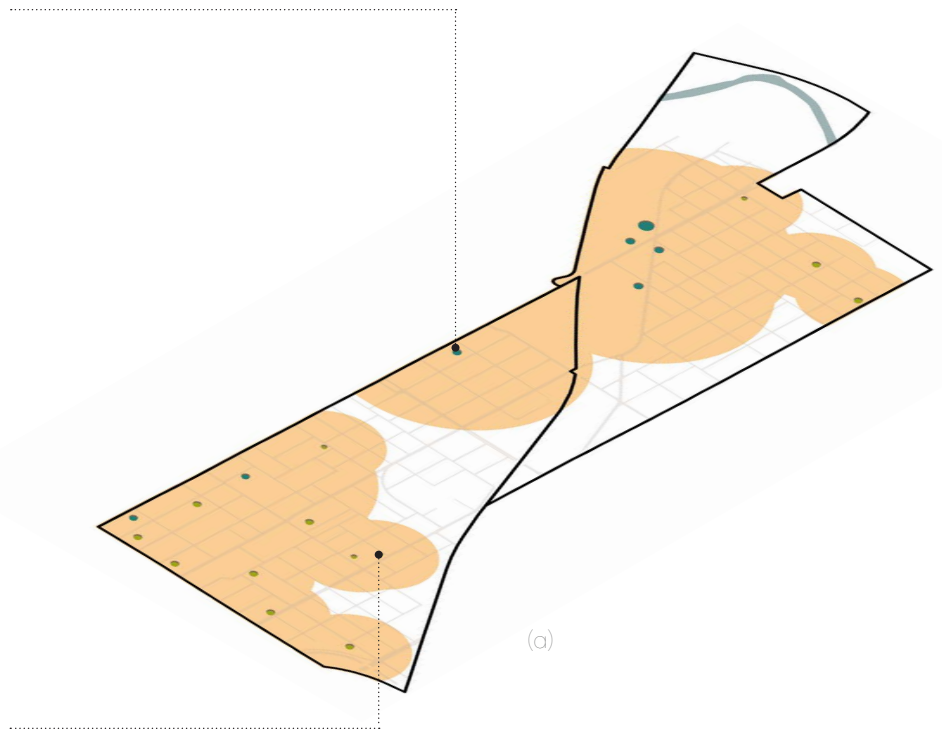
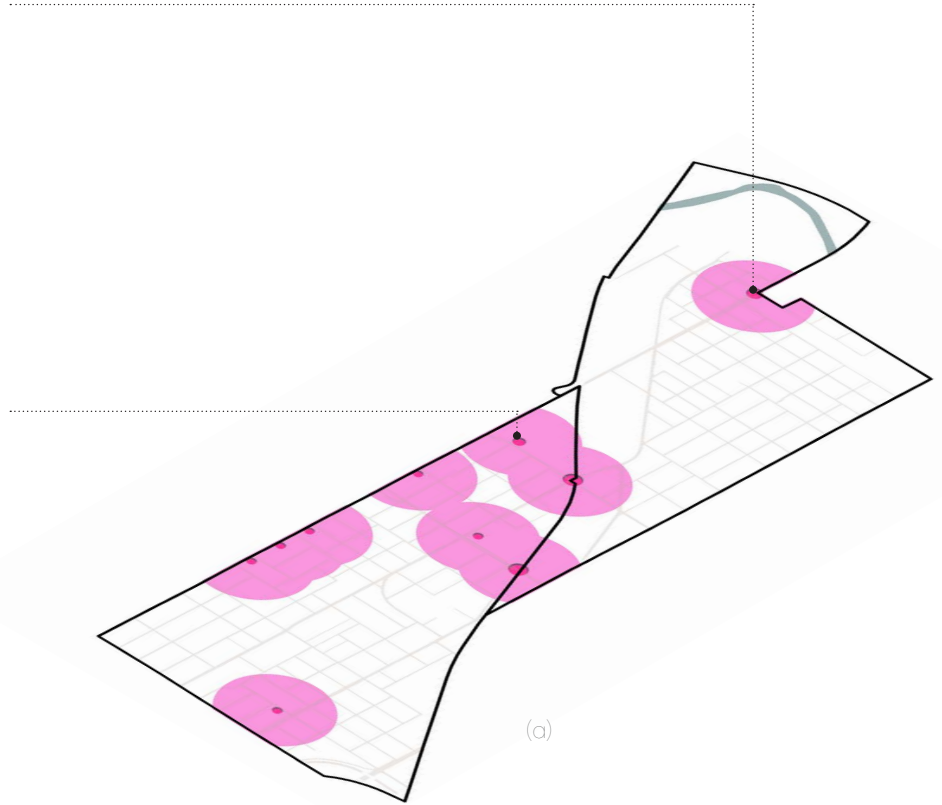
(c)



(b)



(c)



Parks and Public Outdoor Space

FIGURE 4.16 (top)

(a)
Parks and Public
Outdoor Space

(b)
Sheffield Park
(Chesney, 2019)

(c)
Lykins Square
(Stoffel, 2020)

There are three main parks within Lykins and Sheffield: Lykins Square, Van Brunt Athletic Fields, and Sheffield Park. All parks within Figure 4.16a are surrounded by a quarter mile walking radius. Lykins Square is shown in Figure 4.16c and Sheffield Park is shown in Figure 4.16b. Currently, these parks do not support a wide range of programmatic activities to engage the community. Lykins Square is within the focus area for the Lykins Neighborhood Association and is being revitalized by businesses such as Hoxie Collective and Plaid Collaborative. Today, Sheffield Park does not attract many users, has very high sloping topography, and needs revitalization. Freeway Park, located within Lykins, is currently being utilized for a large-scale community garden.

Vacant lots throughout these neighborhoods can be utilized within the strategic framework to connect these parks and create a greater green network to support programming for community interaction and ecological value.

Community Public Institutions

FIGURE 4.17 (bottom)

(a)
Community Public Institutions

(b)
Sheffield Place Homeless Center
(Google Street View, 2019)

(c)
The Maker's Space
(Stoffel, 2020)

Locations of public community institutions such as libraries, churches, homeless centers, schools, and community centers are shown in Figure 4.17a. Larger institutions are surrounded with a quarter mile walking distance while smaller institutions are surrounded by an eighth mile walking distance. Figure 4.17b shows the Sheffield Place Homeless Center and Figure 4.17c shows The Maker's Space where Lykins meets for their monthly neighborhood association meetings. These are key places within each neighborhood to connect through the strategic framework.

Currently, Lykins and Sheffield have a significant amount of public institutions and places of aid. Although many of these places may not be in the best shape, their presence provides necessary support to people in need of the services provided.



(b)



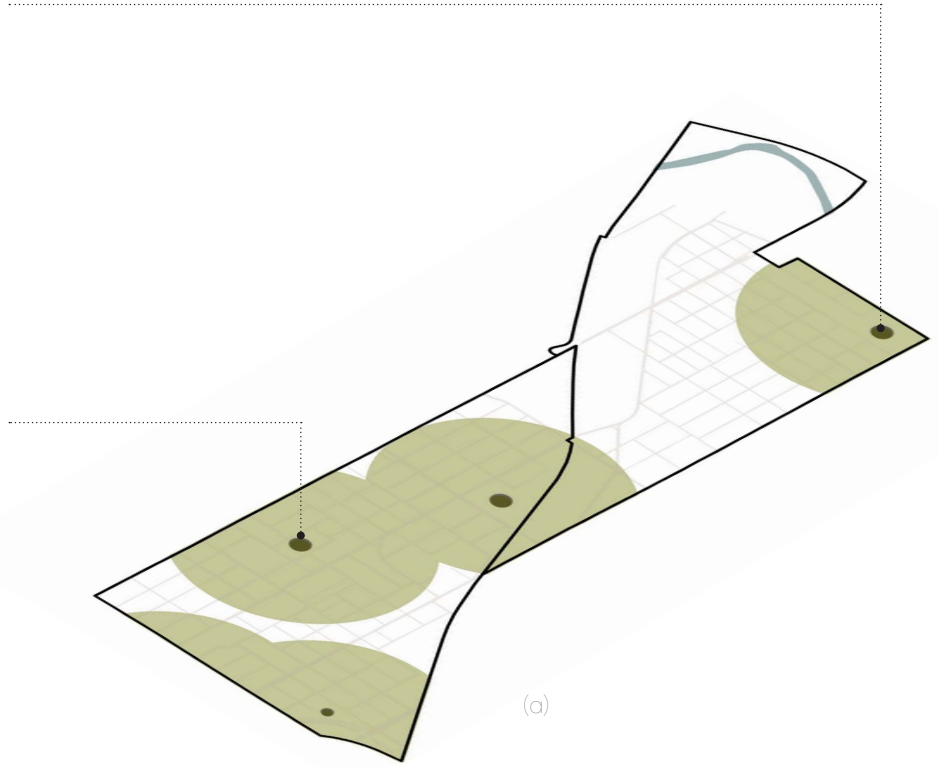
(c)



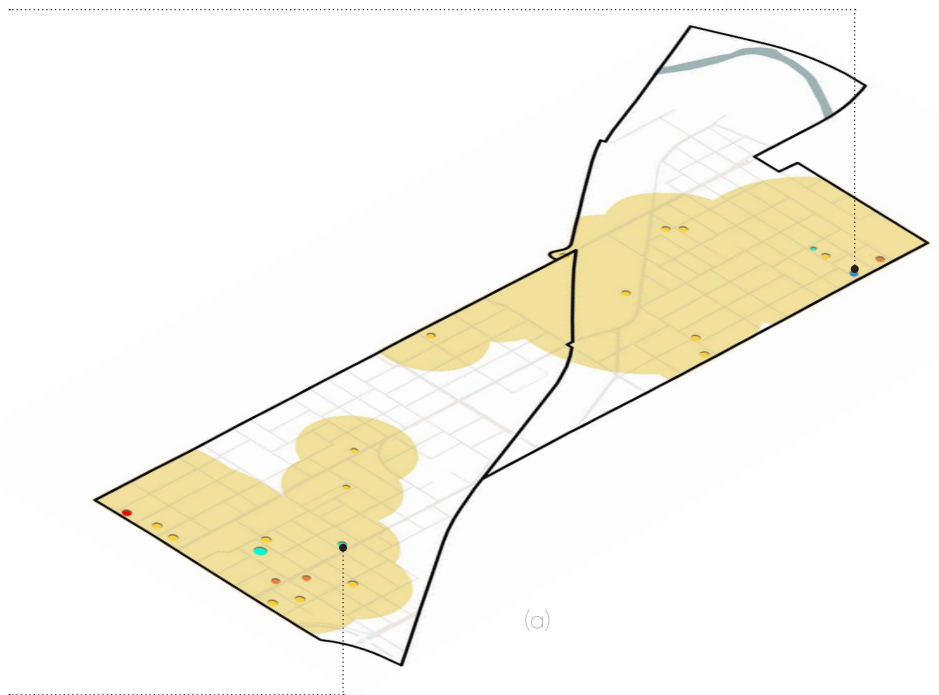
(b)



(c)



(a)



(a)

Transportation Infrastructure

Within the Lykins and Sheffield neighborhoods, critical transportation infrastructure exists, but it does not seem to be enough—shown in Figure 4.18. Apart from roads and highways, these neighborhoods have publicly accessible bus routes, planned Metrogreen trails, and what are classified as ‘bike-friendly’ corridors. The bus routes are situated so that most movement is from east to west. Not only are these bus routes insufficient in terms of walkable distance to accommodate for the entire neighborhood area, but the buses only come every half hour to an hour (RideKC 2020). The ‘bike-friendly’ corridors in Sheffield are still being planned along with all the MetroGreen trails within the area. Even though these corridors are characterized as ‘bike-friendly’, they are located on high traffic roads which presents a problem for safety. Some goals for the planned MetroGreen corridors within Kansas City include providing people with interconnected non-motorized transportation and opportunities to learn about natural landscapes and protection of native habitat (Briechle 1997-2020).

FIGURE 4.18
 Transportation Infrastructure within
 the Neighborhoods of Lykins and
 Sheffield--Metrogreen, Bus Routes,
 Regional Bike Corridor.



For the design of the strategic framework, it is important to select vacant lots within proximal distance to these bus routes, MetroGreen trails, and Regional bike corridors. Currently, there are no bike stations within these neighborhoods (Bike Share KC 2020). Placing bike-share stations within select vacant lots of this framework will help increase eyes on the street and pedestrian activity within this area.



- Planned Metrogreen
- Existing Regional Bike Corridor
- Planned Regional Bike Corridor
- Bus Routes
- Bus Stations
- Roads

SCALE 1" = 1,000'-0"



Appropriate Lots for Selection

Suitable vacant lots for selection were chosen post analysis of land use, crime associations, and community asset absence. These lots were deemed 'suitable' for five reasons: (1) located within a community asset 'zone of absence'; (2) located along major boulevards, streets, and transportation infrastructure of the neighborhoods; (3) have the potential for contributing to a larger green network; (4) have a significant amount of overgrown vegetation contributing to undesirable activities and signs of disorder; and (5) not located in between two neighboring houses where future programmatic activities could be an invasion of privacy for residents.

FIGURE 4.19
Appropriate Lots for Selection for
the Strategic Framework.

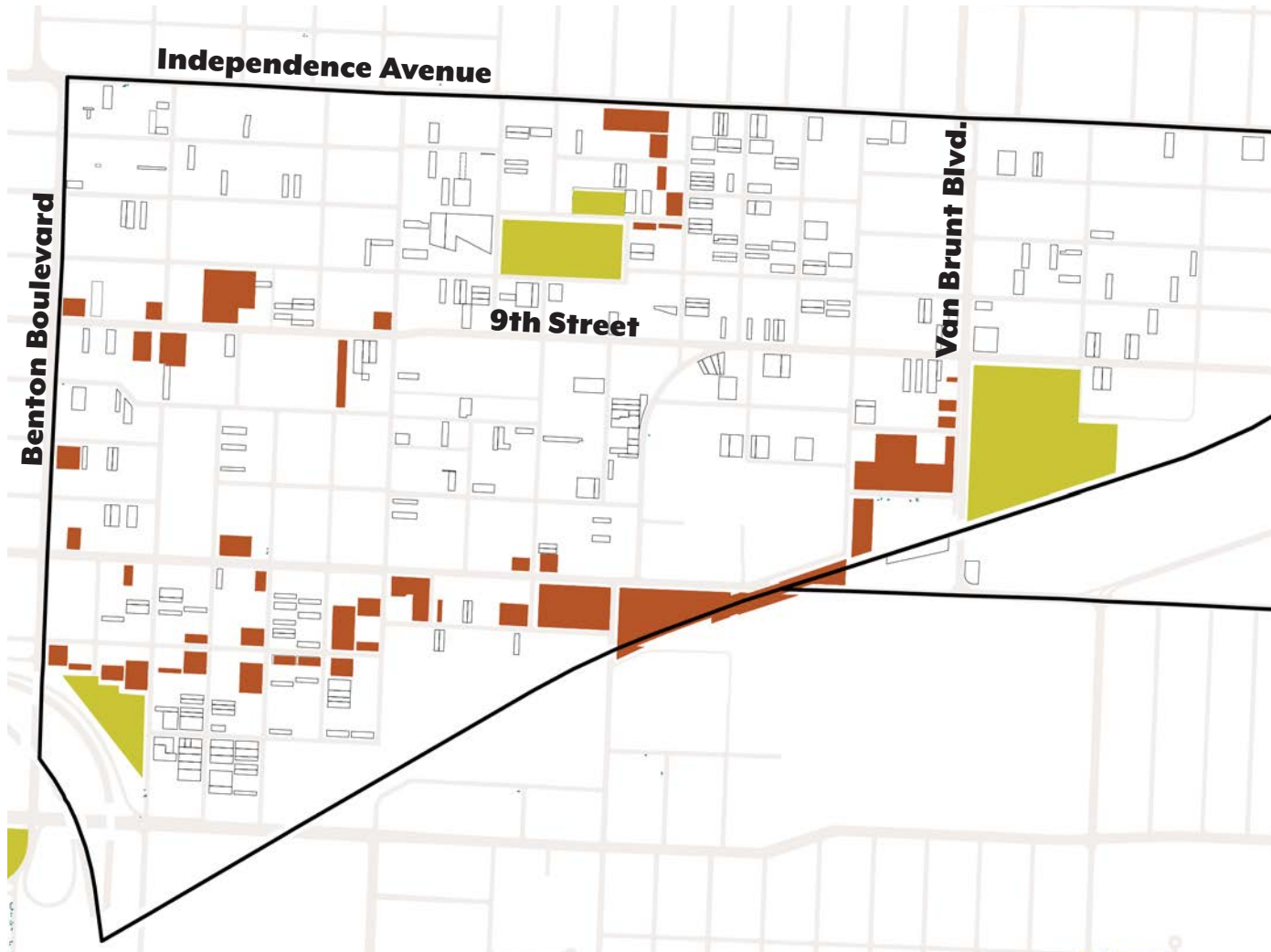


Figure 4.19 shows the location of the selected lots for intervention within the strategic framework. These lots will be further analyzed for ecological value to determine what general programmatic use is most suitable for each space.



- Vacant Lots
- Selected Vacant lots
- Parks
- Blue River
- Roads
- Neighborhood Boundaries

SCALE 1" = 1,000'-0"



Ecological Analysis within Appropriate Lots

Ecological Value

Ecological value was assessed within appropriate lots for intervention within the Lykins and Sheffield neighborhoods. In many of these lots, the ecological value score is high according to the Mid-America Regional Council's map of the "Greater Kansas City Green Region Explorer: Environmental Resources" (MARC 2019). This high eco-value rating is shown in Figure 4.20. This can be attributed to the existing presence of dense vegetation and wooded areas, and permeable surfaces. The Heartland Conservation Alliance (HCA) developed eco-value ratings for Land Bank lots within the Blue River watershed. These eco-values are scored higher if there is vegetation present or if the lots have overland flow (Heartland Conservation Alliance 2013). Even if a vacant lot does not have a high ecological value rating, it can be increased by implementing more native vegetation and decreasing the amount of impervious surfaces.

Forest Conservation and Restoration

Most of the appropriate lots for selection within Lykins and Sheffield include parcels that have areas of high forest conservation and restoration. This can be seen in Figure 4.21. Areas where forest cover needs to be restored include places that have overgrown underbrush or trees that need to be replaced for future resilience and benefits (MARC 2019). Areas of forest conservation include woodland areas that are providing substantial ecosystem benefits. Many lots within Lykins and Sheffield include areas of forest conservation and restoration and these will be important within the design of the strategic framework and focus areas.

FIGURE 4.20
Selected Vacant lots:
Ecological Value

- high: 96
- medium
- low: 0

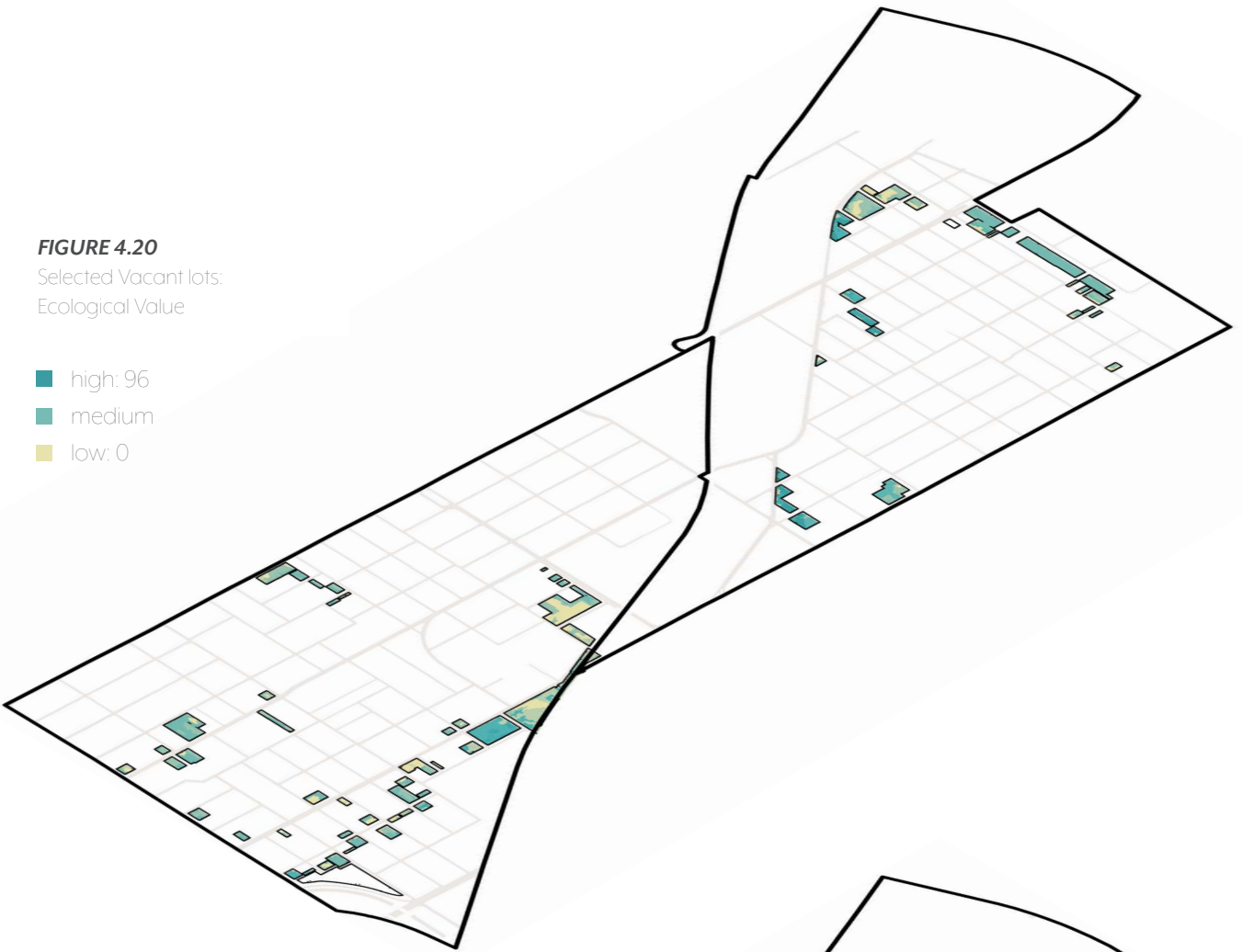
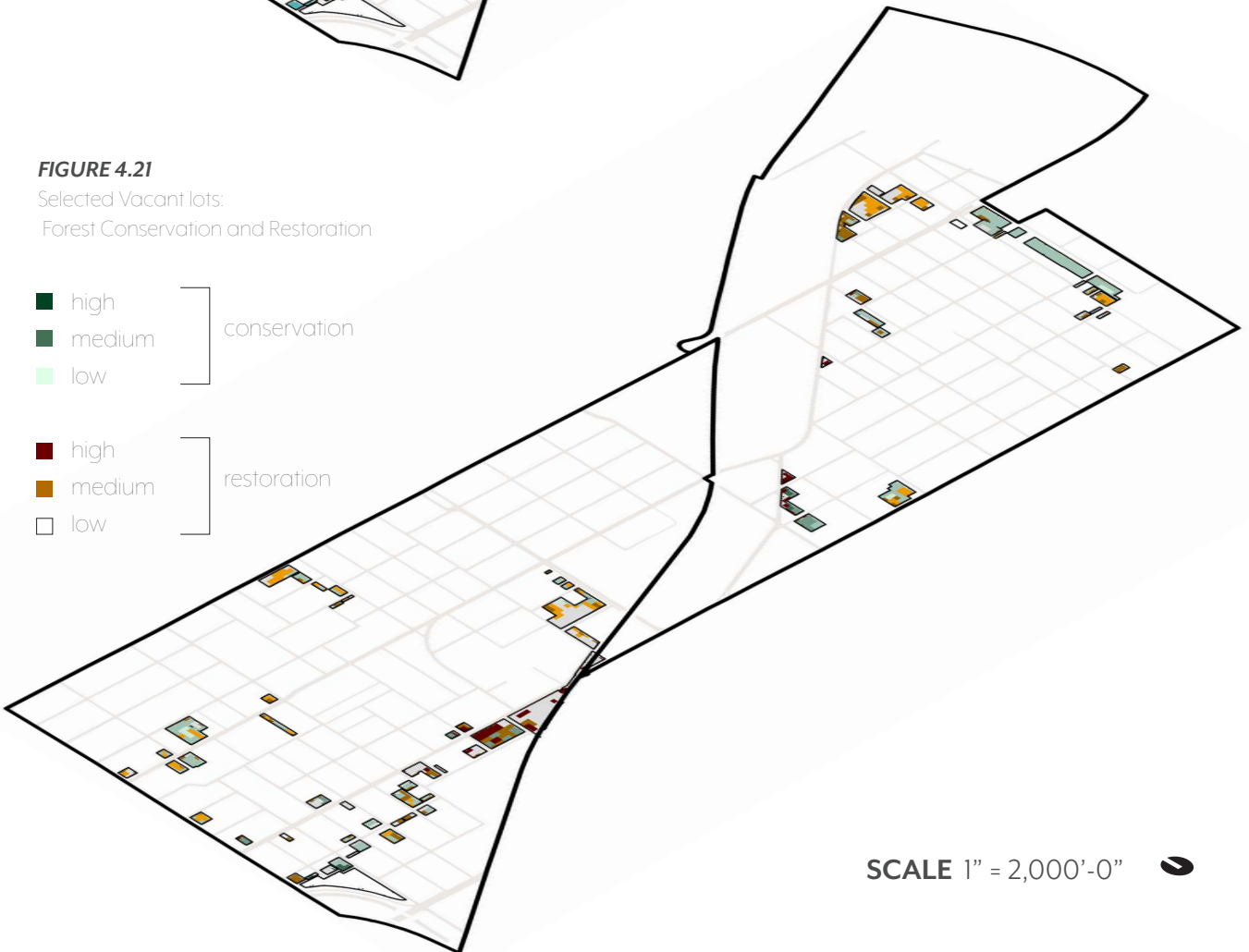


FIGURE 4.21
Selected Vacant lots:
Forest Conservation and Restoration

- | | |
|----------|----------------|
| ■ high | } conservation |
| ■ medium | |
| ■ low | |
| ■ high | } restoration |
| ■ medium | |
| □ low | |



SCALE 1" = 2,000'-0"



Slope Analysis

Within the general boundary of the Historic Northeast, there are significant topographical changes. The neighborhood of Lykins does not present significant sloping areas—on the other hand, in Sheffield, steep slopes exist on the far east of its boundary where many vacancies lie. This is shown in Figure 4.22. The great sloping topography of these parcels limits productive uses of vacant land and promotes more invasive and unplanned flora. This spontaneous and overgrown vegetation within these vacant lots contributes to the overall ecological value of the area. Utilizing these high sloping parcels in Sheffield as places for nature education, pollinator patches, and wildlife habitats is one of the primary goals within the strategic framework plan.

Green Infrastructure Vulnerability

The Kansas City Mid-America Regional Council (MARC) and the Kansas City Metro Chapter of the American Public Works Association (APWA) developed a Best Management Practice manual for improving stormwater quality for the Kansas City region (MARC and APWA 2012). This manual outlines primary goals for best management practices—one of them being balancing future development with environmental health and quality of life. These best management practices (BMPs) outline what types of green infrastructure can help slow runoff, filter pollutants, and promote stormwater mitigation.

Both Lykins and Sheffield have a great need for green infrastructure improvements (MARC 2019). The selected lots within Lykins have areas of social vulnerability, ecological value, and green infrastructure need—as shown in Figure 4.23. Most of the selected lots within Sheffield contain areas of green infrastructure need and ecological value. Considering both neighborhoods are low-income communities with limited resources, ‘non-structural’ best management practices will be proposed within the strategic framework. These types of BMPs “retain or restore and conserve existing natural soil, vegetative, and hydrologic conditions to reduce stormwater runoff, filter contaminants, and improve water quality” and they do not use highly engineered solutions (MARC and APWA 2012, 7-1). One of the ‘non-structural’ strategies includes restoring native vegetation—this will be applied to vacant lots within the strategic framework that have high green infrastructure need.

FIGURE 4.22
Selected Vacant Lots:
Slope Analysis

- high slope
- medium
- low slope

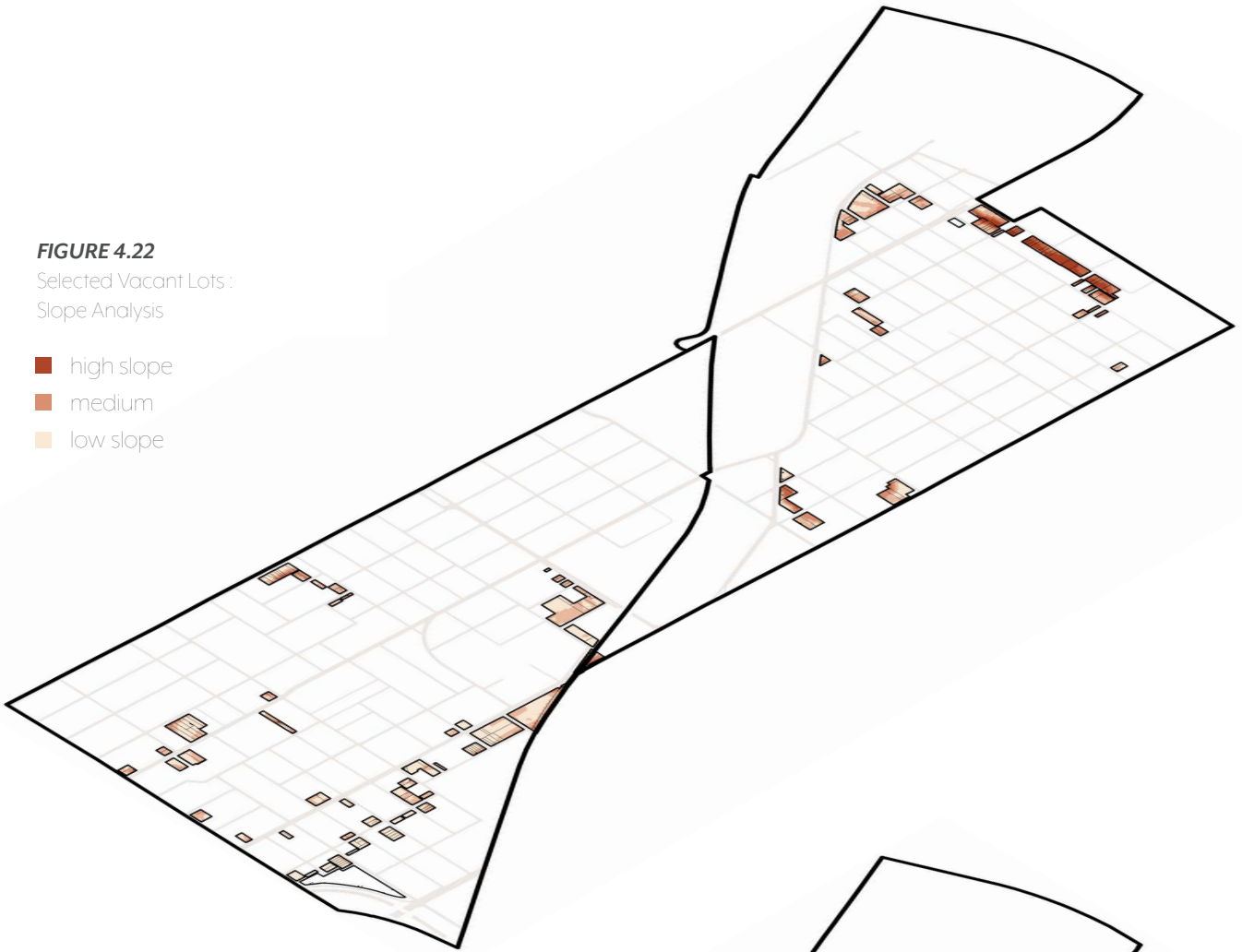
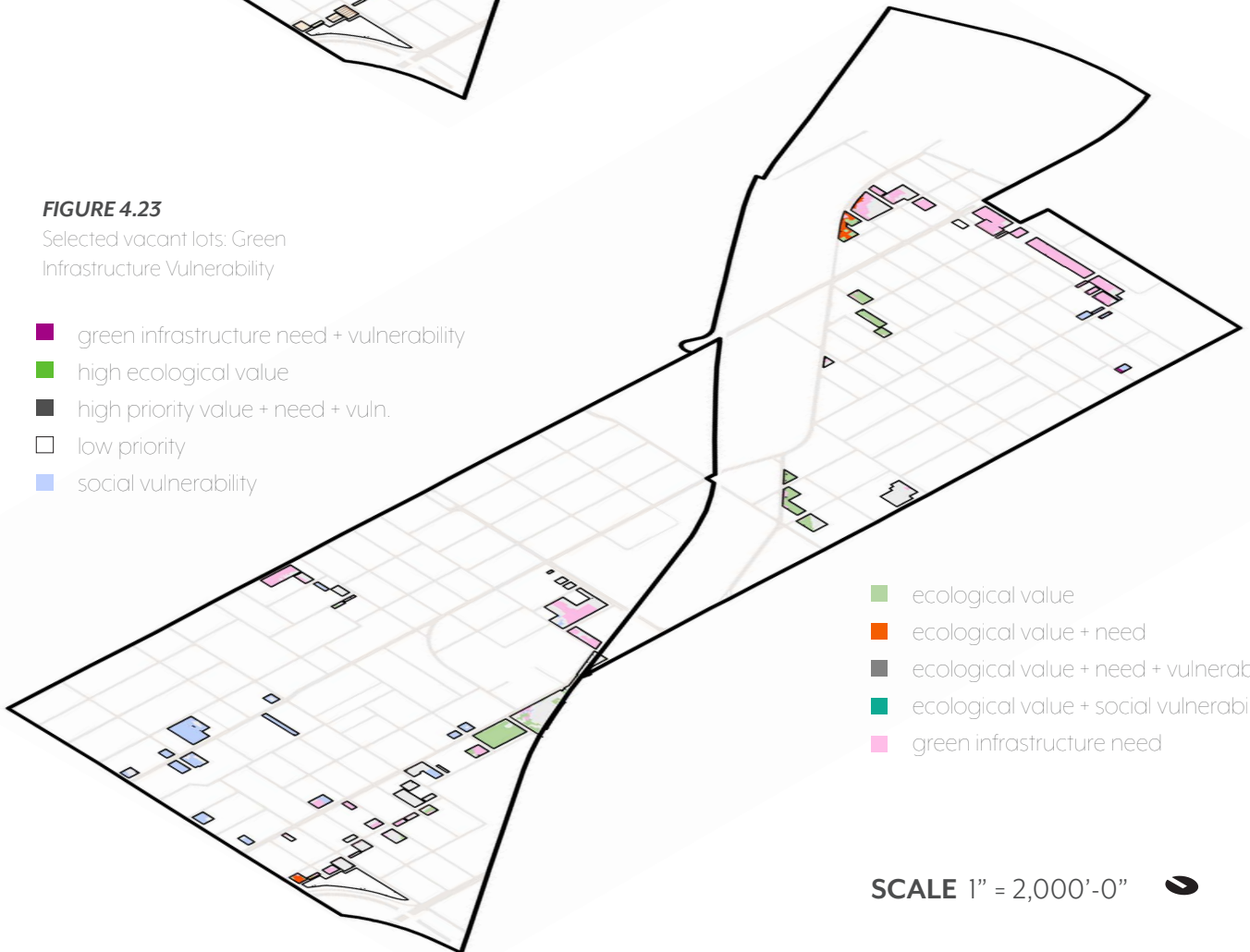


FIGURE 4.23
Selected vacant lots: Green
Infrastructure Vulnerability

- green infrastructure need + vulnerability
- high ecological value
- high priority value + need + vuln.
- low priority
- social vulnerability



- ecological value
- ecological value + need
- ecological value + need + vulnerability
- ecological value + social vulnerability
- green infrastructure need

SCALE 1" = 2,000'-0"



Impervious Surfaces and Permeability

Most vacant lots selected for the Strategic Framework consist of more than fifty percent, if not one hundred percent, permeable surfaces—these types of surfaces contribute to higher ecological values (MARC 2019). Figure 4.24 shows the difference between impervious surfaces and pervious surfaces within the selected vacant lots of Lykins and Sheffield. It is important within the design of this framework to limit the percentage of impervious surfaces. Impervious surfaces prevent the infiltration of rainwater (MARC and APWA 2012). By limiting the percentage of impervious surfaces and proposing permeable materials for paths and ‘paved spaces’, these selected vacant lots will be able to mitigate stormwater at a higher success rate therefore, improving ecological function.

Floodplain

The Lykins and Sheffield neighborhoods are a part of the outlet Blue River Sub-watershed of the Blue River. The selected vacant lots within the Strategic Framework are not affected by the 100- or 500-year floodplains of the Blue River. Figure 4.25 shows all parcels affected by the Blue River floodplain—all affected parcels are located within Sheffield. Even though selected vacant parcels are not directly affected by the floodplain, they can still be utilized to increase stormwater infiltration rates and benefit water quality.

FIGURE 4.24

Selected Vacant Lots:
Permeable and Impermeable surfaces

- permeable surface
- impermeable surface

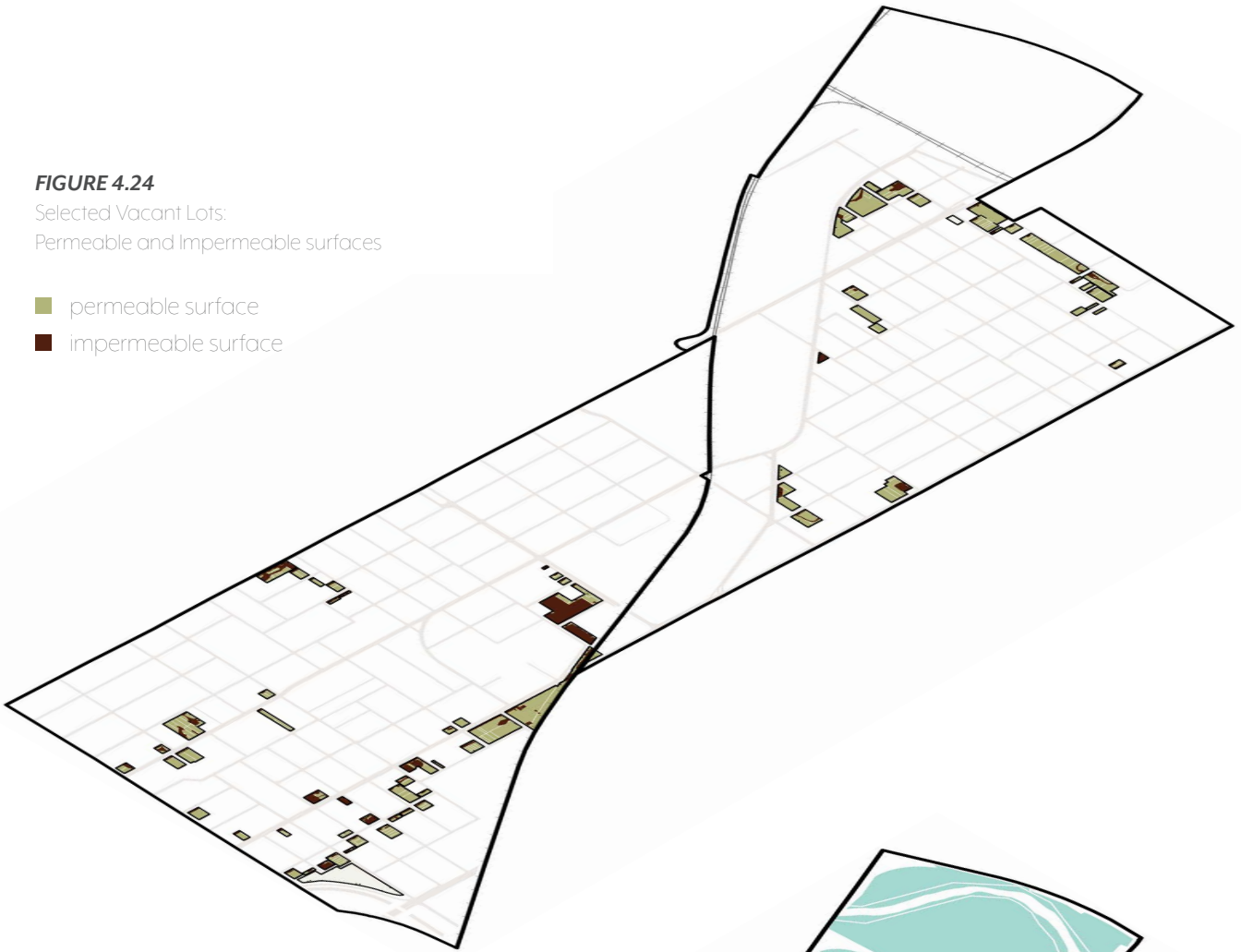
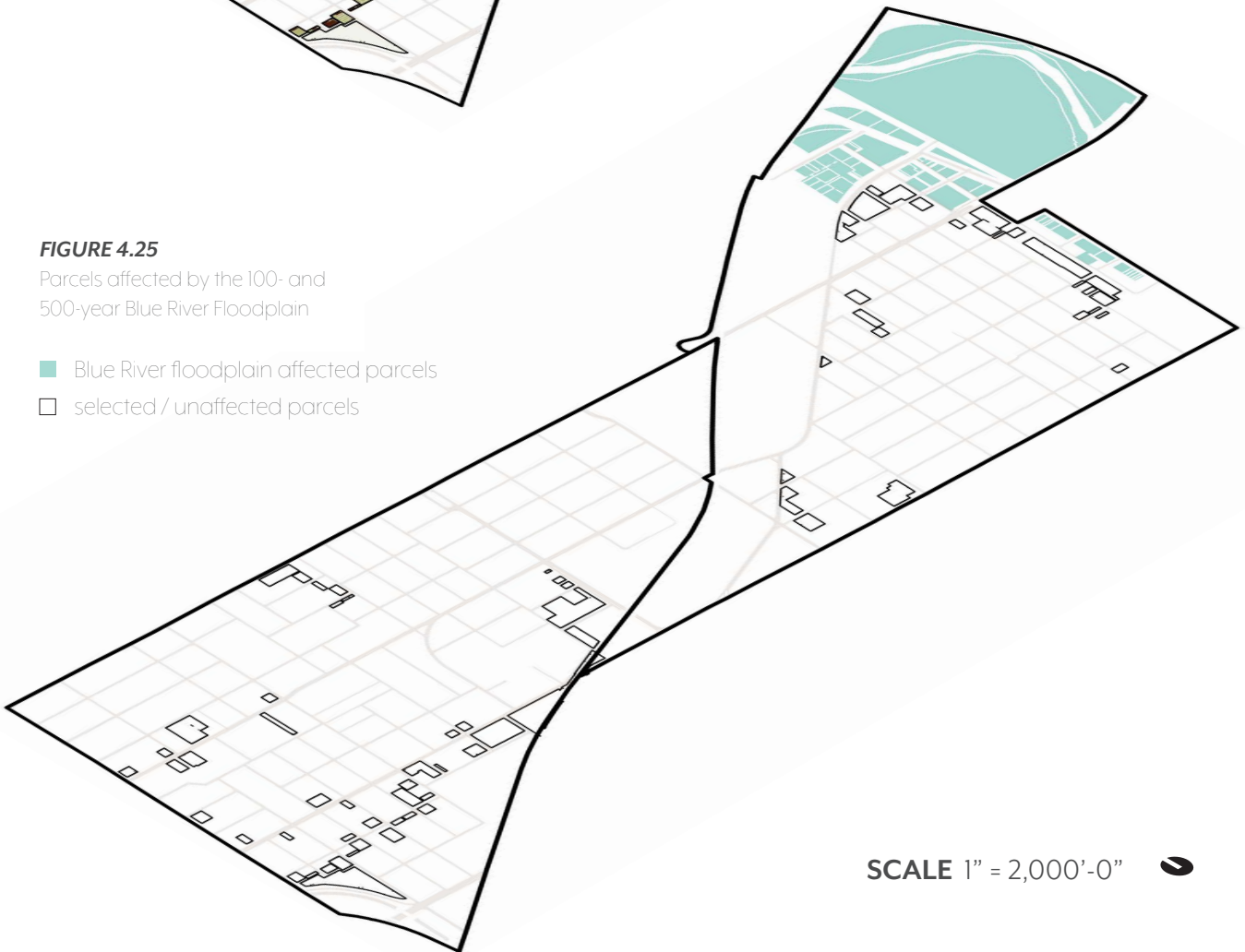


FIGURE 4.25

Parcels affected by the 100- and
500-year Blue River Floodplain

- Blue River floodplain affected parcels
- selected / unaffected parcels



SCALE 1" = 2,000'-0"



Mapping Summary

Although there are many dilemmas within the Lykins and Sheffield neighborhoods—such as high crime rate, urban vacancy, community asset ‘zones of absence’, invasive, overgrown vegetation, and an abundance of impervious surfaces—one of the ‘dilemmas’ can serve as an opportunity to maximize feasible solutions. Urban vacancy is a resource that can be used to increase healthy ecological function and value while providing spaces for community interaction and decreased signs of disorder. If a strategic framework for selected vacant lots is to be successful in the future, residential preference on activities, uses, and planting is necessary. For the Lykins and Sheffield vacant lot strategic framework, a community survey tool was developed to assess these neighborhoods’ needs and preferences.



4.3

SURVEY TOOL

COMMUNITY INPUT

planting preferences
neighborhood dynamics
safety and crime

Survey Design and Implementation

A bilingual photo survey tool was developed for the Lykins and Sheffield neighborhoods and surrounding area. This survey tool aimed to explore residents' planting preferences for vacant lots, neighborhood dynamics, perceptions of safety, and crime involvement. A more detailed analysis of each section will be discussed within the rest of this chapter. The analysis was completed using SPSS (Statistical Package for the Social Sciences) Software. This survey is presented in Appendix C. After three weeks of data collection (January 23 – February 10), attending community meetings, and posting survey advertisements, a total of 43 participants had taken the survey. Of these 43 participants, 6 people completed the online survey while the other 37 filled out in-person, physical copies. Survey advertisements displaying a QR code and link to access the form were posted in select businesses in the Historic Northeast neighborhoods.

FIGURE 4.26
Neighborhood Distribution
of Surveys

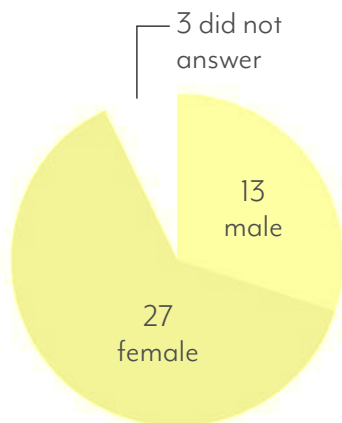
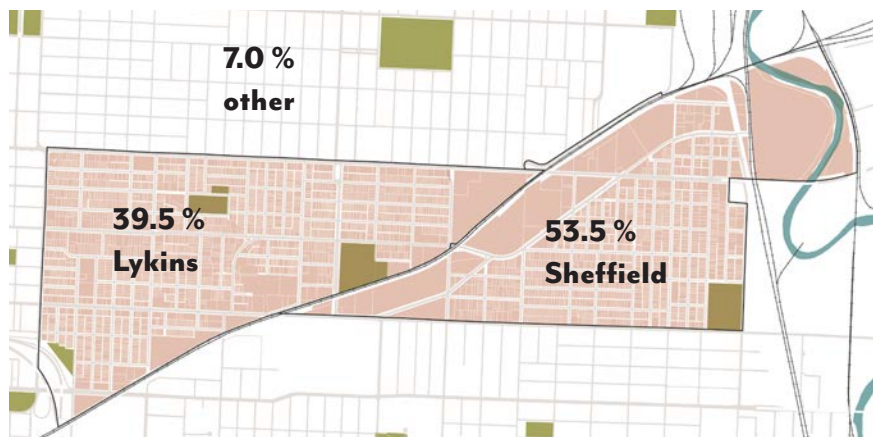


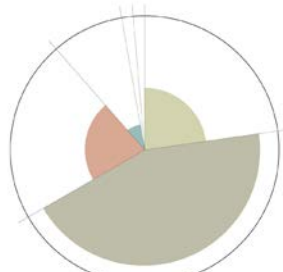
FIGURE 4.27
Gender Makeup of
Survey Responses

Participant Demographic

Out of the responses, 39.5% were from Lykins, 53.5% were from Sheffield, and 7.0% were from other neighborhoods of the Historic Northeast including Pendleton Heights and Independence Plaza—this is shown in Figure 4.26.

In terms of survey participant demographic, 27 of the participants responded as female, 13 responded as male, and 3 preferred not to answer. In terms of race, proportion of the responses can be seen in Figure 4.28. Most participants claimed to be white. This racial

NEIGHBORHOODS



Lykins



Sheffield

SURVEY RESPONSES

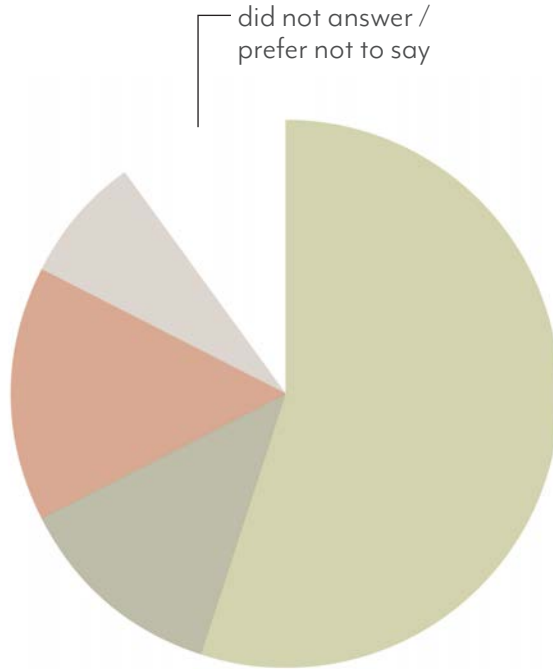
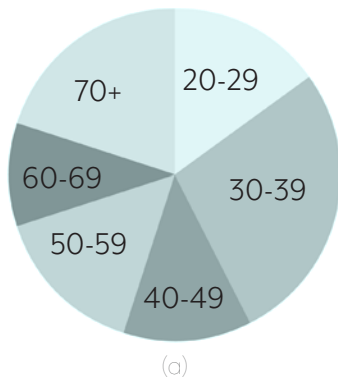


FIGURE 4.28

Racial Demographic of Survey Responses vs. Neighborhoods

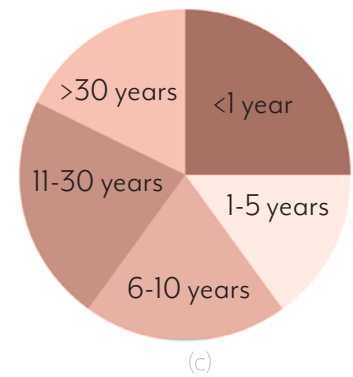
- White
- Hispanic or Latino
- Black or African American
- Asian
- Other



(a)



(b)



(c)

FIGURE 4.29

(a) Survey Response: Age Ranges

(b) Survey Response: Types of (Un)employment

(c) Survey Response: Years of Residency

demographic does not represent the neighborhood’s population sample because both Sheffield and Lykins are predominantly Hispanic or Latino. Of the 43 survey responses, there was a wide range of different ages, types of (un)employment, and years of residency—shown in Figure 4.29. It is important to indicate that 10 of the responses were received from Sheffield Place—a homeless center for women. Considering almost one-fourth of the data was gathered here, as well as the small sample size, the findings of the survey would not be generalizable to these two neighborhoods.

Planting Preferences

Diversity

An existing image of a vacant lot within Lykins was formatted to show different levels of vegetative diversity in three photos. Within the survey, photos were shown to participants with the question asking, “Out of these three images, what space would you prefer to have on your block?”. Most participants (48.8%) prefer a space that hosts higher diversity and density of vegetation. A significant number of the respondents (30% or about 1/3) claimed they would rather prefer just a basic mowed lawn. Diversity image options are presented to the right.

After this analysis, it was concluded that a mix of diversity and lawn space will need to be integrated throughout the vacant lots in the strategic framework.

FIGURE 4.30
Planting Preferences:
Diversity





FIGURE 4.31
(a)
Diversity Planting Preference:
Low Diversity



(b)
Diversity Planting Preference:
Medium Diversity



(c)
Diversity Planting Preference:
High Diversity

Order and Maintenance

An existing image of a vacant lot within Lykins was formatted to show different levels of vegetative maintenance and care in three photos. Within the survey, photos were shown to participants with the question asking, “Out of these three images, what space would you prefer to have on your block?”. Most participants (62.8%) prefer a space that is highly maintained with legible groupings of plant species. A significant number of the respondents (25%) claimed they would prefer a medium amount of maintenance so long as clean edges are kept up. Maintenance and order image options are presented to the right.

After analysis of the preferred spaces, it was clear that even though respondents prefer the space with the highest maintenance, it is not economically feasible for these neighborhoods. Incorporating patches of more maintained plantings within selected vacant lots will be crucial to the success of the strategic framework. These ‘maintained’ plantings will not resemble ‘traditional garden’ plantings but look more like a legible ‘tossed salad’—or designed plant community (Woodbury 2020; Rainer and West 2015). Maintenance for a designed plant community is low and plants are allowed to migrate which allows for higher diversity.

FIGURE 4.32
Planting Preferences:
Order and Maintenance





FIGURE 4.33

(a)

Maintenance Planting Preference:
Low



(b)

Maintenance Planting Preference:
Medium



(c)

Maintenance Planting Preference:
High

Views Through Site

An existing image of a vacant lot within Lykins was formatted to show different views and lines through the site through the use of tall, invasive shrubs and woody plant species. Within the survey, photos were shown to participants with the question asking, “Out of these four images, what space would you prefer to have on your block?”. Most participants (65%) prefer a space that is clearly visible from the street where all paths can be seen. Viewshed image options are presented to the right.

After analysis of the preferred space (C), it was evident that residents want to maintain ‘surveillance’ within public spaces along with ‘access control’. Surveillance and Access Control are two of the original CPTED standards (Jeffery 1971; Newman 1972; Cozens et al. 2005). This image selection infers that residents would rather not have anything in a space that might hide undesirable activities.

FIGURE 4.34
Planting Preferences:
Views Through Site

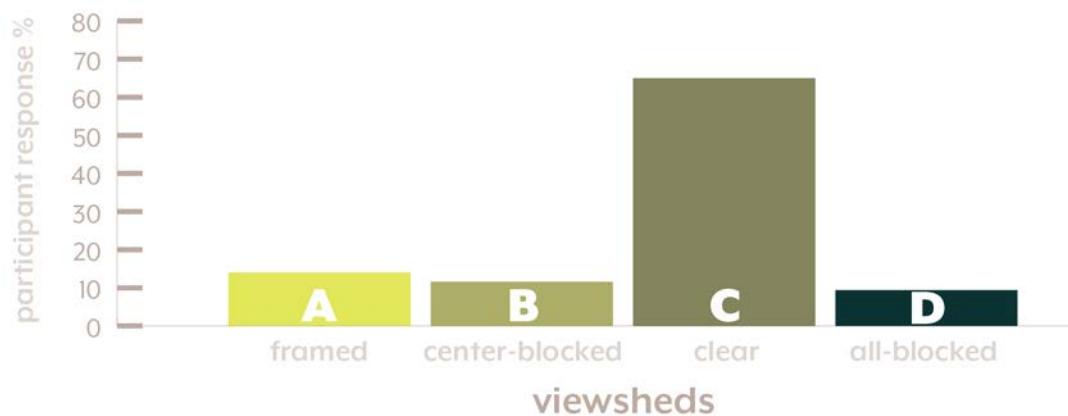




FIGURE 4.35

(a)

Viewshed Planting Preference:
Framed



(b)

Viewshed Planting Preference:
Center-blocked



(c)

Viewshed Planting Preference:
Clear Views



(d)

Viewshed Planting Preference:
All-blocked

Trails and Paved Space

An existing image of a vacant lot within Lykins was formatted to show different densities of paved space. Within the survey, photos were shown to participants with the question asking, “Out of these three images, what space would you prefer to have on your block?”. As shown in Figure 4.36, it is evident that there is not a significant preference amongst survey respondents.

After this analysis, it was concluded that a mix of trail options and paved space will need to be integrated throughout the vacant lots in the strategic framework.

FIGURE 4.36

Trail Preferences:
% Paved vs. % Vegetated

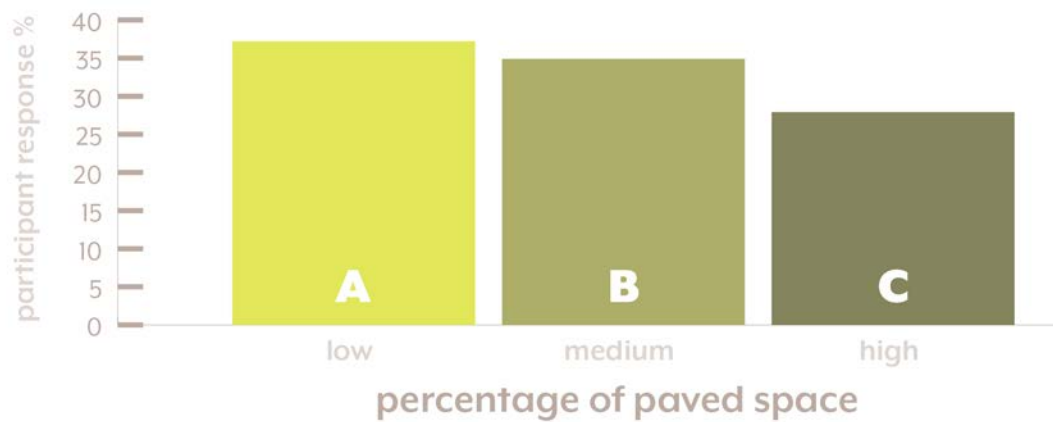




FIGURE 4.37

(a)

Percentage of Trail Preference:
Low



(b)

Percentage of Trail Preference:
Medium



(c)

Percentage of Trail Preference:
High

Safety Preferences:

Cues to Care and CPTED Standards

An existing image of a vacant lot within Lykins was formatted to show different cues to care and CPTED standards. Within the survey, photos were shown to participants with a prompt asking them to, “Rate the following four images (A B C D) from least safe to most safe.”. As shown in Figure 4.38, it is evident that lighting (A) was most often chosen as the element that would make the respondent feel ‘safest’ in that space. On a Likert scale of ‘strongly agree’ to ‘strongly disagree’, participants were asked “To what extent do you agree with the following about your ‘safest’ choice?”. Of all responding participants, around 76% ‘strongly agree’ or ‘agree’ that having all of the elements (lighting, fencing, gardening, and signage) within a space would make them feel the safest. The CPTED standards shown in these images are (1) territoriality (fencing, signage) and (2) surveillance (lighting, gardening) (Jeffery 1971; Cozens et al. 2005).

After analyzing these images, it is concluded that residents prefer spaces with cues of ownership and maintenance.

FIGURE 4.38

Feelings of Safety Preference:
Cues to Care / CPTED Standards

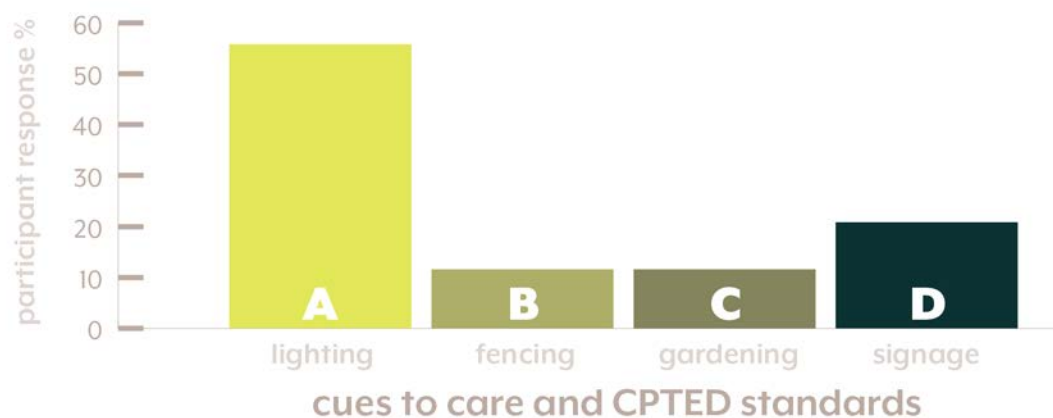




FIGURE 4.39
(a)
Safety Preference:
Lighting



(b)
Safety Preference:
Fencing



(c)
Safety Preference:
Gardening



(d)
Safety Preference:
Signage

Neighborhood Dynamics

This section of the survey analyzed how much interaction residents have within their neighborhood. This includes the assessment of public space usage, future public space importance, and vacant lot usage. Participants were asked questions like, “How long have you been living in this neighborhood?”, “How often in a week do you see / hang out with your neighbors?”, and “How often in a week do you go to a neighborhood public space to relax / learn about nature / recreate / etc.? ”.

While analyzing survey responses, it was clear that most participants either see or hangout with their neighbors during the span of a week—this is shown in Figure 4.40. Closer analysis of responses showed that people living in the neighborhood within the span of 6-10 years and 11-30 years tend to see their neighbors more—this analysis was done by running t-tests in SPSS software.

“How often in a week do you ____ your neighbors?”

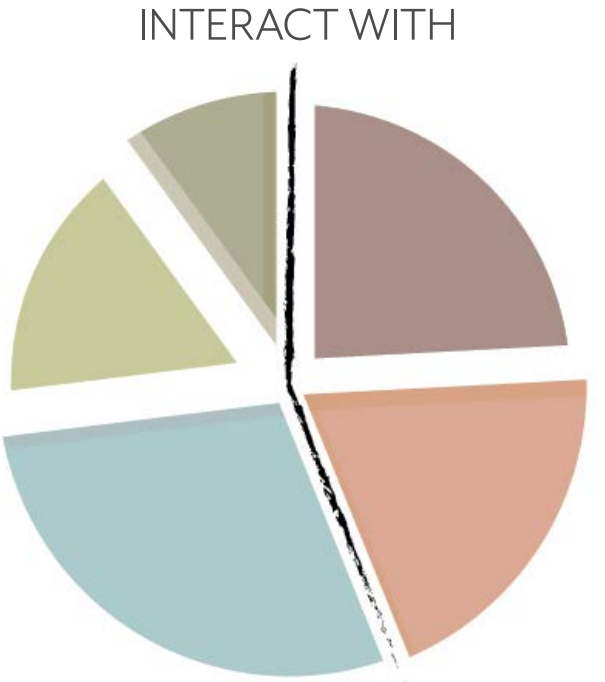
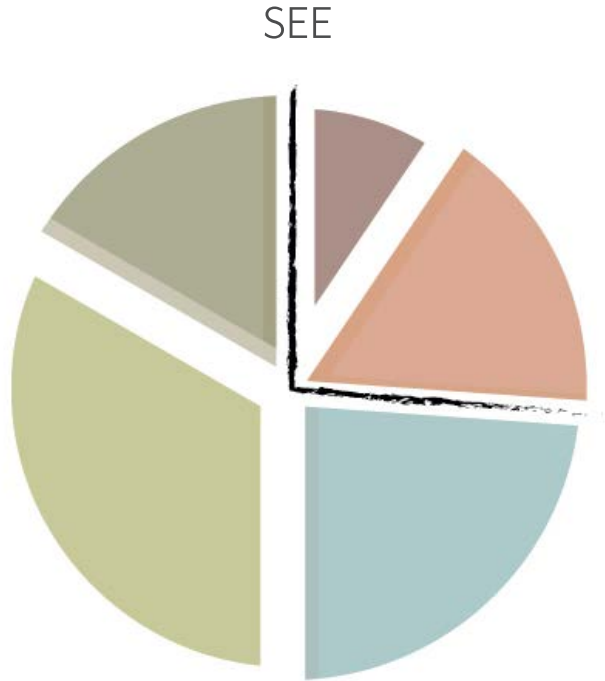


FIGURE 4.40
Neighborhood Interaction within
Lykins and Sheffield

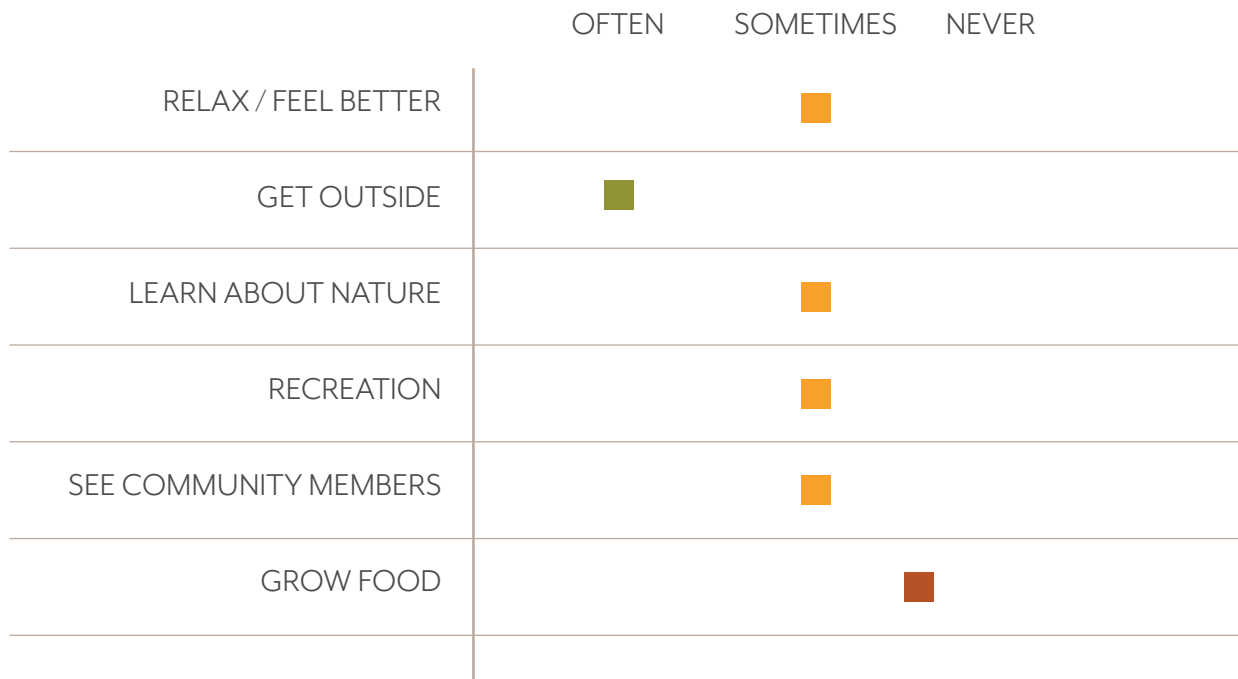
- never
- rarely
- sometimes
- often
- very often

Public Space Usage and Importance

During the span of a week, most survey participants responded that they only enjoy certain outdoor activities only ‘sometimes’. Even though most responses showed medium use of public space, majority of participants declared high importance for increasing more areas within their neighborhood for recreation, wildlife habitats, community event spaces, food production, and art making. This is shown in Figure 4.41. Figure 4.42 shows the response percentages of activity participation and its importance.

FIGURE 4.41
Neighborhood Public Space:
Usage and Importance

“How often in a week do you go to a neighborhood outdoor public space to _____”

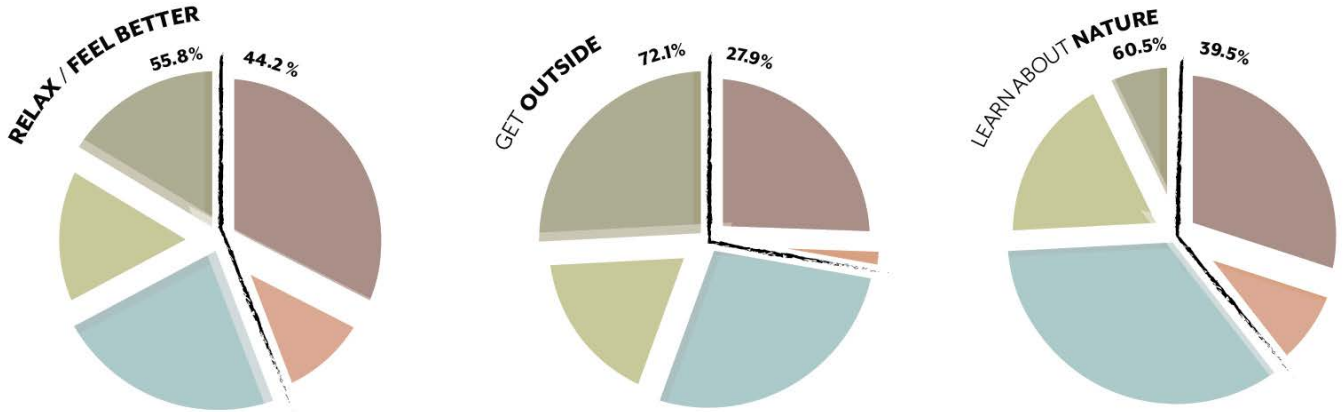


Further analysis of this data shows that within the age range of 60-69 years, public space usage is higher—this could be because this age range is usually retired with more free time for activities. Analysis-test results show that participants with kids tend to go to places for recreation more often. Not many respondents claimed to have used a vacant lot for personal use, but the ones that did, currently use them for community gardening, informal dog parks, and recreational fields for soccer and other sports. Conclusions from this analysis helped form what programmatic activities are needed within the community for the strategic framework.

“How important is it for you to see more of the following activities in your neighborhood?”

	NOT AT ALL IMPORTANT	SOMEWHAT IMPORTANT	VERY IMPORTANT
WILDLIFE HABITATS			■
RECREATION SPACES FOR ALL AGES			■
COMMUNITY EVENT SPACES			■
FOOD PRODUCTION			■
ART / CREATING SPACES			■
OTHER (dog parks, recycling center)			■

“How often in a week do you go to a neighborhood outdoor public space to _____”



“How important is it for you to see more of the following activities in your neighborhood?”

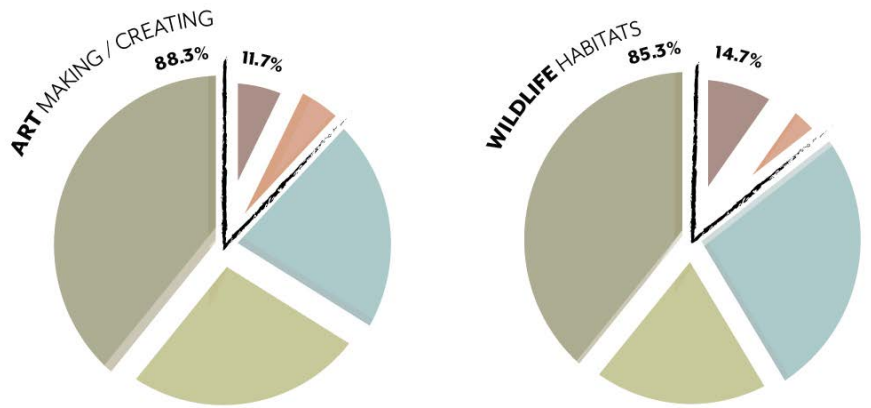
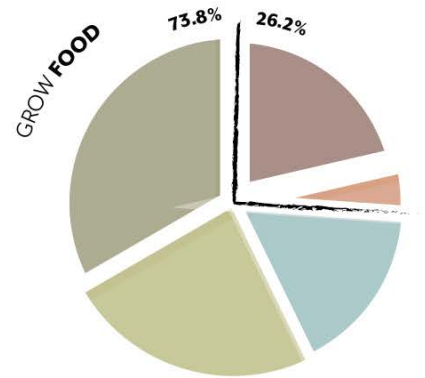
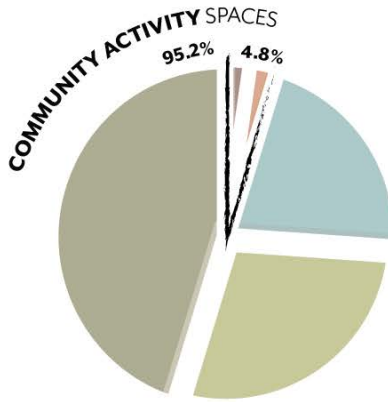
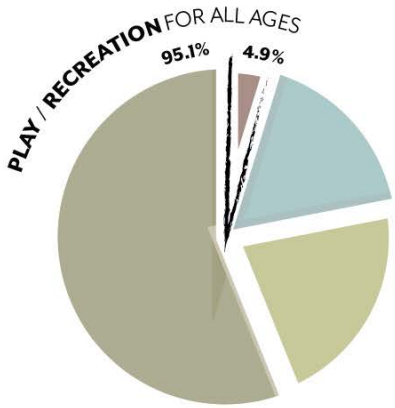
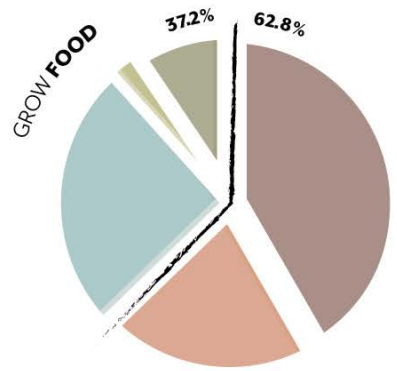
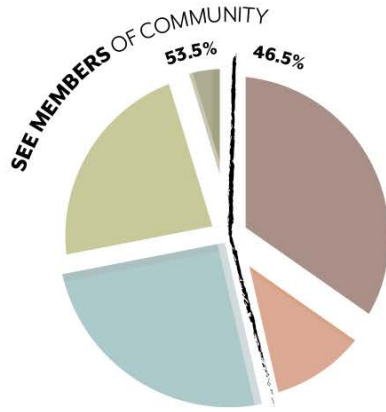
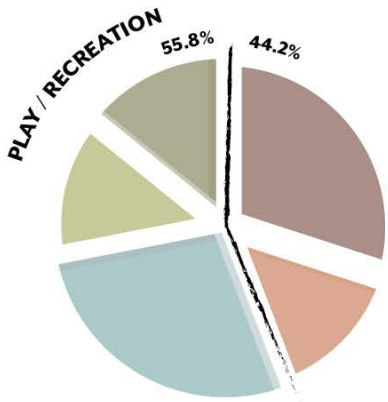


FIGURE 4.42
 Neighborhood Public Space:
 % Usage and Importance

- never
- rarely
- sometimes
- often
- very often

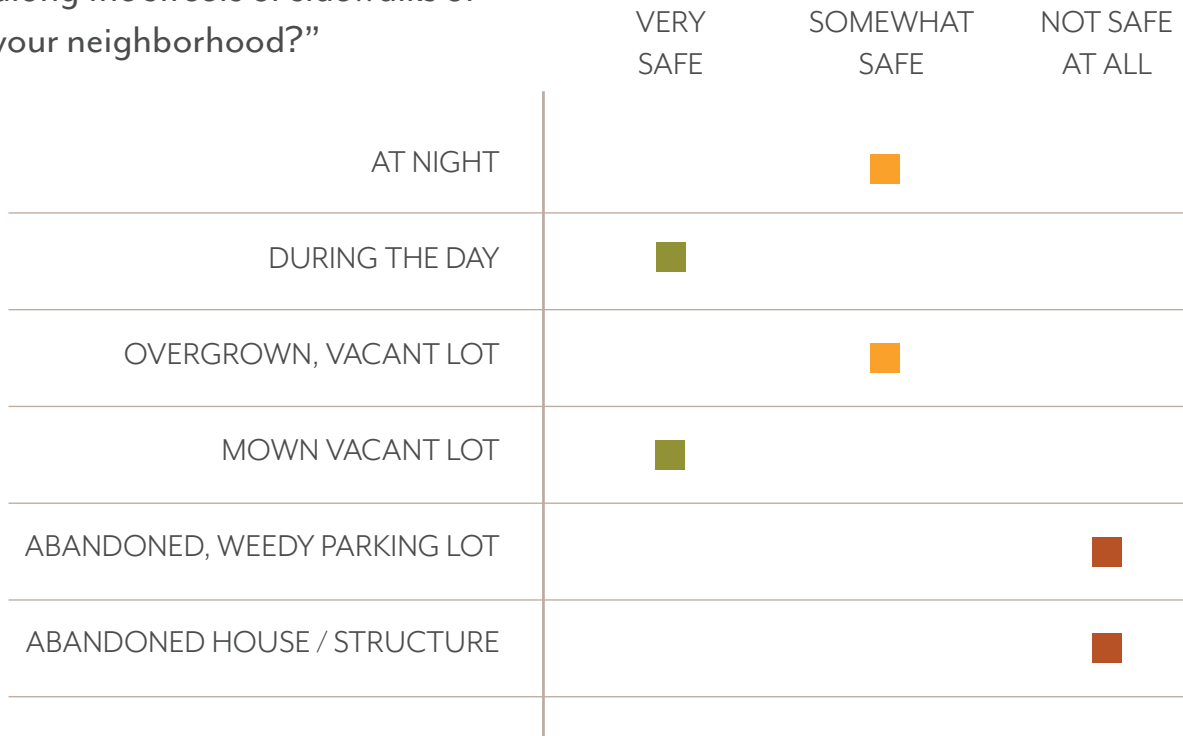


Safety and Crime

This section of the survey explores residents’ perceptions of safety near different types of vacant lots along with how they feel at night vs. during day in the neighborhood area. This section also inquires about crime involvement related to being a witness or a victim. Perceptions of safety was examined by asking participants how safe on a scale of five (not safe at all to very safe) they felt walking next to the following types of vacant lots: overgrown; mown; an abandoned, weedy parking lot; and an abandoned house or structure. Figure 4.43 shows an interesting trend: if a participant witnesses more crime within a certain type of vacant lot, results show that they feel less safe near those areas. This is true for both mown vacant lots (where participants say they witness less crime) and abandoned houses or structures (where participants say they witness more crime). Figure 4.44 on page 94 shows the response percentages of crime witnessed in vacant lots and perceptions of safety.

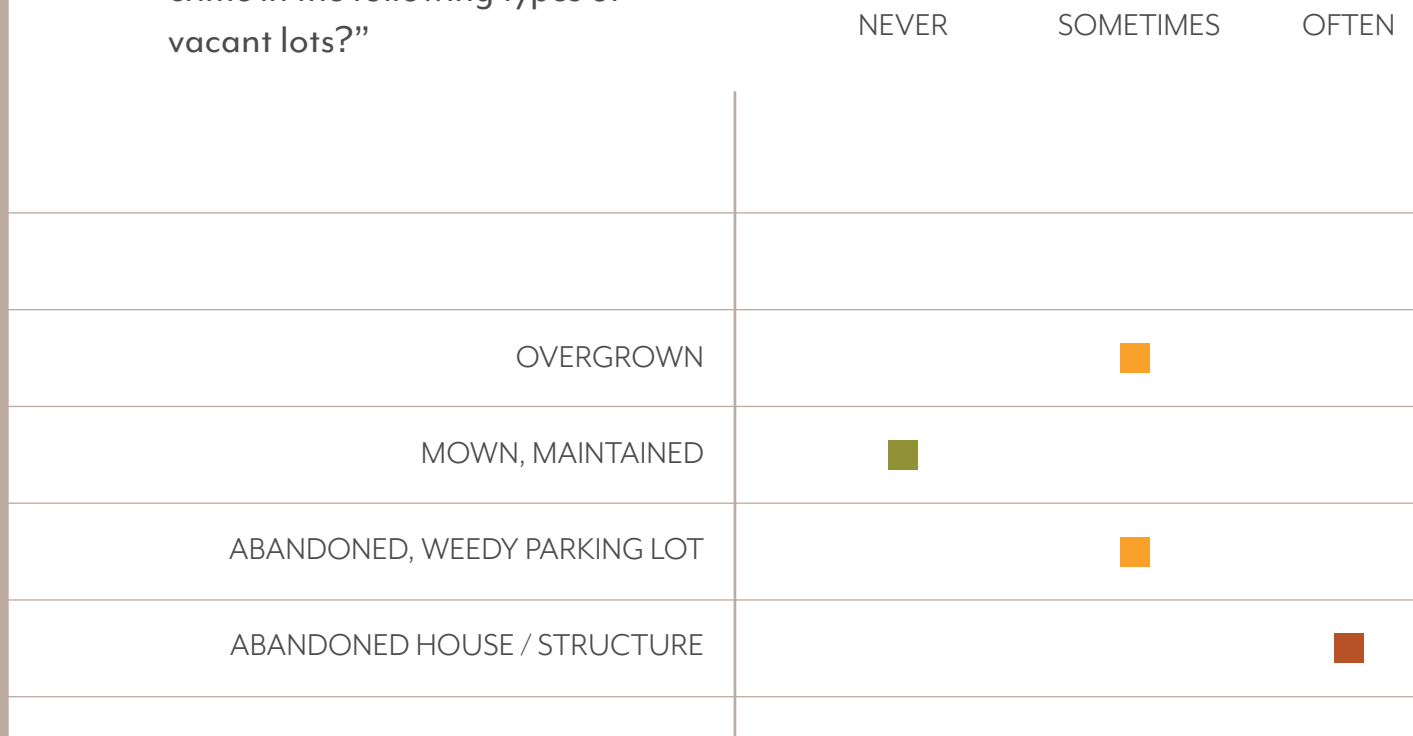
FIGURE 4.43
Residents’ Perceptions of Safety vs.
Crime in Vacant Lots

“How safe do you feel walking along the streets or sidewalks of your neighborhood?”

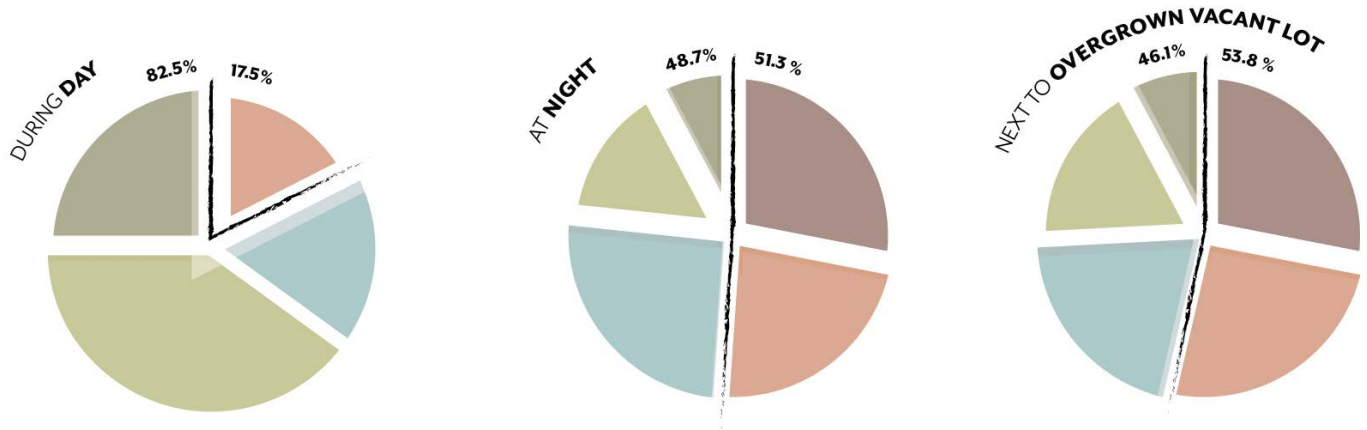


Closer analysis of these responses led to findings about the difference of perceptions of safety between male and female respondents. T-test results show that females tend to feel less safe near all types of vacant lots but especially next to weedy, parking lots and abandoned houses or structures. Further analysis led to a finding that more females have witnessed crime within overgrown vacant lots and abandoned structures—confirming the trend above. When comparing the preferred ‘safest’ space in the photo survey section for CPTED standards and Cues to Care, more males preferred the space with lighting and more females preferred the space with fencing. The analysis of length of residency and neighborhood perceptions of safety showed that there was not a statistically significant difference between the participants with higher and lower length of residency in terms of their perception of safety in the neighborhood.

“How often have you witnessed crime in the following types of vacant lots?”



“How safe do you feel walking along the streets or sidewalks of your neighborhood?”



“How often have you witness crime in the following types of vacant lots?”

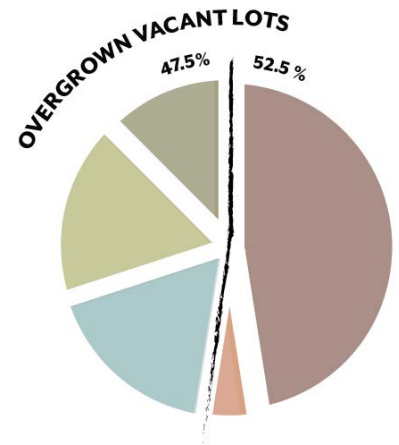
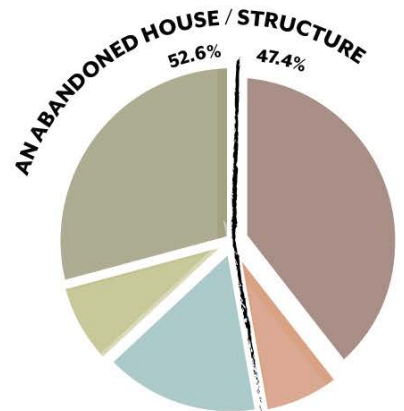
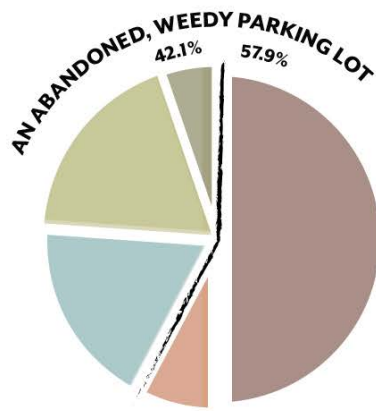
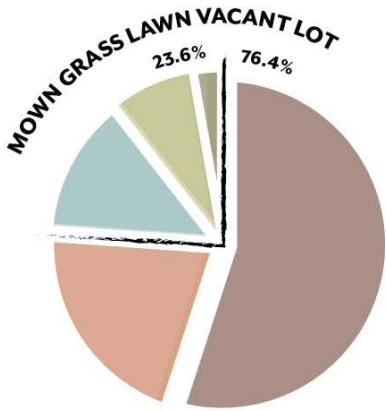
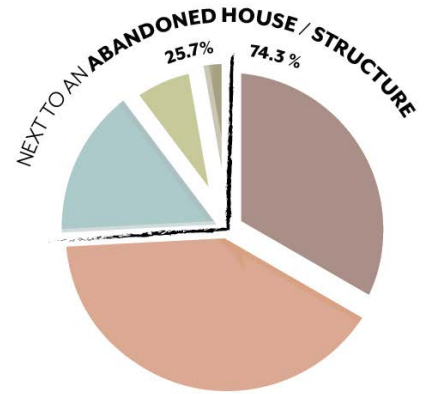
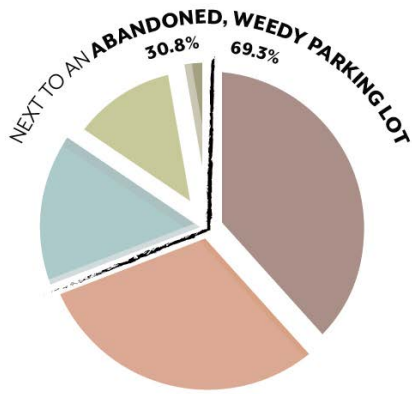
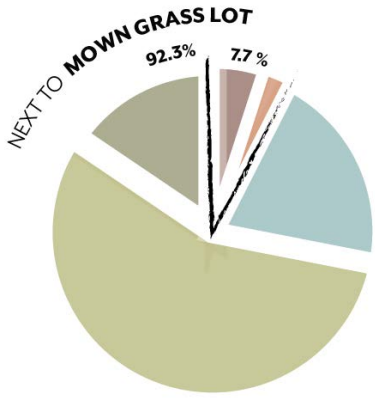


FIGURE 4.44 Percentages of Residents' Perceptions of Safety vs. Crime in Vacant Lots

- never
- rarely
- sometimes
- often
- very often



Survey Tool Summary

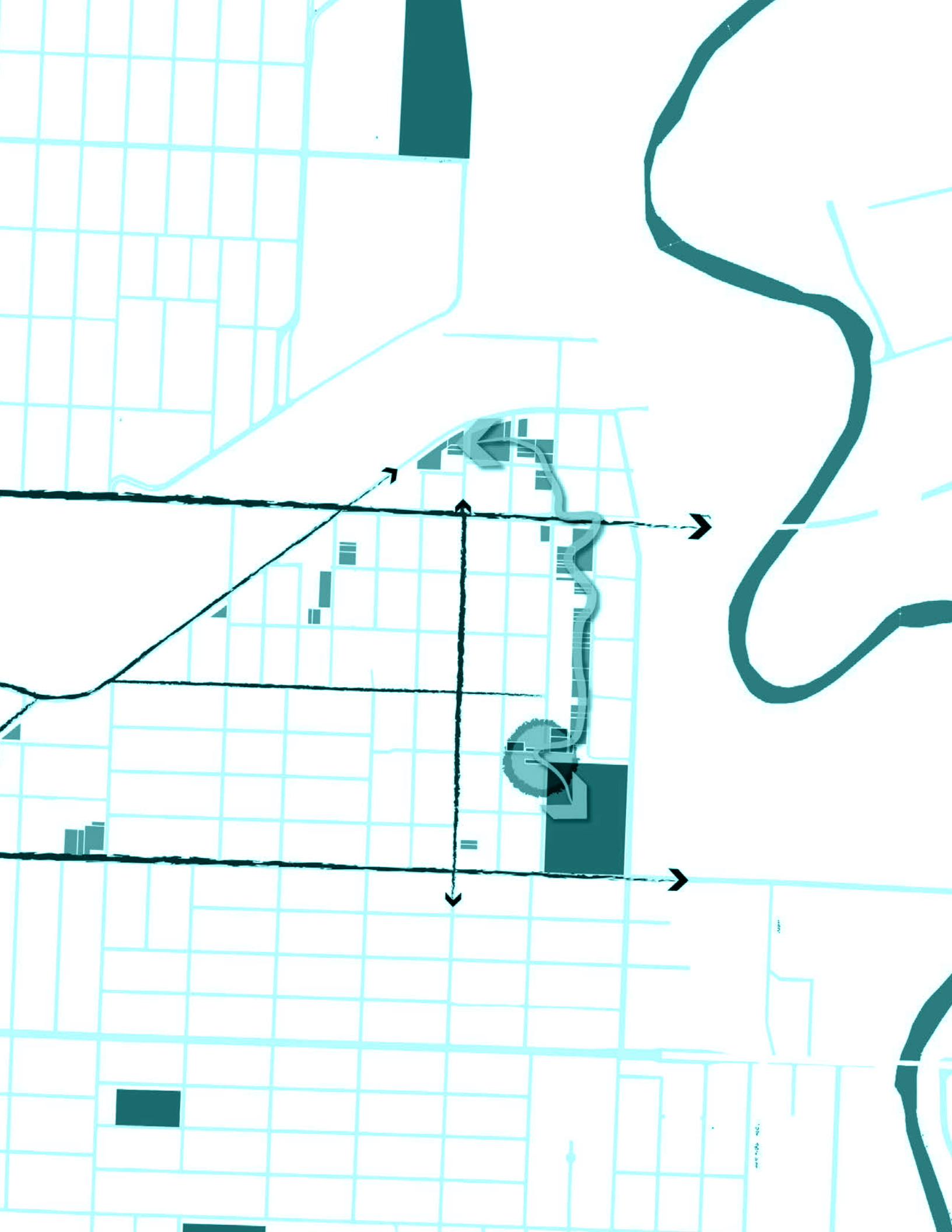
Many conclusions were drawn from analyzing this community survey. Some of these include understanding what possible opportunities for ecological function can exist within vacant lots according to residents' planting preferences and diversity. Other conclusions were made relating to community needs and feelings of safety. Overall, majority of survey participants would like to see more spaces within their neighborhoods to support positive social interaction and deter criminal activities. Considering the fact that not everyone is interested in learning more about nature or increasing the amount of native habitats within their neighborhood, it is important to design vacant lots with programmatic options for a wide range of users.

CHAPTER

DESIGN

5





5.1

STRATEGIC

FRAMEWORK

green network
selected vacant lot programming

Strategic Framework Plan

Findings and results discovered from site observations, community meetings, critical site mapping, and the community input survey tool informed the design of the strategic framework for both the Lykins and Sheffield neighborhoods in Northeast Kansas City, Missouri. This strategic framework outlines selected lots for intervention, general program and planting guidelines for vacancy, and detailed designs of two specific focus areas within the neighborhoods. Not only are vacant lots chosen for their suitability to contribute to a larger green network, as shown in Figure 5.1, but because of their location to function successfully as spaces for community interaction.

FIGURE 5.1
Selected Green Networks of Vacant
Lots Throughout Lykins and Sheffield





- Selected Vacant Lots
- Existing Parks
- Focus Areas
- Green Connections
- Main Corridors
- Roads
- Blue River

SCALE 1" = 1,000'-0"



Selected Vacant Lot Programming

Vacant lots in the strategic framework were given a general programmatic use by analyzing their location along main corridors in the neighborhoods and their relative location within community asset 'zones of absence'. The goal of this strategic programming is to take areas of underutilized space and create zones of productive and beneficial use for the community. General programs include (1) proposed large park spaces, (2) connection lots or trails, (3) garden hubs, (4) community hubs, and (4) art installation hot spots. All proposed programs are spaced proportionally throughout the neighborhoods in an effort to minimize walking distances between similar assets.

FIGURE 5.2
Selected Vacant Lot Programming





- Existing Parks / Athletic Fields
- Proposed Large Park Spaces
- Connection Lots / Trail Spaces
- Garden Hubs
- Community Hubs
- Art Installation Hot Spot
- Main Corridors
- Roads
- Blue River

SCALE 1" = 1,000'-0" ⬇



5.2

GUIDELINES

FOR VACANT LOTS

planting
programming

Planting Guidelines

Diversity

Choosing plant species within vacant lots can seem like a burdening task. Most residents want the lot to look and perform better, but do not have the time or money to implement and maintain the space. The concept of a ‘designed plant community’ can beautify spaces while giving opportunities for increased diversity, ecological function, and lower maintenance (Rainer and West 2015; Woodbury 2020). These types of plant communities are more resilient than typical lawns and parks and allow plants to be more of a dynamic player within the space. (Rainer and West 2015). A designed plant community takes advantage of native species found throughout the region of the site location and uses them to create a better sense of place.

FIGURE 5.3

Diversity Guideline Sketch:

(a)
Aesthetics of Plant Diversity

(b)
Wildlife Benefits

(c)
Ecosystem Function

1. Aesthetics of Plant Diversity (a)

When planting several species together in a space, it is important to create a cohesive look throughout. A cohesive look can be formed by choosing plants with similar textures and allowing two or three species to stand out with a different texture. Color is also a big contributing factor to aesthetic preferences—choosing plants within an analogous or complimentary color scheme can make a space look less weedy and overwhelming.



(a)



2. Wildlife Benefits (b)

While choosing plants for a space, serious thought must go into what species are essential for insects and wildlife. Certain species can provide nesting habitats, while others can provide food and nectar sources. If a plant bed supports life for insects and pollinators, the birds will not be far away. Supporting wildlife can give rise to opportunities for nature education within vacant lots.



(b)

3. Ecosystem Function (c)

Not only do plant species need to look like they belong together, but they need to pass the compatibility test; one species cannot be outcompeting or invasively spreading. In certain contexts, plants with longer roots can help decrease the rate of erosion—which is important for vacant lots with steep slopes. Increasing plant diversity and density can also provide benefits to stormwater mitigation. Allowing larger areas to be filled with plants can help slow and filter rainwater flow (MARC and APWA 2012).

GOOD ECOSYSTEM FUNCTION



BAD ECOSYSTEM FUNCTION



(c)



Order and Maintenance

1. Within Plant Beds

In vacant lots, a ‘tossed salad’—a sub-concept for the appearance of a ‘designed plant community’—can be used within the plant beds. Tossed salads allow plants the ability to move throughout a space—this means that maintenance is performed on the bed as a whole and not on individual species (Woodbury 2020). In a tossed salad planting concept, it is important to maintain the original intent of the design—which in this project’s case is diversity and ecological function—so individual plant movement is not an issue.

2. Along Paths

Although most plant beds within vacant lots should be designed as ‘tossed salads’, the edges of these communities should be more legible. As legibility increases, so does maintenance. Because of this, choosing main paths within a site where legible edges are necessary is important. One of the most important aspects of maintaining legibility is keeping the plants from entering the path area—this is part of the ‘Messy Ecosystems / Orderly Frames’ concept (Nassauer 1995).

FIGURE 5.4
Maintenance Guideline Sketch

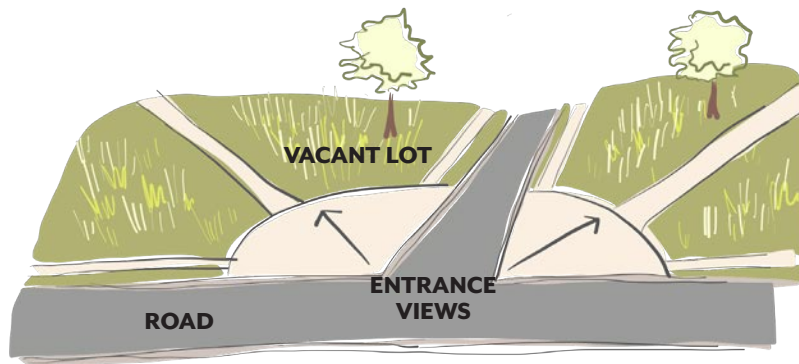




Open Views

1. Along Main Corridors and Entrances

Within vacant lots it is imperative that views are not obstructed at any point. At any corner or entrance of the lot, a defined opening or viewshed should be present to make the lot feel safer and more inviting. Keeping shrubs and plants at a maximum height of three and a half feet allow people to see into a space.



(a)

FIGURE 5.5

Open View Guideline Sketch:

(a)
Along Main Corridors and
Entrances

(b)
Throughout the Lot

2. Throughout the Lot

Plants that are one inch to a foot in height—such as grasses and groundcovers—should be used along paths and trails of the site. This will allow the path to feel more open and comfortable.



(b)



Program Guidelines

Activities

1. Along Main Corridors and Entrances

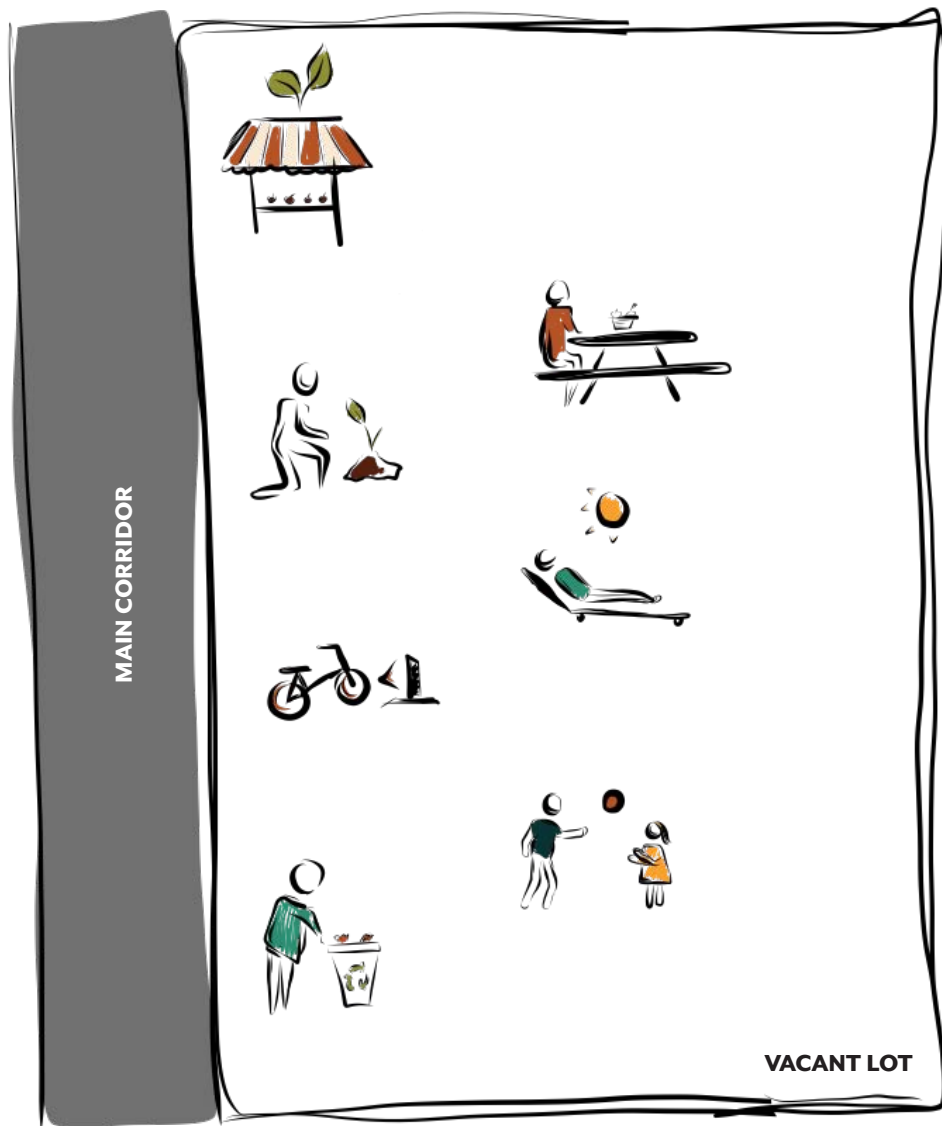
In order to bring more life and people to a space, placing certain activities like gardening, market spaces, bike stations, and recycling centers, among others at entrances and along main corridors (roads) is necessary. These types of activities have certain daily affordances for people which will promote other types of passive uses within the space. If there is evidence of people, it makes the site more attractive for other visitors and residents to come.

2. Within Lots

Within a vacant lot, activities can be more passive. This includes informal events like soccer, sitting and talking with neighbors, picnicking, and nature play or education. While activities on the outskirts like farmer's markets and bike stations bring people to the space, passive activities within the vacant lot encourage people to stay.



FIGURE 5.6
Activities Along Main Corridors
and Within the Lot



ALONG MAIN CORRIDOR

WITHIN THE LOT



Feature Elements

1. Lighting

Lighting is essential to increase perceptions of safety within vacant lots. Whether lighting is just an element along paths of the space, or as a canopy feature, it is necessary.

2. Fencing

Not all vacant lots need to be fenced. Sometimes a fence may even prevent people to come into the space. Fencing can increase perceptions of safety if it is designed in a way to keep criminals out of the space, but this is sometimes hard to accomplish.

3. Signage

In vacant lots, signage can be an important element to show territoriality and promote education of native plants and ecological function within the space. It can also double as an art installation to exhibit more of the neighborhood's culture.



FIGURE 5.7
Feature Elements



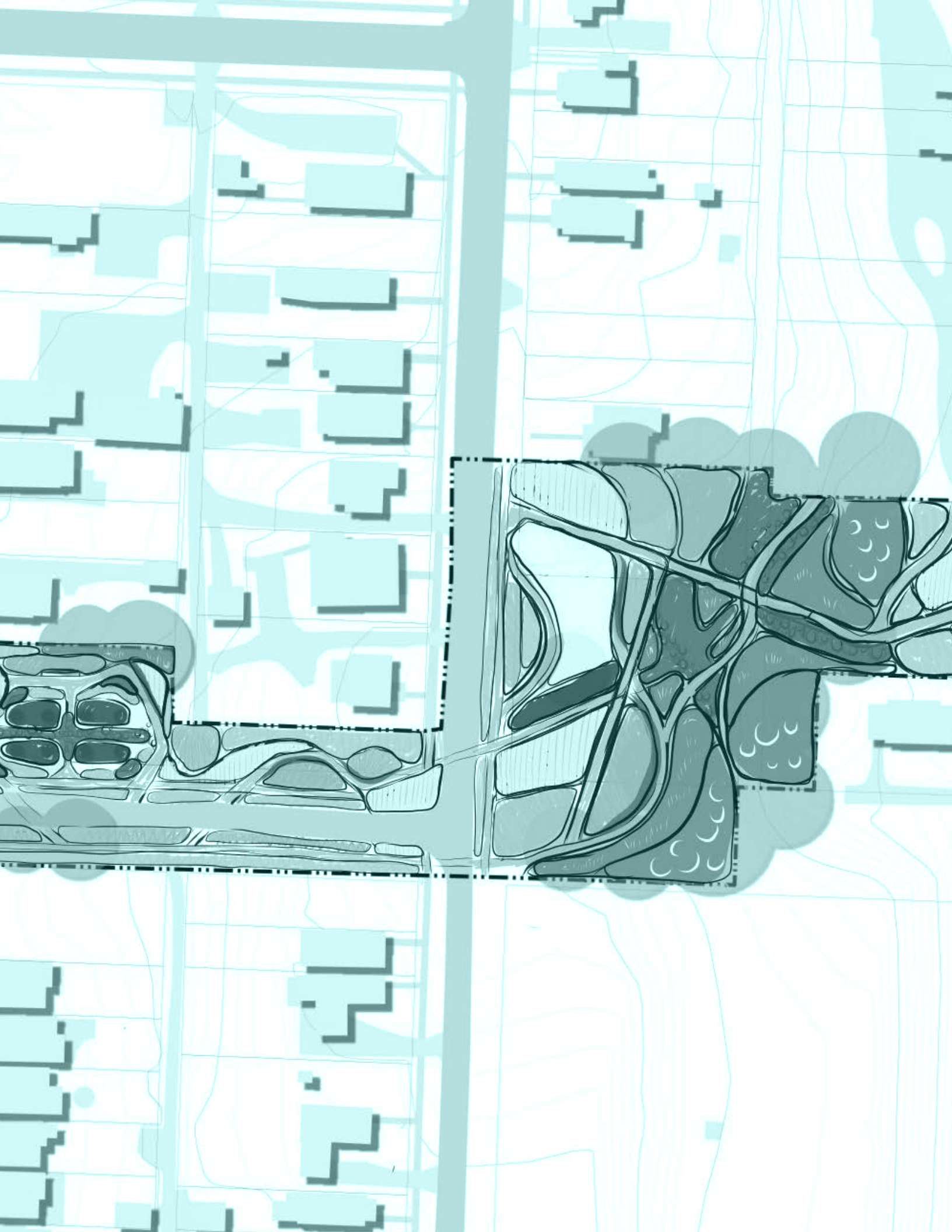
LIGHTING



FENCING



SIGNAGE



5.3

FOCUS AREA 1

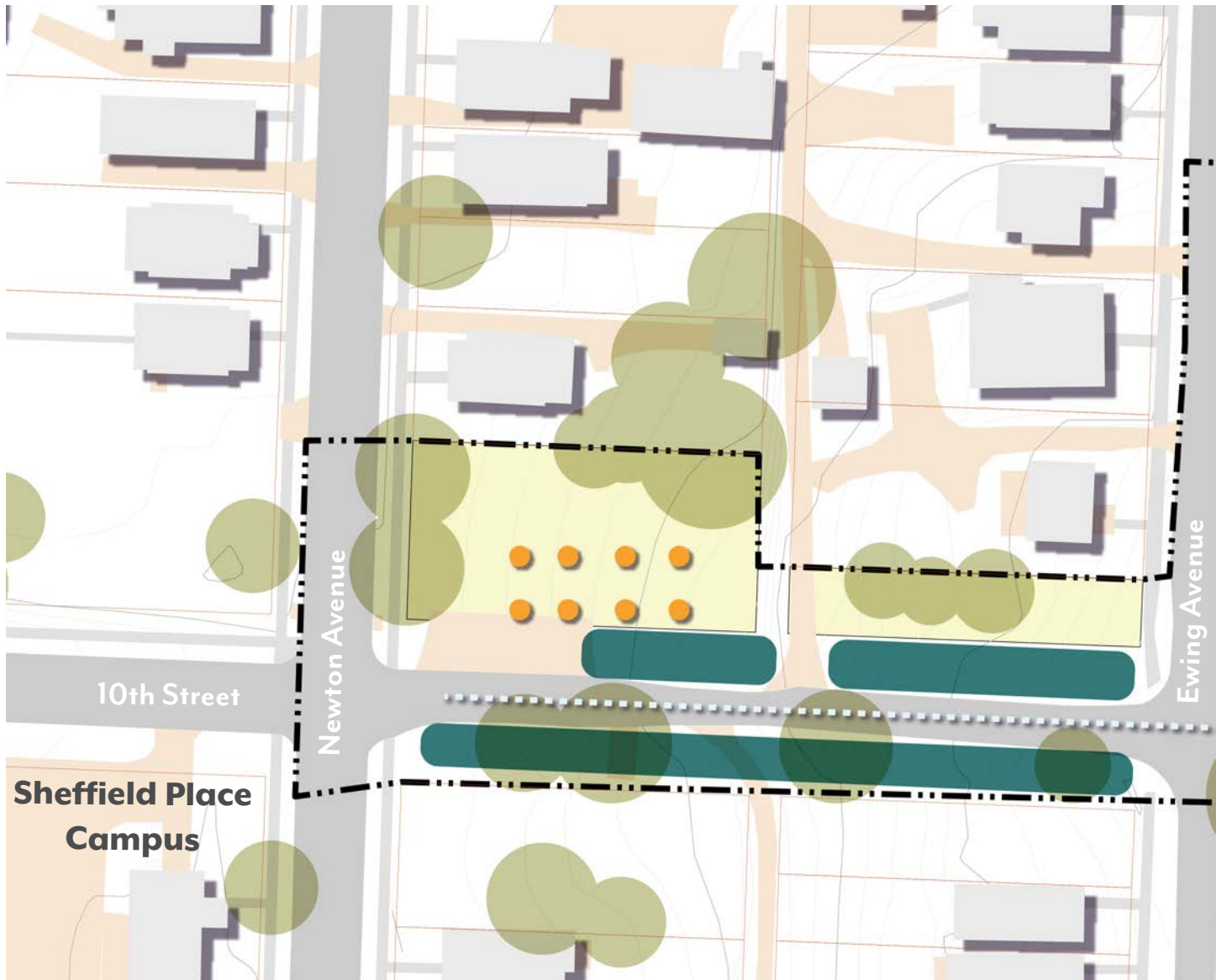
S H E F F I E L D

site analysis
program features
site design

Site Analysis

The focus area within Sheffield includes six vacant lots—one of them has an existing community orchard. This orchard is primarily used by the women at the homeless center, Sheffield Place. The Sheffield Place campus is located directly southeast of the focus area making it easily accessible to residents of the campus and surrounding neighborhood area. The eastern portion of the focus area contains very steep slopes along with densely vegetated areas. Clearing out this thick underbrush and creating a healthy woodland ecosystem is critical to making these vacant lots usable. Green infrastructure need of this area is very high, so it is important to increase the function of green infrastructure and rain

FIGURE 5.8
Sheffield Focus Area:
Site Analysis



gardens. Sheffield Park is located directly south of this focus area, while to the north, other selected vacant lots in the strategic framework will contribute to a connected green network.






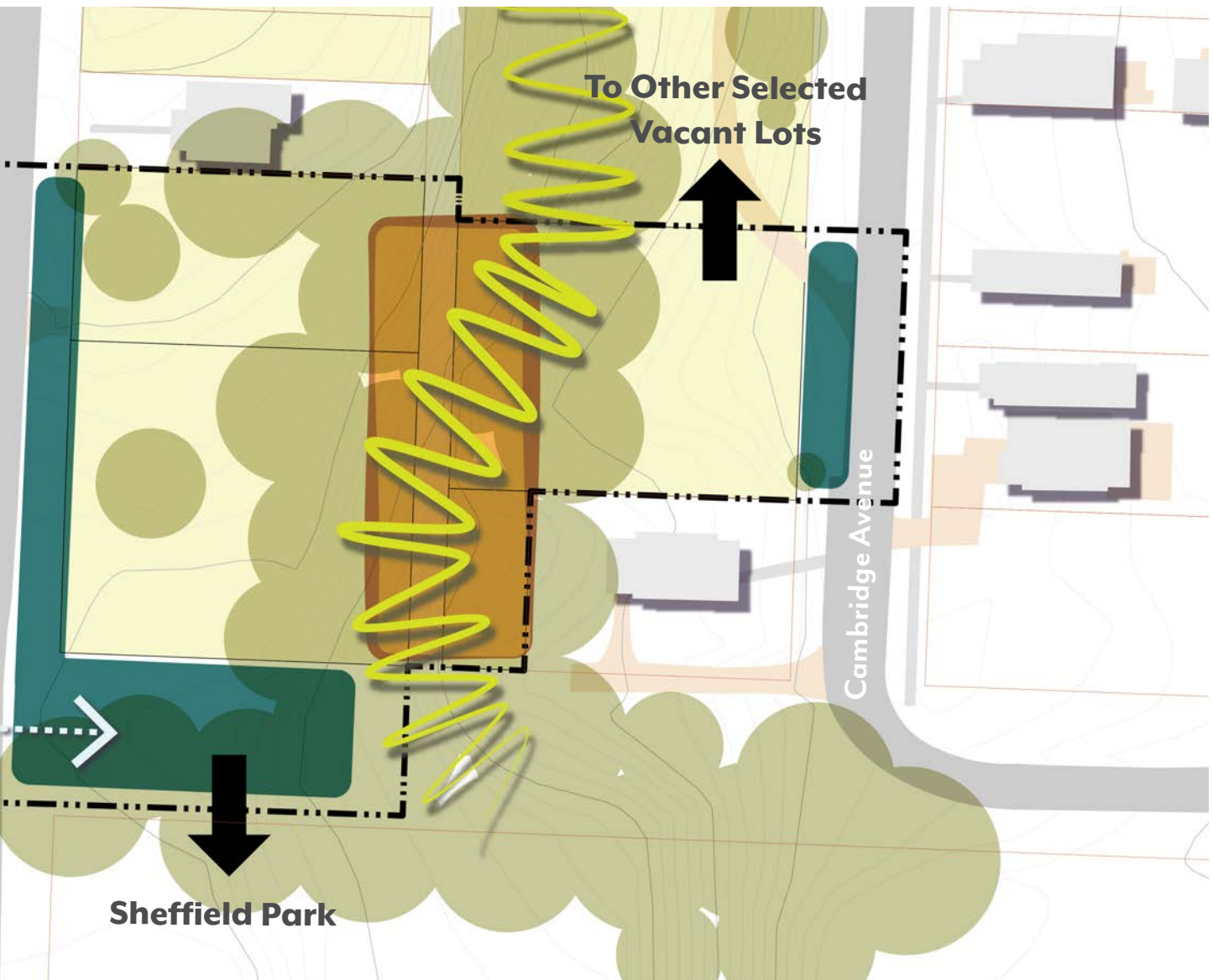
-  Existing Orchard
-  Existing Wooded Area
-  Selected Vacant Lots
-  Impervious Surfaces
-  High Sloping Topography
-  Green Infrastructure Need
-  Water Flow
-  Thick Underbrush
-  Focus Area Boundary



FIGURE 5.9
Sheffield Focus Area:
Key Map



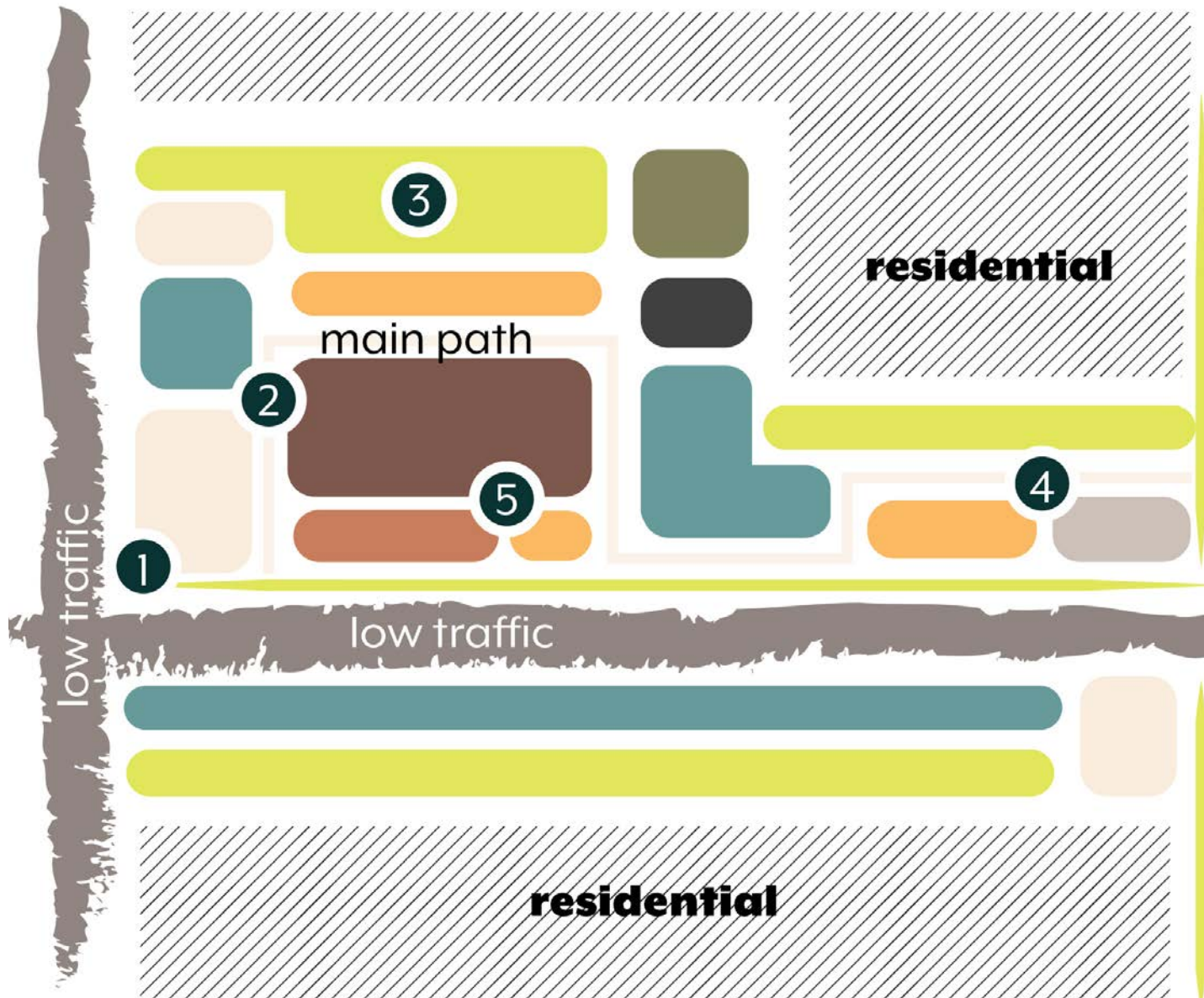
SCALE 1" = 60'-0"



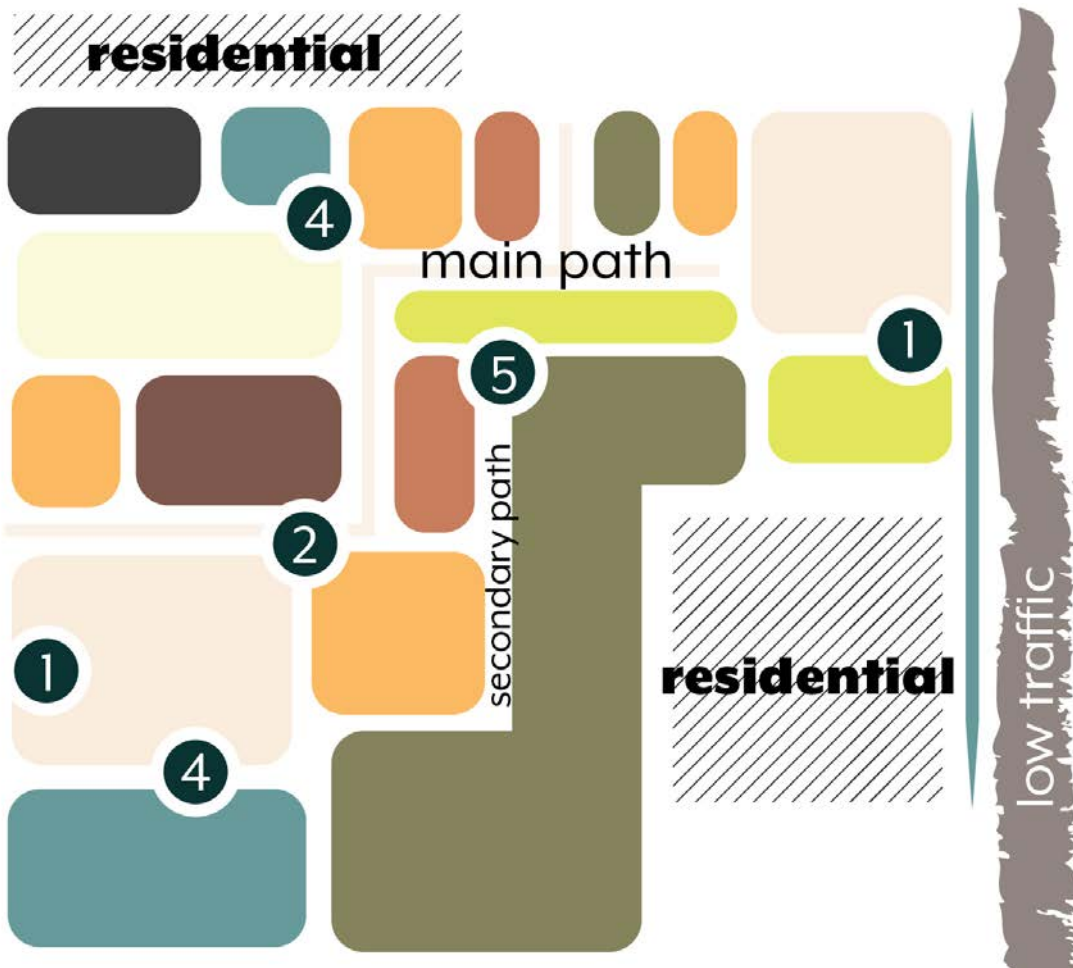
Program Features

The Sheffield focus area is in an area with mostly low traffic roads. Considering that this area has a high green infrastructure need, many of the roads and natural depressions of the site are lined with rain garden. Adjacent programmatic activities are nature play, food production, and pollinator patches--these activities are found along main paths. Near residential zoned parcels, a substantial vegetated buffer is present. Wayfinding signage is located along the main path and other educational signage are found near pollinator patches and rain gardens. Plaza gathering spaces are strategically placed near the road to invite people in with an open view.

FIGURE 5.10
Sheffield Focus Area:
Program Analysis



- | | | | |
|---|---------------------------|---|---------------------|
|  | Ground Cover |  | Compost / Recycling |
|  | Plaza / Gathering |  | Woodland |
|  | Pollinator Patch |  | Rain Garden |
|  | Bike Station |  | Residential |
|  | Nature Play / Education |  | Art / Signage |
|  | Food Production / Markets |  | Roads |

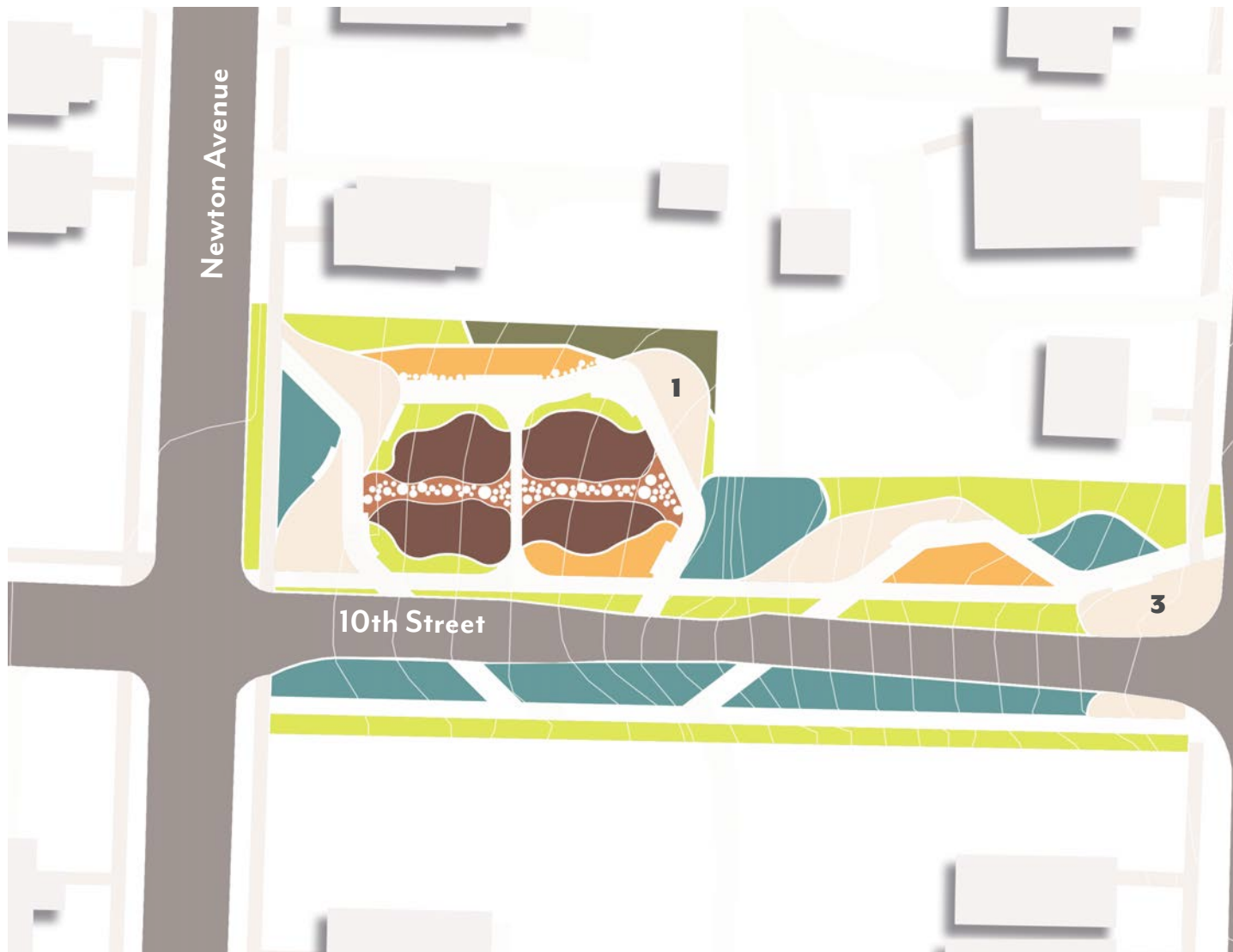


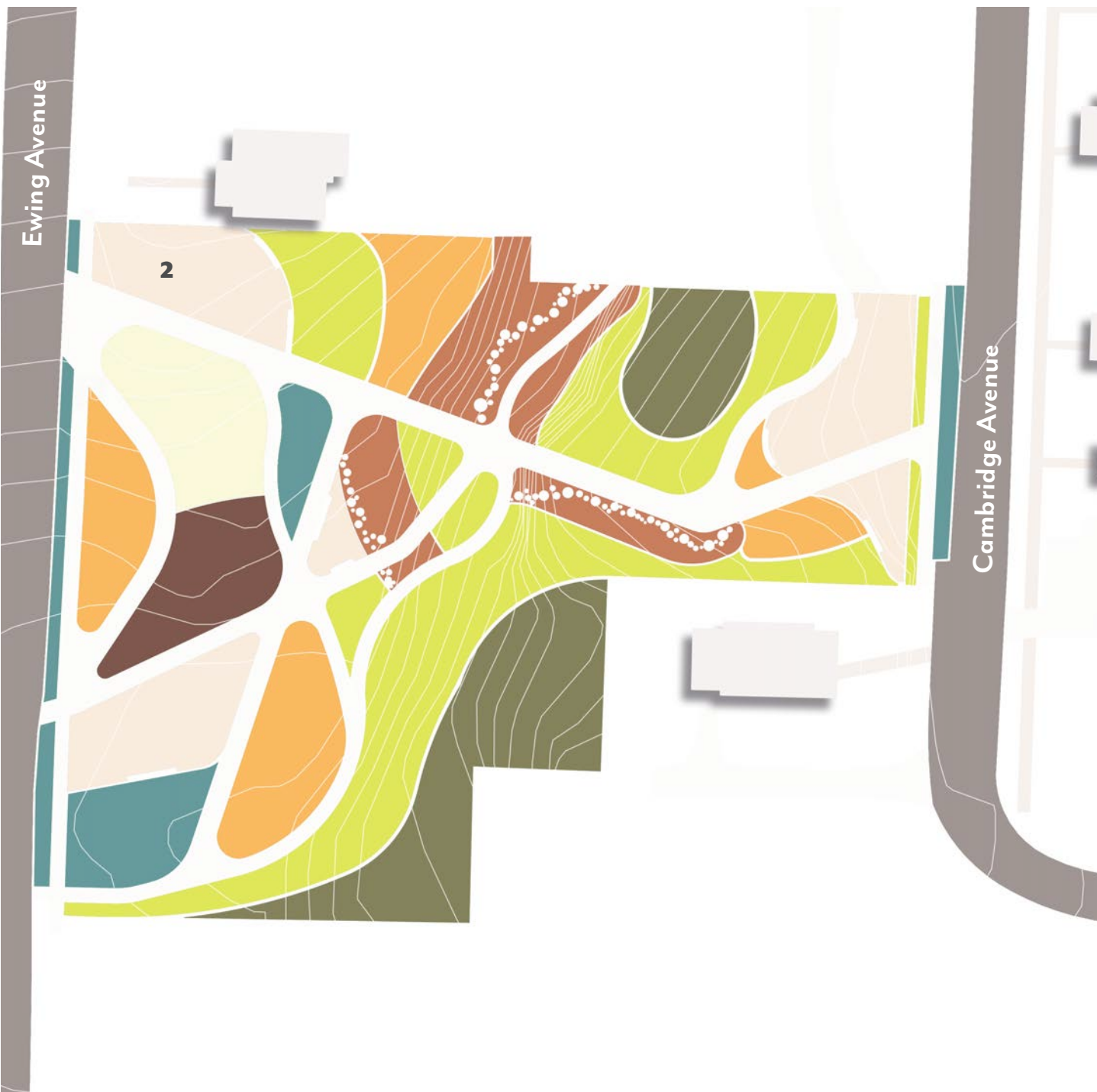
- 1** Entrance Signage
- 2** Wayfinding
- 3** Art Installations / Sculptures
- 4** Green Infrastructure or Pollinator Patch Educational Signage / Art
- 5** Nature Play Interactive Art

Defined Programming

FIGURE 5.11
Sheffield Focus Area:
Defined Programming

- Pollinator Patch
- Plaza / Gathering Space
- Garden / Orchard
- Lawn Space
- Nature Play
- Groundcover Plantings
- Rain Garden
- Woodland
- 1 Compost and Garden Shed Area
- 2 Recycling Center
- 3 Bike Station





Ewing Avenue

2

Cambridge Avenue




SCALE 1" = 50'-0"

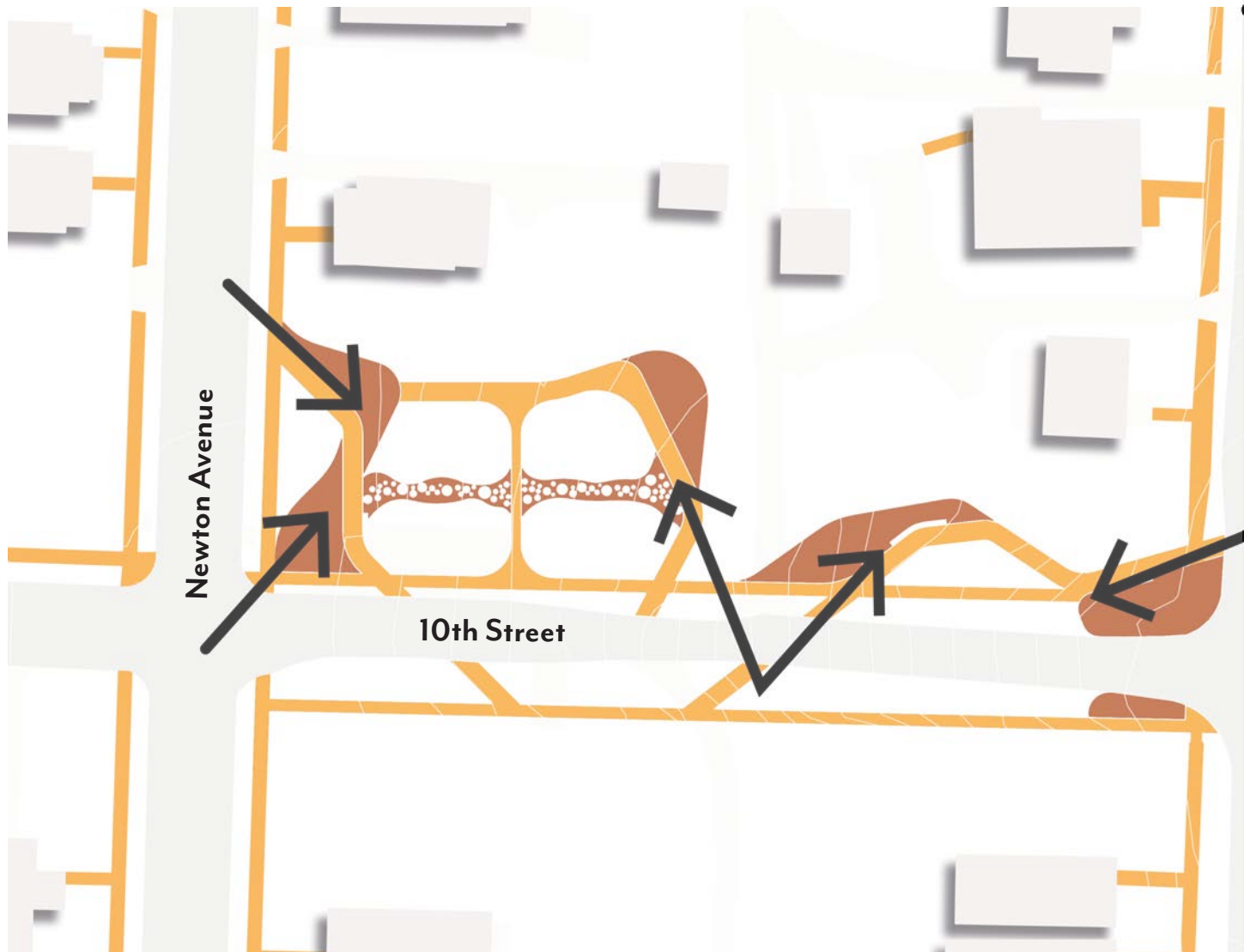


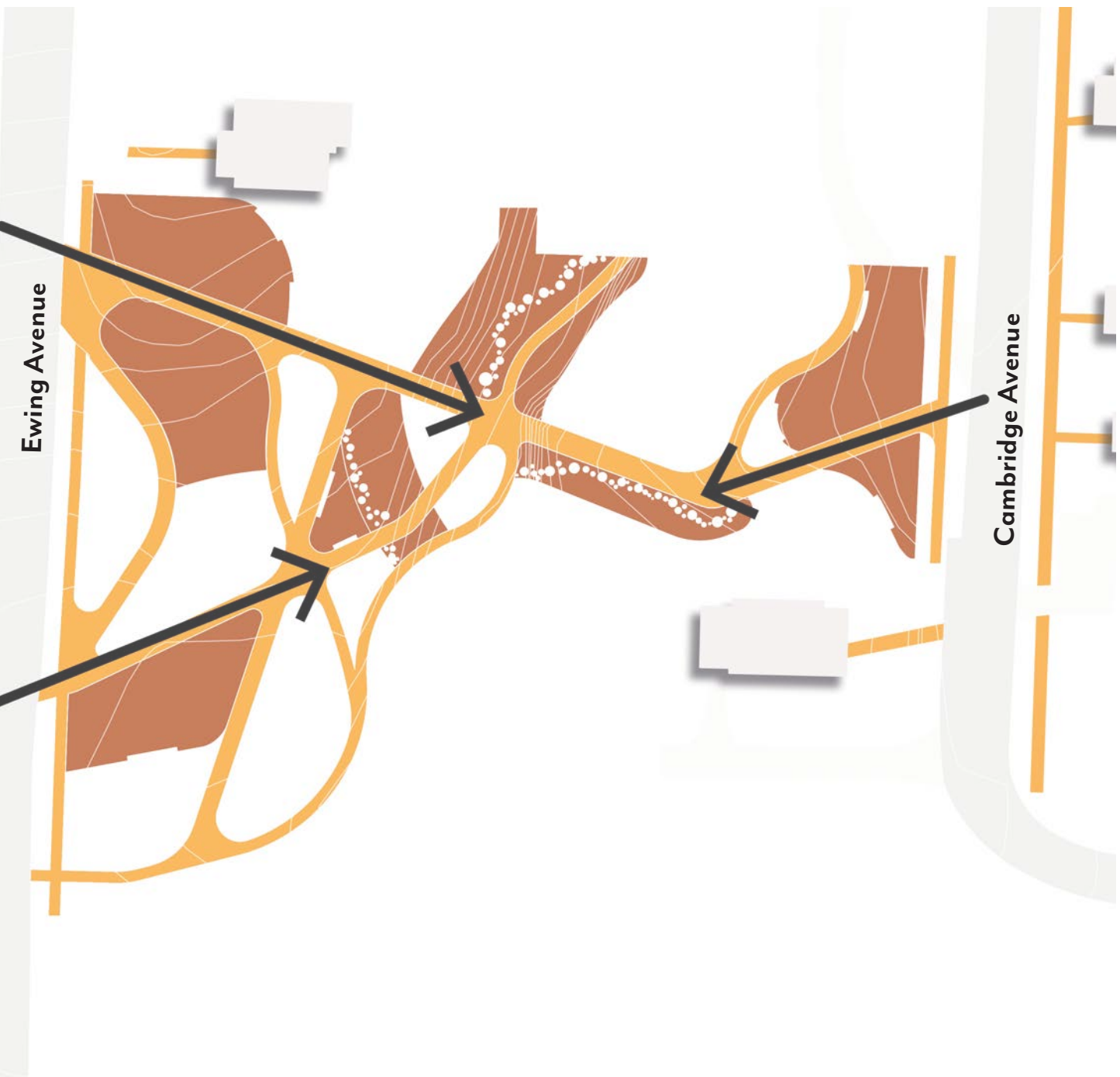
Circulation and Open View Diagram

FIGURE 5.12
Sheffield Focus Area:
Circulation and Open View

Paths within the Sheffield focus area are designed to create clear views through the site. Plazas are placed strategically at corners and edges of the site to allow for a more open entrance welcoming people into the lot.

-  Paths / Sidewalks
-  Open Spaces
-  Viewshed





Ewing Avenue

Cambridge Avenue

SCALE 1" = 50'-0"



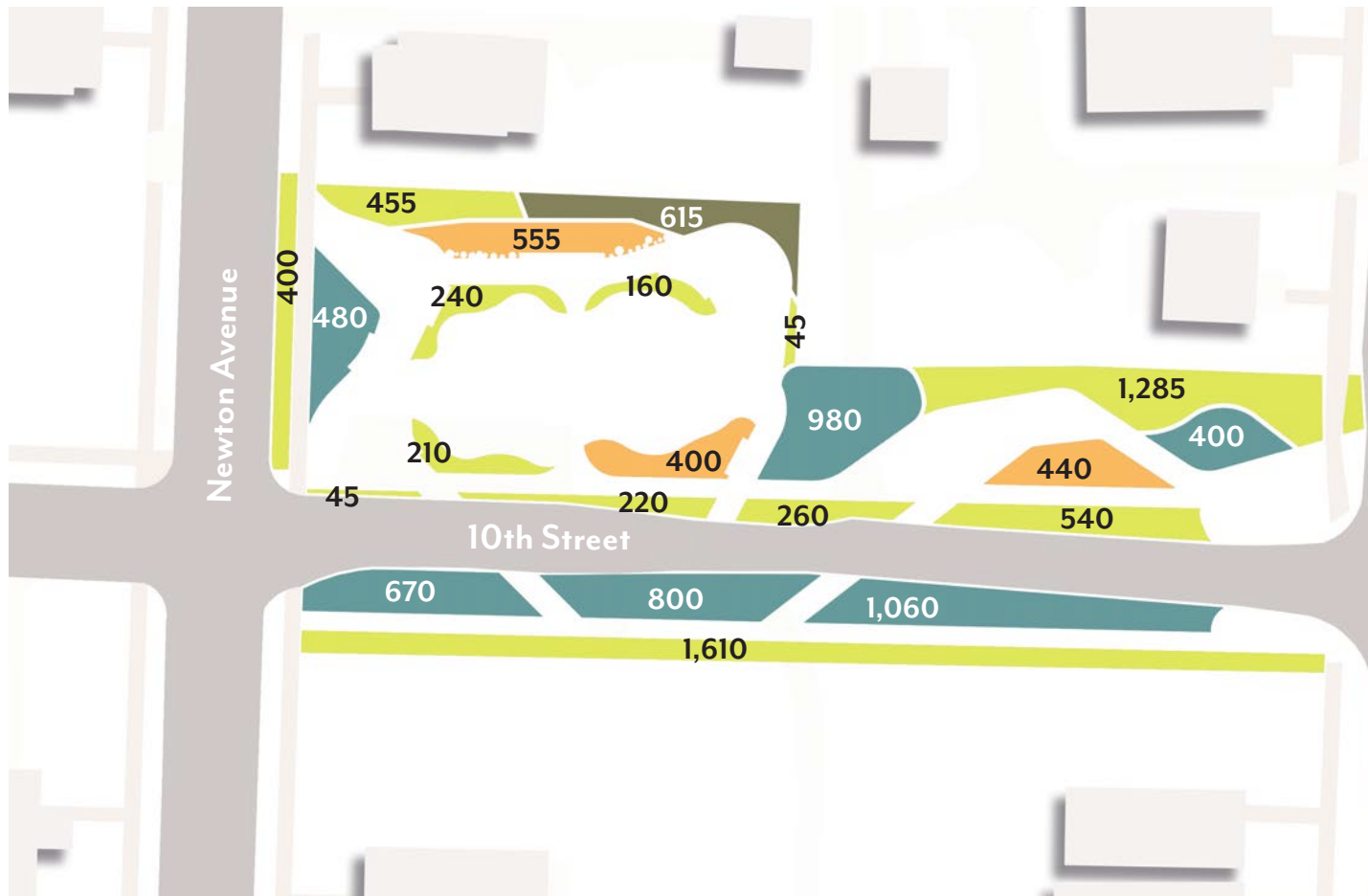
Square Footage Analysis of Plant Beds

The total acreage of the Sheffield focus area is about 1.4 acres—this is about 70,000 square feet. The total area of plant beds that will be used to improve the ecological function of the vacant lots totals almost 40,000 square feet. This means that more than half of this focus area is dedicated to native plant areas while the rest is for community interaction spaces such as plazas, food production, nature play, and trails.

FIGURE 5.13
Sheffield Focus Area:
Plant Bed Square Footage

TOTAL SQUARE FEET

- 7,190 ● Pollinator Patch
- 16,285 ● Groundcover Plantings
- 8,040 ● Rain Garden
- 7,290 ● Woodland





SCALE 1" = 50'-0"



FIGURE 5.14
Orchard Plaza





FIGURE 5.15
Perspective View Key Map:
Orchard Plaza



FIGURE 5.16
Food Production





FIGURE 5.17
Perspective View Key Map:
Food Production



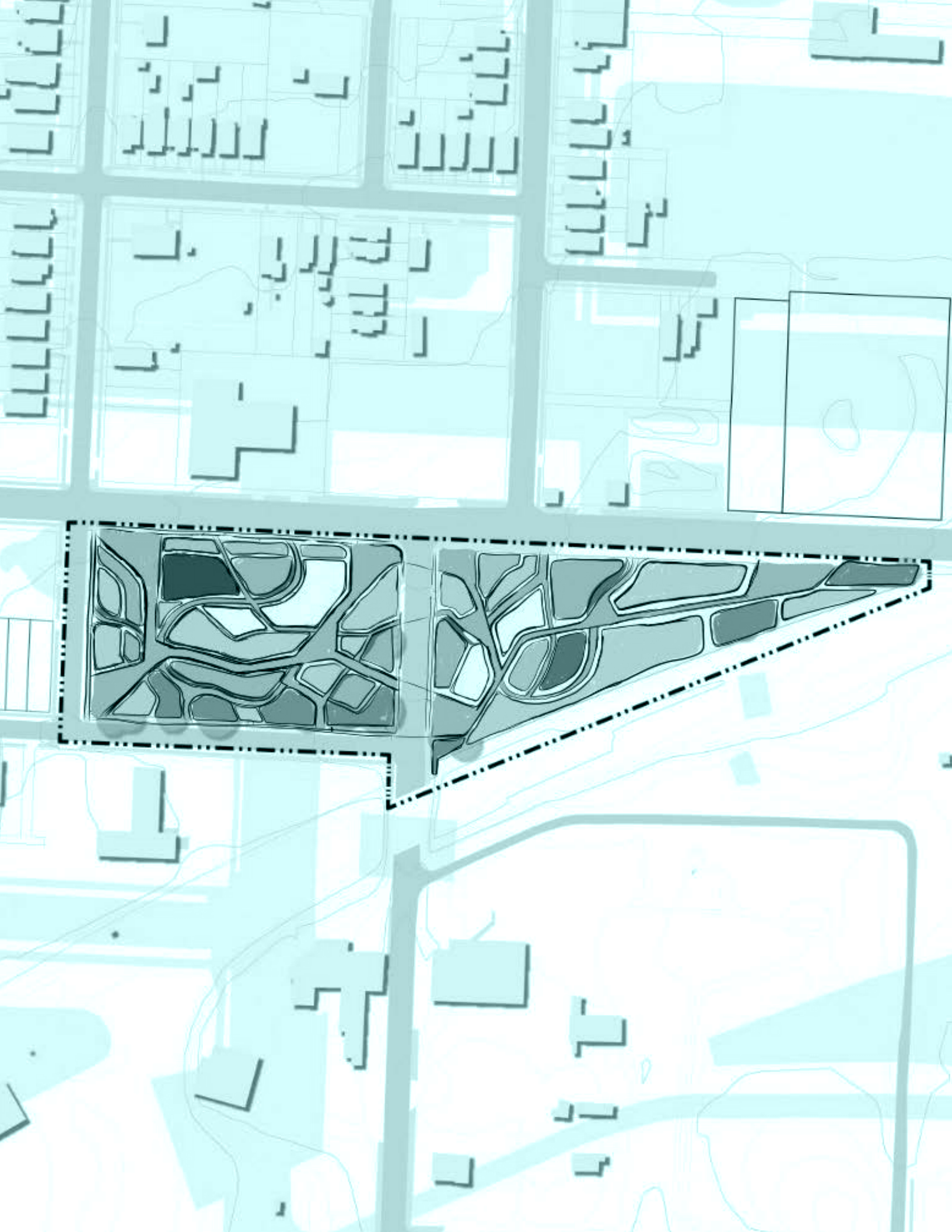
FIGURE 5.18
Woodland Nature Play
and Education





FIGURE 5.19
Perspective View Key Map:
Woodland Nature Play
and Education





5.4

FOCUS AREA 2

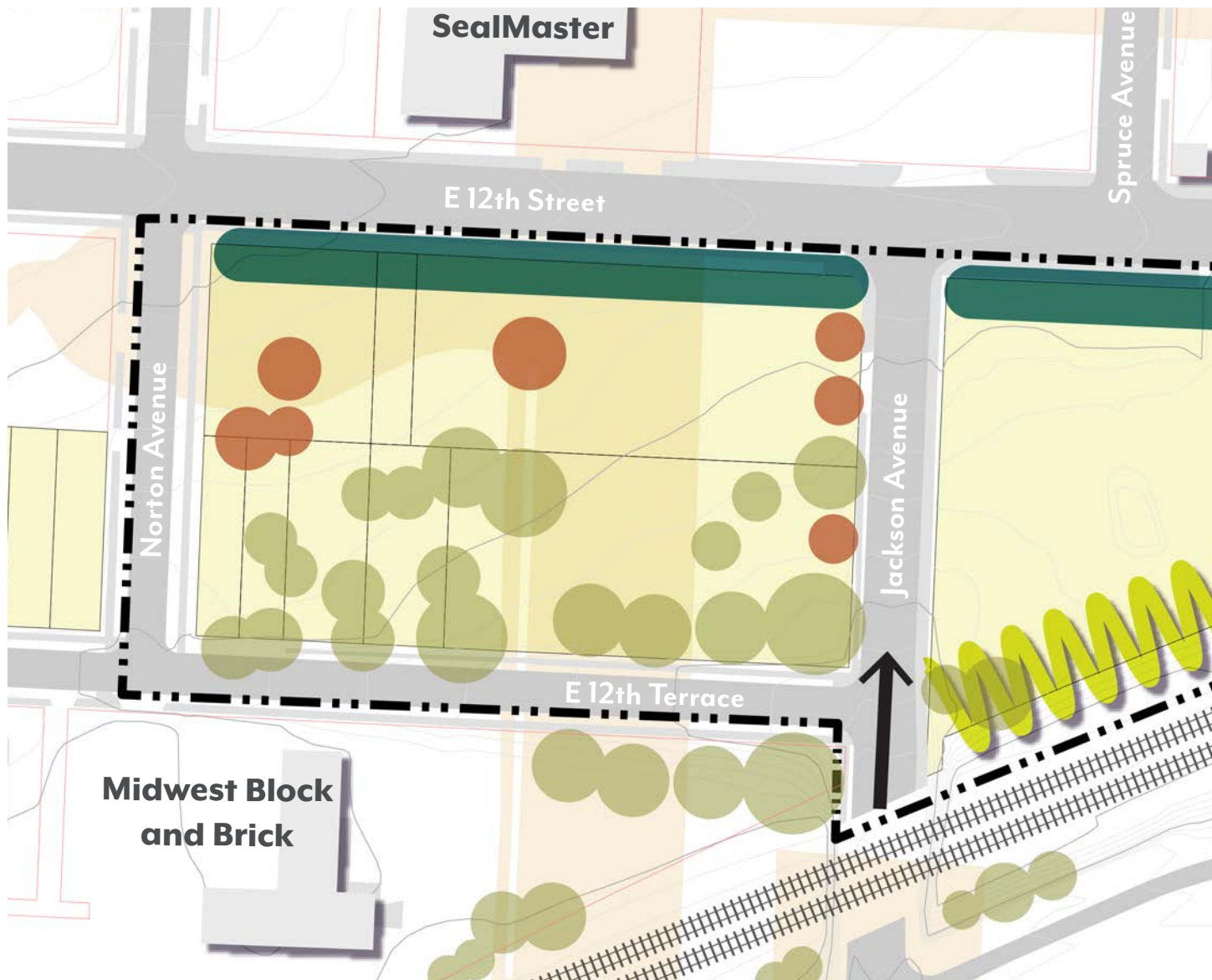
LYKINS

site analysis
program features
site design

Site Analysis

The focus area within Lykins includes 9 vacant lots. In contrast with the Sheffield focus area that is predominately surrounded by residential zones with high sloping topography, the focus area in Lykins is almost flat and surrounded by industrial land use. Because of this proximity, it is important to propose larger naturalized areas of vegetation that can offset the pollution given off from nearby businesses. A wide vegetated zone is necessary within the lot east of Jackson Avenue to buffer the railroad to the south of the site. The vacant lots on the west side of Jackson Avenue have high ecological value along with high priorities for

FIGURE 5.20
Lykins Focus Area:
Site Analysis



forest conservation and restoration (MARC 2019). These vacant lots are located along 12th Street which is a main high traffic road within Lykins. Being located along this street, these lots have great opportunity to become a community hub which can feature active and passive uses of greenspace.

- Forest Restoration Priority
- Existing Wooded Area
- Selected Vacant Lots
- Impervious Surfaces
- Green Infrastructure Need
- Entrance from Under Bridge
- Proposed Vegetated Buffer
- Focus Area Boundary



FIGURE 5.21
Lykins Focus Area:
Key Map

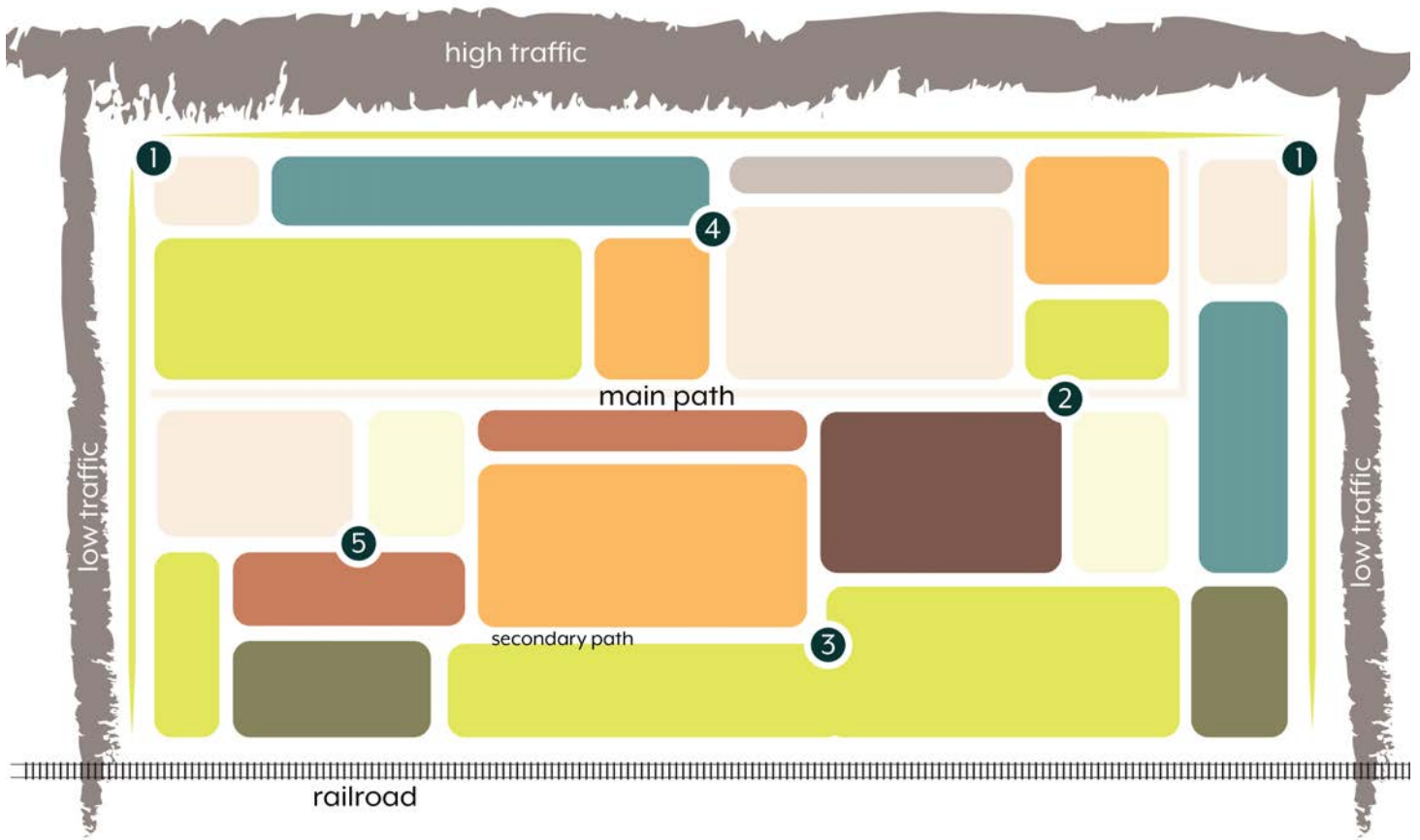





SCALE 1" = 100'-0" ⬇

Program Features

The Lykins focus area lies directly north of a railroad. Groundcover and woodland planting areas are adjacent to the railroad to act as a natural buffer. Just as the Sheffield focus area, adjacent programmatic activities are nature play, food production, and pollinator patches—these activities are found along main paths. Wayfinding signage is located along the main path and other educational signage are found near pollinator patches and rain gardens. Plaza gathering spaces are strategically placed near the road to invite people in with an open view.

FIGURE 5.22
Lykins Focus Area:
Program Analysis

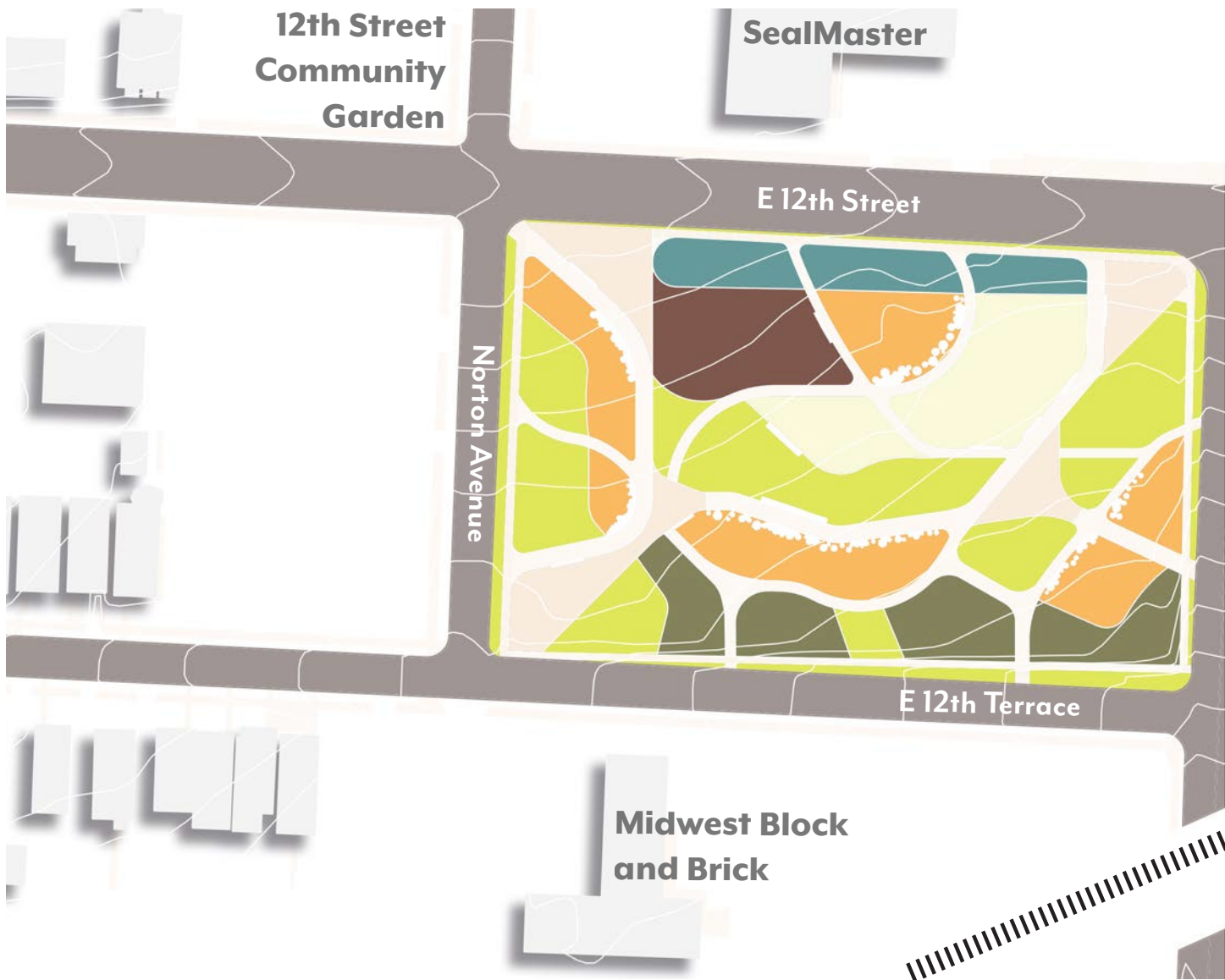


-  Ground Cover
 -  Plaza / Gathering
 -  Pollinator Patch
 -  Bike Station
 -  Nature Play / Education
 -  Food Production / Markets
 -  Woodland
 -  Rain Garden
 -  Art / Signage
 -  Roads
 -  Railroad
-
-  1 Entrance Signage
 -  2 Wayfinding
 -  3 Art Installations / Sculptures
 -  4 Green Infrastructure or Pollinator Patch Educational Signage / Art
 -  5 Nature Play Interactive Art

Defined Programming

FIGURE 5.23
Lykins Focus Area:
Defined Programming

- Pollinator Patch
- Plaza / Gathering Space
- Garden / Orchard
- Lawn Space
- Nature Play
- Groundcover Plantings
- Rain Garden
- Woodland
- | Bike Station








SCALE 1" = 100'-0"

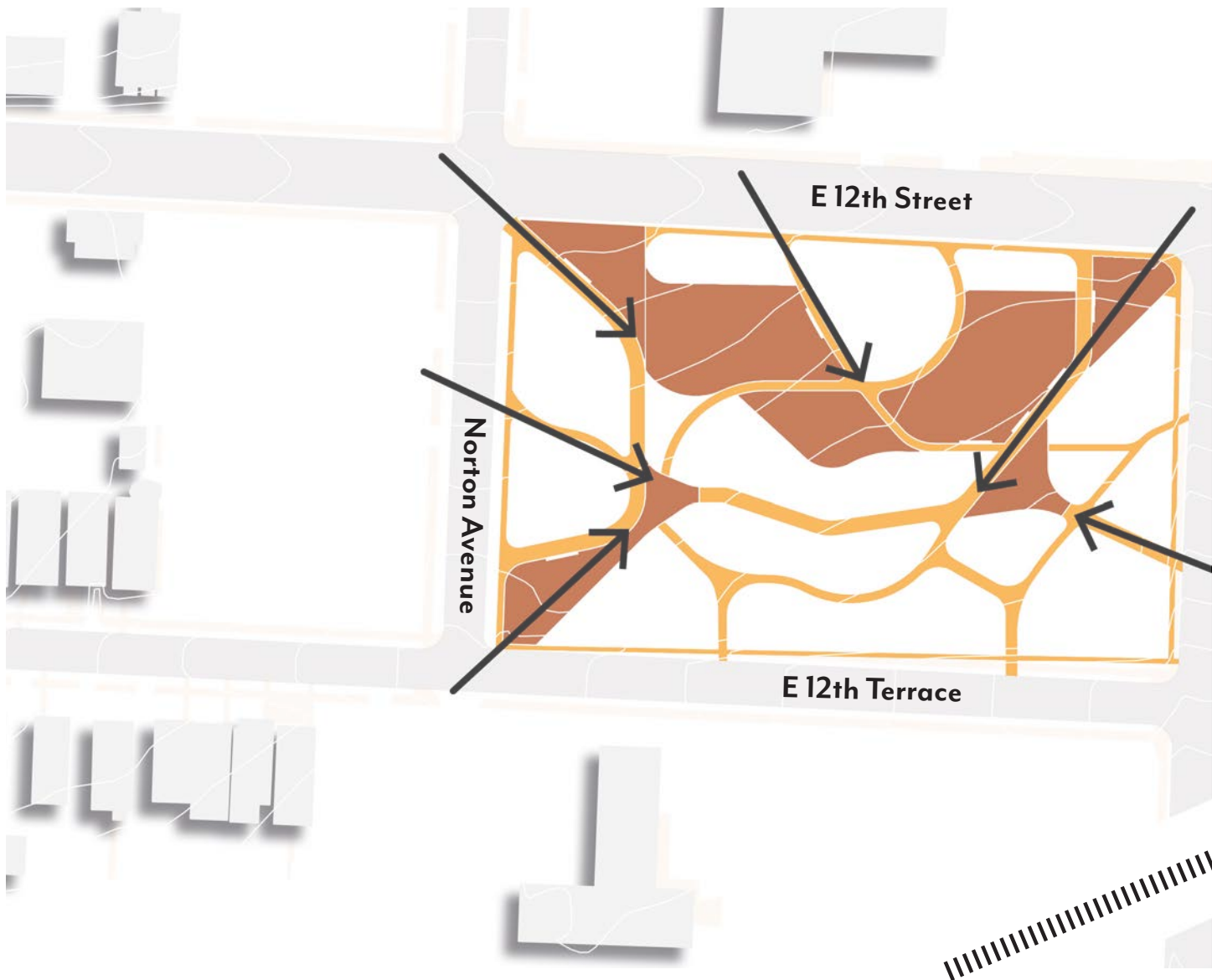


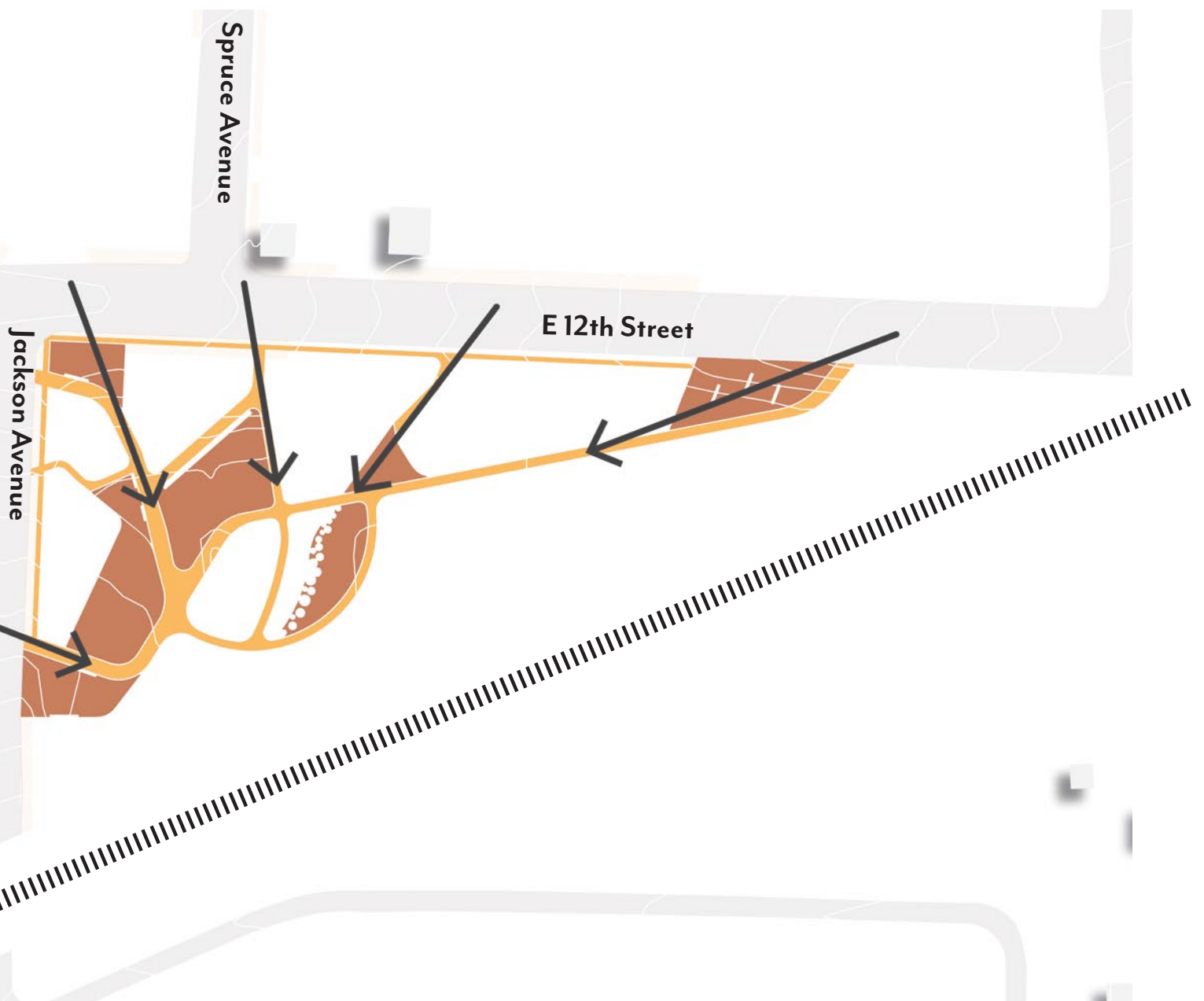
Circulation and Open View Diagram

Just like Sheffield, paths within the Lykins focus area are designed to create clear views through the site. Plazas are placed strategically at corners and edges of the site to allow for a more open entrance welcoming people into the lot.

FIGURE 5.24
Lykins Focus Area:
Circulation and Open View

-  Paths / Sidewalks
-  Open Spaces
-  Viewshed





SCALE 1" = 100'-0"



Square Footage Analysis of Plant Beds

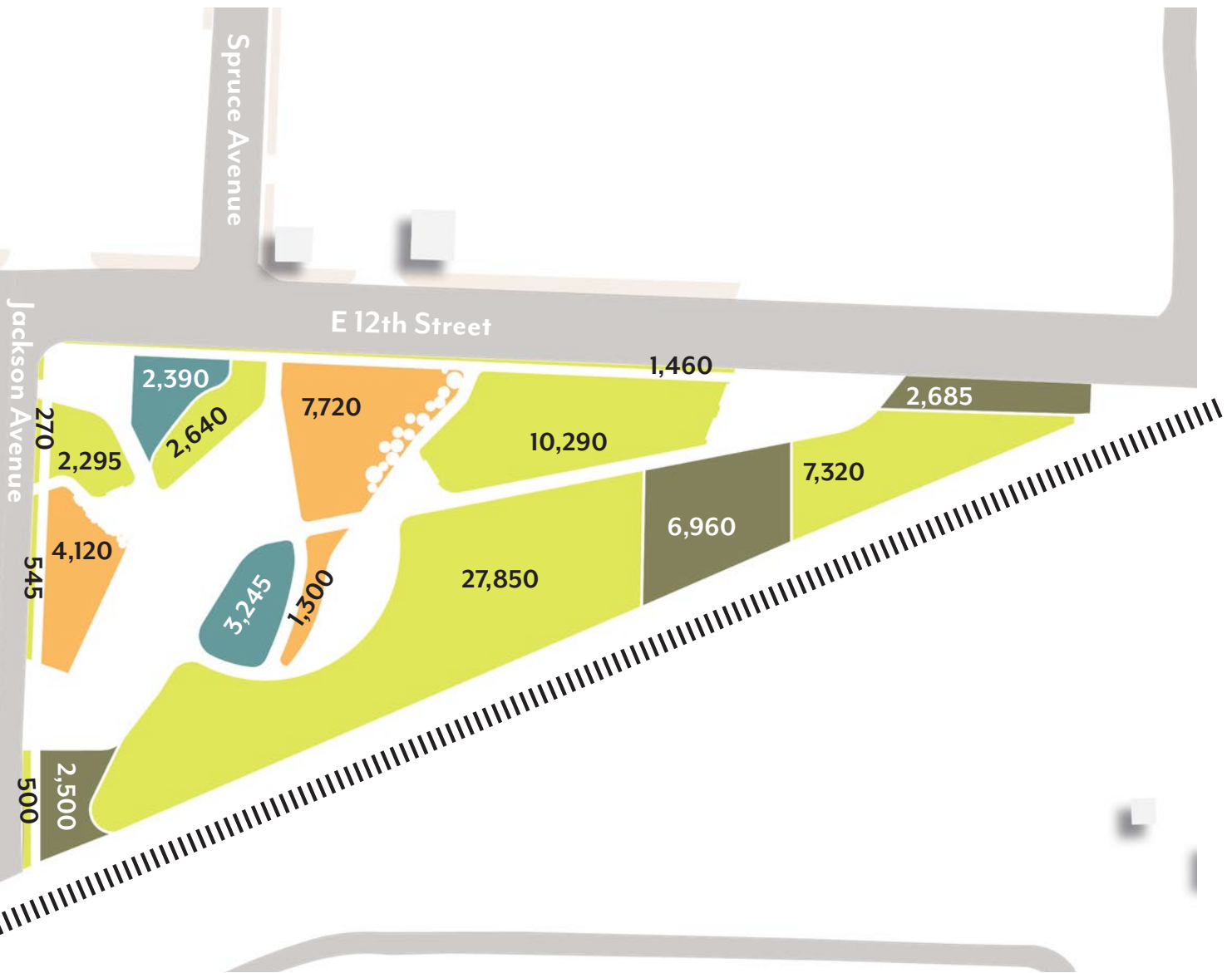
The total acreage of the Lykins focus area is about 4.5 acres—this is about 196,020 square feet. The total area of plant beds that will be used to improve the ecological function of the vacant lots totals about 153,000 square feet. This means that almost 80% of this focus area is dedicated to native plant areas while the rest is for community interaction spaces such as plazas, food production, nature play, and trails.

FIGURE 5.25
Lykins Focus Area:
Plant Bed Square Footage



TOTAL SQUARE FEET

- 31,770 ● Pollinator Patch
- 85,220 ● Groundcover Plantings
- 12,370 ● Rain Garden
- 23,745 ● Woodland



SCALE 1" = 100'-0"



FIGURE 5.26
Lykins Mid Plaza Looking East





FIGURE 5.27
Perspective View Key Map:
Lykins Mid Plaza Looking East



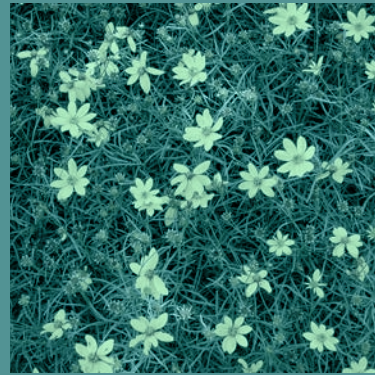
FIGURE 5.28
Pollinator Patch Nature Play





FIGURE 5.29
Perspective View Key Map:
Pollinator Patch Nature Play





5.5

PLANTING

SPECIES LIST EXAMPLES

pollinator patch
rain garden
groundcover
woodland

Pollinator Patch

FIGURE 5.30

- (a) Aromatic Aster
- (b) Butterfly Weed
- (c) Switchgrass
- (d) Slender Mountain Mint
- (e) Threadleaf Coreopsis
- (f) Little Bluestem
- (g) Orange Coneflower
- (h) Prairie Violet



TABLE 5.1
Pollinator Patch
Plant Palette

Botanical Name	Common Name	Height (")	Water Use	Light	Bloom Time	Color	Environmental Benefits
<i>Viola pedatifida</i>	Prairie Violet	6	dry-medium	full sun	april-june	purple	pollinators
<i>Rudbeckia fulgida</i>	Orange Coneflower	24-36	dry-medium	full sun	june-october	orange/yellow	birds, butterflies
<i>Coreopsis verticillata</i>	Threadleaf Coreopsis	30-36	dry-medium	full sun	june-september	yellow	butterflies
<i>Panicum virgatum</i>	Switchgrass	36-74	medium-wet	full sun - part shade	july-february	pink-tinged	food, birds
<i>Symphotrihum oblongifolium</i>	Aromatic Aster	12-36	dry-medium	full sun	august-september	blue, purple	birds, butterflies
<i>Pycnanthemum tenuifolium (flexuosum)</i>	Slender Mountain Mint	20-36	dry-medium	full sun	july-september	white	bees, butterflies
<i>Schizachyrium scoparium</i>	Little Bluestem	24-48	dry-medium	full sun	august-february	purplish bronze	birds, butterflies
<i>Asclepias tuberosa</i>	Butterfly Weed	12-24	dry-moist	full sun	may-september	orange, yellow	butterflies

Rain Garden

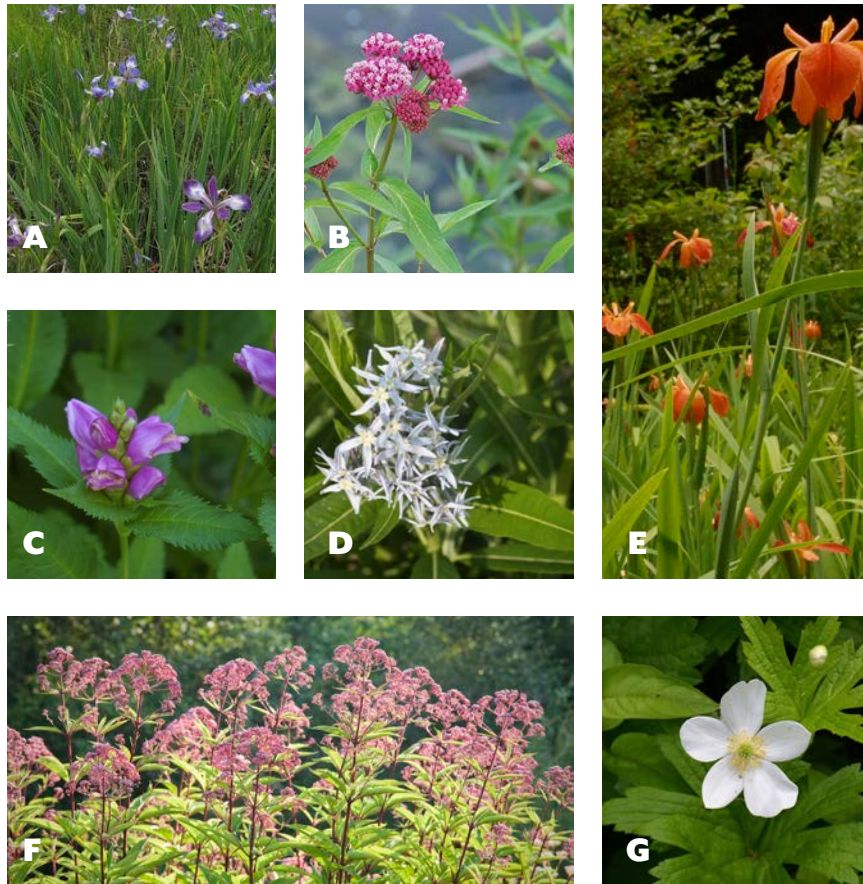


FIGURE 5.31

- (a) Southern Blue Flag Iris
- (b) Marsh Milkweed
- (c) Rose Turtle Head
- (d) Shining Blue Star
- (e) Copper Iris
- (f) Joe Pye Weed
- (g) Canada Anemone

TABLE 5.2
Rain Garden
Plant Palette

Botanical Name	Common Name	Height (")	Water Use	Light	Bloom Time	Color	Environmental Benefits
<i>Iris virginica var. shrevei</i>	Southern Blue Flag	18 - 24	medium - wet	full sun	june	blue, purple	butterflies
<i>Iris fulva</i>	Copper Iris	24 - 36	medium - wet	full sun - part shade	may-june	red, copper	butterflies, hummingbirds
<i>Chelone obliqua</i>	Rose Turtle Head	24 - 36	medium - wet	full sun - part shade	july-september	pink, rose	pollinators
<i>Amsonia illustris</i>	Shining Blue Star	24 - 36	medium	full sun - part shade	may	blue, white	butterflies
<i>Anemone canadensis</i>	Canada Anemone	12 - 24	medium - wet	full sun - part shade	april-june	white	pollinators
<i>Eutrochium purpureum</i>	Joe Pye Weed	60 - 84	medium	full sun - partial	july-september	mauve pink	butterflies
<i>Asclepias incarnata</i>	Marsh Milkweed	48 - 60	medium - wet	full sun - part shade	july-frost	pink, rose	butterflies, hummingbird
<i>Carex muskingumensis</i>	Palm Sedge	24 - 36	medium - wet	full sun - part shade	may-september	yellow	butterflies

(Data from Missouri Botanical Garden)

Groundcover

FIGURE 5.32

- (a) Little Bluestem
- (b) Slender Mountain Mint
- (c) Prairie Violet
- (d) Gold Sedge

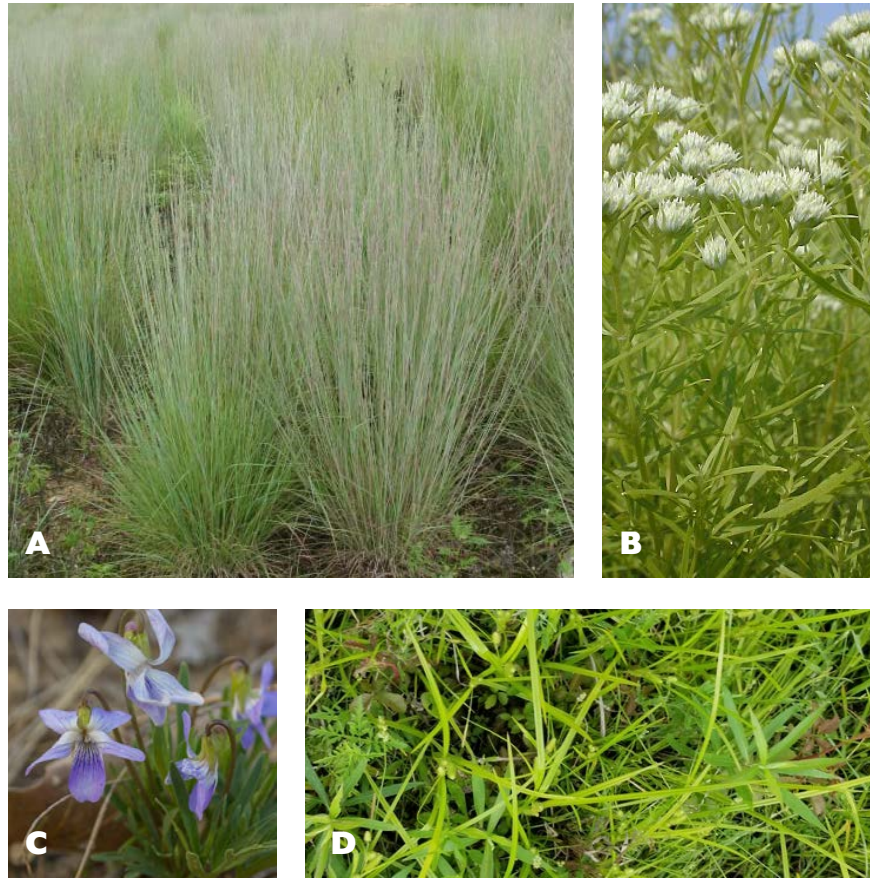


TABLE 5.3
Groundcover
Plant Palette

Botanical Name	Common Name	Height (")	Water Use	Light	Bloom Time	Color	Environmental Benefits
<i>Schizachyrium scoparium</i>	Little Bluestem	24-48	dry-medium	full sun	august-february	purplish bronze	birds, butterflies
<i>Viola pedatifida</i>	Prairie Violet	6	dry-medium	full sun	april-june	purple	pollinators
<i>Carex aureolensis</i>	Gold Sedge	10	dry-medium	full sun- part shade			
<i>Pycnanthemum tenuifolium (flexuosum)</i>	Slender Mountain Mint	20-36	dry-medium	full sun	july-september	white	bees, butterflies

(Data from Missouri Botanical Garden)

Woodland



FIGURE 5.33

- (a) Indian Pink
- (b) Wild Hydrangea
- (c) Pennsylvania Sedge
- (d) Wild Columbine

TABLE 5.4
Woodland
Plant Palette

Botanical Name	Common Name	Height (")	Water Use	Light	Bloom Time	Color	Environmental Benefits
<i>Carex pensylvanica</i>	Pennsylvania Sedge	6 - 12	dry-medium	part shade - full shade	may-june	green	pollinators
<i>Spigelia marilandica</i>	Indian Pink	12 - 24	medium	part shade - full shade	june	red, yellow	hummingbirds
<i>Hydrangea aborescens</i>	Wild Hydrangea	36 - 60	medium	part shade	june-september	white	pollinators
<i>Auilegia canadensis</i>	Wild Columbine	24 - 36	medium	full sun - part shade	april-may	yellow, red	pollinators, hummingbirds

(Data from Missouri Botanical Garden)

CHAPTER

CONCLUSION

6

Conclusion

Discussion

In the end, this study aims to assess perceptions of safety within the vacant lots of the Lykins and Sheffield neighborhoods of Kansas City, Missouri, and translate them into planning and design solutions. By examining levels of diversity, maintenance, lines of sight, trail, and safety preferences, a strategic framework for the neighborhoods' vacant lots was developed. Majority of survey respondents prefer images showing higher diversity, maintenance, open views, and more elements to create a safer environment like lighting, fencing, gardening, and signage. These preferences support the findings within theoretical frameworks like Crime Prevention Through Environmental Design (1971) and Cues to Care (1995).

The strategic framework outlines specific lots that can be utilized to create a stronger green community network throughout the area. The specific focus areas of the framework illustrate simple solutions and programmatic activities that can be implemented within these lots to support neighborhood improvement and interaction. Specific focus area locations in the strategic framework can promote a trigger for change within the neighborhoods. This continued positive change can be related to the process of 'Spiraling-Up'—a process where “success builds on success” (Emery and Flora 2006).

The design of the strategic framework plan for these neighborhoods along with the general guidelines for planting and programming is a useful tool for current and future potential owners of these vacant lots. This report conveys the importance of vacant lots in restoring ecological patches and corridors within a neighborhood network as well as improving neighborhood interactions through underutilized open green space.

Limitations

One of the limitations of this study include the presence of high vacancy and less ‘eyes on the street’ inhibiting all crimes to be reported. With this factor known, it is possible that more criminal activity persists within vacant lots and goes unreported—this limits analysis of crime associations within vacant properties.

Due to the short timeframe of this research, assessing existing ecological functions within the site was not possible. Considering the bulk of data collection was during the Winter months, there was no opportunity to perform proper analysis on specific types of vegetation present within the lots to assess the existing habitats and diversity.

Another limitation of this study was the small sample size of participants (n=43). Survey response collection was completed over the course of a 3-week span, which is a very short amount of time to reach a decent sample size. This small sample size prevented from further in-depth statistical analyses. Another issue with the sample was with racial proportions. Majority of the survey respondents claimed to be white, which does not represent the neighborhoods’ racial makeup being predominately Hispanic and Latino.

Future Research

More research should focus on real implementation of native vegetation within vacant lots to assess perceptions of safety regarding ecological preference. These possible implementations of diverse native vegetation densities can provide opportunities for analyzing criminal activity over the same period of time as this study. An analysis of what planting implementations offer reductions in illegal activities and what ones may facilitate crimes should be considered in future studies. Getting further insights from residents through both surveys and interviews that engage a broader pool of participants will help come up with more applicable solutions that address residents’ needs and preferences.

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APPENDIX B

IRB APPROVAL



TO: Dr. Sara Hadavi
Landscape Architecture/
1096 Seaton Hall

Proposal Number: 9988

FROM: Rick Scheidt, Chair 
Committee on Research Involving Human Subjects

DATE: 01/21/2020

RE: Approval of Proposal Entitled, "Perceptions of Safety and Plant Diversity Preferences: A Case Study of High Vacancy Neighborhoods."

The Committee on Research Involving Human Subjects has reviewed your proposal and has granted full approval. This proposal is **approved for three years from the date of this correspondence.**

APPROVAL DATE: 01/21/2020

EXPIRATION DATE: 01/21/2023

In giving its approval, the Committee has determined that:

- There is no more than minimal risk to the subjects.
 There is greater than minimal risk to the subjects.

This approval applies only to the proposal currently on file as written. Any change or modification affecting human subjects must be approved by the IRB prior to implementation. All approved proposals are subject to continuing review, which may include the examination of records connected with the project. Announced post-approval monitoring may be performed during the course of this approval period by URCO staff. Injuries, unanticipated problems or adverse events involving risk to subjects or to others must be reported immediately to the Chair of the IRB and / or the URCO.



APPENDIX C

COMMUNITY SURVEY

COMMUNITY SURVEY

Peoples Preferences for their Outdoor Spaces:

A Case Study of High Vacancy Neighborhoods

My name is Elsa Stoffel and I am a graduate student working on my Master's Project Report. This research is needed for completion of my degree. By participating in this study, you will help my graduate research.

The purpose of this project's research is to examine people's feeling of safety and their preferences for their nearby outdoor spaces. Learning about the resident's concerns and preferences, will help me develop a people-oriented guideline for reusing vacant lots and improving green spaces.

The survey data collection is completely anonymous with no identifiers or private information collected. If you choose to participate, you can end the survey at any time if you do not wish to complete it. Participation in this survey is voluntary and there will be no penalty or loss of benefits if you decide not to participate or discontinue filling out the survey. If you choose to participate, I thank you for your time in advance.

If you have any questions or concerns, do not hesitate to contact me (Elsa Stoffel), Dr. Sara Hadavi, or Rick Scheidt (IRB Committee Chair).

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Out of these three images, what space would you prefer to have on your block?

__A __B __C

To what extent do you agree with the following about **your choice**?

- | |
|-----------------------|
| 1 = strongly disagree |
| 2 = disagree |
| 3 = neutral |
| 4 = agree |
| 5 = strongly agree |

1 2 3 4 5 I feel safest in this space

1 2 3 4 5 I can observe wildlife here
(butterflies, birds, rabbits)

1 2 3 4 5 This is a good space to meet with my neighbors

1 2 3 4 5 I am satisfied with the amount of plants in the space

1 2 3 4 5 If this space was in my neighborhood, I would spend a lot of time here



Out of these three images, what space would you prefer to have on your block?

__A __B __C

To what extent do you agree with the following about **your choice**?

- | |
|--|
| <p>1 = strongly disagree
 2 = disagree
 3 = neutral
 4 = agree
 5 = strongly agree</p> |
|--|

- 1 2 3 4 5 I feel safest in this space
- 1 2 3 4 5 I can observe wildlife here (butterflies, birds, rabbits)
- 1 2 3 4 5 This is a good space to meet with my neighbors
- 1 2 3 4 5 I am satisfied with how the flowers are planted
- 1 2 3 4 5 The way the flowers are planted makes me feel safe
- 1 2 3 4 5 I am more interested to have a space that offers a green, mowed lawn than a space with flowers or native plants
- 1 2 3 4 5 If this space was in my neighborhood, I would spend a lot of time here



Out of these four images, what space would you prefer to have on your block?

__A __B __C __D

To what extent do you agree with the following about **your choice**?

- | |
|-----------------------|
| 1 = strongly disagree |
| 2 = disagree |
| 3 = neutral |
| 4 = agree |
| 5 = strongly agree |

- 1 2 3 4 5 I feel safest in this space
- 1 2 3 4 5 I am satisfied with how the shrubs in this space are planted
- 1 2 3 4 5 The shrub placement allows me to see what I need to see in the space
- 1 2 3 4 5 Many tall shrubs in any of these spaces makes me feel afraid
- 1 2 3 4 5 If this space was in my neighborhood, I would spend a lot of time here



A



B



C



D

Out of these three images, what space would you prefer to have on your block?

 A B C

To what extent do you agree with the following about **your choice**?

- | |
|--|
| <p>1 = strongly disagree
 2 = disagree
 3 = neutral
 4 = agree
 5 = strongly agree</p> |
|--|

- 1 2 3 4 5 I feel safest in this space
- 1 2 3 4 5 This is a good space to meet with my neighbors
- 1 2 3 4 5 I am satisfied with the amount of trails and paved surfaces in this space
- 1 2 3 4 5 I am satisfied with the amount of plants in this space
- 1 2 3 4 5 A larger amount of paved space makes me feel safer
- 1 2 3 4 5 If this space was in my neighborhood, I would spend a lot of time here



A



B



C

Rate the following four images (A B C D) from least safe to most safe.
 (1 = least, 4 = most)

___A ___B ___C ___D

To what extent do you agree with the following about your **'safest'** choice?

- | |
|---|
| 1 = strongly disagree
2 = disagree
3 = neutral
4 = agree
5 = strongly agree |
|---|

- 1 2 3 4 5 This space is very welcoming to the public
- 1 2 3 4 5 This is a good space to meet with my neighbors
- 1 2 3 4 5 I am satisfied with the amount of maintenance
- 1 2 3 4 5 I am satisfied with the amount of security
- 1 2 3 4 5 If this space was in my neighborhood, I would spend a lot of time here
- 1 2 3 4 5 If all of these elements were together in a space (lighting, fencing, gardening, and signage), I would feel the most safe



What **neighborhood** are you a part of?

__Lykins __Sheffield __other (must be adjacent) _____

How **long** have you been living in this neighborhood?

____year(s) ____month(s)

How often in a week do you _____ your neighbors?

- 1 = never
- 2 = rarely
- 3 = sometimes
- 4 = often
- 5 = very often

1 2 3 4 5 see
1 2 3 4 5 interact with / hang out

How often in a week do you go to a neighborhood outdoor public space to _____?

- 1 = never
- 2 = rarely
- 3 = sometimes
- 4 = often
- 5 = very often

1 2 3 4 5 relax or feel better
1 2 3 4 5 get outside
1 2 3 4 5 learn about nature
1 2 3 4 5 play or for recreation
1 2 3 4 5 see members of the community
1 2 3 4 5 to grow food
1 2 3 4 5 Other (please specify) _____

How important is it for you to see more of the following activities in your neighborhood?

- 1 = not at all important
- 2 = hardly important
- 3 = somewhat important
- 4 = important
- 5 = very important

1 2 3 4 5 growing food
1 2 3 4 5 community activity spaces (gathering, events, markets)
1 2 3 4 5 play/recreation spaces for all ages
1 2 3 4 5 wildlife habitats (honeybee farms, urban prairie, urban forest)
1 2 3 4 5 art making / creating
1 2 3 4 5 other (please specify) _____

How **safe** do you feel walking along the streets or sidewalks of your neighborhood?

- 1 = not at all safe
- 2 = somewhat unsafe
- 3 = somewhat safe
- 4 = safe
- 5 = very safe

1 2 3 4 5 at night
1 2 3 4 5 during the day
1 2 3 4 5 next to an overgrown vacant lot
1 2 3 4 5 next to a mown grass lawn vacant lot
1 2 3 4 5 next to an abandoned, weedy parking lot
1 2 3 4 5 next to an abandoned house / structure

How often have you **used a vacant lot** for the following activities?

- 1 = never
- 2 = rarely
- 3 = sometimes
- 4 = often
- 5 = very often

- 1 2 3 4 5 community gardening
- 1 2 3 4 5 to meet with neighbors
- 1 2 3 4 5 to park your car
- 1 2 3 4 5 to take your dog/pet
- 1 2 3 4 5 Other (please specify) _____

How often have you been **involved with crime** in your neighborhood?

- 1 = never
- 2 = rarely
- 3 = sometimes
- 4 = often
- 5 = very often

- 1 2 3 4 5 have witnessed
- 1 2 3 4 5 heard of someone who has witnessed
- 1 2 3 4 5 have been a victim
- 1 2 3 4 5 heard of someone who has been a victim

How often have you witnessed crime in the following types of **vacant lots**?

- 1 = never
- 2 = rarely
- 3 = sometimes
- 4 = often
- 5 = very often

- 1 2 3 4 5 overgrown / dense vegetation
- 1 2 3 4 5 a mown grass lawn
- 1 2 3 4 5 an abandoned, weedy parking lot
- 1 2 3 4 5 an abandoned house / structure
- 1 2 3 4 5 other (please specify) _____

How do you typically get to work/school/other daily activities?

- walk bicycle personal vehicle / car bus train
- other (please specify) _____

What is your **gender**? M F other: _____

Do you have **children** living with you? Yes No

What **age range** do you fall under?

- 18-19 20-29 30-39 40-49 50-59 60-69 70+

What **race** do you affiliate with?

- White Hispanic or Latino Black or African American Native American or Indian
- Asian or Pacific Islander Other (please specify) _____
- prefer not to say

What is your **current employment status**?

- work full-time work part-time student homemaker retired volunteer work
- currently looking for employment prefer not to say

ENCUESTA PARA LA COMUNIDAD

Las preferencias de la gente para los sitios exteriores:

Un estudio del caso de barrios con vacantes altos

Yo me llamo Elsa Stoffel y soy una estudiante de postgrado y estoy trabajando en mi proyecto de maestría. Esta investigación es una necesidad para obtener mi diploma. Participar en esta investigación me ayudará en mis investigaciones de postgrado.

El propósito de la investigación para este proyecto es examinar el sentido de seguridad de la gente y sus preferencias para los sitios exteriores. El aprender de las preocupaciones y preferencias de los residentes, me ayudará a desarrollar guías, dirigidas por la gente, para reusar terreno desocupado y mejorar los espacios verdes.

La encuesta es completamente anónima, sin identificadores y sin coleccionar información privada. Si usted elige a participar, puede rescindir la encuesta a cualquier punto, si no desee completarla. La participación en esta encuesta es voluntaria y no hará ninguno castigo ni pérdida de beneficios si decide a no participar o discontinuar llenando la encuesta. Si elige participar, le agradezco por su tiempo en avance.

Si tenga cualquiera pregunta o preocupación, no dude en contactarme (Elsa Stoffel), Dra. Sara Hadavi, o Rick Scheidt (IRB presidente).

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¿De estas tres imágenes, cuál preferiría tener en su barrio?

__A __B __C

¿Hasta qué punto está de acuerdo con el siguiente acerca de **su selección**?

- | |
|---|
| 1 = Estar completamente en desacuerdo
2 = Estar en desacuerdo
3 = Neutral
4 = Estar de acuerdo
5 = Estar completamente de acuerdo |
|---|

- 1 2 3 4 5 Yo me siento más seguro/a en este espacio.
- 1 2 3 4 5 Yo puedo observar la naturaleza aquí (las mariposas, los pájaros, los conejos)
- 1 2 3 4 5 Esto es un espacio bueno para reunir con mis vecinos
- 1 2 3 4 5 Estoy contento/a con la cantidad de plantas en este espacio
- 1 2 3 4 5 Si este espacio fuera me barrio, yo pasaría mucho tiempo aquí



¿De estas tres imágenes, cuál preferiría tener en su barrio?

__A __B __C

¿Hasta qué punto está de acuerdo con el siguiente acerca de **su selección**?

- 1 = Estar completamente en desacuerdo
- 2 = Estar en desacuerdo
- 3 = Neutral
- 4 = Estar de acuerdo
- 5 = Estar completamente de acuerdo



- 1 2 3 4 5 Yo me siento más seguro/a en este espacio.
- 1 2 3 4 5 Yo puedo observar la naturaleza aquí (las mariposas, los pájaros, los conejos)
- 1 2 3 4 5 Esto es un espacio bueno para reunir con mis vecinos
- 1 2 3 4 5 Estoy contento/a en como las flores están sembradas
- 1 2 3 4 5 La manera en que las flores están sembradas me hace sentir seguro/a
- 1 2 3 4 5 Me interesa más tener un espacio que ofrece un pasto verde y cortado, que un espacio con las flores o plantas nativas
- 1 2 3 4 5 Si este espacio fuera me barrio, yo pasaría mucho tiempo aquí

¿De estas cuatro imágenes, cuál preferiría tener en su barrio?

___A
___C

___B
___D

¿Hasta qué punto está de acuerdo con el siguiente acerca de **su selección**?

- 1 = Estar completamente en desacuerdo
- 2 = Estar en desacuerdo
- 3 = Neutral
- 4 = Estar de acuerdo
- 5 = Estar completamente de acuerdo

1 2 3 4 5 Yo me siento más seguro/a en este espacio

1 2 3 4 5 Estoy contento/a en como los arbustos están sembrados en este espacio

1 2 3 4 5 La colocación de los arbustos me permite a ver lo que necesito ver en el espacio

1 2 3 4 5 Muchos arbustos altos en estos espacios me hacen sentir asustado/a

1 2 3 4 5 Si este espacio fuera me barrio, yo pasaría mucho tiempo aquí



A



B



C



D

¿De estas tres imágenes, cuál preferiría tener en su barrio?

__A __B __C

¿Hasta qué punto está de acuerdo con el siguiente acerca de **su selección**?

- | |
|--|
| <p>1 = Estar completamente en desacuerdo
 2 = Estar en desacuerdo
 3 = Neutral
 4 = Estar de acuerdo
 5 = Estar completamente de acuerdo</p> |
|--|

1 2 3 4 5 Yo me siento más seguro/a en este espacio.

1 2 3 4 5 Este es un espacio bueno para reunir con mis vecinos

1 2 3 4 5 Estoy contento/a con la cantidad de caminos y superficies pavimentadas en este espacio

1 2 3 4 5 Estoy contento/a con la cantidad de plantas en este espacio

1 2 3 4 5 Una cantidad mas grande de superficies pavimentadas me hacen sentir más seguro/a

1 2 3 4 5 Si este espacio fuera me barrio, yo pasaría mucho tiempo aquí



A



B



C

Ordene las imágenes siguientes (A B C D)
de menos segura y más segura.
(1= menos, 4 más)

___A ___B ___C ___D

¿Hasta qué punto está de acuerdo con
el siguiente acerca a **su selección**
'más segura'?

- | |
|--|
| <p>1 = Estar completamente en desacuerdo
2 = Estar en desacuerdo
3 = Neutral
4 = Estar de acuerdo
5 = Estar completamente de acuerdo</p> |
|--|

1 2 3 4 5 Esto espacio es de bienvenida para el publico

1 2 3 4 5 Este es un espacio bueno para reunir con mis vecinos

1 2 3 4 5 Estoy contento/a con la cantidad de mantenimiento

1 2 3 4 5 Estoy contento/a con la cantidad de seguridad

1 2 3 4 5 Si este espacio fuera me barrio, yo pasaría mucho tiempo aquí

1 2 3 4 5 Si todos estos elementos fueran juntos en un espacio (iluminación, cerca, cuidado de un jardín, y señalización), me sentiría más seguro/a



¿De cual barrio pertenece?

__Lykins __Sheffield __otro (hay que ser adyacente) _____

¿Por cuánto tiempo ha vivido en este barrio?

____año (s) ____meses

- 1 = nunca
- 2 = rara vez
- 3 = a veces
- 4 = frecuentemente
- 5 = muy frecuentemente

¿Con cuánta frecuencia _____ sus vecinos en una semana?

- 1 2 3 4 5 ve
- 1 2 3 4 5 interactúa/pasa el tiempo con

¿Con cuánta frecuencia vista un espacio de aire libre y publico de su barrio en una semana para _____?

- 1 = nunca
- 2 = rara vez
- 3 = a veces
- 4 = frecuentemente
- 5 = muy frecuentemente

- 1 2 3 4 5 relajar o sentirse mejor
- 1 2 3 4 5 estar afuera
- 1 2 3 4 5 aprender de la naturaleza
- 1 2 3 4 5 jugar o para la recreación
- 1 2 3 4 5 visitar a miembros de la comunidad
- 1 2 3 4 5 cultivar comida
- 1 2 3 4 5 Otro (por favor especificar) _____

¿Cuánto le importa ver las actividades siguientes en su barrio?

- 1 = no importante para nada
- 2 = casi no importante
- 3 = de alguna manera importante
- 4 = importante
- 5 = muy importante

- 1 2 3 4 5 cultivar comida
- 1 2 3 4 5 espacios de la comunidad para reunir (ruñir, eventos, mercados)
- 1 2 3 4 5 espacios para jugar y de recreación para todos las edades
- 1 2 3 4 5 hábitats de la naturaleza (casas de abejas, praderas urbana, bosques urbanos)
- 1 2 3 4 5 hacer el arte/ser creativo
- 1 2 3 4 5 Otro (por favor especificar) _____

¿Cuán seguro se siente caminando en las calles o aceras de su barrio?

- 1 = no seguro para nada
- 2 = de alguna manera inseguro
- 3 = de alguna manera seguro
- 4 = seguro
- 5 = muy seguro

- 1 2 3 4 5 en la noche
- 1 2 3 4 5 durante el día
- 1 2 3 4 5 a lado de los lotes descuidados y desocupados
- 1 2 3 4 5 a lado de un lote desocupado con un pasto cortado
- 1 2 3 4 5 a lado de un estacionamiento abandonado y cubierto de maleza
- 1 2 3 4 5 a lado de una casa/estructura

¿Con cuánta frecuencia ha usado un lote desocupado para una de las actividades siguientes?

- 1 = nunca
- 2 = rara vez
- 3 = a veces
- 4 = frecuentemente
- 5 = muy frecuentemente

- 1 2 3 4 5 jardinería de la comunidad
- 1 2 3 4 5 reunir con los vecinos
- 1 2 3 4 5 estacionar su carro
- 1 2 3 4 5 llevar a su perro o mascota
- 1 2 3 4 5 Otro (por favor especificar) _____

¿Con cuánta frecuencia ha estado involucrado con el crimen en su barrio?

1 = nunca
2 = rara vez
3 = a veces
4 = frecuentemente
5 = muy frecuentemente

1 2 3 4 5 ha testiguado
1 2 3 4 5 saber de alguien quien ha testiguado
1 2 3 4 5 ha sido víctima
1 2 3 4 5 saber de alguien quien ha sido víctima

¿Con cuánta frecuencia ha testiguado el crimen en uno de los siguiente tipos de lotes desocupados?

1 = nunca
2 = rara vez
3 = a veces
4 = frecuentemente
5 = muy frecuentemente

1 2 3 4 5 vegetación descuidada o densa
1 2 3 4 5 un pasto cortado
1 2 3 4 5 un estacionamiento abandonado y cubierta de maleza
1 2 3 4 5 una casa/estructura abandonada
1 2 3 4 5 otro (por favor especificar) _____

¿Cómo típicamente llega al trabajo, la escuela, u otras actividades diarias?

__ caminar __ bicicleta __ carro/vehículo personal __ bus __ tren
__ otro (por favor especificar) _____

¿Qué es su género? __ Hombre __ Mujer __ otro: _____

¿Tiene hijos quien vive con usted? __ Sí __ No

¿En cuál rango de edad pertenece?

__ 18-19 __ 20-29 __ 30-39 __ 40-49 __ 50-59 __ 60-69 __ 70+

¿Con cual raza se asocia?

__ Caucásico/a __ Hispano o Latino __ Negro o Afroamericano/a __ Indígena
__ Asiático/a o Nativo de la Polinesia __ Otro (por favor especificar) _____
__ prefiero no decirlo

¿Qué es su estatus de empleo?

__ empleado de tiempo completo __ empleado a tiempo parcial __ estudiante __ amo/a de casa
__ jubilado __ trabajo voluntario __ buscando trabajo __ prefiero no decirlo

East Patrol Division Police Questionnaire

Officer #1

1. Do you typically see people outside their homes or with their neighbors? If so, what types of activities are they participating in?

“In my patrol division each neighborhood is different. If a resident is outside their homes they are usually engaged in yard work or walking from their vehicles to the house. I have seen very little engagement amongst neighbors.”

2. What type of people do you mainly see outside?
(for example: men, women, children, elderly)

“In the northeast, I see a combination of men and women. In the neighborhoods south of Truman Rd. I mainly see males.”

3. Do you witness, control, or receive reports of crime near or within vacant properties?

“I receive reports from Neighborhood Associations of vacant or nuisance properties at their monthly crime meetings. I also receive information about the location of homeless camps.”

If so, what type of vacant property is it?

- Densely Vegetated, overgrown
- Mowed grass lawn
- Abandoned, weedy parking lot
- Abandoned house / structure
- Other (please specify)

4. Would you say that vacant lots promote criminal activity in within Northeast KCMO? Why?

“I think Drug and Alcohol addictions leads to criminal activity. Vacant lots, Abandoned Houses, Bridge underpasses, etc. are viewed as safe havens because of the lack of care and concern these areas present.”

5. What types of strategies for improvement would you prefer for vacant lots in Northeast KCMO?
(For example: mowing/clearing dense vegetation; cleaning up trash; utilizing as a space for community gardening; no trespassing signs; etc.)

“I would like a Recycling Center or Community Garden to be placed on the vacant lots.”

6. What objects or buildings in a space do you see during your patrol shift that you would say promote criminal activity?

“Vacant building and houses lead to criminal activity. Small neighborhood parks are often used for drug activity and sales.”

Officer #2

- 1.** Do you typically see people outside their homes or with their neighbors? If so, what types of activities are they participating in?

“Yes, they are engaged in general neighbor talk and events that the neighborhoods have. We also engage citizens when we are responding on calls.”

- 2.** What type of people do you mainly see outside?
(for example: men, women, children, elderly)

“We see all of the mentioned.”

- 3.** Do you witness, control, or receive reports of crime near or within vacant properties?

“Yes.”

If so, what type of vacant property is it?

- Densely Vegetated, overgrown
- Mowed grass lawn
- Abandoned, weedy parking lot
- Abandoned house / structure
- Other (please specify)

“Wooded areas where homeless complaints are.”

4. Would you say that vacant lots promote criminal activity in within Northeast KCMO? Why?

“No, but it does allow for the homeless to set up camps.”

5. What types of strategies for improvement would you prefer for vacant lots in Northeast KCMO?
(For example: mowing/clearing dense vegetation; cleaning up trash; utilizing as a space for community gardening; no trespassing signs; etc.)

“Keeping them cut and cleaned.”

6. What objects or buildings in a space do you see during your patrol shift that you would say promote criminal activity?

“Vacant/open houses and buildings.”

