

Walkability 2.0

A Specific Focus on the Reintroduction of Walkability in Detroit

Aaron Danko



Walkability 2.0

A Specific Focus On the Reintroduction of Walkability in Detroit

By: Aaron Danko

This thesis challenges the generalized way in which walkability is being framed and implemented in Detroit.

Most people in American cities, especially in Detroit, are unable to take advantage of the social, economical, and health benefits that walkability provides due to how non-conductive our cities are to pedestrians. As current planning methods continue to challenge this, walkability has become essential in the revitalization of the cities of today, and the future.

Through urban design, this thesis aimed to create a strategic framework plan that would begin to reintroduce walkability to under-served neighborhoods in Detroit. These design strategies are focused on allowing the residents of Detroit's neighborhoods to take full advantage of the social, economical, and health benefits that are present in walkable communities.

This book is dedicated to all of the individuals I have shared
my educational journey with.

To my Mom, Dad, and Brother, I can't thank you enough for
your continued love and support.

To my thesis advisors, Christoph and Virginia, thank you both
for all of your guidance over the course of this thesis.



Image 1: Walking in Detroit

Thesis Statement

As the automobile emerged in American society, the creation of walkable neighborhoods were unfortunately neglected in the United States by city planners, especially in Detroit. As walkability is beginning to resurface as a major priority for urban designers, it has become a challenge to undo what has already been done in regards to the planning of cities and neighborhoods. The continuous development of walkable communities has however begun to catch on, as more and more people are embracing pedestrian mobility as an alternative to former planning practices that had favored the automobile.

Walkability aims to understand the ways in which the characteristics of the built environment lead to the creation of healthy cities that are thriving economically, sustainably, and socially. In a city like Detroit, which lacks several of the traditional assets of walkability, such as density and public transit, achieving pedestrian friendly neighborhoods requires a more innovative approach. For the purpose of this thesis, that innovative approach is done by defining walkability as the subjective analysis of pedestrian-friendly urban environments. Through a subjective lens, personal perception begins to play a large role in the understanding of the way people view the urban environment they are walking in.

Through an urban design approach, this thesis strives to reintroduce walkability to neighborhoods across the city of Detroit. To understand each neighborhood through a unique lens, an intense subjective analysis process focused on Sound, Smell, Speed, and Scale was conducted. This analysis detailed how the individual neighborhoods function in ways that go beyond what would be understood in the typical urban analysis process. Through conducting this analysis, a deeper understanding of each neighborhood allowed for the design proposals created to begin to leverage walkability in a more effective and unique way. This process, or framework, has paved the way for an innovative approach of designing for walkability in cities such as Detroit. Overall, this framework begins to help to create neighborhood plans that will allow Detroiters to take full advantage of the social, economical, and health benefits of pedestrian-friendly urban environments.

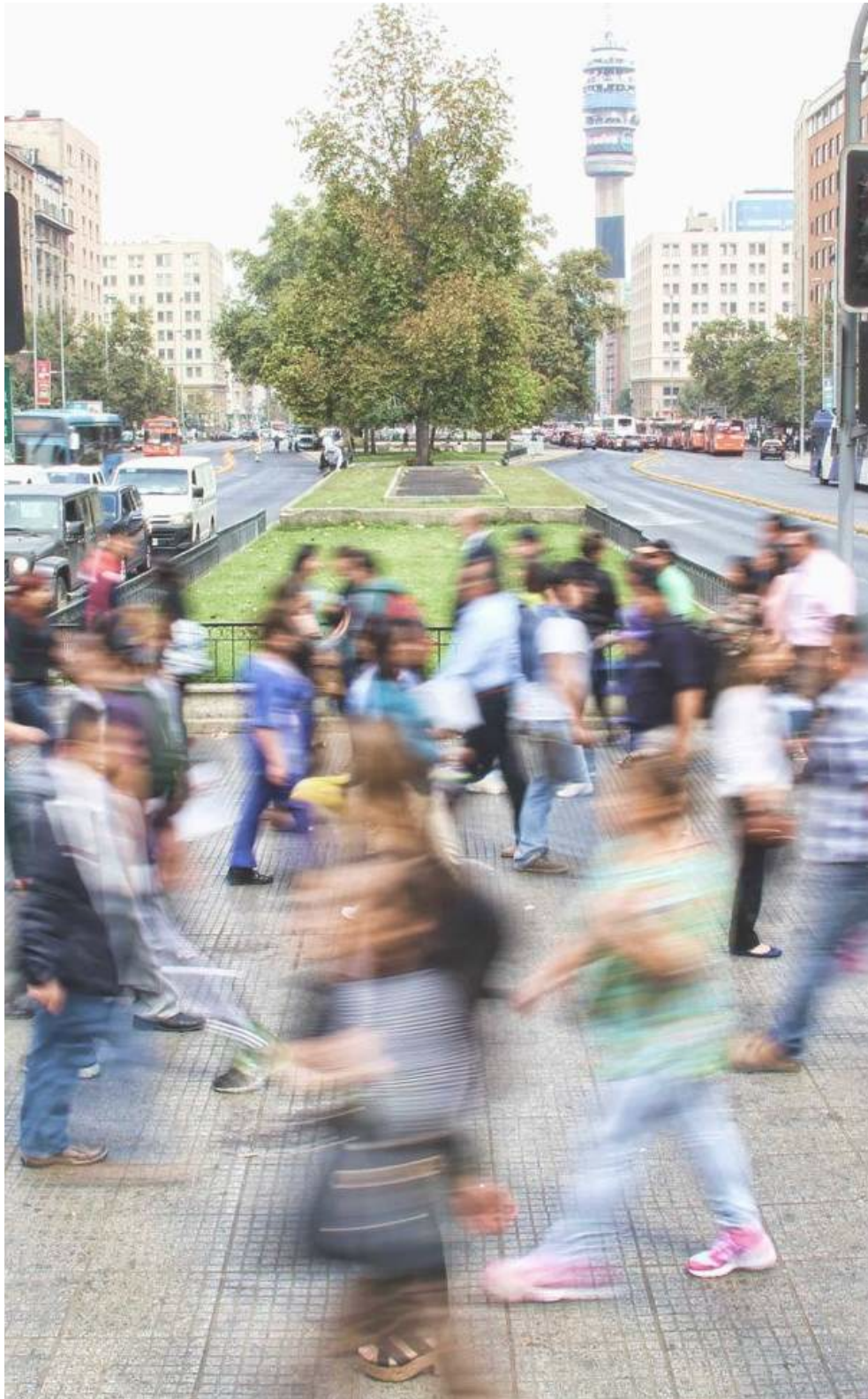


Image 2: The Crosswalk

Table of Contents

Chapter 1: Why?

- 1.1: Walkability 1.0 pgs. 12-15
- 1.2 Walkable Neighborhoods pgs. 16-17
- 1.3: Why Detroit? pgs. 18-21

Chapter 2: How?

- 2.1: Walkability 2.0 pgs. 24-25
- 2.2: Pedestrian-Friendly pgs. 26-27
- 2.3: Subjective Analysis pgs. 28-33
- 2.4: Philadelphia Analysis pgs. 34-37
- 2.5: The Four S's pgs. 38-47
- 2.6: Sensorial Density pgs. 48-49

Chapter 3: Where?

- 3.1: Criteria pgs. 52-53
- 3.2: Conant Gardens pgs. 54-57
- 3.3: The North End pgs. 58-61
- 3.4: Kettering-Butzel pgs. 62-65
- 3.5: Subjective Mapping pgs. 66-67
- 3.6: Conant Gardens Analysis pgs. 68-77
- 3.7: The North End Analysis pgs. 78-87
- 3.8: Kettering-Butzel Analysis pgs. 88-97

Chapter 4: Who?

- 4.1: Community Engagement pgs. 100-101
- 4.2: Conant Gardens pgs. 102-105
- 4.3: The North End pgs. 106-109
- 4.4: Kettering-Butzel pgs. 110-113

Chapter 5: What?

- 5.1: Design Intentions pgs. 116-117
- 5.2: Conant Gardens pgs. 118-127
- 5.3: The North End pgs. 128-139
- 5.4: Kettering-Butzel pgs. 140-149
- 5.5: Altering the Perspective pgs. 150-155
- 5.6: How it Works pgs. 156-161

Epilogue & Bibliography: pgs. 162-175



Image 3: Walking by the Packard Plant

Chapter 1: Why?

Understanding walkability and why it is a challenge in Detroit.

1.1 Walkability 1.0



Image 4: Bike Lanes

“Walkability is a measure of how friendly an area is to walking.”
-Google

As defined by this vague definition, walkability as commonly understood, is just a measure of how friendly a particular area is to pedestrians.¹ Accompanied with this definition, are these common cookie cutter design strategies that have no direct response to site, as they are viewed as being applicable in every city, or urban situation, as a way to promote walkability. Most of these common design strategies, such as bike lanes on every street, or infill developments in every vacant parcel, has been an overwhelming phenomenon caused by New Urbanism. This urbanism, which is centered around the idea of “human-scaled design,” has become a phenomenon utilized by city planners across the United States.²

The ultimate problem associated with these universal walkability strategies is that they are not responsive to specific urban conditions.³ For example, the design strategies that might work in Washington D.C., could be detrimental in a city like Detroit. Each urban area faces a unique set of problems based on a number of different factors, that can range anywhere from a lack of urban density all the way to having no public transit. Due to this, these different urban conditions require specific design strategies that go beyond the generalized approach of walkability.

1 Brown, T.M. “The Most Walkable Cities in America.” Thrillist, Thrillist, 17 May 2017.

2 Opticos Design, September. “What Makes a Community Walkable?” Opticos Design, CLPFA, 31 Oct. 2017.

3 Laker, Laura. “Where Is the World’s Most Walkable City?” The Guardian, Guardian News and Media, 12 Sept. 2017

The Walkscore

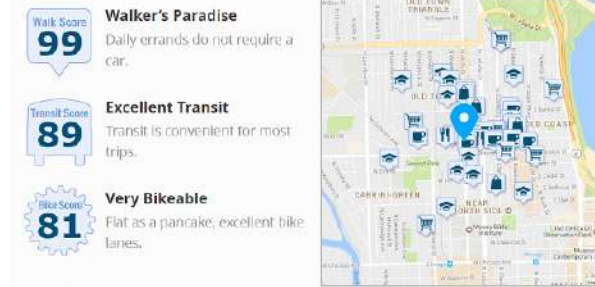


Image 5: Walkscore

As a measure of how friendly an area is to pedestrians in the “new era” of walkability, *Walkscore*, which is a tool used to evaluate how “walkable” a particular area is, has now become a real estate buzzword.⁴

“We founded Walk Score with the mission of helping people find a walkable place to live. Back in 2007, walkability wasn’t even a real estate buzzword. Now it’s a mainstream phenomenon.”⁵

-Josh Herst
CEO of Walk Score

Although it was not originally created for this purpose, *Walkscore* has ultimately become the way in which investors determine if a neighborhood has high market demand.⁵ This means that unfortunately, *Walkscore* has shifted from being truly centered around the pedestrian experience, to now becoming a tool that realtors use to evaluate if they can raise rents in an area based on the “quality of life” that exists within a neighborhood.

From a criteria perspective, *Walkscore* has some value to it, however the problem is that the criteria it uses is based solely on the New Urbanism way of understanding walkability. Although in some cities or neighborhoods it can be helpful, in several others, such as Detroit for example, it is not a true measurement of the quality of life that exists within the city.

4 Herst, John. “Josh Herst - Chief Executive Officer.” Walk Score Blog, Walkscore,
5 Speck, Jeff. *Walkable City Rules: 101 Steps to Making Better Places* Island Press,

The Perfect Neighborhood?

Current city planners are consistently striving to achieve walkable neighborhoods, or as they are often called, “the perfect neighborhood.” One of the more common strategies utilized to create, or recreate this “perfect neighborhood,” is the *Twenty-Minute Neighborhood*.⁶

“The basic concept of the *Twenty-Minute Neighborhood* is that anyone living in one of these neighborhoods should be able to bike or walk to their non-work errands in just twenty minutes.”⁷

-Maurice Cox
Chicago Planning Commissioner

The *Twenty-Minute Neighborhood* is a national urban planning phenomenon happening in cities all across the United States. The purpose of this planning strategy is to locate a mix of uses within neighborhoods, so that people have access to all of their daily errands within a twenty minute walking distance of their home or work.⁸ This current plan is being viewed as a way to take some of the elements that made walkable neighborhoods successful in the past, and implement them into the neighborhoods of today, to ultimately help restrengthen them. Similar to a lot of the other typical walkability strategies, there is some value to this approach, as it can be successful, however, there are multiple factors that have to be in place, such as proper existing walkable infrastructure, for this plan to work. Due to this, with different cities having different urban conditions, that ultimately require specific responses, the *Twenty-Minute Neighborhood* is not universal, although it could be a strong urban strategy in a city like San Fransisco, it would not work that well in a city like Detroit.

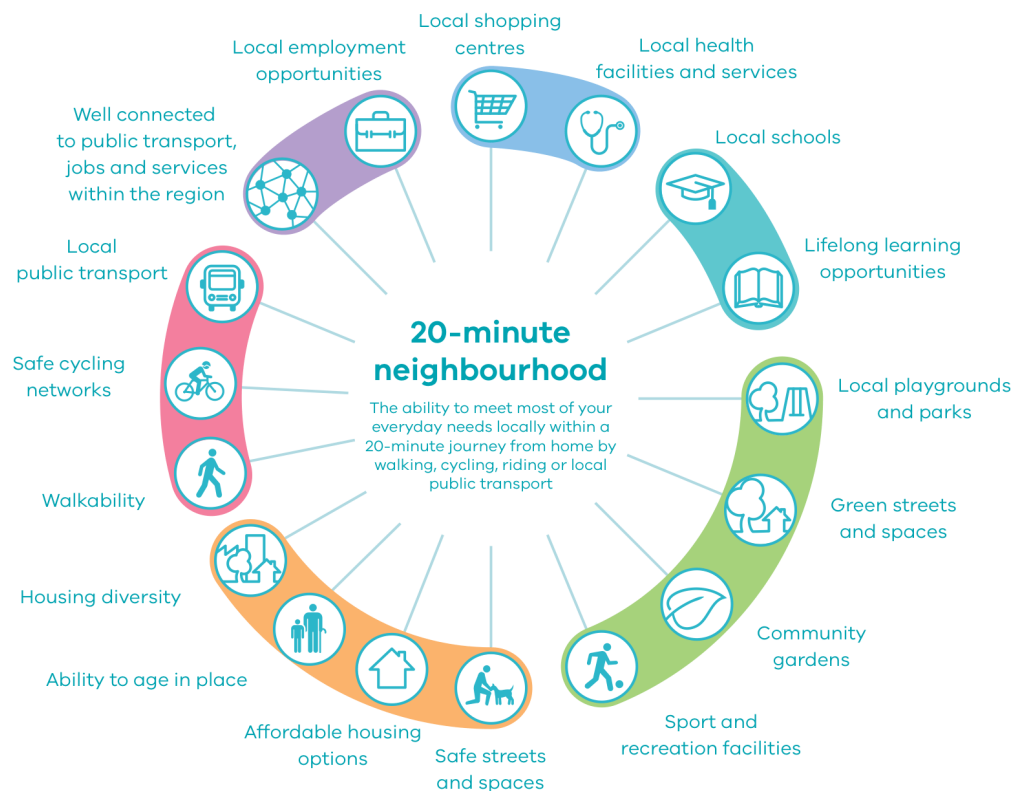


Figure 1: 20 Minute Neighborhood

⁶ Boyle, Robin. “Could the 20-Minute Neighborhood Work in Detroit?” Detroit Free Press, Detroit Free Press, 15 June 2016.

⁷ Sadik-Khan, Janette, and Seth Solomonow. Streetfight: Handbook for an Urban Revolution. Penguin Books, 2017.

⁸ Raven, Benjamin. “Detroit Jumps into Top 3 for ‘Increasing Walkability’ in National Ranking.”



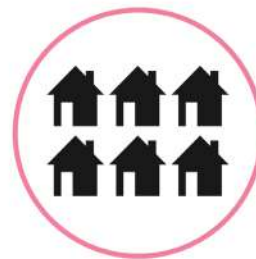
Safe Streets

Multiple Uses



Public Transit

Ample Housing



Green Space

Figure 2: Components of a Walkable Neighborhood

3.2 Walkable Neighborhoods

Typically, the traditional or generalized version of walkability is much less focused on select streets, or blocks, but more on entire neighborhoods. Walkability is often defined on the neighborhood scale for realtor tools, such as *Walkscore*.⁹ Similarly, except for small design interventions, most walkability strategies are implemented on a neighborhood level. With walkability being viewed as universal through the generalized understanding of it, the view of the neighborhood also begins to universalize. In this view, walkable neighborhoods begin to have similar components that define them in such a way. Typically, these are components that help to drive market demand, as they improve the overall quality of life within the area.¹⁰ These common components are Safe Streets, Mix of Uses, Public Transit, Ample Housing, and Recreation Space.

The first component, Safe Streets, are streetscapes that are designed to promote pedestrian safety. Typically, they have enlarged sidewalks, that are framed by a protected bike lane and a street parking lane. The second component, Mix of Uses, refers to having a diverse set of different uses within select neighborhood, allowing residents to have enough options to obtain their daily needs. Third, Public Transit, refers to the neighborhood having multiple modes of transit, that are safe and efficient. The fourth component, Ample Housing, is to make sure that the neighborhood has a strong and ample housing stock. Lastly, the fifth element is Recreation Space, which is different public spaces and parks, that serve a social and physical function within the neighborhood. These five characteristics are the common elements that make up a walkable neighborhood in the universal or typical understanding of walkability.

⁹ Jeffers, Kristen. "Seven Characteristics of Walkable Neighborhoods." *Build a Better Burb*, 1 Sept. 2017.

¹⁰ Shrikant, Aditi. "Why Walkable Cities Are Good for the Economy, According to a City Planner." *Vox, Vox*, 26 Oct. 2018.



Image 6: *Historic Detroit*

1.3 Why Detroit?

As a city of continuous growth and success through the early-twentieth century, Detroit was quickly becoming one of the most influential cities in the world. As the population of Detroit was continuously growing over this period of time, the neighborhoods of the city were growing as well, as they were developing into thriving walkable centers. As Detroit moved towards its peak population in the 1950's, the city appeared to begin being able to rival some of the largest cities in the U.S., such as Chicago and Los Angeles.¹¹ Unfortunately however, just after this point, Detroit began starting to lose population due to a number of factors.

Racial tensions, suburban sprawl, de-industrialization, the freeways act, the popularity of the automobile, as well as the threat of nuclear war were the factors that ultimately led to Detroit's once thriving walkable neighborhoods being left as deserted wastelands.¹¹ As people were leaving Detroit at an extremely high rate, the city began to face problems that it was not quipped to solve, and the repercussion of these events are still felt today. Due to this, the contemporary walkability challenges that Detroit faces are deeply rooted in decades of despair and detriment.

Due to Detroit's unique past, there are several factors and challenges that exist today within the city, these factors limit how effectively the generalized understanding of walkability can be achieved in Detroit. The city faces several challenging issues such as a lack of public transit, a high amount of blight, a low population to area ratio, a large amount of Detroiters' rely on the automobile, and a high crime rate.

¹¹ Tanner, Kristi. "Detroit Still Losing Population - but It Could Be a Whole Lot Worse." Detroit Free Press, Detroit Free Press, 24 May 2018.



Image 7: The Fall of Detroit

Ultimately, these several factors have shaped the current understanding of Detroit's unique urbanism. To begin solving walkability within the city, these factors have to be taken into consideration, as they have interfered with as well as shaped the current pedestrian experience for the residents of the city of Detroit. These issues are complex, and so, they require complex design solutions. As Jeffrey Eugenides put it in the quote below, "normal design solutions don't work here," so these issues have to be addressed in a unique way, that goes beyond the typical universal urban design strategies in order for walkability to truly be effective in creating a new pedestrian experience.¹²

"Detroit is not the typical American city, so **normal design solutions don't work here**, because of that, as Detroiters, we have to be innovative to get things done."¹²

-Jeffrey Eugenides
American Novelist

Today, most people within the city are still unable to take advantage of the social, economical, and health benefits that walkability provides due to how non-conductive the city is to pedestrians.¹³ As current planning methods continue to challenge this, walkability has become essential in the revitalization of the Detroit of today, and the future. With a lack of density, market demand, and public transit, Detroit faces an uphill battle against walkability, when it is understood in the typical New Urbanism way.¹⁴ In order to achieve walkability and begin enhancing the pedestrian experience within the city of Detroit, walkability has to be pushed further. Urban planners need to craft site specific solutions that will begin to help to reintroduce pedestrian-friendly design strategies to the neighborhoods of Detroit.

¹² Sugrue, Thomas J. *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit*: with a New Preface by the Author. Princeton University Press, 2005.

¹³ Mondry, Aaron. "Report: Since 2010, Detroit Added More Walkable Urban Spaces than Any Other U.S. City." *Curbed Detroit*, Curbed Detroit, 25 June 2019.

¹⁴ Schwartz, Samuel I., and William Rosen. *Street Smart: the Rise of Cities and the Fall of Cars*. PublicAffairs, 2015.



Figure 3: Subjective Analysis in Detroit

Chapter 2: How?

A look at how walkability can be furthered in Detroit.

2.1 Walkability 2.0



Figure 4: Walkable Communities Benefits

Walkable neighborhoods and communities have a long list of benefits to the residents who work and live within these areas.¹⁵ The first benefit is that walkable neighborhoods are safer, this is because of density, which limits blight, and in terms limits how dangerous the area is. Another benefit is that walkable neighborhoods are greener, which is due to limiting the amount of cars on the road, which helps fight against emissions.¹⁵ The next benefit is that walkable communities are healthier, as people walk more, they are often are much healthier, which helps create an active and fit neighborhood. The next benefit is that walkable communities are friendlier, with more people on the street, these communities are typically much friendlier to their neighbors. The remaining benefit is that walkable communities are wealthier, as residents will tend to spend their money within the neighborhood, if there are daily assets located there such as a grocery store, ultimately this helps to sustain a local economy and job market.¹⁵

¹⁵ Jeffers, Kristen. "Seven Characteristics of Walkable Neighborhoods." Build a Better Burb, 1 Sept. 2017.

Urban designers within the city of Detroit have to push the envelope on the basic understanding of walkability to allow the residents of the city to be able to reap the several benefits of walkable communities. As general urban design strategies are not enough, walkability has to be viewed in a different way that will allow a reintroduction of walkability to the neighborhoods of Detroit. The way in which walkability is defined has to be challenged in order for new strategies that can actually be beneficial for Detroit to begin taking place. This thesis sought to challenge the conventional understanding of walkability by creating a definition that is focused around embracing the individuality of all those that walk within urban areas, this definition is:

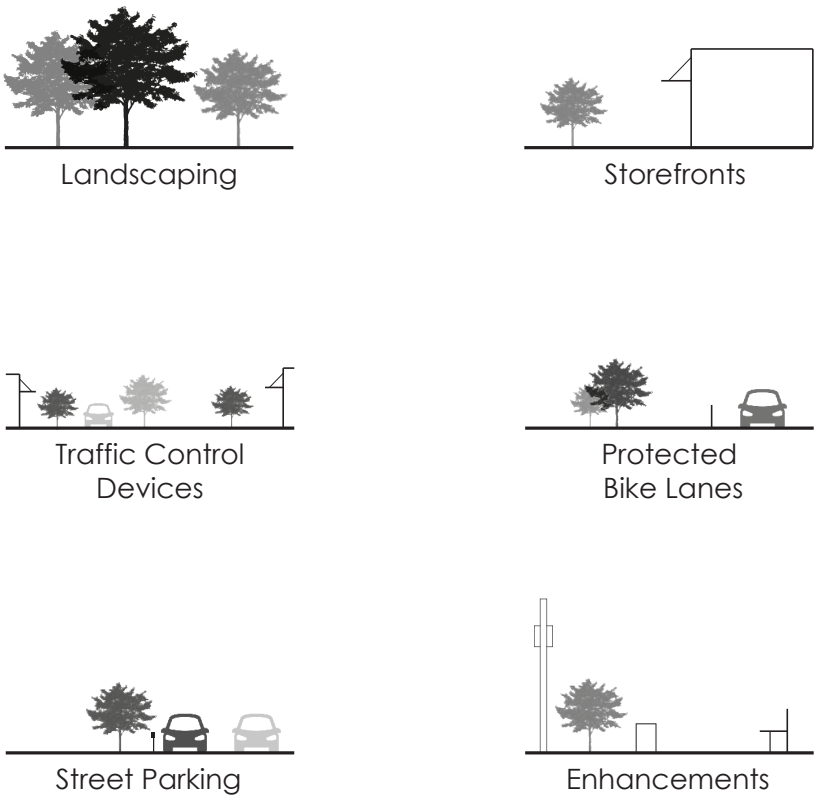
Walkability is the subjective analysis of pedestrian-friendly urban environments.

Looking at walkability through the subjective lens allows for more personal design strategies to be crafted that helps address walkability needs within communities. Through this lens, walkable strategies become less cookie cutter and more site responsive, as they rely on the subjective analysis of the residents to determine the design strategies. In particular to Detroit, which is a city that faces a large set of unique challenges, subjective analysis will allow for a carefully crafted framework that can begin to address the issues of walking in the city much more effectively than that of the typical New Urbanism strategies utilized by city planners.

Additionally, the creation of pedestrian-friendly spaces throughout the city will play a large role in the reintroduction of walkability to the city of Detroit.¹⁶ Although New Urbanism strives to implement pedestrian-friendly spaces in the general way, such as through bike lanes and narrowed streets, pedestrian-friendly strategies based on the subjective lens will be much more creative and responsive to the issues at hand in Detroit. Overall, this way of looking at walkability allows for a more in-depth spin on the way walkability issues are currently being addressed in the city of Detroit.

¹⁶ Budick, Seth. "What Makes a City Walkable?" PlanPhilly, 2008.

2.2 Pedestrian Friendly Environments



Pedestrian-friendly urban environments are those that are designed to give preference to people over automobiles. Although these environments are traditionally designed based on the way in which walkability is typically understood, there are other elements and components that can help to innovatively enhance what a pedestrian-friendly environment can be.¹⁷ Some of these components, such as the need for landscaping and street parking, are showcased on the left side of the page.

Ultimately, the goal of pedestrian-friendly urban environments is to give protection to people from automobiles. Not making the misconception that automobiles should be expelled from public places, but it is much more about how can the two coexist safely in the same space, whether that be on a street-scape or urban plazas.

¹⁷ Berg, Nate. "Walkable Cities, Walkable Neighborhoods." Planetizen, 2010.

Figure 5: Pedestrian-Friendly Environments

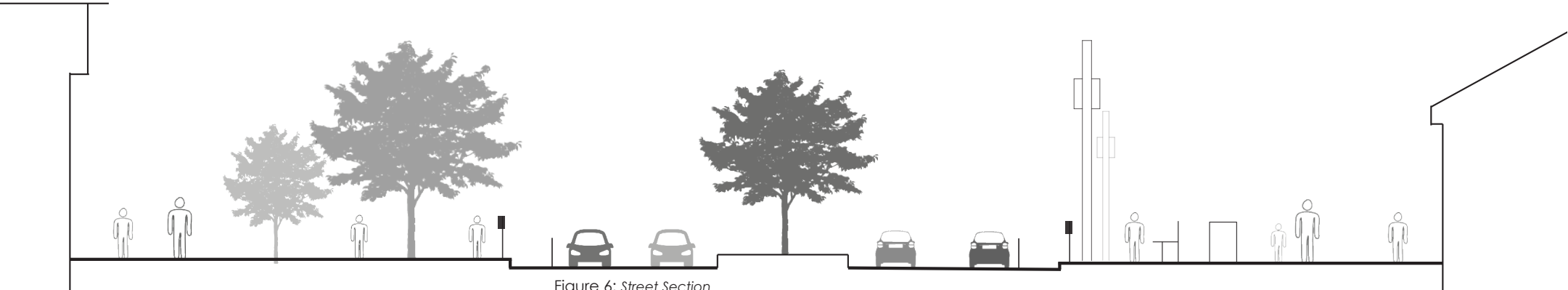


Figure 6: Street Section

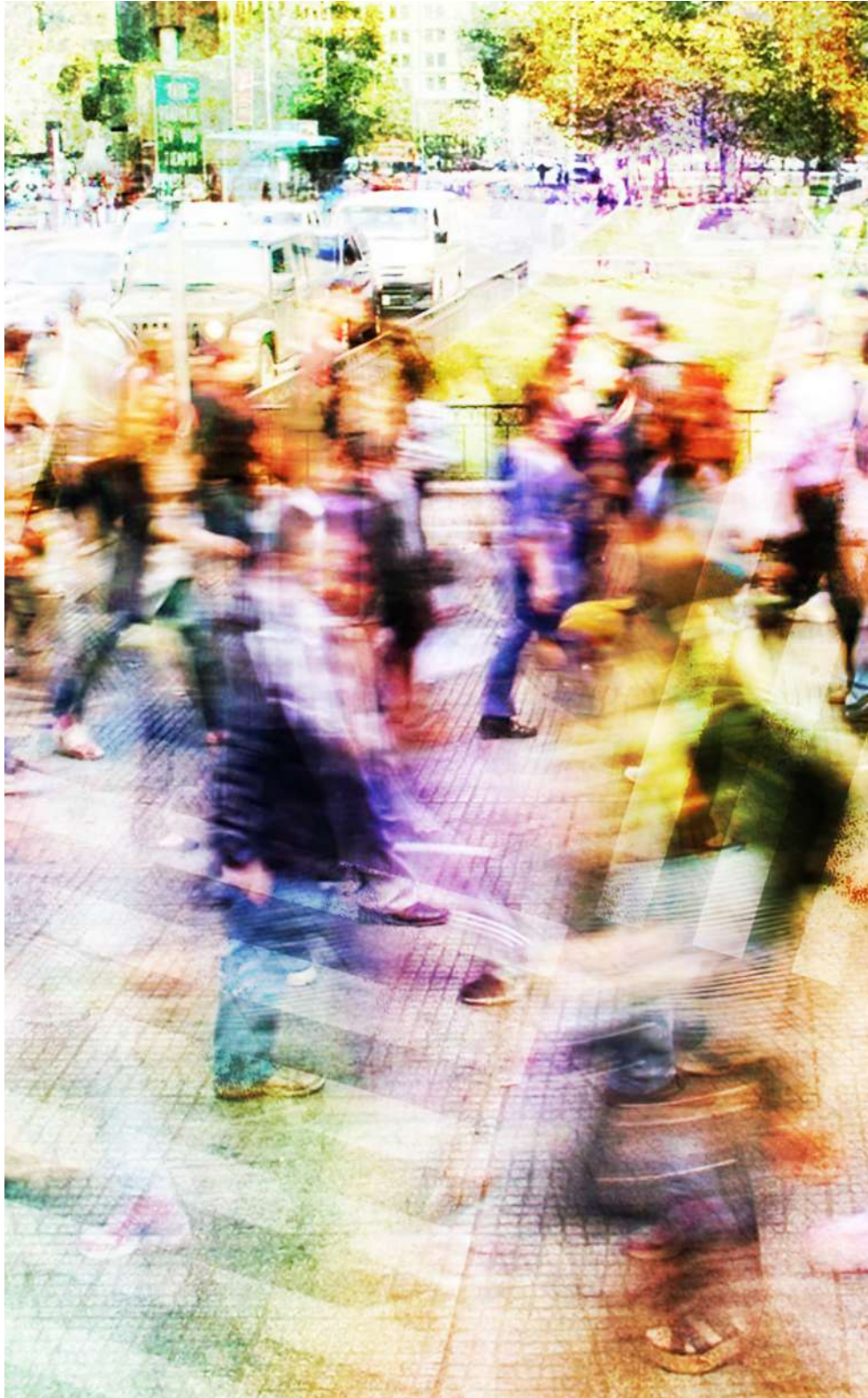


Figure 7: Subjective Analysis

2.3 Subjective Analysis

“Subjective Analysis is where the feeling of the individual taking part in the analysis process determines the outcome.¹⁸”

-Jane Abao

Psychologist and Author

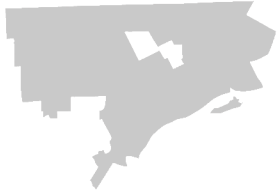
As a psychological ideology, subjective analysis is the humanistic way in which people are able to understand and analyze the living or built environment in which they are in. The way in which urban spaces are understood is based on the ability to analyze what is observed, smelt, heard, or touched. Subjective analysis in particular focuses on sight and observation.¹⁸ However, in order to understand what is observed, other senses are needed to communicate this to the brain.

During the analysis process, the brain uses several different components to communicate what a person is observing. The analysis process allows humans to determine several different factors, with the largest of them being if they feel safe.¹⁹ Typically before anything else, humans will analyze situations to make sure they are entering a safe environment. This same analysis takes place while analyzing walkable places, as safety is always the first priority. The second priority in the analysis process for humans is comfort.¹⁹ After analyzing for safety, people typically will analyze for comfort, especially in urban spaces. Both safety and comfort play a major role in the analysis process of determining if a space is walkable or not. With subjective analysis being specific to each individual, as no two people feel the same way about an urban space, subjective analysis can pose an intriguing challenge to designers on considering the factors for creating walkable spaces. As most people have similar factors to determine if a space is safe or not, the factors used to determine if a space is comfortable or not, can be completely different from person to person.

¹⁸ Taylor, Kathryn L. “Objective and Subjective Assessments of Normal Walking Pace, in Comparison with That Recommended for Moderate Intensity Physical Activity.” *PMC Exercise Science*, July 19
¹⁹ Leyden, Kevin. “Social Capital and the Built Environment: The Importance of Walkable Neighborhoods.” *AJPH*, Island Press, Oct. 2011.

Open Streets

Location: Detroit, MI

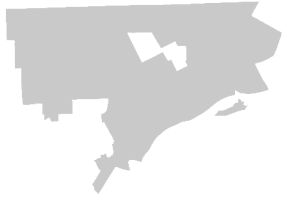


To test this theory, subjective analysis was conducted while walking throughout different areas in Detroit. The first area, was Open Streets, which is a semi-annual event held in Detroit. This event closes off Michigan Avenue to all vehicles, starting from downtown, and going through Corktown.

While walking through this event, the most intriguing component to this analysis process became the question of elements stood out, or impacted the analysis the most. For example, in this image, which was created based on pictures from this event, what stands out? Is it the people in the foreground of the image? Or maybe the buildings on either side of the street? Is it the landscaping elements or street trees? This questioning began to influence the idea of how humans can actually determine if a space is walkable or non-walkable. With subjectivity playing a large role in the analysis process, the idea of a standard criteria came into question. Is there a criteria that can be utilized to understand how we conduct this analysis, or is it completely subjective?



Capitol Park Location: Detroit, MI



In order to understand this ideology even further, additional subjective analysis was then conducted. In this occasion, it was done while walking through Downtown Detroit. In particular, this image is from Capitol Park, which is a small pocket park located in the western portion of Downtown Detroit.

When analyzing Capitol Park, there were several different categories that made the space stand out when attempting to determine if the park was a pedestrian-friendly space or not. The first component of this process that stood out was all of the different people that were throughout the park. Additionally, the landscaping components of the park stood out during the analysis process, not only the trees, but the raised area for dogs as well.

Through the process of walking through Detroit, the question of how humans can conduct subjective analysis, became more and more intriguing.



Figure 9: Subjective Analysis in Capitol Park



Image 8: City Hall in Philadelphia

2.4 Subjective Analysis in Philadelphia

Although Philadelphia is considered to be a fairly dense city that has access to public transit, as well as walkable infrastructure, the city also has several intriguing similarities with the city of Detroit, that ultimately make Philadelphia an interesting case study on achieving walkability.

The first similarity is the connection that both Philadelphia and Detroit have to the Civic Commons Initiative.²⁰ This national initiative is taking place in five cities within the United States that have similar challenges which are the result of racial redlining and suburban sprawl. The program aims to get funding to help restrengthen marginalized neighborhoods within these five cities, the five cities are, Detroit, Philadelphia, Akron, Memphis, and Chicago.²⁰ A large aspect of this initiative is to innovatively create design strategies that can begin to achieve walkability within these different areas in these select cities.

Additionally, both cities were heavily effected by racial tensions, suburban sprawl, and de-industrialization over the past fifty years. However, there are current movements in both Philadelphia and Detroit that are focused on redeveloping several areas of the city. The issue with both however, is that they are neglecting large parts of the city when it comes to planning and redevelopment.

As an attempt to understand the unique components that make Philadelphia walkable, documentation through video was conducted while walking through the city to gain a better understanding of different street and walking conditions. This exercise can be viewed on the next two pages.

²⁰ Leinberger, Christopher B. "Philly's Many Walkable 'Center Cities.'" Brookings, Brookings, 28 July 2016,

Center City:



Society Hill:



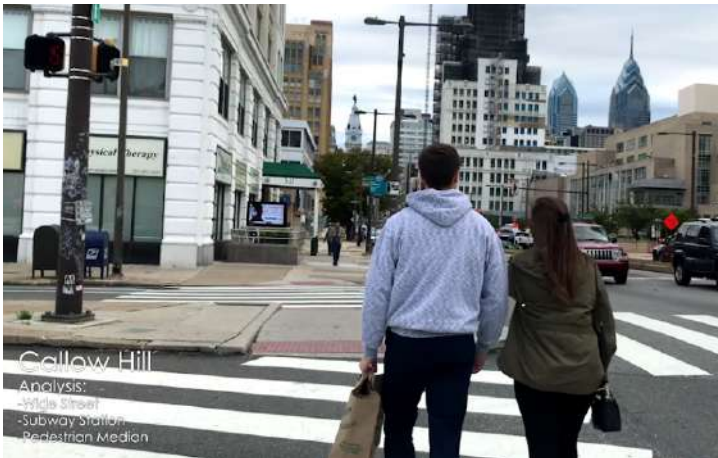
Rittenhouse Square:



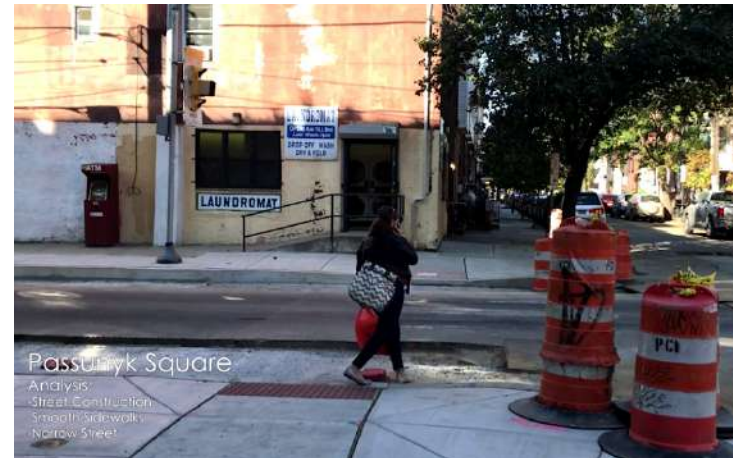
Center City:



Callow Hill:



Passunyk Square:



Figures 10-15: Subjective Analysis in Philadelphia

2.5 The Four S's

As an ideology based on the understanding of subjective perception in urban spaces, the *Four S's* help to make sense of the way people perceive the built environment. Humans analyze spaces through these *Four S's*, which are Sound, Speed, Scale, and Smell. Through sight, humans are able to communicate to the brain their understanding of exactly what they see, which is called subjective perception.²¹ However, the way in which humans understand what they see is through the analysis of scale, sound, speed, and smell in urban spaces.²²

The human analysis conducted in the *Four S's* is done so in a subjective manner.²³ Although the individual components or specific elements of the analysis, such as the physical height of a building, or the specific sound heard can not be subjective, the response can be. For example, if there are two people in an urban space, and they hear someone say something to them, their reaction, and their perception of what happened would be different, as it is subjective. The subjectivity of this process becomes intriguing in the understanding of urban environments.

Additionally, the *Four S's* are an analysis tool that helps to determine a person's own level of comfort and safety in a space.²¹ With both comfort and safety being large components in a person's analysis of walkable or non walkable spaces, the *Four S's* allow an individual to be able to do an in depth analysis of the space, to ultimately determine if that space is a pedestrian-friendly environment or not. In helping communicate the two most important elements in the analysis of walkable spaces, the *Four S's* are a crucial tool in the subjective analysis of pedestrian-friendly urban environments.

21 Leslie, Eva, and Frank Lawrence. "Residents' Perceptions of Walkability Attributes in Objectively Different Neighbourhoods: a Pilot Study. *Science Direct*, 2005.

22 Taylor, Kathryn L. "Objective and Subjective Assessments of Normal Walking Pace, in Comparison with That Recommended for Moderate Intensity Physical Activity." *PMC Exercise Science*, July

23 Dubey, Abhimanyu, et al. "Deep Learning the City: Quantifying Urban Perception at a Global Scale." *Computer Vision – ECCV 2016 Lecture Notes in Computer Science*, 2016.





Figure 17: Scale

Scale

Scale: "a ratio of size of both built and conceived objects."²⁴

All built and natural objects in urban environments have a scale to them, this scale, is essential in humans being able to understand the makeup of physical spaces, especially those they walk through.²⁴ Psychologically, scale allows humans to understand the way the built, and natural environment impacts perception. However, although scale is important in both the natural and built environment, for the purpose of this theory, it is more concerned with built urban conditions.

The scale of elements in the built environment plays a large role in the way in which humans ultimately understand the spaces they're in. An added layer of depth to human perception of scale in urban spaces is the way in which light is communicated to people based off of how it interferes with objects. As all objects have scale, its that interaction, between light and scale, that creates shadows, which communicate light to humans.²⁵ This help humans to be able to perceive objects in a three dimensional way.

In the built environment, scale can refer to the size of buildings, people, or other objects such as specific as the height of the curb. The analysis of these physical objects, such as the height of trees, or the length of a semi trailer, begin to communicate the understanding of three dimensional urban space.²⁵ This analysis, becomes extremely important when understanding, as well as designing for walkability.

²⁴ Heathcote, Edwin. "Become an FT Subscriber to Read: 'Architecture on an Urban Scale'." Subscribe to Read | Financial Times, Financial Times 2008.

²⁵ Sim, David. *Soft City: Building Density for Everyday Life*. Island Press, 2019.



Sound

Sound: "vibrations that travel through the air or another medium and can be heard when they reach a person's ear."²⁶

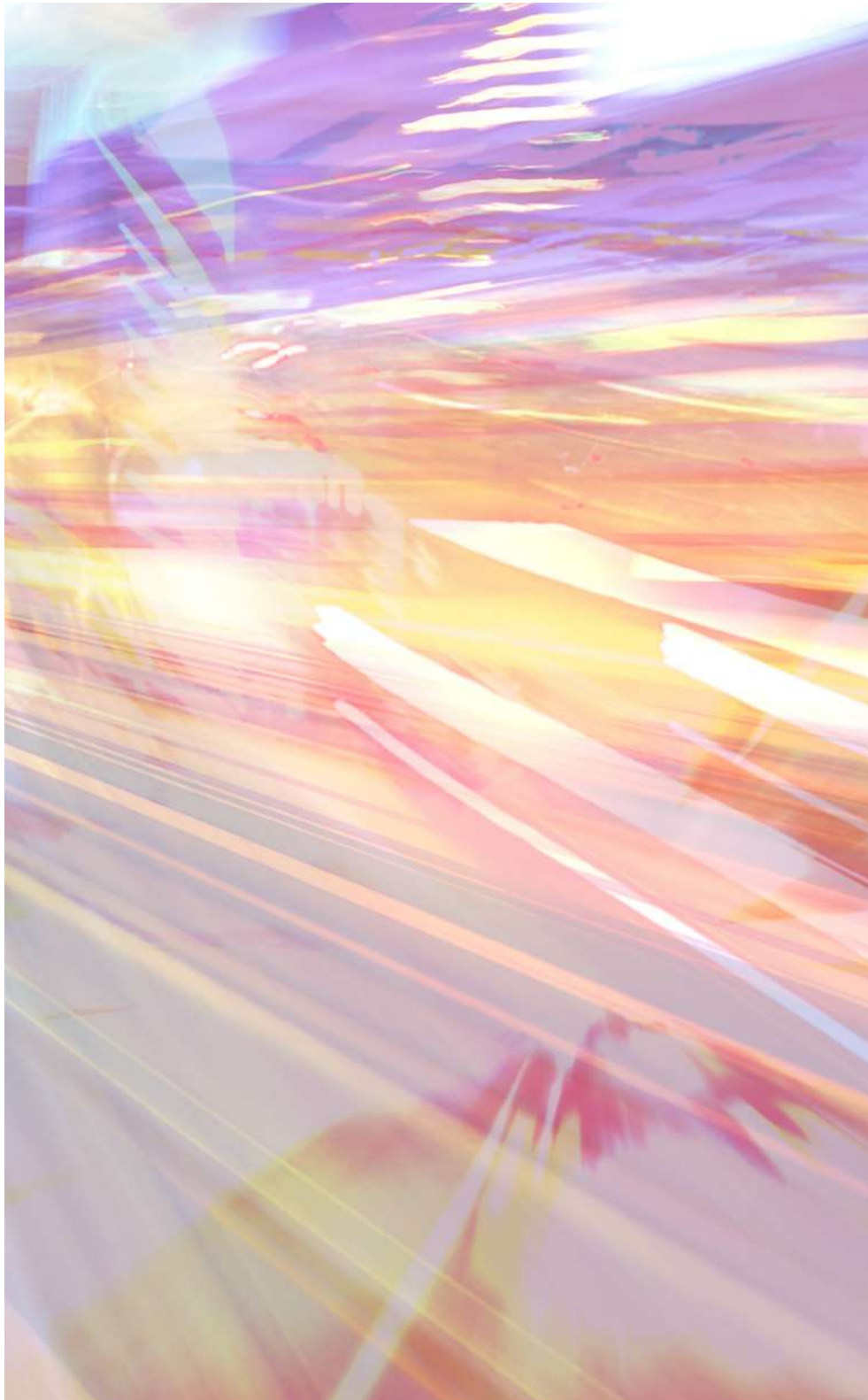
Sound impacts the way humans psychologically understand auditory sound-waves and vibrations.²⁶ This understanding helps to link what is observed in urban space with what is heard. Ultimately, this allows for humans to use subjective perception and analysis as a tool to understand what occurs around them.

In urban spaces, people can hear a varied amount of sounds from both humans and objects. Some of these sounds could be overhearing someone talking, the sound of a helicopter in the sky, or the sound of cars driving by. All of these sounds however, play to the ability humans have of connecting where they hear the sound based on their ability to conduct subjective analysis. As urban spaces are filled with all types of diverse sounds, the understanding of these elements, becomes an intriguing aspect of subjective analysis.

One aspect of sound that becomes useful in urban space is that it can be deciphered even without sight. For example, a blind person walking through an urban space can still hear different sounds, and in most cases, they can make out where these sounds are coming from as well.²⁶ Unlike scale, in most cases at least, sound becomes a component that transforms the way people can understand space, even if they can't see.

Figure 18: Sound

²⁶ Paskus, Laura. "What Is Sound Science?" Living in Bosnia, McGraw-Hill, 2003.



Speed

Speed: "the rate at which someone or something is able to move or operate."²⁷

As a psychological understanding, speed impacts the way humans understand physical space, as well as time.²⁷ Speed allows the perception of time to be communicated to the brain, which in terms allows people to analyze the way in which objects and people move around them.²⁷ The ability to understand speed in an urban space plays a large role in understanding the ability to conduct subjective analysis within the built environment.

Human perception of speed in an urban space can refer to the analysis of people walking or running, the speed of automobiles, as well as how fast the wind is blowing. The most common type of speed analyzed is the speed of people or objects as they pass by, or are bypassed. However, although not as commonly analyzed, the speed of the wind often plays a large role in the human understanding and level of comfort of an urban area.

When it comes to comfort, speed often plays the largest roles of the *Four S's*. Although all four are important in achieving comfort, speed is often the largest factor. When it comes to speed, if a person is in an environment where cars are traveling really fast along the road, or an area where the wind is blowing extremely fast, the general consensus is this isn't a comfortable environment. Speed can begin to be important in the analysis of safety as well, as both speed and comfort utilize similar factors. Overall, speed becomes a crucial component of the analysis of the urban environment.

²⁷ Deziel, Chris. "What Is Speed?" Sciencing, 2 Mar. 2019.



Figure 20: Smell



Smell

Smell: “the faculty or power of perceiving odors or scents by means of the organs in the nose.”²⁸

The final element of the Four S's, Smell, is a crucial component in the subjective analysis process. As humans, smell leads to the analysis of scents and odors, which deters or engages with other objects psychologically.²⁸ The ability to understand what humans smell, as well as where it comes from, and how it adds or subtracts from the quality of an urban space is an important establishment in the subjective analysis process.

In an urban space, smell refers to good and bad scents or odors, such as the smell of food from a restaurant, or the smell of trash in a dumpster. Within different neighborhoods, or urban spaces, there are a large amount of different smells that can exist. These smells, truly begin to influence the perception of someone walking in this area, as they are either drawn in, by a pleasant smell, or turned away, from an odor.

In some cases, different city blocks, neighborhoods, or urban areas, are defined by a particular smell. For example, in Chicago, Humbolt Park is an area that is notorious for its floral smell, as there are tons of flower arrangements in the area, whether in the neighborhood park, or in hanging baskets outside of businesses.²⁹ Another example is the well documented smell that comes from the massive factories along the river in the city of River Rouge, Michigan. Whether good or bad, the element of smell not only plays a role in subjective analysis, but also a role in the understanding and branding of neighborhoods.

²⁸ Bodo Kubartz (2014) Urban Smellscapes: Understanding and Designing City Smell Environments, The AAG Review of Books, 2:3, 99-101, 2019.

²⁹ Pallardy, Carrie. “What Do Chicago Neighborhoods Smell like?” Neighborhoods.com, Neighborhoods.com, 29 Aug. 2018.

2.6 Sensorial Density

A key component in the implementation of walkability is density. Both, density of people, and density of objects, plays a large role in achieving walkability within cities, or neighborhoods.³⁰ Urban Density, which is defined as the degree of compactness of an urban area, is a large factor in the generalized understanding of walkability.³¹ Most of the cities where the universal New Urbanism walkability strategies are implemented have high density rates. For example, New York City, which has a density rate of 27,016.3 per square mile, or San Francisco, which has a density rate of 17,246.4 per square mile, are areas where traditional walkability strategies can be effective.³² However, when looking at Detroit, which has a density rate of 4,878 per square mile, walkability, and density, have to be defined beyond their traditional ways.³²

Just as the generic version of walkability isn't effective in Detroit, density, in the traditional sense isn't either. However, density, in urban spaces, is understood in a vast amount of ways, that goes beyond just the amount of physical mass in a specific volume. One type of density that exists in urban space is sensorial density. This is related to the amount of sensorial elements within a select urban area. For example, the amount of different smells that exist on one particular street corner. In a city like Detroit, sensorial density begins to play a large role in the understanding of the urbanism that makes up the perception of the city.

In particular, sensorial density is not only important in conducting and understanding subjective analysis, but also the way in which walkability is designed for in Detroit. In Detroit, several neighborhoods, that don't have traditional urban mass, do have a vast variety of densities of elements of scale, elements of sound, elements of speed, and elements of smell. Overall, through looking at this lens of density, walkability can begin to be reintroduced through a more sensorial based design approach.

30 Montgomery, Charles. *Happy City: Transforming Our Lives through Urban Design*. Farrar, Straus and Giroux, 2014.

31 Magiac, Mike. "Population Density for U.S. Cities Statistics." *Governing*, 2018.

32 Kusume, Yasushi. "Designing For All Five Senses." *Fast Company*, Fast Company, 9 July 2018.



Figure 21: Density in Detroit



Chapter 3: Where?

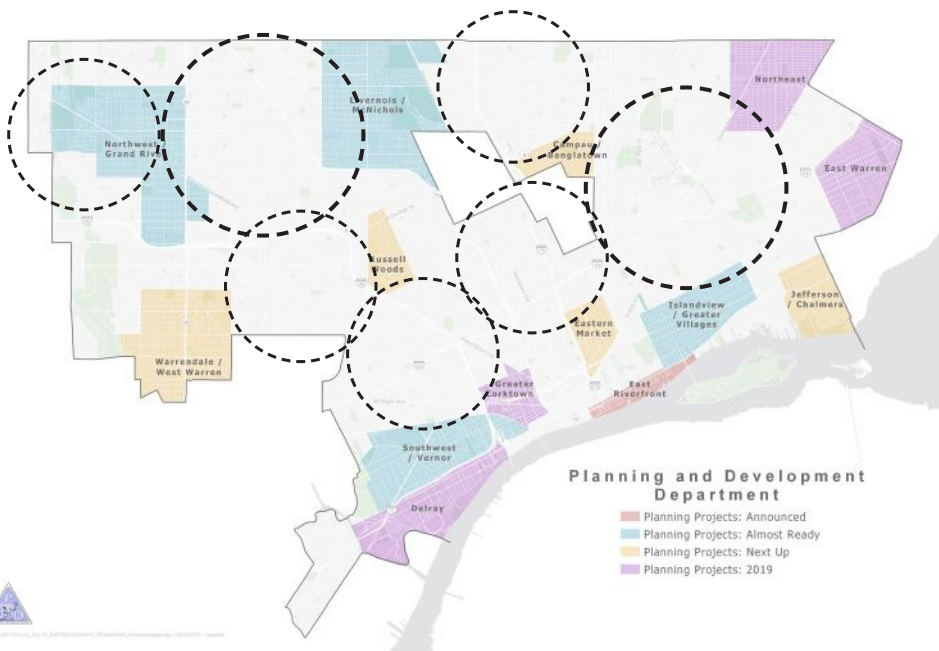
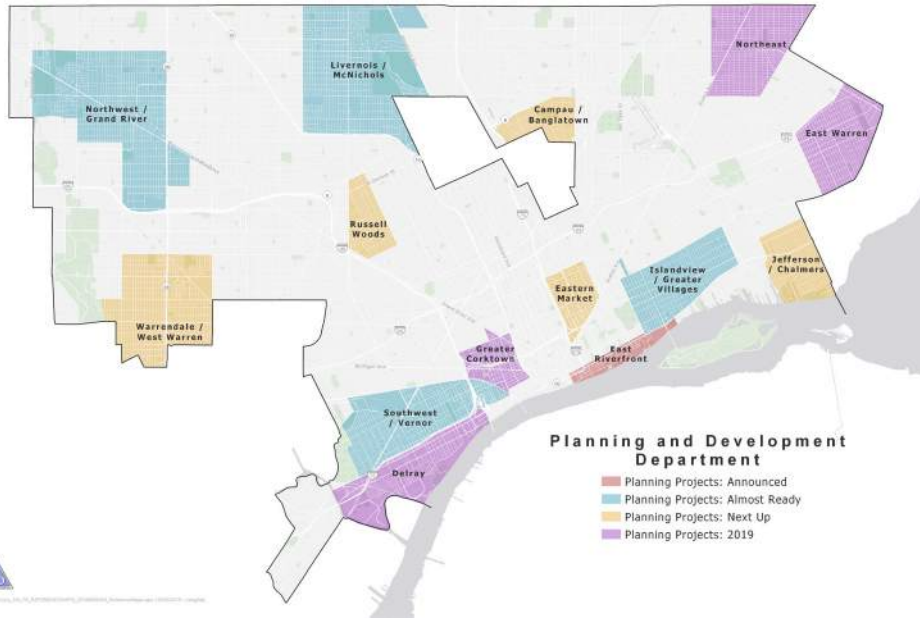
An in-depth analysis of the urban conditions in the neighborhoods of Detroit.

3.1 The Criteria

Currently, within the city of Detroit, there is a fair amount of investing in redevelopment going on, however, this investment is targeted at select areas. These target areas, or “focus neighborhoods” as they are called by the Detroit City Planning Department, are areas that have the potential for, or already existing market demand.³³ As of now, there are fourteen focus neighborhoods, in addition to Downtown and Midtown, that are being targeted by the city for redevelopment.³³ There is a socio-political movement behind the selection of these “focus neighborhoods.”

Within these select areas, the Detroit City Planning Department has crafted design strategies that align with the generalized understanding of walkability. Most of the design solutions are centered around street-scape improvements along major roads, as well as creating mid-rise mixed-use developments at the center of commercial corridors. Additionally, the *Twenty Minute Neighborhood* has been utilized as a framework for the redevelopment of these target neighborhoods.

With that being said, the criteria utilized for this thesis was focused around selecting neighborhoods within the in-between spaces within the city, so not working within the focus neighborhoods of the city, but the areas that aren't getting as much attention, that way it is possible to begin to bridge the gap in the way walkability is achieved within the city of Detroit. Within these areas, three different types of neighborhoods were looked at, based on the different neighborhood typologies that exist within the city of Detroit. The three typologies looked at were a neighborhood with primary detached single family homes, the second was a neighborhood that has a decent amount of mid-rise multi-family buildings, and the third was a neighborhood with an industrial presence.

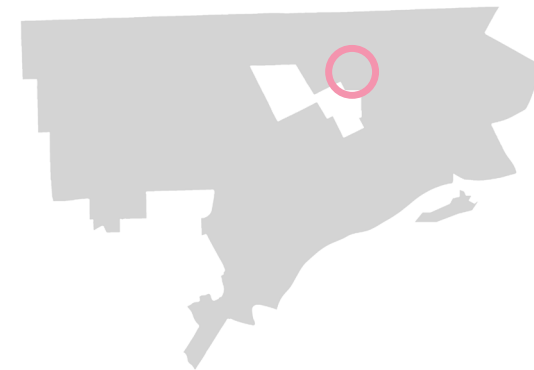


Figures 22-23: Focus Neighborhood Criteria

³³ Mondry, Aaron. “An Update on All 14 of the City’s Neighborhood Plans.” Curbed Detroit, Curbed Detroit, 9 Apr. 2019.



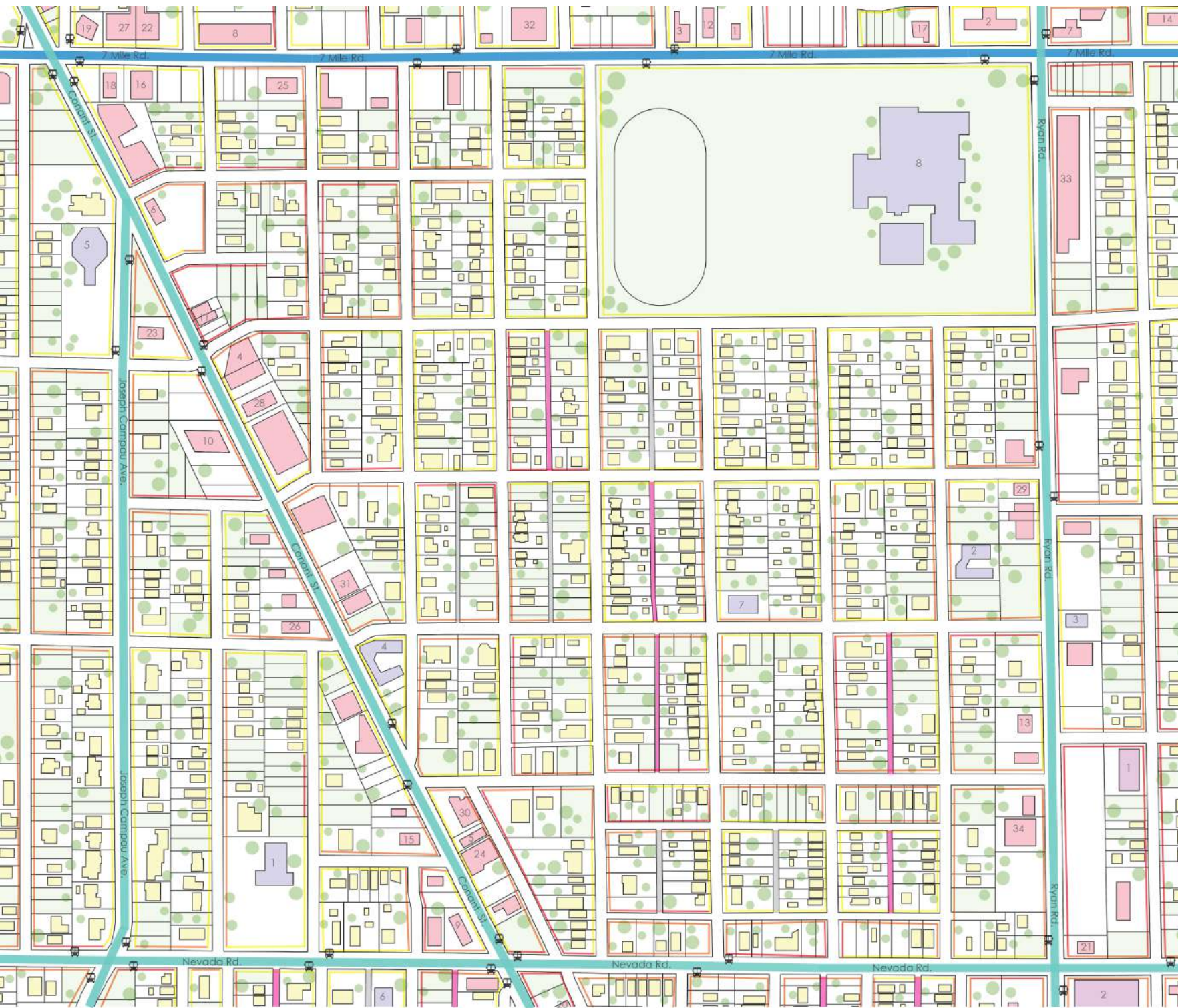
3.2 Conant Gardens



Location: Detroit, MI | Zipcode: 48231 | Population: 1.8K

As a neighborhood of almost two thousand people, Conant Gardens, is the first neighborhood selection for this thesis. The neighborhood is primarily made up of single family homes that are framed by commercial corridors along the main roads. With fairly dense streets, the Detroit City Planning Department lists Conant Gardens as the fifth densest neighborhood within the city of Detroit. Additionally, the neighborhood is registered as a Historic District, because it was one of just three neighborhoods that African Americans could live in within Detroit in the early twentieth century.

Neighborhood	Conant Gardens
Location	Detroit, Michigan
Zipcode	48231
Population	1.8K
Race	93% African American
Male vs. Female	60% Female
Median Age	43
College Educated	63%
Avg. Household Income	\$28,266
Avg. Home Value	\$49,000
Own vs. Rent	68% Own
Crime Rate	3.1
Walkscore	57



Land Usage

- Civic:**
- Religious Spaces:**
1. Antioch Missionary Baptist Church
 2. Blessed Trinity Missionary Baptist Church
 3. Christ Tabernacle Church
 4. Conant Avenue Methodist Church
 5. Conant Gardens Seventh Day Adventist
 6. Greater Apostolic Church
 7. Vernon Chapel Church

- Schools:**
8. John J. Pershing High School

- Commercial:**
- Auto Service:**
1. 411 Major Repairs
 2. BP Gas Station
 3. C+A Auto Sales
 4. Complete Auto Repair
 5. Cuse Car Wash
 6. First Choice Hand Car Wash
 7. Marathon Gas Station
 8. Mechanic Zone
 9. Sunnoco Gas Station

- Construction Service:**
10. Michigan Recreational Construction

- Cosmetic:**
11. Coiffures by Shannon
 12. Fat Mark's Barber Shop
 13. Jefferson's Barber Shop
 14. Latoya's Beauty Salon

- Entertainment:**
15. Keynote Lounge

- Financial Service:**
16. Insurance Max

- Food Service:**
17. Asian Corn Beef
 18. Church's Chicken
 19. Deluxe Coney Island
 20. Metro Shopper Market
 21. Nevada Coney Island
 22. Southern Comfort
 23. United Grill Coney Island

- Health Service:**
24. Healthy Kids Pediatric Clinic
 25. Mo-Town Pharmacy

- Retail:**
26. Conant Gardens Party Store
 27. D-Mack's Custom T-Shirt Shop
 28. JB Corner Store
 29. Modern Way Cleaners
 30. Personal Touch Detailing
 31. Rainbow USA
 32. W Liquor-Lotto Store

- Technology Service:**
33. Ameritech
 34. CT-Tech

- Industrial:**
1. DeeDay's Construction
 2. Judd Industrial Contracting

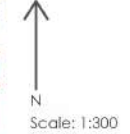
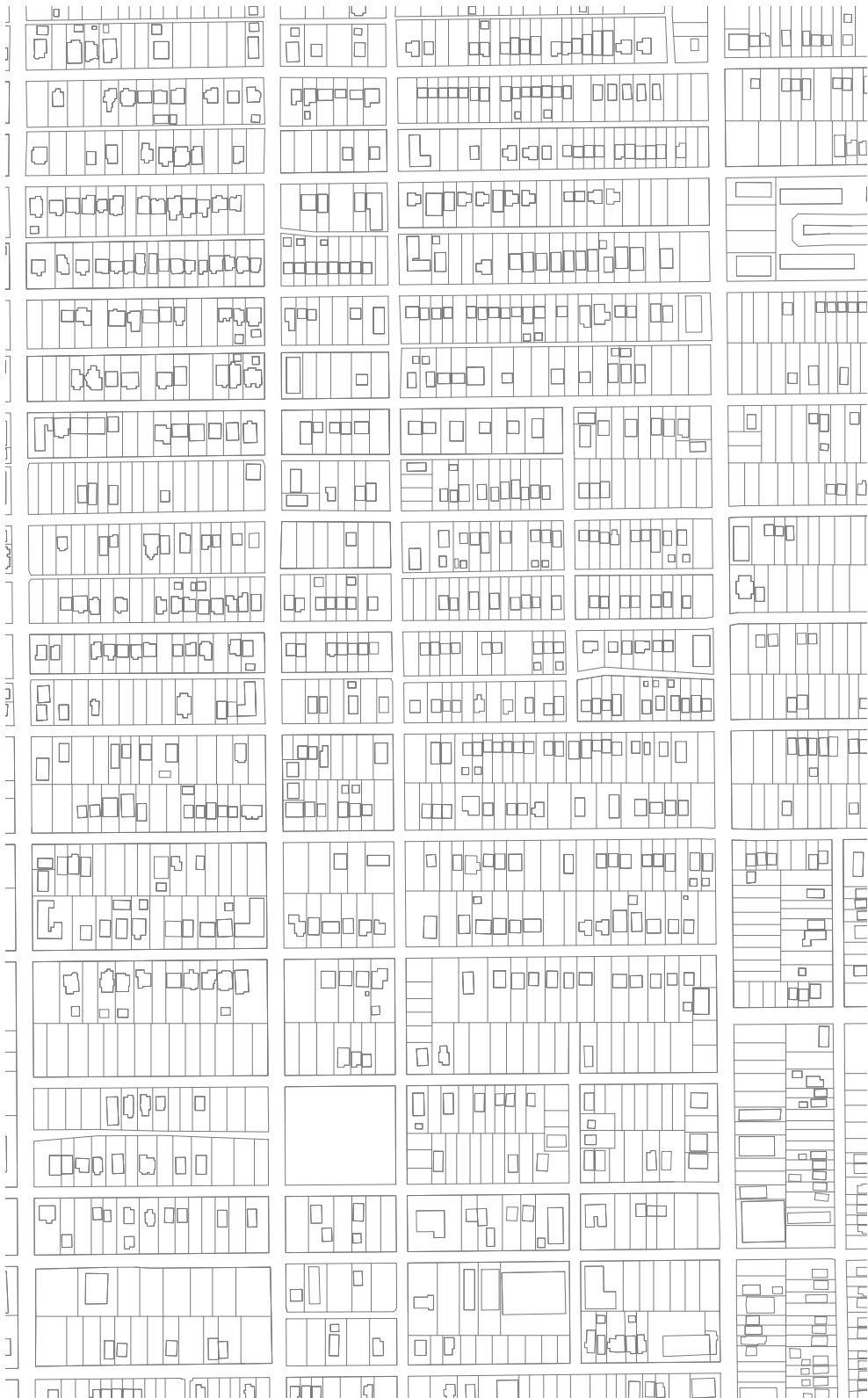
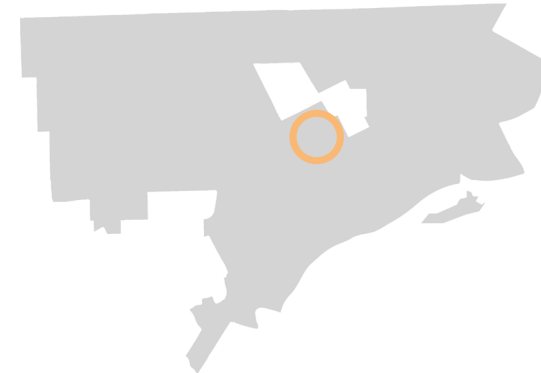


Figure 25: Conant Map

Traffic Flow:	Sidewalk Conditions:	Alley Conditions:
1,000-5,000 Cars Daily	Poor	Blocked
5,000-10,000	Fair	Clear
10,000-20,000	Good	
20,000 +		
	Bus Station	Bike Lane



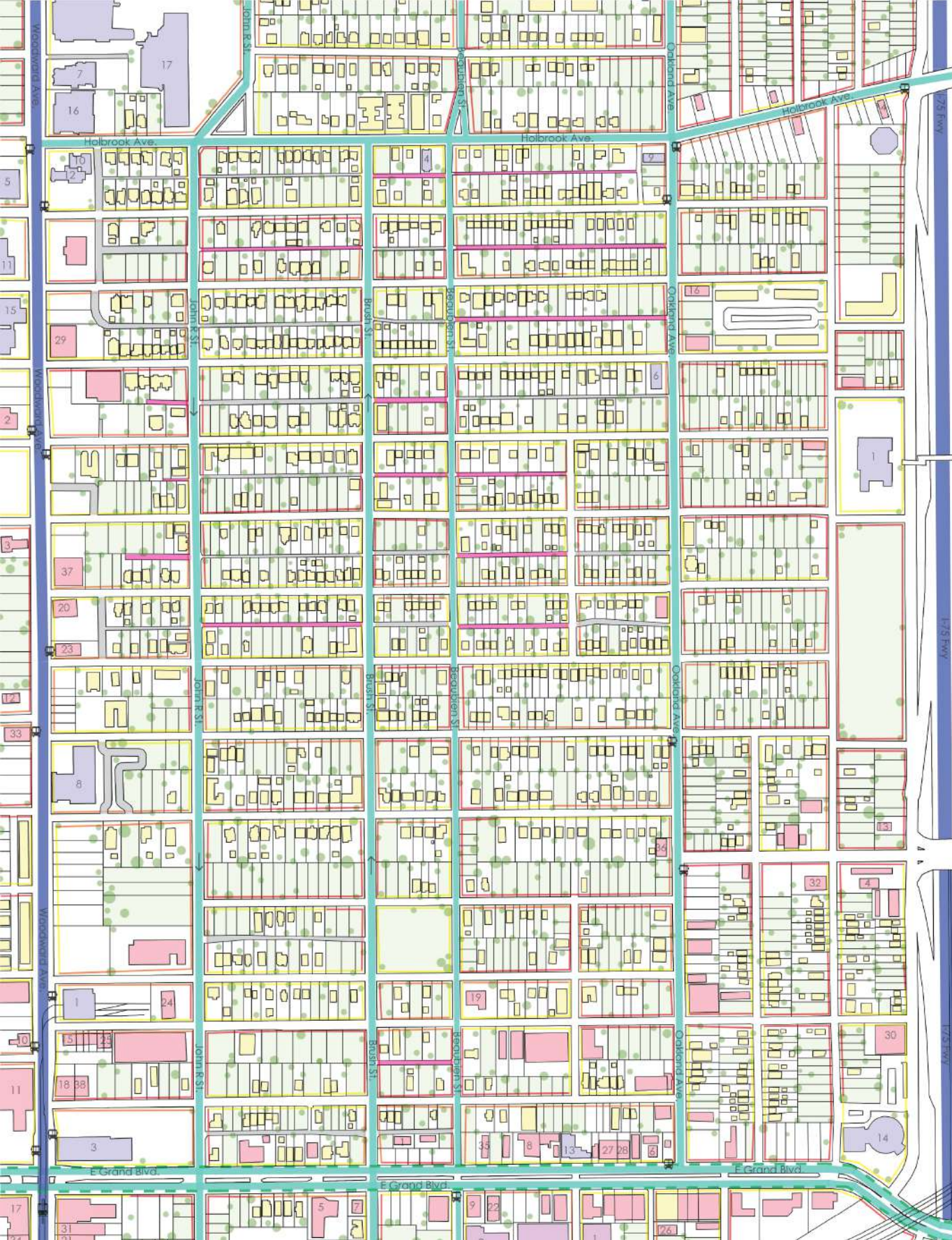
3.3 The North End



Location: Detroit, MI | Zipcode: 48202 | Population: 5.7K

As one of the largest neighborhoods in Detroit, the North End, has quickly emerged as one of the most diverse areas within the city, as its residents range in age, race, and ethnic background. The North End is made up of a mix of single family homes, small commercial properties, as well as mid-rise apartment and office buildings. With the neighborhood's proximity to New Center and Midtown, there is a fair amount of public transit options, such as nine different bus routes that run through the North End, as well as access to the QLine Streetcar.

Neighborhood	The North End
Location	Detroit, Michigan
Zipcode	48202
Population	5.7K
Race	87% African American
Male vs. Female	50% Male
Median Age	37
College Educated	46%
Avg. Household Income	\$18,966
Avg. Home Value	\$108,550
Own vs. Rent	65% Own
Crime Rate	3.3
Walkscore	67



Legend

Civic:

- Government:**
1. Michigan Humane Society
 2. QLine Detroit
 3. Wayne County Community Action Center

- Religious Spaces:**
4. Alpha + Omega Church
 5. Breakers Covenant Church
 6. Full Gospel Tabernacle Church
 7. Little Rock Baptist Church
 8. Metropolitan United Methodist Church
 9. Nazarene Baptist Church
 10. People's Community Church
 11. St. James CME Church
 12. St. Matthews Episcopal Church
 13. St. Phillips Lutheran Church
 14. Triumph Church East Campus
 15. Woodward Ave. Presbyterian Church

- Schools:**
16. Clearly University Culinary School
 17. Detroit International Academy

Commercial:

- Auto Service:**
1. Campus Auto Repair
 2. Celebrity Car Wash
 3. Citgo Gas Station
 4. Delta Gas Station
 5. Goodyear Auto Service
 6. Marathon Gas Station

- Cosmetic:**
7. Hair-A-Salon

- Entertainment:**
8. Jam Handy
 9. Kiesling Lounge

- Financial Service:**
10. Citizens Bank
 11. Frank Wright Settlements

- Food Service:**
12. Burger King
 13. Clay Coney Island
 14. Grady's Coney Island
 15. Happy's Pizza
 16. Miss Virginia's Ice Cream Parlor
 17. New Center Eatery
 18. New China One
 19. Parks Old Style BBQ
 20. The Turkey Grill
 21. Yum Village

- Health Service:**
22. Dencap Dental
 23. DMC Urgent Care
 24. Harden Family Dentist

- Retail:**
25. CBS Outdoor
 26. Detroit Nipple Works
 27. Enterprise Uniform
 28. Eloquent Petals Florist
 29. Family Dollar
 30. Goodwill
 31. Hilal Books + Imports
 32. Market St. Liquor
 33. New Center Liquor
 34. Urbanum
 35. Reflection Shoe Shiners
 36. Roby's Shoes

- Technology Service:**
37. Metro by T-Mobile
 38. New Center Boost Mobile

- Industrial:**
1. Chap Automotive
 2. Rusas Printing

Traffic Flow:

- per ILMDCG Traffic Volume Database
- 1,000-5,000 Cars Daily
 - 5,000-10,000
 - 10,000-20,000
 - 20,000 +

Alley Conditions:

- Blocked
- Clear

Sidewalk Conditions:

- Poor
- Fair
- Good

- Bus Station
- QLine Station
- Bike Lane
- Traffic Direction

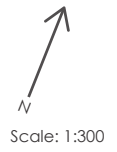
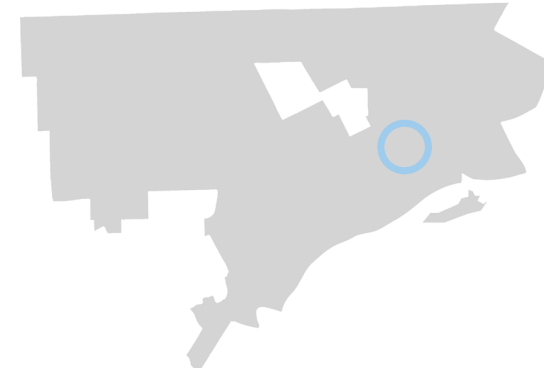


Figure 27: North End Map



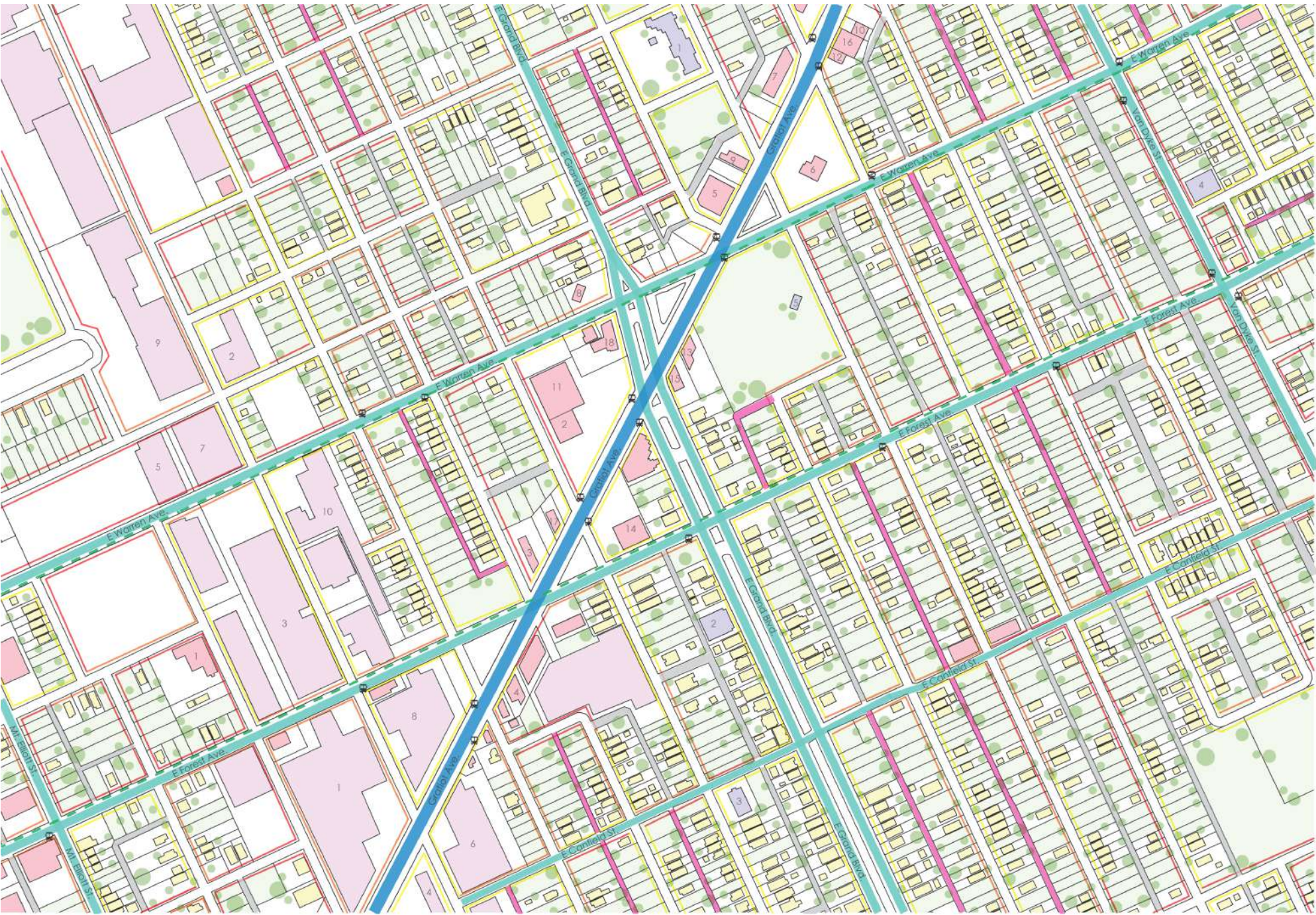
3.4 Kettering-Butzel



Location: Detroit, MI | Zipcode: 48213 | Population: 1.9K

As a neighborhood of just two thousand people, Kettering-Butzel, or the Lower Eastside, as it is often referred to is the third neighborhood selected for this thesis. Kettering-Butzel, has a strong historical connection to industry within Detroit, and because of this, today, there is still a fairly large industrial core going through the neighborhood. Additionally, the neighborhood sits at the convergence of several major roadways within the city, such as Gratiot Avenue, Warren Avenue, Forrest Street, Van Dyke, Mt. Elliot, and E. Grand Boulevard.

Neighborhood	Kettering-Butzel
Location	Detroit, Michigan
Zipcode	48213
Population	1.9K
Race	96% African American
Male vs. Female	52% Female
Median Age	39
College Educated	38%
Avg. Household Income	\$21,549
Avg. Home Value	\$28,700
Own vs. Rent	51% Rent
Crime Rate	3.3
Walkscore	51



Land Usage

- Civic:**
- Religious Spaces:
 1. St. Anthony New Order Cathedral
 2. Renaissance Baptist Church
 3. Universal Liberty Church
 4. Zion Hope Baptist Church

- Parks:
 5. Dueweke Park

- Commercial:**
- Auto Service:
 1. Arnold's Auto Sales
 2. Autozone
 3. Marathon Gas Station

- Cosmetic:
 4. JKA's TransformHers

- Financial Service:
 5. Cash Depot
 6. Chase Bank
 7. Tax City

- Food Service:
 8. King Fish Market
 9. Little Caesars Pizza
 10. Saffron De Twah
 11. Sav-Mart

- Health Service:
 12. People's Pharmacy
 13. Quality Dentistry

- Retail:
 14. Family Dollar
 15. Korash Florist
 16. Simon's Wear

- Technology Service:
 17. Boost Mobile
 18. Metro by T-Mobile

- Industrial:**
1. AJAX Metal Processing
 2. Architectural Salvage Warehouse
 3. Avalon Bakehouse
 4. Basketball Warehouse
 5. Faygo Warehouse
 6. Ferrante Manufacturing Co.
 7. LaGrasso Bros. Produce
 8. Party Bus Detroit
 9. Pioneer Metal Finishing
 10. Stanek Rack

↑
N
Scale: 1:300

<p>Traffic Flow:</p> <ul style="list-style-type: none"> 1,000-5,000 Cars Daily 5,000-10,000 10,000-20,000 20,000 + 	<p>Sidewalk Conditions:</p> <ul style="list-style-type: none"> Poor Fair Good <p> Bus Station</p>	<p>Alley Conditions:</p> <ul style="list-style-type: none"> Blocked Clear <p> Bike Lane</p>
---	--	--

Figure 30: Kettering Map

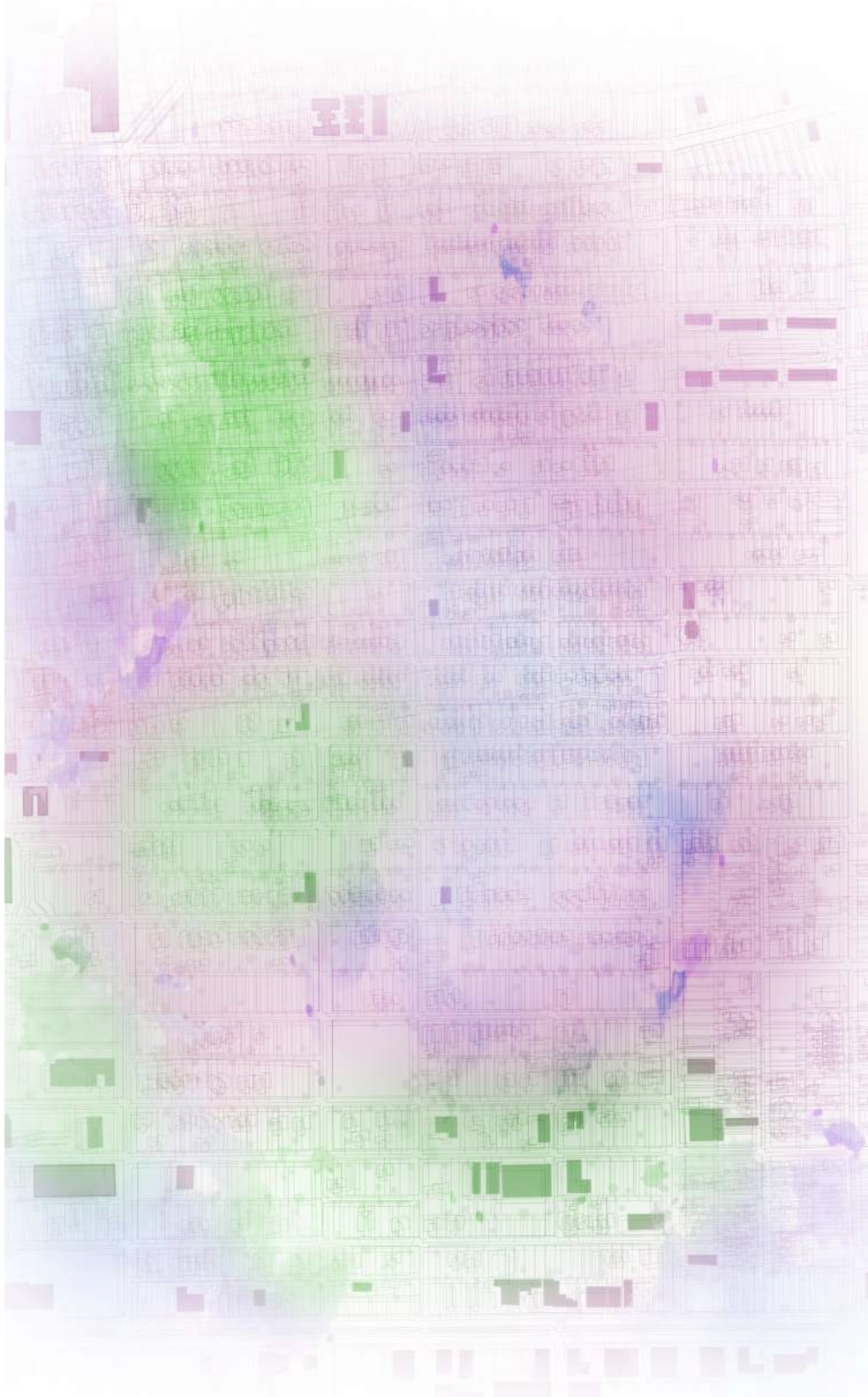


Figure 31: Subjective Map

3.5 Subjective Mapping

As a tool for revealing geographic content, demographics, or psychological theories, mapping is a crucial communication tool.³⁴ Mapping is an exploration process that helps lead viewers on a journey through history, psychological thinking, hard data, or geographical context. As mapping can be pushed in more interpretive ways, the discovery and journey associated with that map becomes much more exciting. As a collection of layers of information, maps at the core help to communicate the formation of geographical context combined with other theoretical elements.³⁴ Although discovery is important in standard cartographed geographic maps, it is just as important in more abstract maps. This discovery is crucial in cognitive, statistical, theoretical, or rhizomatic maps, as this process helps viewers to understand vital content that can help to communicate or challenge psychological theories or geographic information that the map is conveying.³⁴

In urban analysis, mapping is one of the essential components, as it communicates statistical information about the particular block, neighborhood, or city the map is showcasing. In this thesis, each of the three neighborhoods were mapped based on land use and mobility statistics. Although this mapping exercise was important to understand what physically exists within these areas, there was another layer that was ultimately missing, this layer would allow for a deeper understanding of each of these three neighborhoods.

In order to dive deeper into these neighborhoods to truly begin to unpack the unique ways in which they function, subjective mapping was conducted. This mapping process was done based on collecting data on the *Four S's*, Sound, Scale, Smell, and Speed, while walking through these neighborhoods, and then mapping them out to understand unique aspects of how the area functions.

³⁴ Laing, Gordon. "7 Reasons Why Maps Are Important." Barrachd, UKAS, 2019.



Figure 32: Conant Subjective Map

3.6 Subjective Mapping of Conant Gardens



Subjective analysis was conducted in Conant Gardens based on personal observations while walking throughout the neighborhood at different times over a period of three months. This process was conducted in order to collect data on the different elements of Sound, Speed, Smell, and Scale that exist within this area. Once this data was sufficient, the information was then mapped separately based on each element of the *Four S's*. Subjective mapping is a tool that helps communicate the sensorial analysis experienced in this neighborhood. Eventually, the separate subjective maps of Sound, Smell, Speed, and Scale were combined into one compiled map. Over the period of three months the data was collected, there were seven total trips to Conant Gardens where the neighborhood was physically walked. There were several additional trips, however they were not utilized to conduct analysis for the subjective mapping exercise.

Specifically to Conant Gardens, Smell was the “S” that stood out the most while walking through this neighborhood, with a plethora of restaurants relatively closely to one another, the smells here definitely impact one’s perception of the neighborhood. Additionally, there were strong elements of sound that existed around the two neighborhood churches within this neighborhood. The subjective analysis and mapping for Conant Gardens can be viewed on the next several pages.

Sound Map

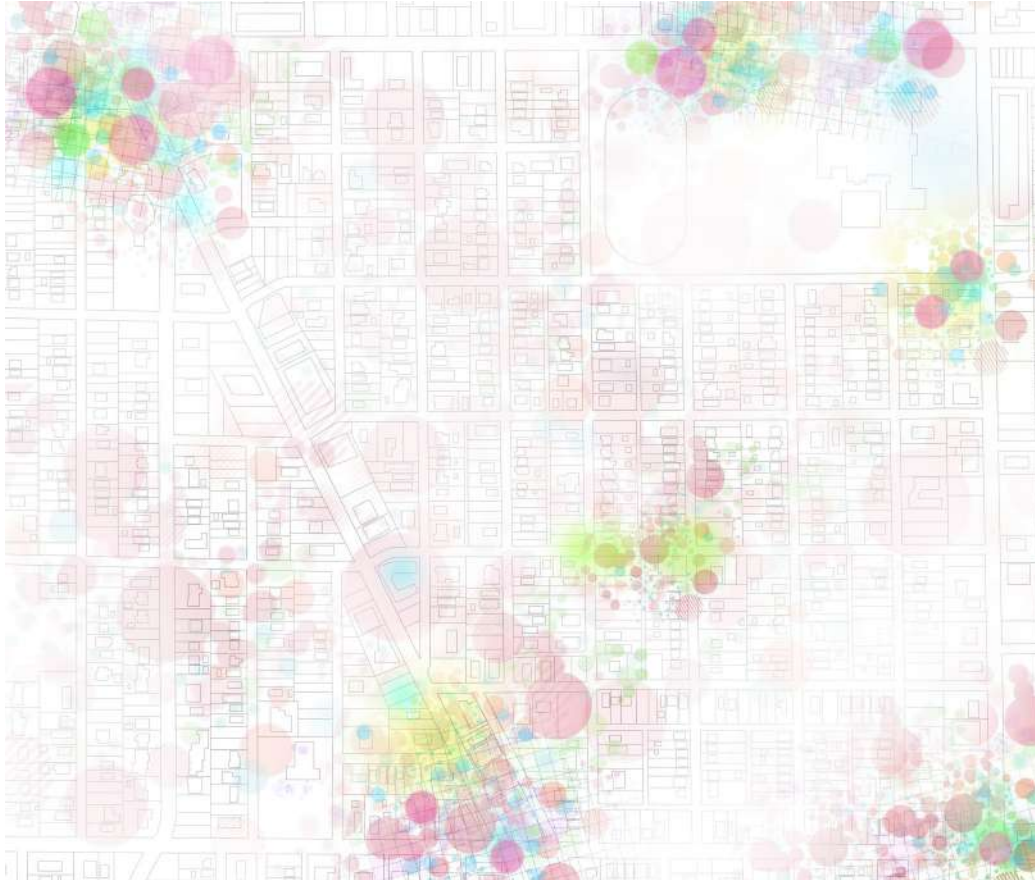


Figure 33: Conant Sound Map

Sound was subjectively mapped by utilizing different color circles at a variety of scales. The more intense the color means the more intense the sound. In terms of the color, purple referred to sounds coming from objects, such as music from a car for example, blue referred to sounds coming from actual people, and then the green were unpleasant sounds, such as a dumpster being picked up by a truck.

Within this neighborhood, most of the sounds heard were concentrated within specific areas, such as at the corner of Conant Street and 7 Mile Road (top left of the map). These sounds ranged from the sound of music being played in cars driving by, all the way to the sound of high schoolers dribbling a basketball in a vacant parking lot.

Smell Map



Figure 34: Conant Smell Map

Smell was mapped based on utilizing wave like shapes to show the way in which smell travels around its origin. The most intense point of the wave is the origin of the smell, as the waves fade out, the smell does also. In terms of the colors, red referred to food related smells, blue or purple, related to vegetative smells, and then green referred to smells that weren't pleasant.

In Conant Gardens, there is an overwhelming food like smell coming from a wide variety of restaurants that exist in this neighborhood. The food like smile plays a large role in the way subjective analysis is conducted within Conant Gardens.

Speed Map

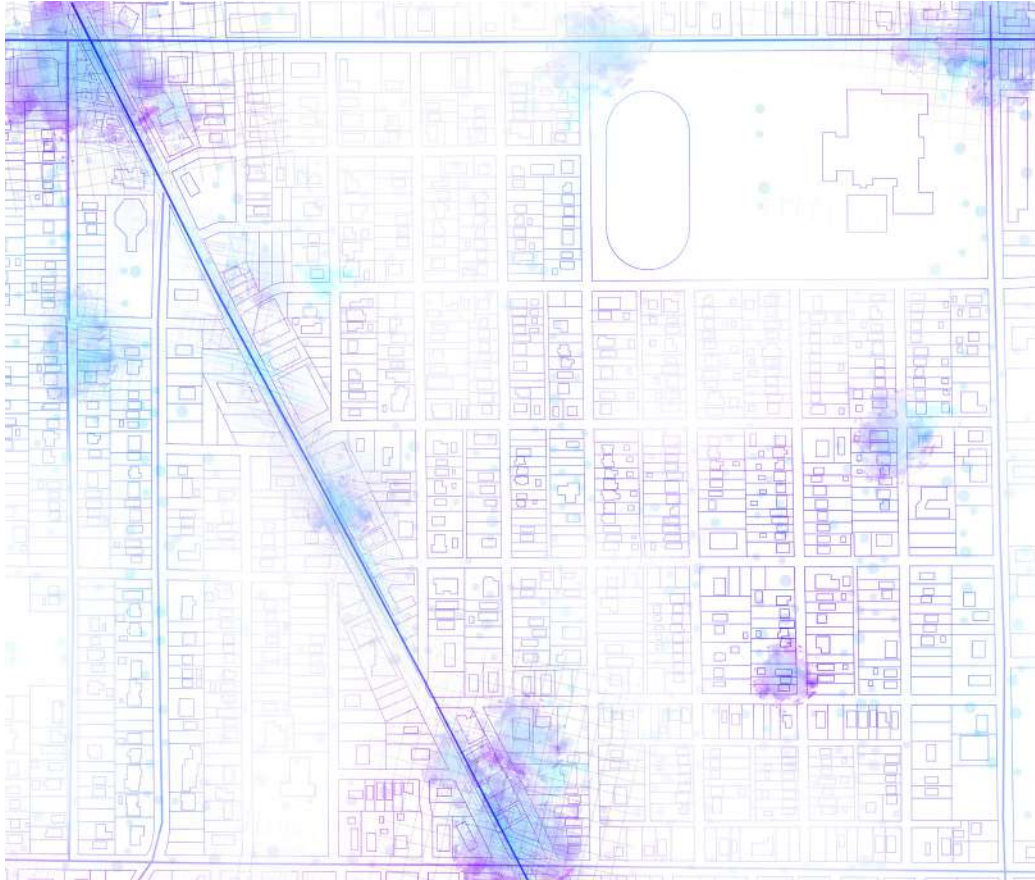


Figure 35: Conant Speed Map

The element of speed was mapped based on two methods, the first was highlighting vehicular speed along roads, and the second, was to show pedestrian speed along sidewalks. In terms of vehicular speed, roads that had a blue line on them were areas in which cars influenced the pedestrian perception. When it came to mapping pedestrians, the circular spots on the map were showing where the speed of a pedestrian influenced the subjective analysis within this neighborhood.

In Conant Gardens, the relatively swift speed of people walking on the sidewalks around this neighborhood was the biggest influence from this element of the *Four S's*.

Scale Map



Figure 36: Conant Scale Map

Scale was mapped based on a gradient of color that ranged from green, to white, to purple. In the areas marked in green, scale was not that influential in the conduction of subjective analysis. In areas that are white, although scale was noticed, it was often overshadowed by other elements of the *Four S's*. Lastly, in areas marked by purple, scale stood out, as it is definitely influenced the analysis within that specific section of the neighborhood.

In Conant Gardens, scale was a primary factor in the perception of large parts of the neighborhood. Within the residential areas of the neighborhood, scale was often the largest factor in perceiving the area, especially south of Pershing High School.

Combined Subjective Map

After mapping out each element of the *Four S's* within Conant Gardens, the four individual maps were then overlaid on one another to begin to uncover unique characteristics of the neighborhood.

Subjective mapping is a tool that helps communicate the sensorial analysis experienced in this neighborhood. Additionally, it became a tool that began to identify select areas that had an overlap of *S's*. These areas were nodes that had an intensity of activity, or a density of sensorial elements. These locations began to identify themselves as the nodes or hubs for the neighborhoods. Although there were several different areas of intensity in Conant Gardens, the area surrounding the intersection of Conant Street and 7 Mile Road, in the top left of the map, was ultimately the largest node.

Going forward, this node was analyzed based on the individual elements of the *Four S's*.

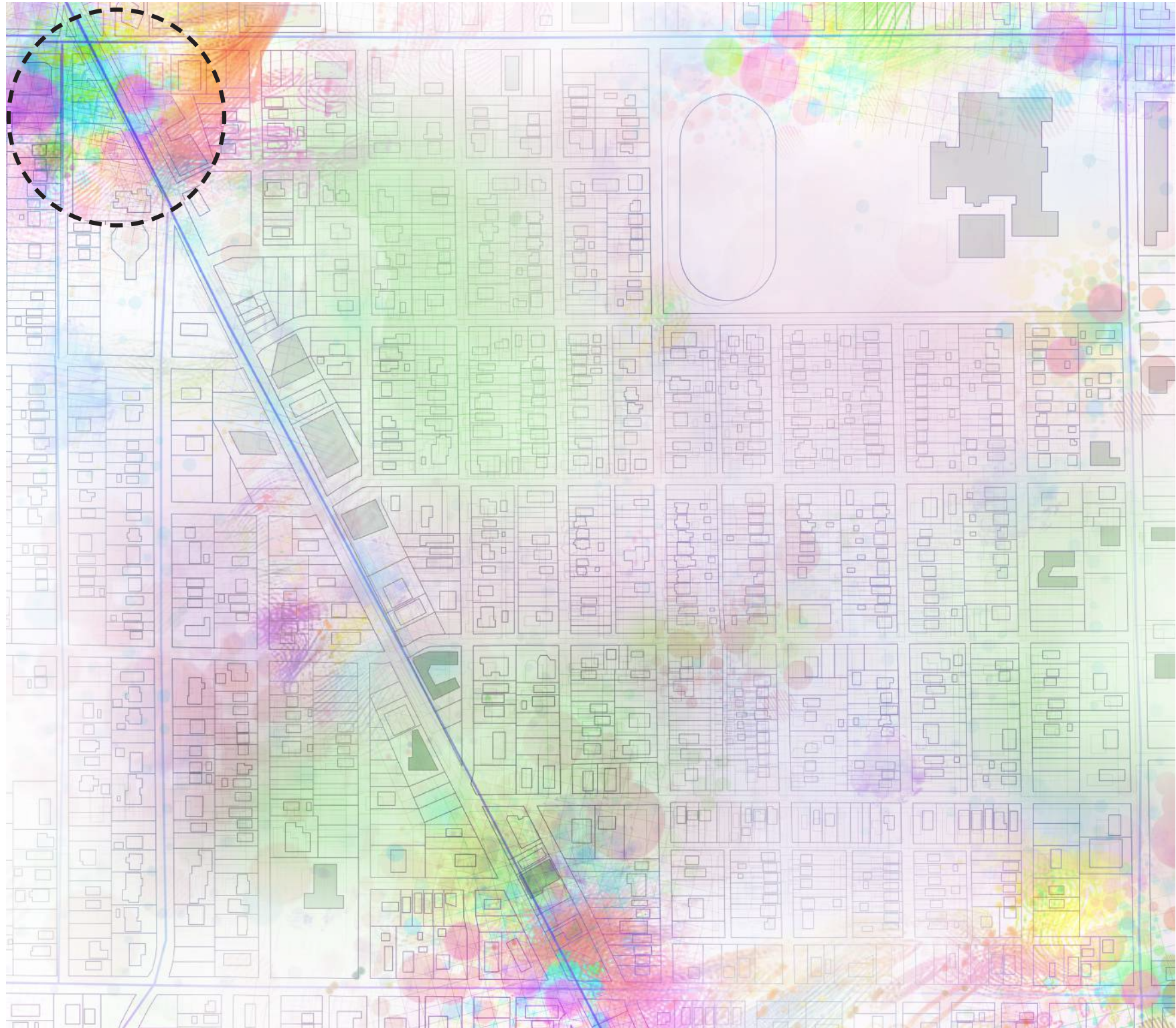
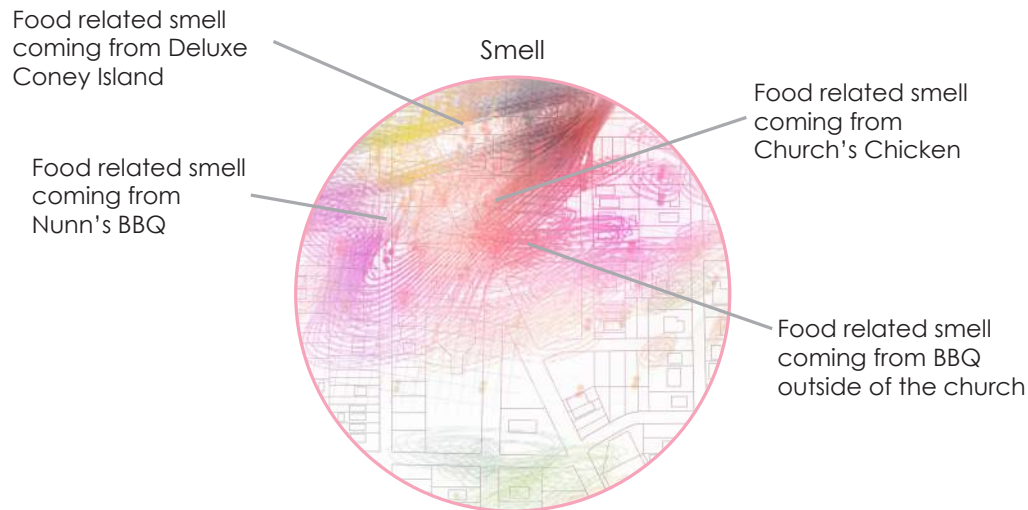
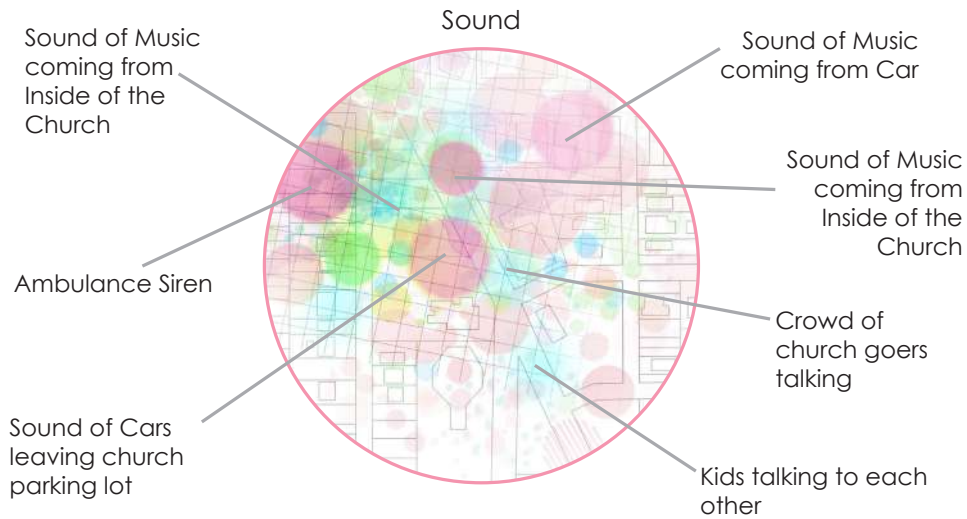


Figure 37: Conant Overlaid Map

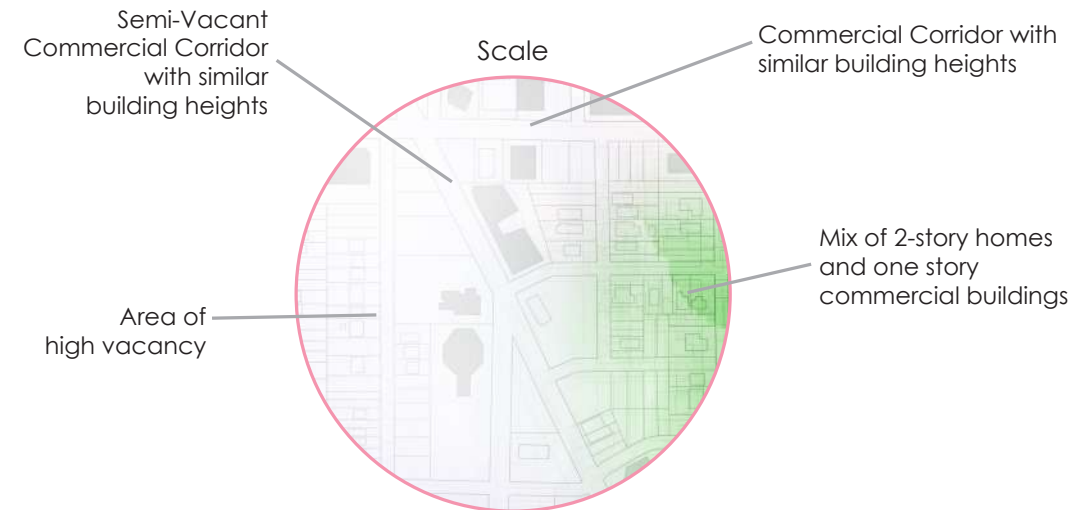
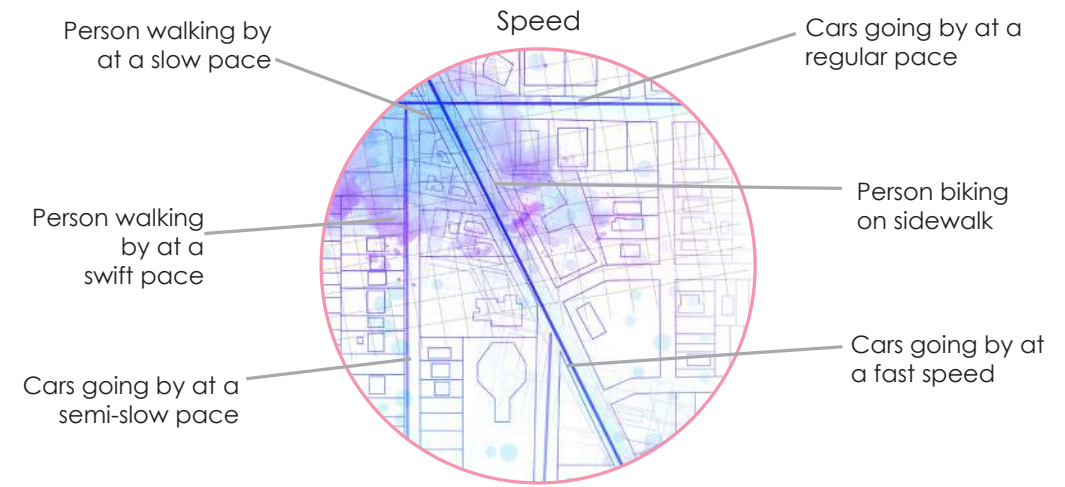
Subjectively Analyzing the Neighborhood Node



Figures 38-41: Conant Node Analysis

After utilizing the overlaid subjective maps to identify the neighborhood node, further analysis on each individual element of each of the *Four S's* was done, to uncover the existing narratives in these areas. Overall, this process was done by pulling out each specific sound heard, smell that was came into contact with, and element of scale and speed interacted with. The results are above.

Subjectively Analyzing the Neighborhood Node



Figures 38-41: Conant Node Analysis

In Conant Gardens, the element that stood out the most in this analysis process was without question smell. There are several restaurants located within this node, and the pleasant overlap of smell coming from these restaurant, is definitely noticed. Additionally, the sound of music playing in the two neighborhood churches was a unique aspect of this node.



Figure 42: North End Subjective Map

3.7 Subjective Mapping of The North End



Subjective analysis was also conducted in the North End, the data was conducted on personal observations while walking throughout the neighborhood at different times over a period of three months. This process was again focused on understanding the elements of sound, speed, smell, and scale that exist within this area. Once this data was sufficient, the information was then mapped separately based on each element of the *Four S's*. Once the analysis was mapped out separately, the information was then combined into one compiled map. Over the period of three months the data was collected, there were nine total trips to the North End where the neighborhood was physically walked. There were several additional trips, however they were not utilized to conduct analysis for the subjective mapping exercise.

In terms of the North End, all four elements of the *Four S's* played an equal role in understanding this neighborhood. Whether it was the sounds of children playing at Bennett Park, which is a neighborhood park, or the way that the mix of single-family and multi-family homes impacted the personal scale within the neighborhood, the North End had several unique attributes that impacted the subjective analysis of this neighborhood. The subjective analysis and mapping for the North End can be viewed on the next several pages.

Sound Map

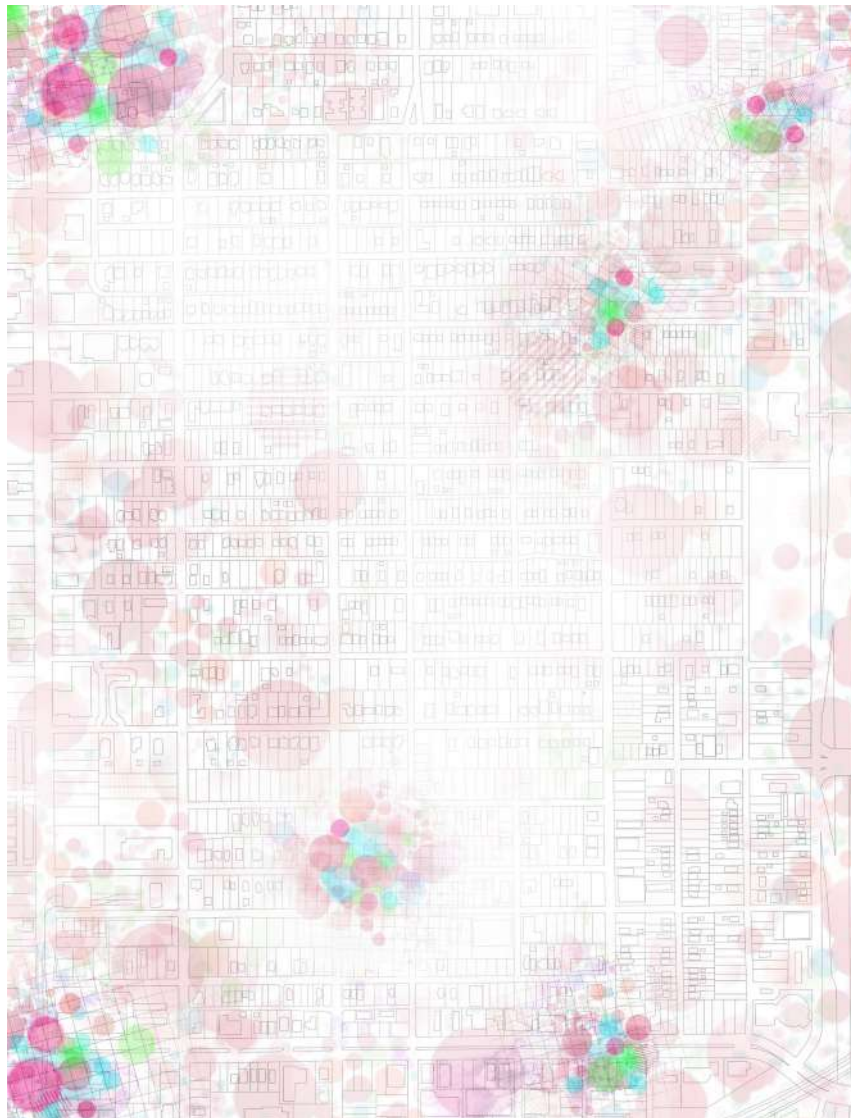


Figure 43: North End Sound Map

Sound was subjectively mapped by utilizing different color circles at a variety of scales. The more intense the color means the more intense the sound. In terms of the color, purple referred to sounds coming from objects, blue referred to sounds coming from actual people, and then the green were unpleasant sounds.

Within the North End, the sounds heard ranged from the sound of people talking on the phone at the park all the way to the sound of music coming from a neighborhood barbecue.

Smell Map



Figure 44: North End Smell Map

Smell was mapped based on utilizing wave like shapes to show the way in which smell travels around its origin. In terms of the colors, red referred to food related smells, blue or purple, related to vegetative smells, and then green referred to smells that weren't pleasant.

In the North End, there were several types of smells, they ranged from the smell of meats being smoked outside of Parks BBQ to the smell of plants within the Michigan Urban Farming Initiative.

Speed Map

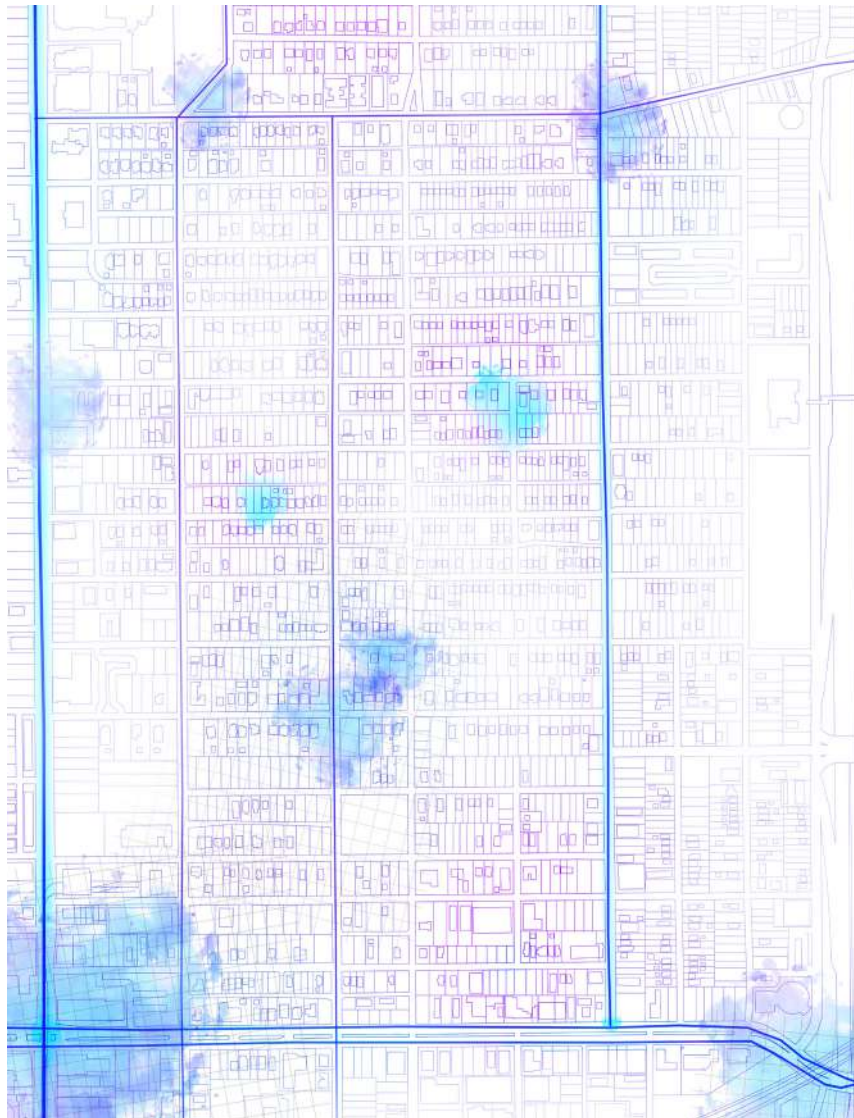


Figure 45: North End Speed Map

The element of speed was mapped based on two methods, the first was highlighting vehicular speed along roads, and the second, was to show pedestrian speed along sidewalks. In terms of vehicular speed, roads that had a blue line on them were areas in which cars influenced the pedestrian perception. When it came to mapping pedestrians, the circular spots on the map were showing where the speed of a pedestrian influenced the subjective analysis within this neighborhood.

Scale Map

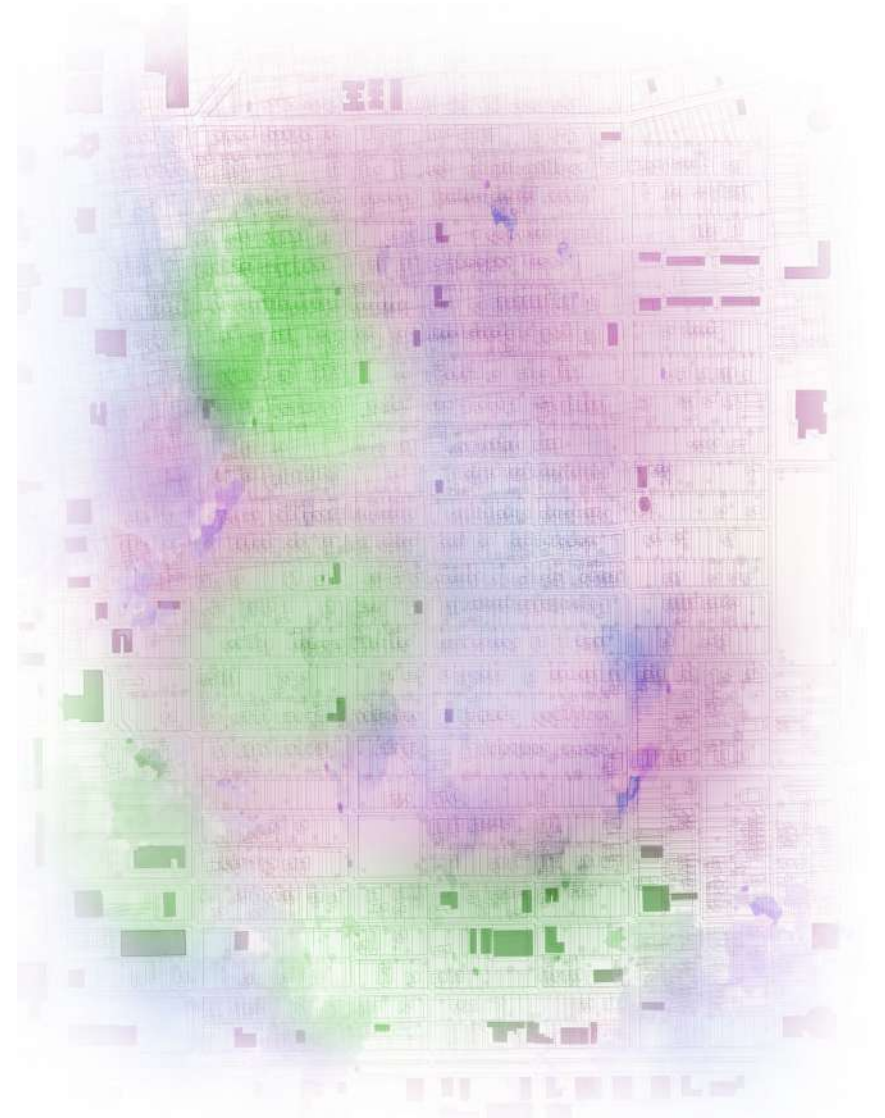


Figure 46: North End Scale Map

Scale was mapped based on a gradient of color that ranged from green, to white, to purple. In the areas marked in green, scale was not that influential in the conduction of subjective analysis. In areas that are white, although scale was noticed, it was often overshadowed by other elements of the *Four S's*. Lastly, in areas marked by purple, scale stood out, as it is definitely influenced the analysis within that specific section of the neighborhood.

Combined Subjective Map

After mapping out each element of the *Four S's* within the North End the four individual maps were then overlaid on one another to begin to uncover unique characteristics of the neighborhood.

Subjective mapping is a tool that helps to communicate all of the sensorial urban analysis experienced in this neighborhood. Additionally, it became a tool that began to identify select areas that had an overlap of *S's*. These areas were nodes that had an intensity of activity, or a density of sensorial elements. These locations began to identify themselves as the nodes or hubs for the neighborhoods. Although there were a decent amount of different areas of overlap in the North End, the area around Bennett Park and the Michigan Urban Farming Initiative, towards the bottom of the map, was ultimately the largest node. Specifically in this node, there are plenty of diverse sounds and smells here. They overlap to create an intriguing pedestrian experience throughout this part of the North End.

Going forward, this node was analyzed based on the individual elements of the *Four S's*.

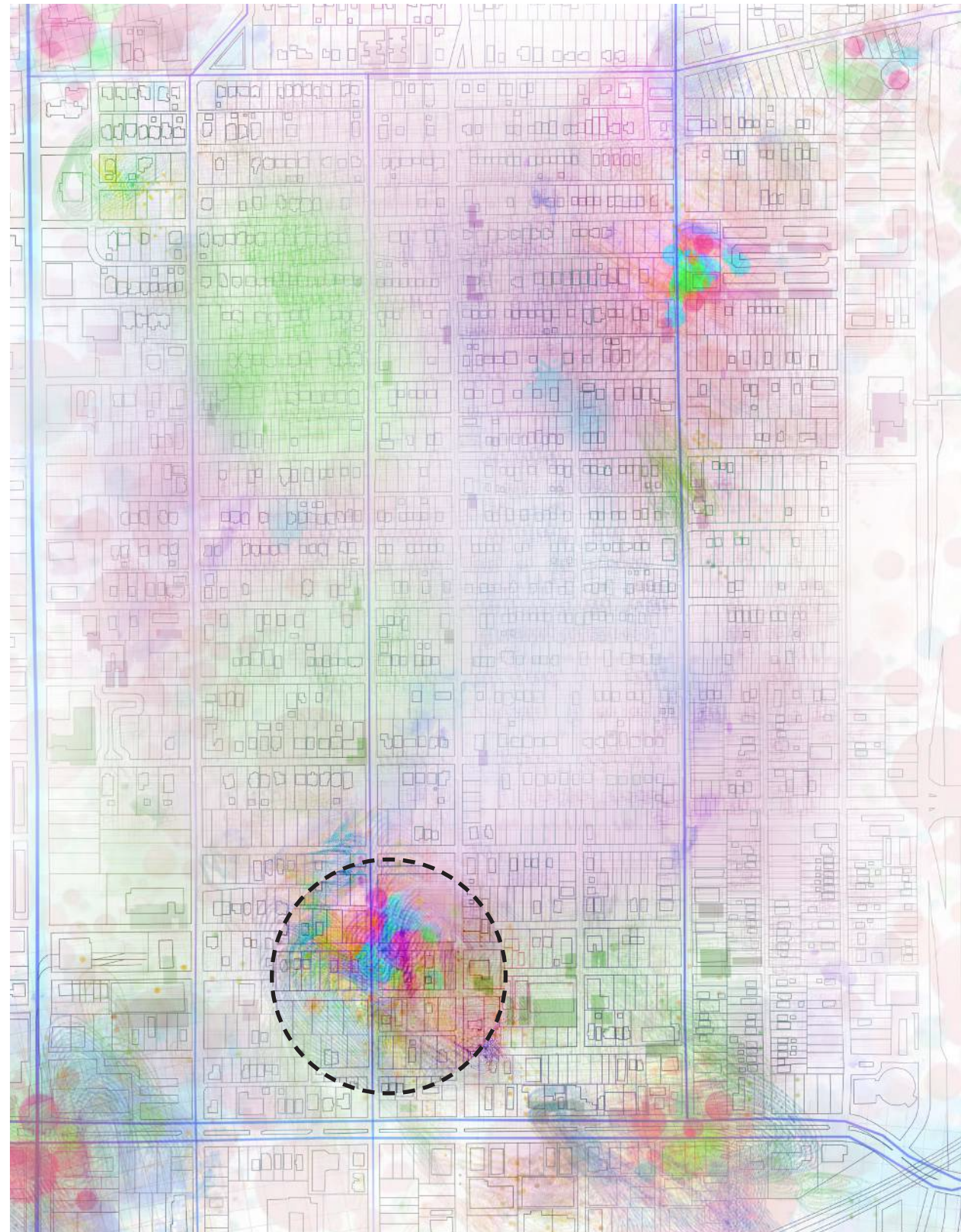
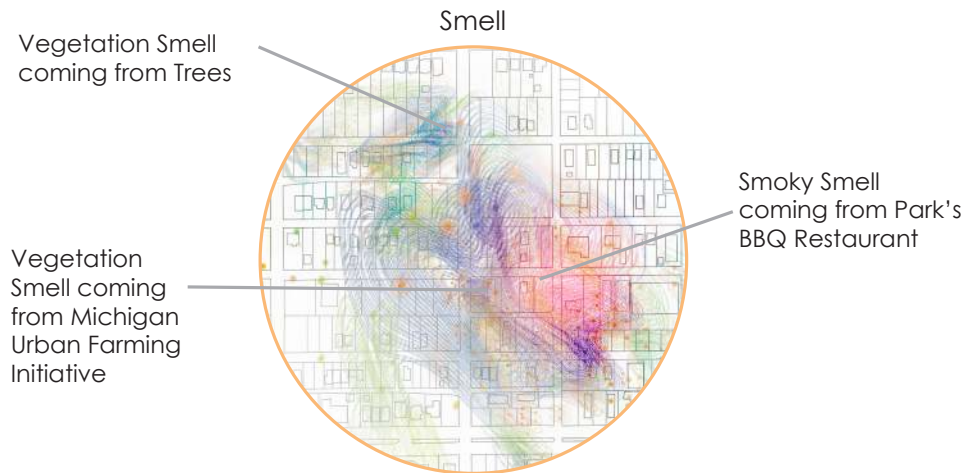
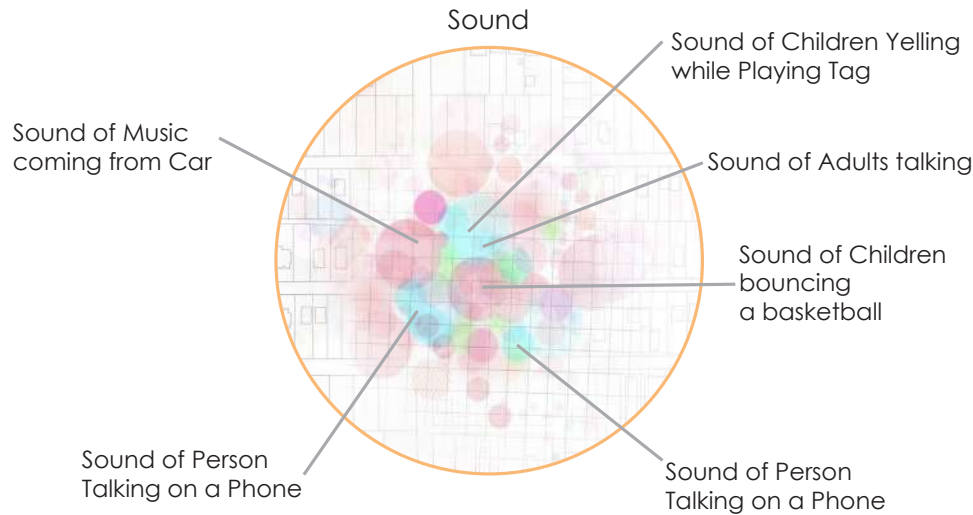


Figure 47: North End Overlaid Map

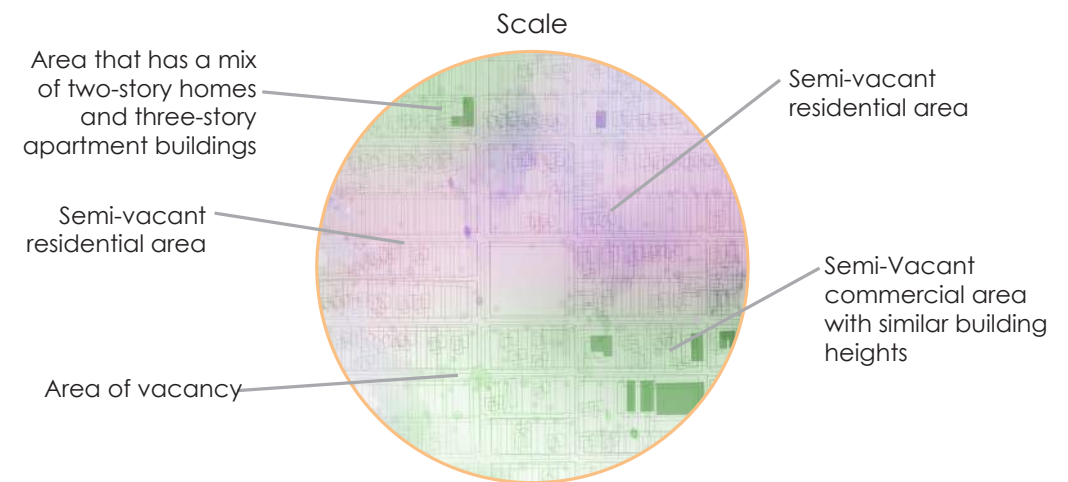
Subjectively Analyzing the Neighborhood Node



Figures 48-51: North End Node Analysis

After utilizing the overlaid subjective maps to identify the neighborhood node, further analysis on each individual element of each of the *Four S's* was done, to uncover the existing narratives in these areas. Overall, this process was done by pulling out each specific sound heard, smell that was came into contact with, and element of scale and speed interacted with. The results are above.

Subjectively Analyzing the Neighborhood Node



Figures 48-51: North End Node Analysis

In the North End, it was a combination of sound and smell that truly began to shape the experience in this node. Most of the sound in the neighborhood was coming from children talking, or playing at Bennett Park. In terms of smell, it was the unique overlap of the vegetative smell coming from the Michigan Urban Farming Initiative and the food related smell coming from Park's BBQ.



3.8 Subjective Mapping of Kettering-Butzel



Subjective analysis was additionally conducted in Kettering-Butzel, the data was conducted on personal observations while walking throughout the neighborhood at different times over a period of three months. This process was also focused on understanding the elements of sound, speed, smell, and scale that exist within this area. Once this data was sufficient, the information was then mapped separately based on each element of the *Four S's*. Once the analysis was mapped out separately, the information was then combined into one compiled map. Over the period of three months the data was collected, there were six total trips to Kettering-Butzel where the neighborhood was physically walked. There were several additional trips, however they were not utilized to conduct analysis for the subjective mapping exercise.

For Kettering-Butzel, Speed was the element of the *Four S's* that stood out the most. As the neighborhood is at the center of several major roads, the speed of cars along these roads played an large role in understanding this neighborhood. Additionally, there were several specific areas within the neighborhood that had an intriguing overlap of the *Four S's*. The subjective analysis and mapping for Kettering-Butzel can be viewed on the next several pages.

Sound Map



Figure 53: Kettering Sound Map

Sound was subjectively mapped by utilizing different color circles at a variety of scales. The more intense the color means the more intense the sound. In terms of the color, purple referred to sounds coming from objects, such as people talking outside of King's Fish Market for example, blue referred to sounds coming from actual people, and then the green were unpleasant sounds, such as the sounds of trucks being loaded within the industrial area of the neighborhood.

Within Kettering-Butzel, most of the sounds heard were concentrated at the center of the neighborhood. These sounds ranged from the sound of music being played in cars driving by, all the way to the sound of kids playing basketball at Dueweke Park.

Smell Map



Figure 54: Kettering Smell Map

Smell was mapped based on utilizing wave like shapes to show the way in which smell travels around its origin. The most intense point of the wave is the origin of the smell, as the waves fade out, the smell does also. In terms of the colors, red referred to food related smells, blue or purple, related to vegetative smells, and then green referred to smells that weren't pleasant.

In Kettering-Butzel, there were two types of smells primarily, the food like smell that surrounded King's Fish Market, as well as the smell that was coming from the industrial core of the neighborhood.

Speed Map



Figure 55: Kettering Speed Map

The element of speed was mapped based on two methods, the first was highlighting vehicular speed along roads, and the second, was to show pedestrian speed along sidewalks. In terms of vehicular speed, roads that had a blue line on them were areas in which cars influenced the pedestrian perception. When it came to mapping pedestrians, the circular spots on the map were showing where the speed of a pedestrian influenced the subjective analysis within this neighborhood.

In Kettering-Butzel, the fast speed of vehicles along the major roads within this neighborhood, severely influenced the overall pedestrian experience.

Scale Map



Figure 56: Kettering Scale Map

In Kettering-Butzel, scale was mapped based on a gradient of color that ranged from green, to white, to purple. In the areas marked in green, scale was not that influential in the conduction of subjective analysis. In areas that are white, although scale was noticed, it was often overshadowed by other elements of the *Four S's*. Lastly, in areas marked by purple, scale stood out, as it is definitely influenced the analysis within that specific section of the neighborhood.

Within this neighborhood, scale played a large role in the analysis and understanding of this area. Although the difference in scale of the residential houses to the industrial facilities was striking, the most intriguing elements of scale were the amount of trees that framed a lot of the streets in the neighborhood.

Combined Subjective Map

After mapping out each element of the *Four S's* within the neighborhood of Kettering-Butzel, the four individual maps were then overlaid on one another to begin to uncover some of the unique characteristics of the neighborhood.

Subjective analysis and mapping became a tool that began to truly identify select areas that had an overlap of *S's*. These areas were nodes that had an intensity of activity, or a density of sensorial elements. These locations began to identify themselves as the nodes or hubs for the neighborhoods. In Kettering-Butzel, the only area that had a fair amount of overlap was the area surrounding the intersection of Gratiot Avenue and East Grand Boulevard. This area, in the middle of the map, was ultimately the largest node.

Going forward, this node was analyzed based on the individual elements of the *Four S's*.

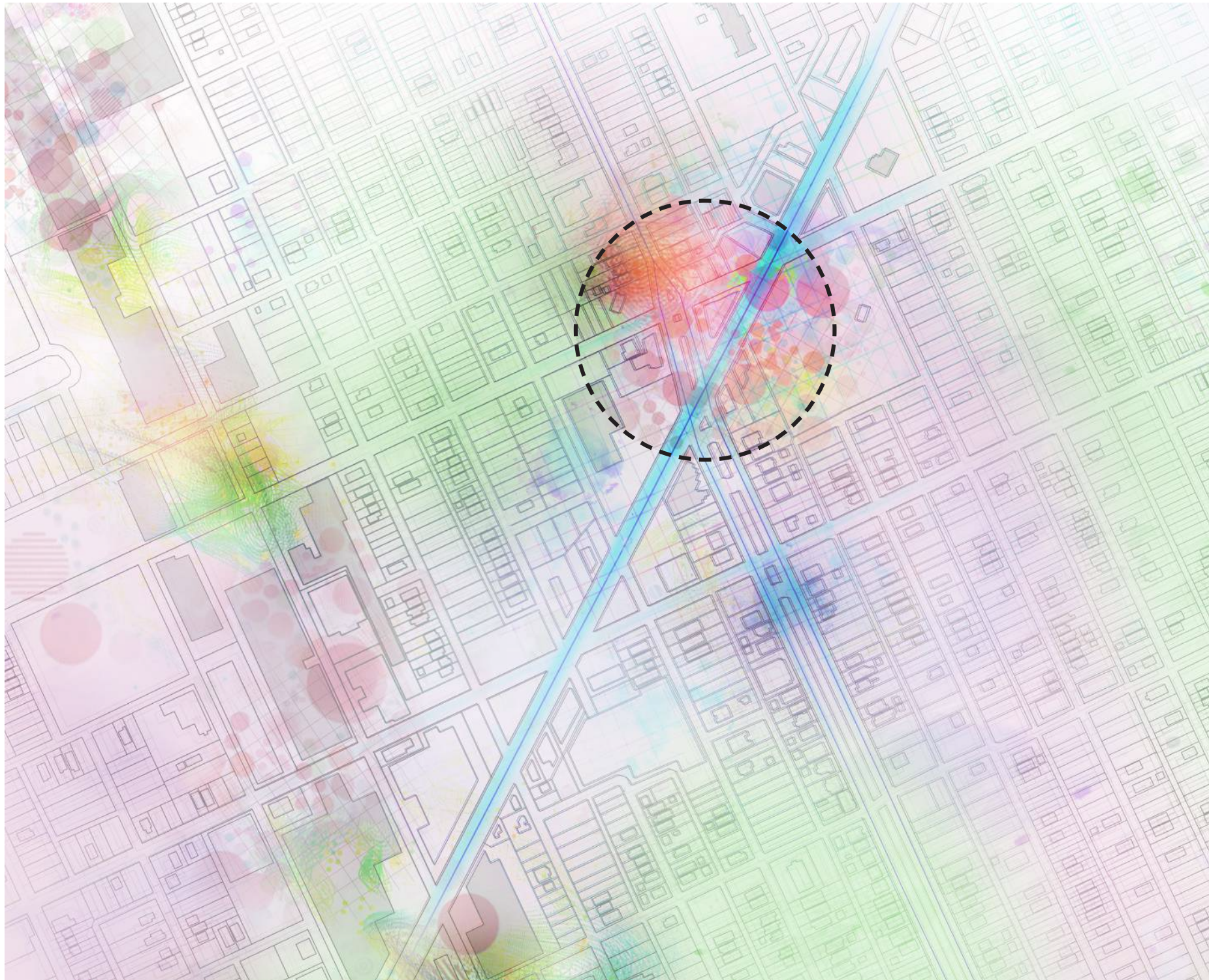
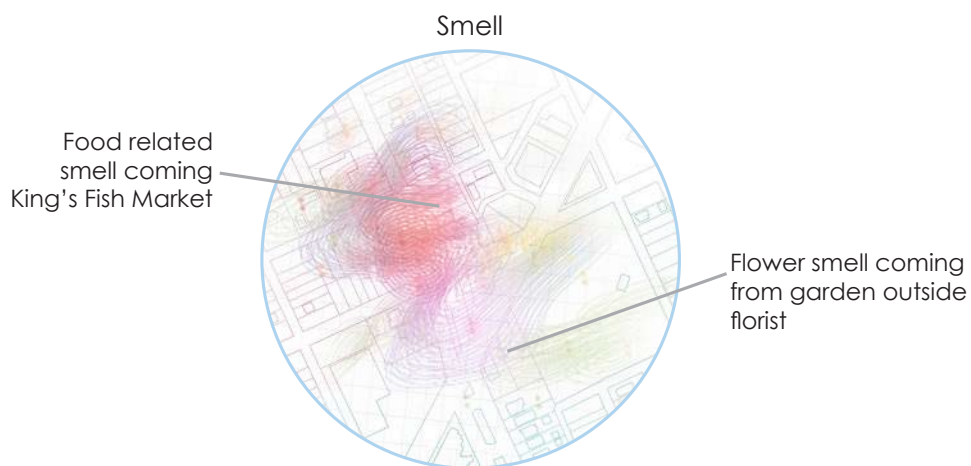
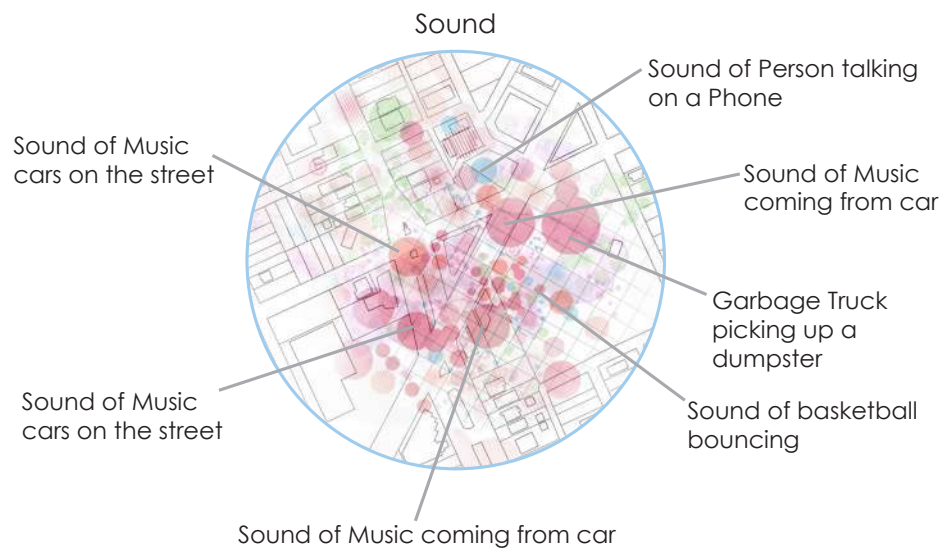


Figure 57: Kettering Overlaid Map

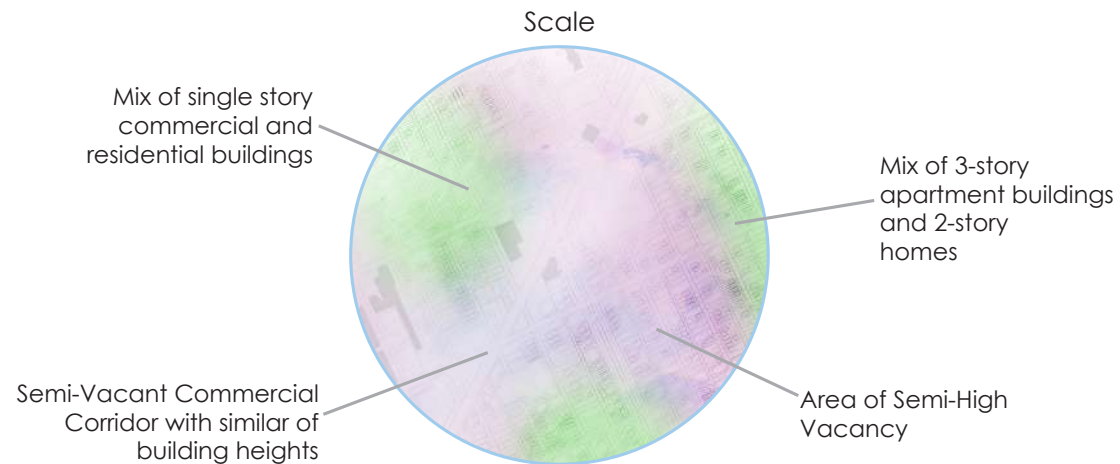
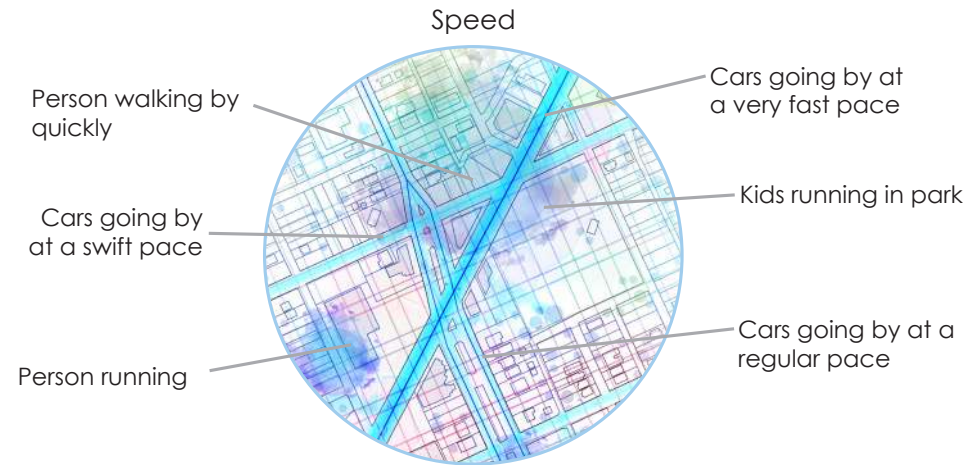
Subjectively Analyzing the Neighborhood Node



Figures 58-61: Kettering Node Analysis

After utilizing the overlaid subjective maps to identify the neighborhood node, further analysis on each individual element of each of the *Four S's* was done, to uncover the existing narratives in these areas. Overall, this process was done by pulling out each specific sound heard, smell that was came into contact with, and element of scale and speed interacted with. The results are above.

Subjectively Analyzing the Neighborhood Node



Figures 58-61: Kettering Node Analysis

In Kettering-Butzel, the element that stood out the most in this analysis process was speed. As stated before, this area is at the cross section of several major roads, where cars travel fairly fast, so due to this, speed was the *S* that had the largest impact. Also, smell, and in particular, the smell coming from King's Fish Market, was a unique aspect of this node.



Image 10: Tyree Guyton

Chapter 4: Who?

Understanding the people and assets that make up Detroit's neighborhoods.



4.1 Community Engagement

In order to truly begin to understand these neighborhood, and the factors that make them unique, this thesis conducted a community engagement process. The goal of this process was not only to learn more about each neighborhood, but also to begin to uncover ways that the residents and workers of these neighborhoods function, so that the design solutions would be site-responsive. In order to meet people to participate in this community engagement process, research was done to identify community block clubs and other community organizations to address with questions. In addition, utilizing personal connections, there were several additional people that decided to help out within each neighborhood.

Through this process, a total of twenty people were interviewed. The North End had the most participants, with nine, then Conant Gardens was second, with six people, and then there were five people interviewed within Kettering-Butzel. Although it would've been a rewarding experience to meet everyone in person for these interviews, that was not ultimately possible, so about thirty percent were conducted via email.

Each person interviewed was asked a similar set of questions. The questions began by asking each interviewee whether they lived or worked within the specific neighborhood, and then how long they have done so. From there, the questions were focused on getting to know the individual more, through some general conversation. After that connection was established, then there was a series of questions about walking within their neighborhoods. For example, do they walk, if so how often, and where to. The final question was to tell me three unique characteristics of their neighborhoods. Overall, this process was exciting, as it uncovered a lot of information about each of the three neighborhoods.

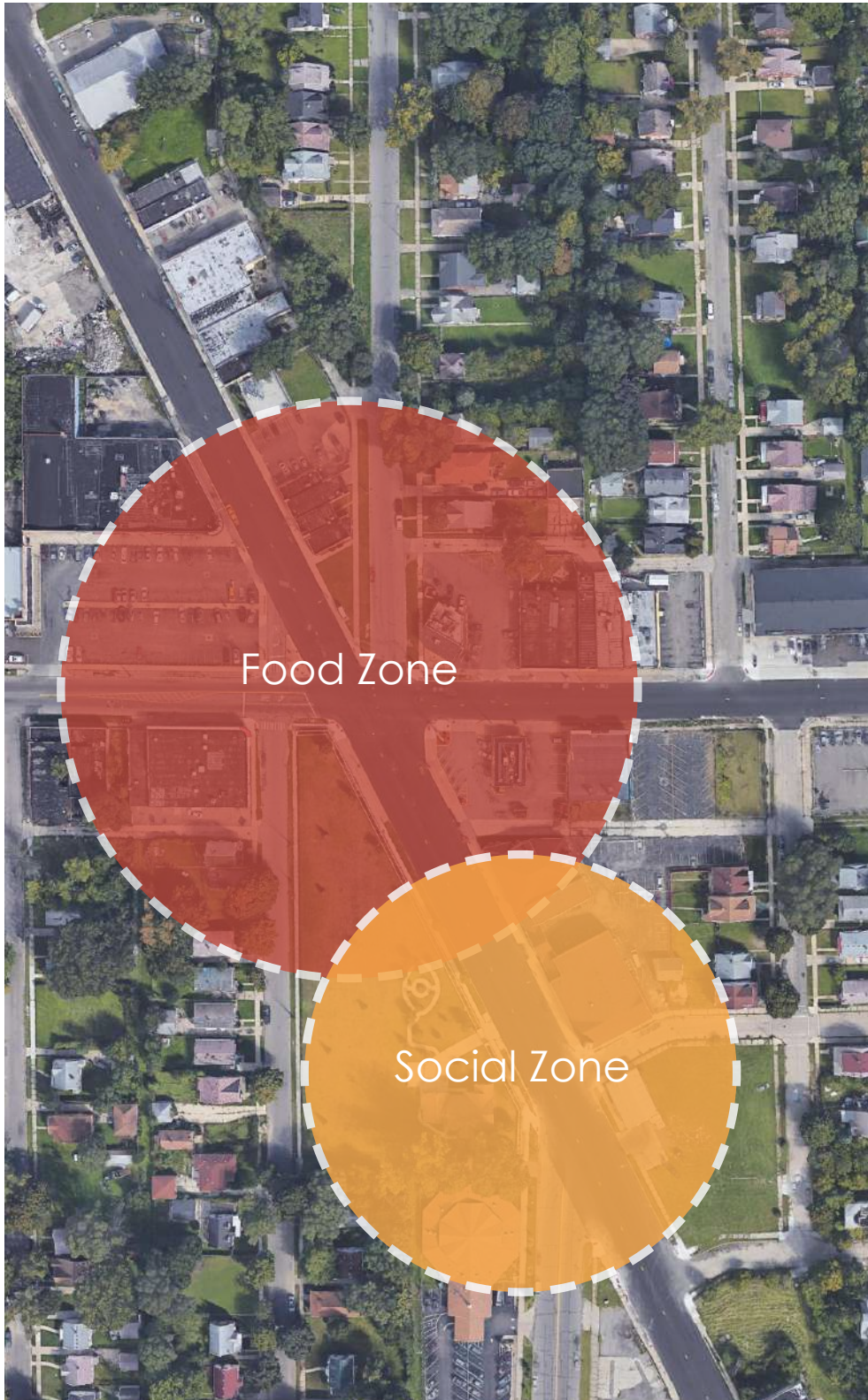


Figure 62: Conant Zones

4.2 Conant Gardens

Starting with Conant Gardens, which is a historic district, and close-knit community on Detroit's east side. A unique aspect of this area is that a lot of the people that live in the neighborhood have done so for decades, which has allowed them to be quite familiar with their neighbors. Overtime, this has created an intriguing dynamic for this neighborhood. Due to this community dynamic, there are a lot of key aspects that serve as areas for fostering social interaction in Conant Gardens.

One of the key aspects of this neighborhood is the role that the churches play within the community. Although a lot of people that were spoken with do indeed attend the churches in the area for Sunday service, the role that these churches play within this community goes beyond that. Through meeting with community members, it became apparent that there are two churches in particular that play a larger community role, the first being Conant Gardens Seventh Day Adventist Church, and the second being Faith Temple Christian Methodist Episcopal Church. Although these churches are heavily utilized on Sunday's, they are also utilized throughout the week, as the two serve as event/community space. Almost everyone I spoke with in the neighborhood mentioned going to either one of these churches on multiple occasions, whether it was for birthday or graduation parties, community block club meetings, or just for Sunday service.

"Man, I've been in both Seventh Day and Christian Methodist so much for different parties and events, I don't even know where to begin."

-Dalana McNeal-Norman
Neighborhood Resident

Overall, with these two churches being across the street from each other, they really begin to serve as a crucial hub for the general functionality of the neighborhood. And ultimately, it's these churches that frame the *Social Zone* that exists on the south side of the neighborhood node.

This area isn't the only section of the neighborhood that has a unique function to it. Another one of these areas is the section of the neighborhood that is centered around Pershing High School. Most of the vacant lots around the high school are used by the local kids who attend the school. In particular, one of these parcels is a semi-paved vacant lot off of 7 Mile Road. This space is utilized as a social hangout area mainly by the athletes that attend Pershing.

"One of the spots that I'd always walk to is that lot next to the Asian Corned Beef, that's where all the school kids go to shoot dice."

-Khalil "Kay" Felder
Neighborhood Resident

Typically, after or during school time, this space is used for dice tournaments or two-hand touch football games. This space emerged as a local hangout spot because the school's athletic facilities are fenced off and only available to be used for practice or games for the Pershing football or soccer teams.

This unfortunately, leaves the community of Conant Gardens without a public space or park within the neighborhood, because Pershing's athletic facilities are the only park in the neighborhood. One of the most shocking aspects of this neighborhood is that there is no recreation space that is able to be used by the residents within the boundary of the neighborhood. So one of the largest goals for Conant Gardens is to provide public space, whether that be outdoor gathering space, recreational space, or something as simple as a dog park.

Additionally, another goal for the neighborhood is the access to public transit. Although that is almost applicable to anywhere in the city of Detroit, on a larger level, for Conant Gardens, defined transit stops are little to none in this area.

"If I could change anything, it would be that we don't have any real bus-stops, they're all falling apart, that needs to be fixed first."

-Tiffany Williams
Neighborhood Resident

Currently, there is only one covered and fully functioning bus stop in the area, so the question of how clean and covered transit stops can be provided throughout the neighborhood is important. Especially, near Pershing High School, as there are kids who not only catch the school bus everyday, but the public bus as well.

Another interesting aspect within this neighborhood, and this neighborhood node specifically, is the large amount of restaurants. There is a wide variety of different places to get food within this area, and because of that, a food based smell zone exists at the center of Conant Street and 7 Mile Road.

With Conant Gardens having many unique attributes, the needs and goals for the neighborhood are on a more specific level. The main goal for Conant Gardens is to improve existing neighborhood hubs and assets to leverage this already close-knit area to be even more socially connected, this is through the use of providing public space and safe transit stops, in addition to strategies that can help foster walkability. Overall, the *Food Zone* and the *Social Zone* that exist within the neighborhood node, as well as the community goals identified by the residents ultimately create the narrative on how this neighborhood, as well as neighborhood node functions.



Figure 63: North End Zones

4.3 The North End

In terms of the North End, this neighborhood, which has a mix of people and incomes, is a fairly intriguing opportunity when looking at reintroducing walkability to Detroit. This neighborhood, unlike 90% of the city of Detroit, has access to more than one mode of public transit, those being the city bus, the Qline, and Amtrak, as the Detroit Amtrak station is located within a five minute walk of the area. Additionally, the location of the North End becomes important with its proximity to New Center, Midtown, and Downtown Detroit. Although there are a lot of enticing assets that exist in the North End, there is one large hurdle to tackle, and that is the extremes of density and scale within the North End. In the North End, the residential part of the neighborhood has areas of vacancy and little to no density in the traditional sense, where other areas, such as the commercial corridors, have large scale buildings, and are fairly dense. These characteristics shape the perception of the neighborhood.

On a deeper level, through personal observations, as well as talking to neighborhood residents and workers, some of the unique aspects of the neighborhood that exist are the role that Bennett Park and Community Council Park plays within the North End, the uniqueness of the Urban Farming Initiative, and the community importance that Miss Virginia's Ice Cream Parlor plays for the members of the neighborhood.

Starting with the parks, both Bennett Park and Community Council Park go beyond giving the residents of the neighborhood general recreation space. Both of these parks play a much larger community role than that of a traditional public space, or community park.

Bennett Park truly serves as the central node for the North End, and is a common hangout place for the younger kids of the neighborhood, as well as the teens who typically hangout here at night, and some of the older members of the area. This park also hosts events in the summer that are put on by the North End Block Club, such as the NE Block Party.

“For me, my favorite part about living here is all of the festivities in the summer, especially the Block Party.”

-Vanessa Alanis
Neighborhood Resident

Similarly to Bennett Park, Community Council Park, which is on the north side of the neighborhood, plays a large role for the residents of the area. This park is a smaller community based park that was created to give people outdoor meeting space in the neighborhood, and fortunately, it has achieved this purpose. After talking to the residents, a lot identified this park as a unique area that they enjoy to go to, or drive by, as it embodies the “spirit” of the North End. Another area that embodies this “spirit” of the North End, which was constantly referenced by neighborhood residents, is the Michigan Urban Farming Initiative. Without getting into too much detail, this community based farming program gives the neighborhood purpose as defined by several residents of the area. It goes beyond the role of growing crops and food, it more so becomes an integral part of the functionality of the North End as a whole. Per several residents, volunteering here on the weekends appears to be a common thing for those that live in this neighborhood.

“This neighborhood has a unique spirit, and I feel that the North End embodies Detroit, I mean, what other neighborhood is centered around farming?”

-Dane Finshaw
Neighborhood Resident

Another unique aspect that plays a role in the functionality of the North End is the role that an Ice Cream parlor plays, especially in the summer. Miss Virginia's Ice Cream Parlor becomes an essential landmark that serves the residents of the neighborhood. Every single resident interviewed talked about how Miss Virginia's serves as the communal hangout spot in the summer. Almost all of the residents who have been here know Miss Virginia personally, as she makes it a point to know everyone who visits the parlor.

“Miss Virginia's is the spot all summer, my kids love the ice cream, I like just catching up with Ms. V.”

-Lala Jones
Neighborhood Resident

The North End is a neighborhood that has areas of density, or select nodes that exist in the neighborhood, with little in between them, the design goals become how can these existing nodes be enhanced. In particular, some of the specific neighborhood goals include connecting the node that exists near Bennett Park and the Michigan Urban Farming Initiative with the node that exists near Miss Virginia's and Community Council Park. Also, how can density be achieved in these large areas of vacancy and blight, to create safer and more exciting walks in the neighborhood. And lastly, the last large goal for this neighborhood is to increase social interaction, as most residents of the North End don't know each other, so what can be implemented beyond parks or public space, which there is a fair amount of here, to help connect people with each other in the North End.

Overall, in the North End, the role of sounds coming from kids playing at Bennett Park, combined with the diverse smells coming from the Michigan Urban Farming Initiative and Park's BBQ Restaurant shape the way in which this community experiences its node.



Figure 64: Kettering Zones

4.4 Kettering-Butzel

A large factor in the way Kettering-Butzel functions is the that it is at the convergence of several major roads. This frames a speed zone that runs through the center of the neighborhood. An additional area that plays a large role in the community is the food zone that exits around King's Fish Market, which is the go-to food place for residents and workers of the area.

Kettering-Butzel, or the Lower East Side as it is often referred to, is a semi-industrial area that lies at the convergence of several main roads, such as Gratiot, E. Grand Blvd, Warren Ave, and Van Dyke. This area, which has felt the extreme effects of deindustrialization, poses as an exciting challenge when going about reintroducing walkability. A unique aspect of the neighborhood is the industrial belt that runs through the neighborhood's east side. With most of the factories and warehouses still in use, most of the people that actually populate the neighborhood actually just work in it, as there aren't that many people that still live here. However, the people that still live in the neighborhood, have enormous pride for the area.

"I have enormous pride for the neighborhood I come from, there's nothing like it."

-Charles Buthia
Neighborhood Resident

In Kettering-Butzel, there are certain places or people that really add to the functionality of the neighborhood. The first of these places is King's Fish Market off of E. Grand Blvd. In addition to being a neighborhood staple because of their food, they also have become one of the few places in the neighborhood that has people known by every Kettering-Butzel resident and worker. One of the most important experiences to the King's experience is the homeless man,

named Jared, who stands outside of the restaurant and opens the door as you approach. He is notorious for saying "how's it going boss" before asking for change.

"Typically, I'll go to King's for lunch during the week, and everyday, Jared, who's a homeless guy, greets you as you walk to the door, he always asks how is it going boss, before asking for change. "

-Jim Malaney
Works in the Neighborhood

Once inside, the market works by selecting a fish/seafood, then waiting while they fry it up. While not accepting calling ahead, it forces the people who eat there, to have to wait for 15 minutes or so as their food is being fried, allowing for social interactions with other people waiting for their food, or the workers behind the counter. Several people in the neighborhood say the experience and food at King's is unmatched if you live or work in the Lower Eastside.

Another unique aspect of the neighborhood is the plethora of parks and green space that exist in the neighborhood, especially compared to the number of residents that live in the area. Dueweke Park in particular serves as the neighborhood hub, as it is used by almost everyone within the neighborhood.

"For me, not only as a kid, but even now, Dueweke Park's been the local spot. All of the neighborhood kids go here, typically to hoop, we used to have some crazy games of Twenty-One."

-Charles Buthia
Neighborhood Resident

With a lot of green space in the neighborhood, the need for more does not exist, but, one goal that does exist is the connection between these parks and public spaces.

With little to nothing in between most of these parks, how can density and activity be created between these areas. Additionally, safety plays a large factor in the reintroduction of walkability in the Lower Eastside. Not only safety in the general sense, but safety when crossing streets as well. With several large thru-ways in the neighborhood, crossing the road becomes a main concern for the residents and workers of the area.

"The biggest concern for me is trying to cross Gratiot, those people just fly along there, they have no regard for anyone but themselves. Nobody does the speed-limit. "

-Scott Byner
Works in the Neighborhood

Lastly, the goal of celebrating and enhancing assets, such as King's Fish Market is a priority in this neighborhood. There are several staples within Kettering-Butzel, whether its Dueweke Park, King's Fish Market, or Korash Florist. These assets should be celebrated more when considering strategies to begin to reintroduce walkability to this area.

Overall, Kettering-Butzel, and especially the neighborhood node, functions in a way that is shaped by the interaction of Speed and Smell. With the neighborhood being at the convergence of several major roads, the speed zone requires design solutions that addresses pedestrian safety. Additionally, another area that plays a large role in the perception and understanding of Kettering-Butzel is the food zone that exists around King's Fish Market. This is a neighborhood staple, so the design solutions should celebrate it. Ultimately, the goal in the Lower East-side is to celebrate what already exists by addressing neighborhood concerns through strategies that promote walkability.



Chapter 5: What?

A series of design solutions aimed at addressing the walkability challenges in Detroit.



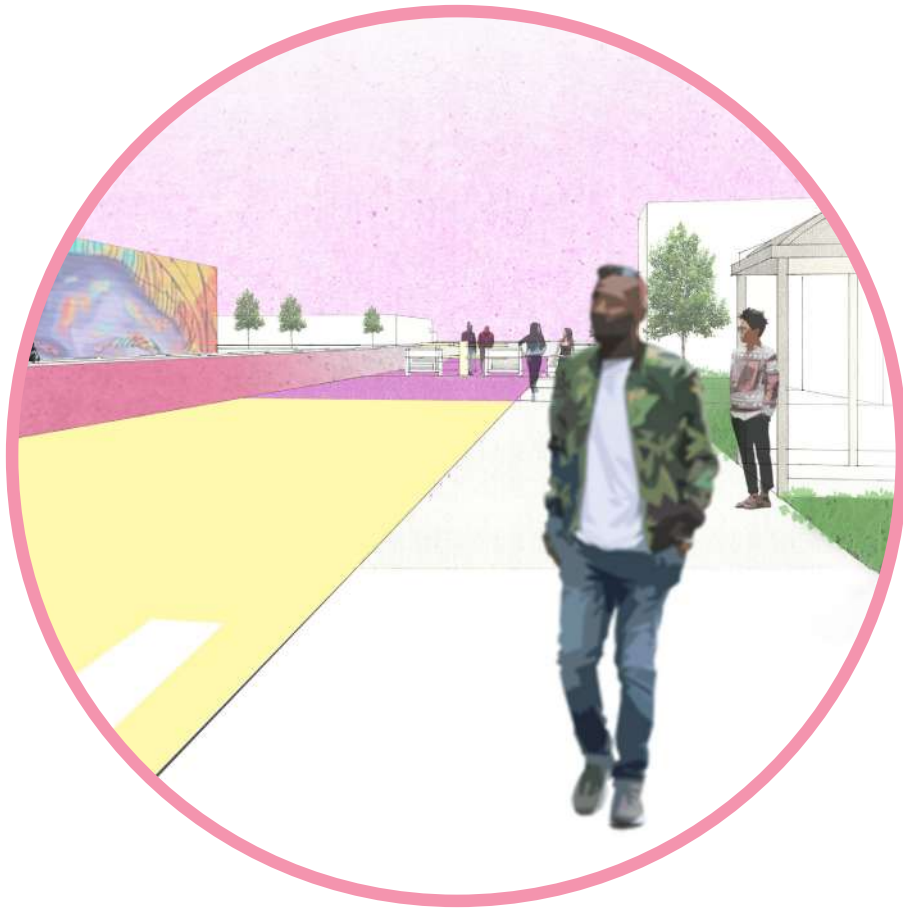
5.1 Design Intentions

After identifying design goals for each neighborhood, based on the process of subjective mapping and community engagement, the design intentions for these areas could begin to be understood. Overall, there were specific design goals that were brought to attention not only through the subjective analysis process, but also from direct quotes from residents. These goals ranged from providing safer bus stops to addressing the issue around crossing Gratiot Avenue. These specific strategies began to truly shape the overall design intentions for going about crafting solutions on how to bridge the gap on the way walkability is achieved in Detroit.

While there are several specific goals that are directly responsive for each neighborhood, there are some large design intentions that are in line with the way walkability is framed within this thesis. The first, is to craft site specific, and site response design strategies, that pull on the specific elements of the *Four S's*. With saying this, each neighborhood will have design strategies created that are based on a sensorial approach. Within this approach, through utilizing elements of the *Four S's*, design proposals can be designed for each neighborhood node that truly begin to not only enhance the pedestrian experience, but also alter the perception of walking through these areas.

Lastly, the final intention is to make sure these proposals go beyond the generalized strategies used in the typical approach of walkability. In doing so, these proposals will not only be more site specific, but they will also fight against fostering gentrification, as that is extremely common with New Urbanism developments. These design proposals aren't about drawing people in, but enhancing the daily walks that are required by the residents who already live and work within these areas.

5.2 Conant Gardens



Primary Goal: **Slowing People Down**

Primary Design Tool: **Speed**

The primary goal for attempting to reintroduce walkability to Conant Gardens is to slow people and vehicles down, so that they are drawn in by all of the intriguing smells from restaurants and bars within the area. Additionally, a unique aspect of Conant Gardens is the neighborhood's lack of public space. Another goal of this area is to promote social interaction through the implementation of public spaces such as plazas, pavilions, or pocket parks. Lastly, with the residents of the neighborhood being very friendly to one another, as this is a close-knit community, the way in which the residents might begin to utilize these public spaces becomes an interesting opportunity.

Figure 67: Conant Rendering

Conant Gardens

Neighborhood Assets:



Figure 68: Conant Assets

Physical Assets:

- 1 **Conant Street Grill**
- 2 **Deluxe Coney Island**
- 3 **Church's Chicken**
- 4 **Comfort & Mo' BBQ**
- 5 **Faith Methodist Church**
- 6 **7 Day Adventist Church**

Sensorial Assets:



Smell 

The smell of meats being smoked outside at Comfort & Mo' BBQ



Smell 

The smell of food coming from Deluxe Coney Island



Sound 

The sound of music coming from the two community churches



Smell 

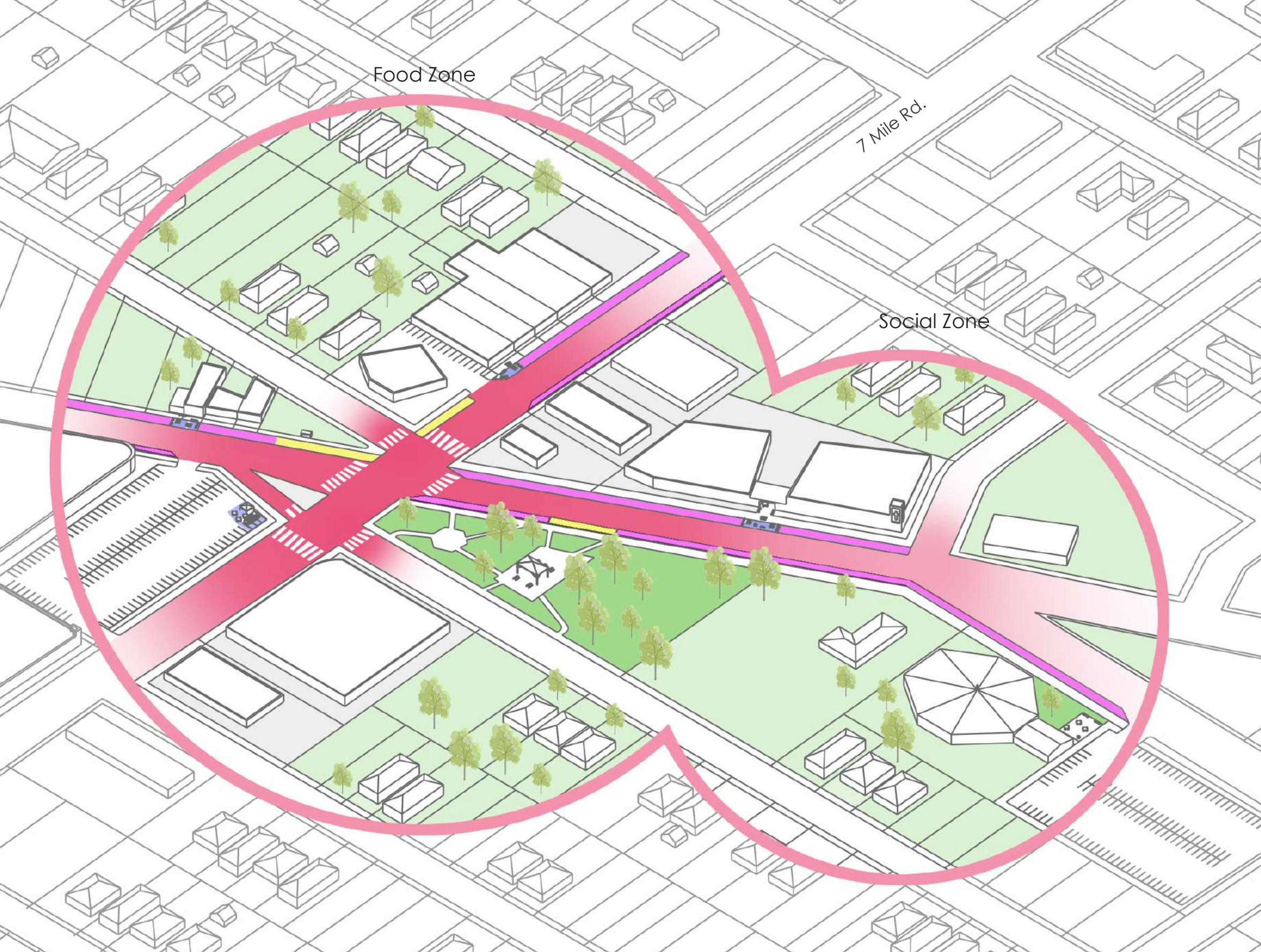
The smell of food coming from Conant Street Grill

Images 12-15: Conant Gardens

Food Zone

7 Mile Rd.

Social Zone



Conant Gardens

Neighborhood Proposal:

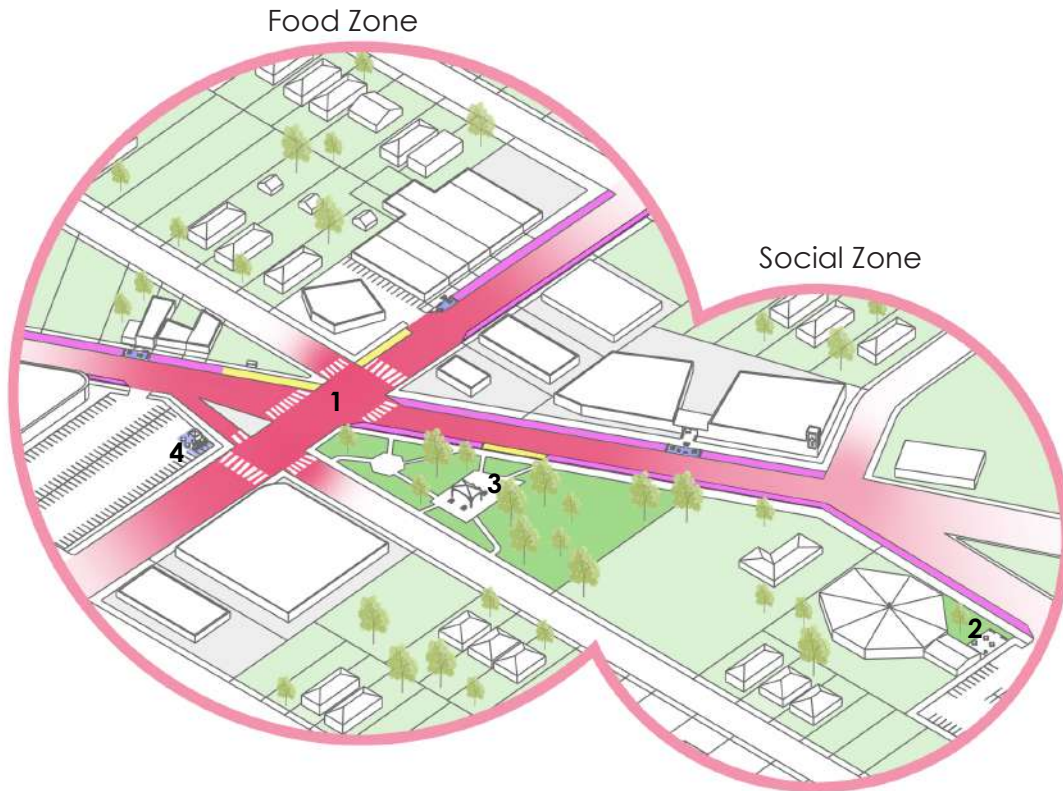


Figure 69: Conant Proposal

Legend

Design Proposal

1: Painted Streets

Physically altering the color of the street to permanently change the way people walking and driving perceive this neighborhood.

2: Public Seating Area

Providing public seating areas to begin to draw the sounds that exist within the two neighborhood churches out to the street.

3: Public Park

Programming an existing vacant green lot in the hub into a public space that promotes different types of interactions.

4: Vendor Space

Transforming the end of a large parking lot into a space that could be used for a variety of vendors such as food trucks or newspaper salesman to promote a different pedestrian experience at the street edge.

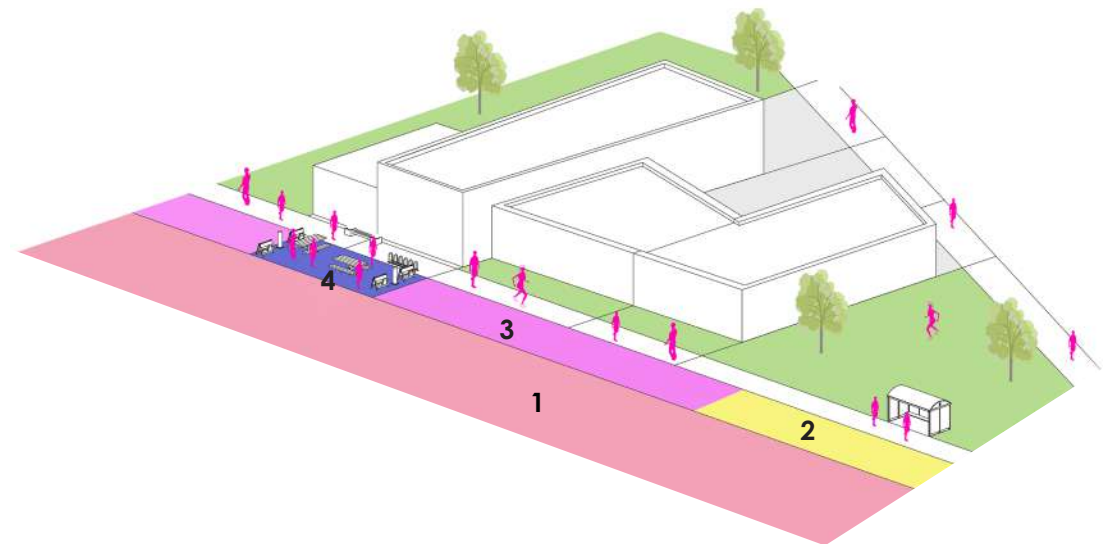
The Painted Street

Redefining the Street-Edge through Colored Streets

The **Painted Street** is a design solution that permanently colors both Conant Street and 7 Mile Road within the Conant Gardens Neighborhood. The approach is to use speed as a design tool in order to provide a unique way in which pedestrians interact with the street-edge. The street would be programmed with one lane of traffic going in each direction, street parking, waiting zones, and social zones, which are pockets programmed with seating options.



Figure 70: Painted Street Rendering



- Conant Street
Design Moves:
- 1 Painted Traffic Lane
 - 2 Pickup Zone
 - 3 Street Parking
 - 4 Social Space

Figure 72: Painted Street Diagram



Figure 71: Painted Street Rendering #2

5.3 The North End



Primary Goal: **Creating Social Interaction**

Primary Design Tool: **Scale**

In the North End, the sense of community is sometimes lost, because of how little residents within this area speak to each other. Due to this, the primary goal for this neighborhood is enhancing the already existing assets in the play, food, and farming zones to create and foster social interactions on a multitude of different levels. Additionally, utilizing these existing assets to begin to craft unique strategies that promote walkability in several different ways. In achieving these goals, the perception of the neighborhood node will be enhanced through the careful interaction of different elements of the *Four S's*.



Figure 73: North End Rendering

The North End

Neighborhood Assets:

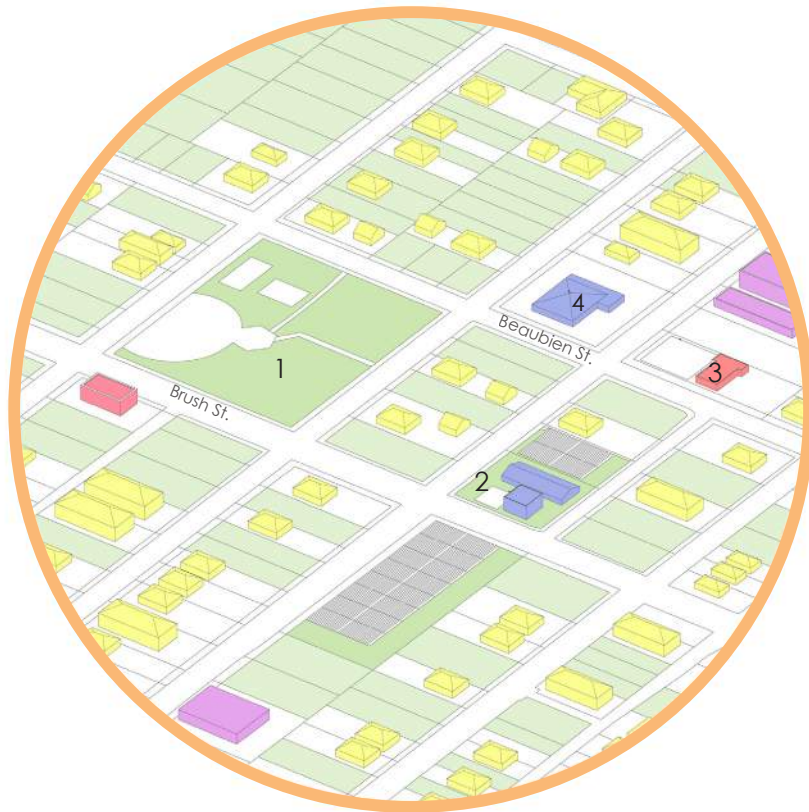


Figure 74: North End Assets

Physical Assets:

- 1 **Bennett Park**
- 2 **Michigan Urban Farming Initiative**
- 3 **Parks BBQ Restaurant**
- 4 **Greater Faith Temple**

Sensorial Assets:



Sound

Sounds of Children playing on the playground at Bennett Park



Smell

The smell of flowers and crops coming from the Michigan Urban Farming Initiative



Sound

Sounds of Children playing basketball at Bennett Park



Smell

The smell of ribs being smoked outside at Parks BBQ

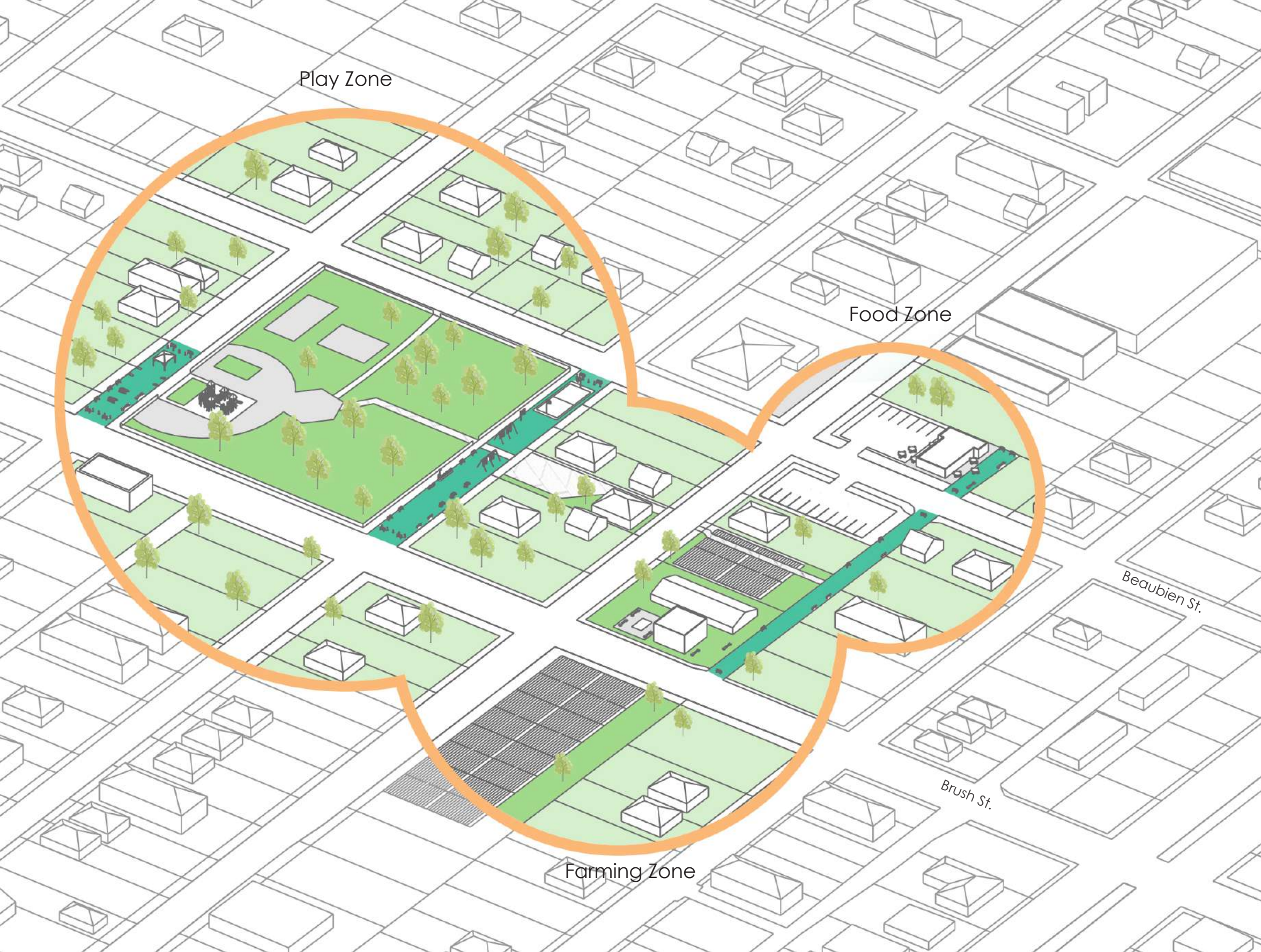
Play Zone

Food Zone

Farming Zone

Beaubien St.

Brush St.



The North End

Neighborhood Proposal:

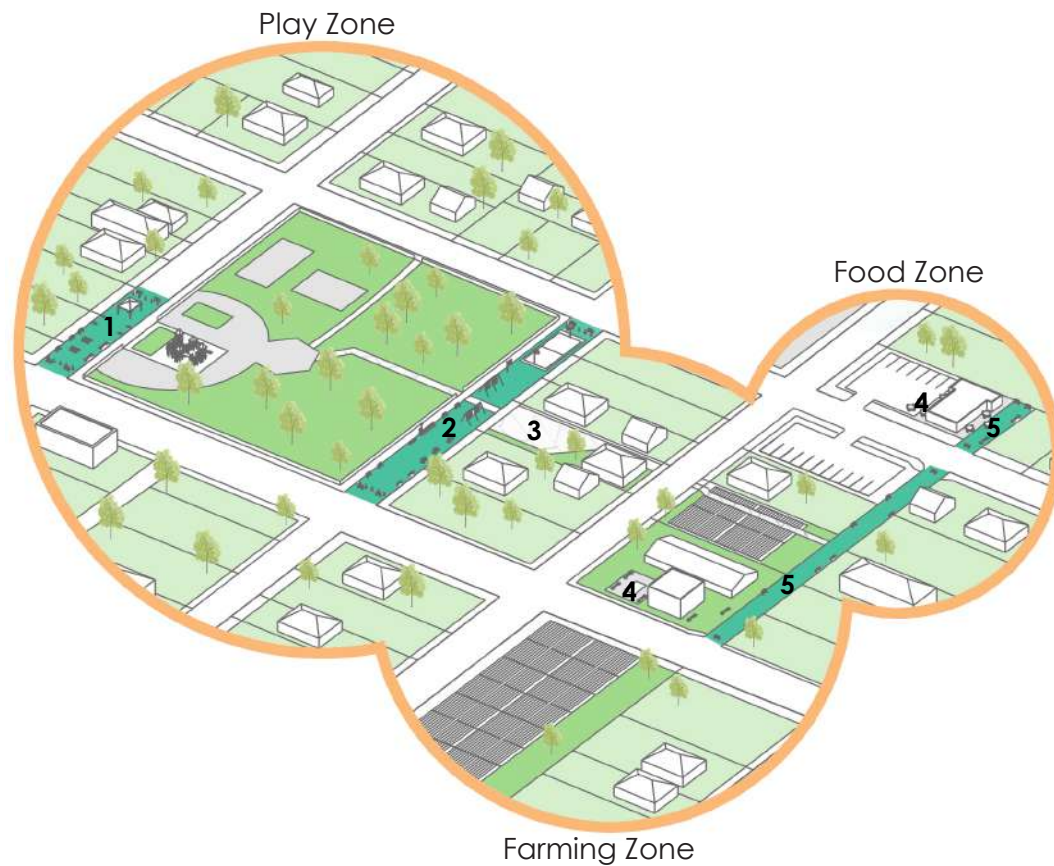


Figure 75: North End Proposal

Legend

Design Proposal

1: Social Street

Transforming a street to promote social interaction through permanent fixtures that utilize both scale and sound.

2: Play Street

Re-purposing an existing vehicular street with permanent fixtures to create a unique way for children within the area to play and interact with each other.

3: Transition Lot

Utilizing an existing vacant lot as a way of creating a connection point between the three zones within the neighborhood hub.

4: Public Seating Area

Public seating options would be at each end of the pedestrian alley to promote two different types of sound based on the different way people use the farming and food zones.

5: Pedestrian Only Alley

Transforming an existing vacant alley into a pedestrian connection zone, that connects the Play, Food, and Farming zones to one another.

The Social Street

A Pedestrian-Only Street dedicated to Social Interaction

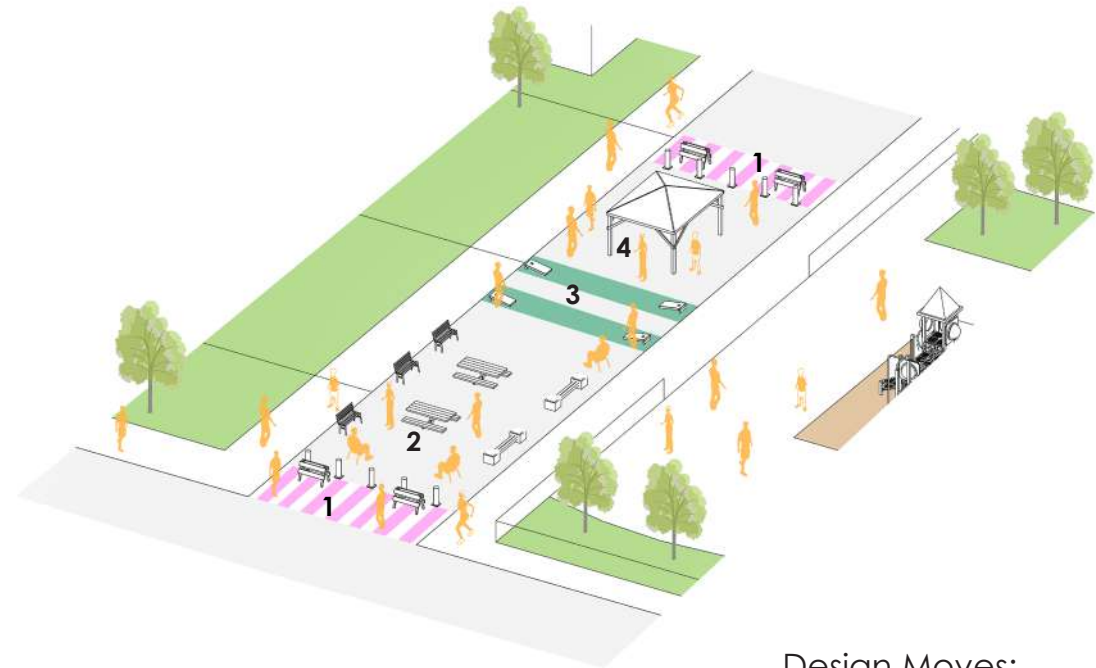
The **Social Street** is programmed in a specific way to promote social interactions amongst adults within this neighborhood. While utilizing permanent objects through the use of scale to create different types of sound, such as the sound of people talking or laughing, or the sound of a bean bag hitting the board while people are playing the game "bags." Overall, this re-purposed street would alter the way the street is perceived in this neighborhood.



Figure 76: Social Street Rendering



Figure 77: Social Street Rendering #2



- Design Moves:
- 1 Entrance/Exit
 - 2 Seating Area
 - 3 Game Area
 - 4 Pavilion Space

Figure 78: Social Street Diagram

The Play Street

A Pedestrian-Only Street dedicated for “playing”

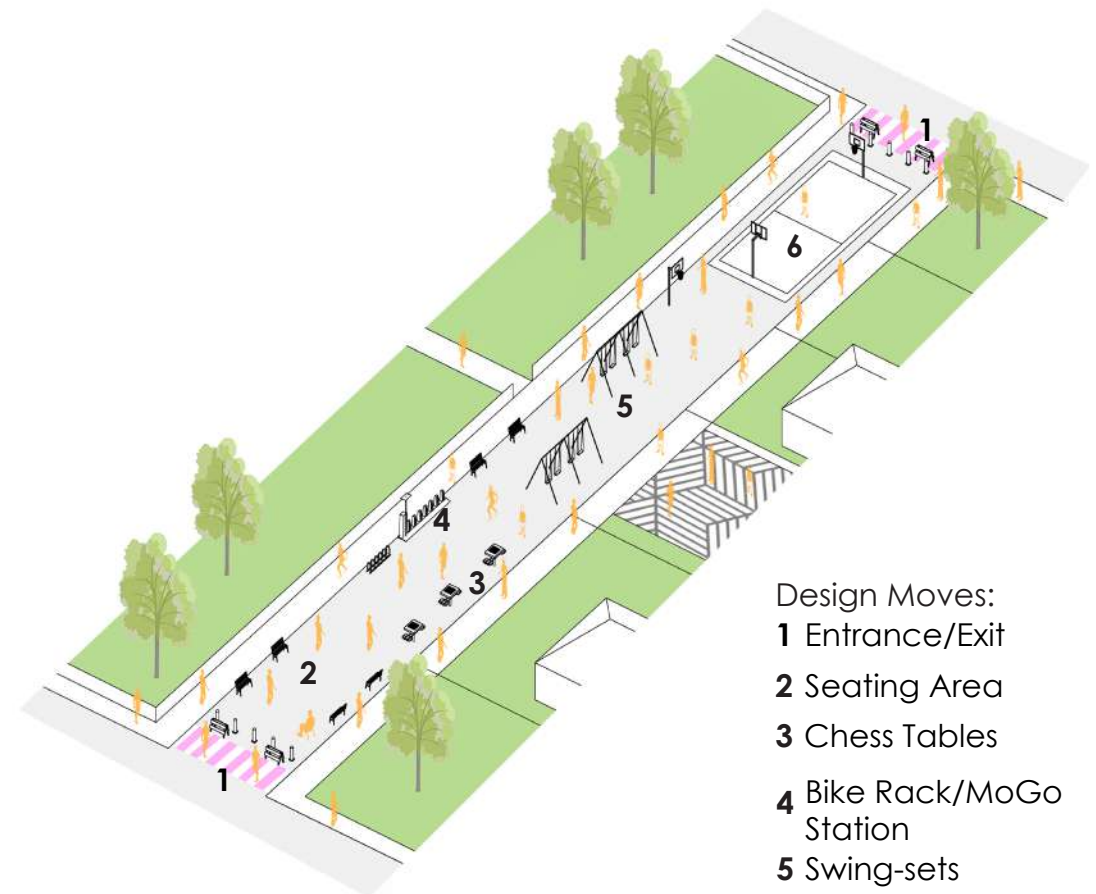
The **Play Street** provides children in the North End a unique and safe take on “playing in the street.” The idea of the play street is to combine different types of scale, such as a basketball hoop with a picnic table to provide an intriguing pedestrian experience. This design proposal would alter the perception of not only playing in the street, but also how the street is traditionally used, and experienced.



Figure 79: Play Street Rendering



Figure 80: Play Street Rendering #2



- Design Moves:
- 1 Entrance/Exit
 - 2 Seating Area
 - 3 Chess Tables
 - 4 Bike Rack/MoGo Station
 - 5 Swing-sets
 - 6 Basketball Court

Figure 81: Play Street Diagram

5.4 Kettering-Butzel



Primary Goal: **Creating Visual Density**

Primary Design Tool: **Sound**

As a neighborhood that is often defined by being at the convergence of several main roads, safety becomes an important factor when striving to achieve walkability within Kettering-Butzel. Due to this, the primary goal in this neighborhood is to create visual stimulation for drivers to look at as they pass through the neighborhood, ultimately slowing them, which starts to provide a safer pedestrian experience. If this proposal can begin shaping the way that rivers move through this area, then the pedestrian experience along the street edge also changes. As an area that lacks density and activity, the goal becomes creating or fostering it. An area that does have some activity is the food zone. The goal there is to use social interactions to enhance the already important community asset.



Figure 82: Kettering Rendering

Kettering-Butzel

Neighborhood Assets:



Figure 83: Kettering Assets

Physical Assets:

- 1 **King's Fish Market**
- 2 **Mt. Zion Baptist Church**
- 3 **Korash Florist**
- 4 **Quality Health Clinic**
- 5 **Dueweke Park**

Sensorial Assets:



Smell

The smell of fish being cooked at King's Fish Market



Sound

The sound of children playing basketball at Dueweke Park



Smell

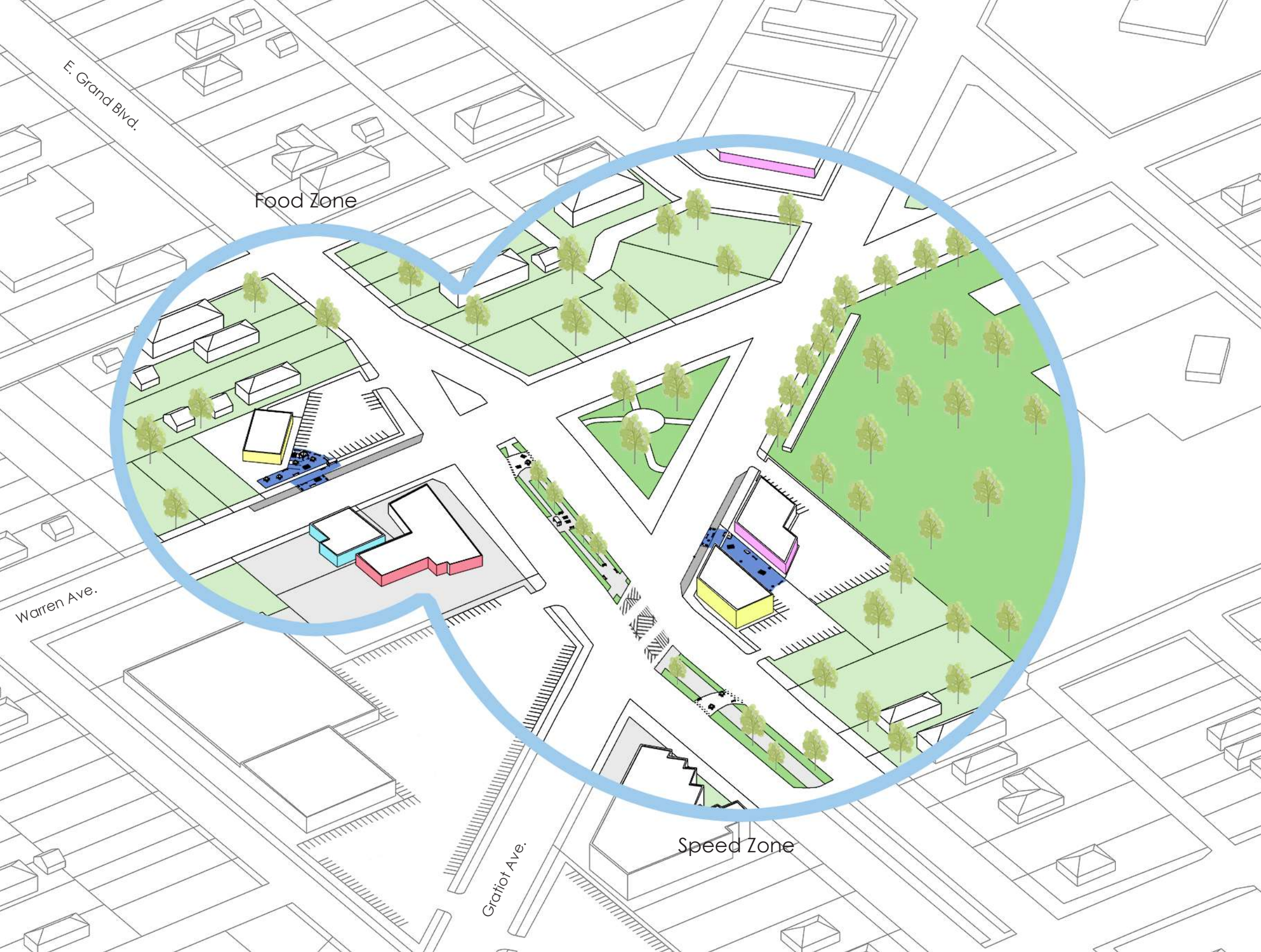
The smell of perennials on display outside of Korash Florist



Scale

The scale of street trees along Gratiot Ave. and E Grand Blvd.

Images 20-23: Kettering-Butzel



E. Grand Blvd.

Food Zone

Warren Ave.

Gratiot Ave.

Speed Zone

Kettering-Butzel

Neighborhood Proposal:

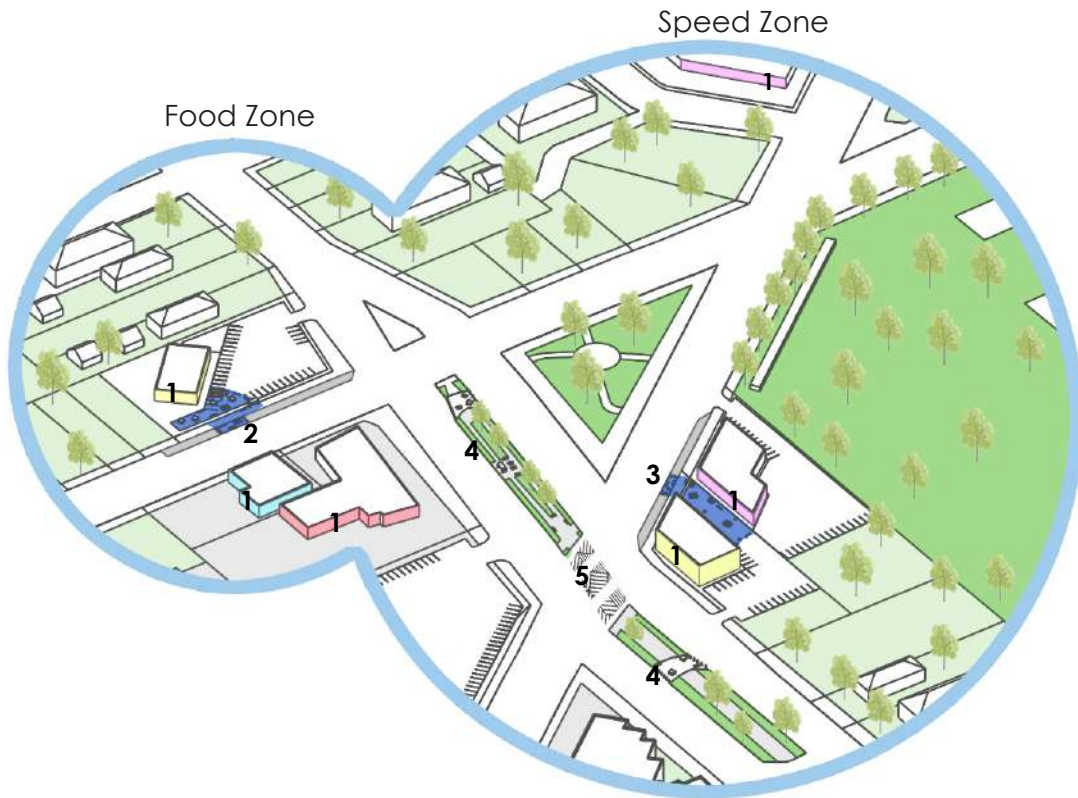


Figure 84: Kettering Proposal

Legend

Design Proposal

1: Art/Mural

Utilizing Murals on several buildings within the hub to create an intriguing visual atmosphere for pedestrians and drivers traveling through this area.

2: Wait Zone

Programming an existing parking lot to promote a social experience for people waiting at either the bus stop or for food from King's Fish Market.

3: Garden Zone

A programmed parking lot using planter beds and seating options to promote a different type of smell within this hub.

4: Pedestrian Median

Transforming an existing road median into a unique pedestrian zone that promotes a safe crossing opportunity for pedestrians.

5: Textured Crosswalk

A crosswalk that is created with a texture that creates a unique sound when cars drive over it.



Figure 85: Median Rendering

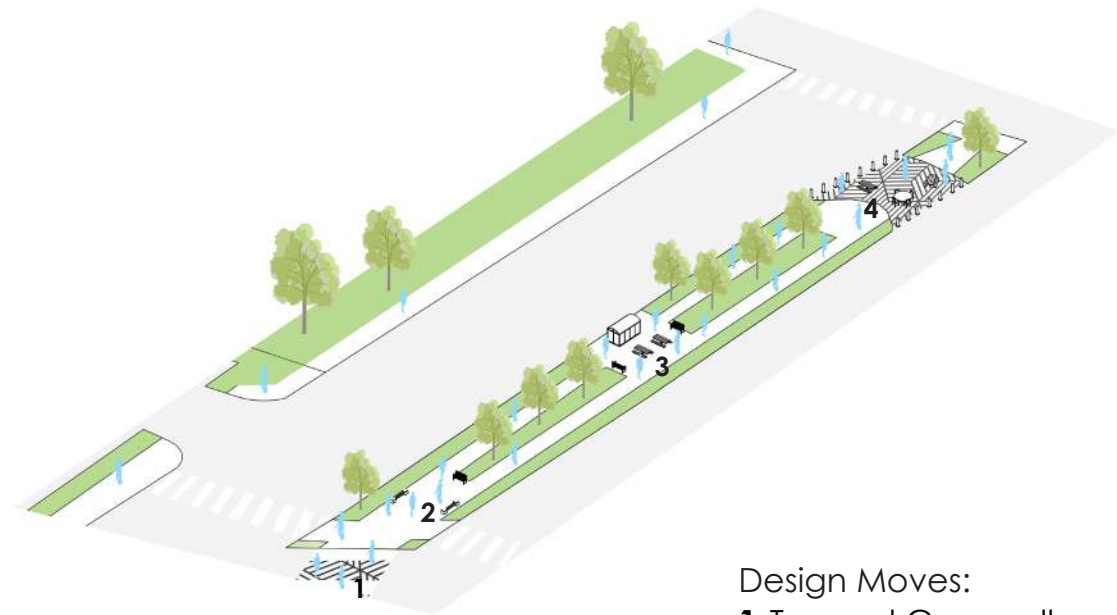


Figure 86: Median Rendering #2

The Pedestrian Median

A Pedestrian-Only Median dedicated for

The **Pedestrian Median** provides a new and unique opportunity for neighborhood residents and workers crossing Gratiot Avenue. While using permanent design fixtures, such as aging tables, or seating options, the median is turned into a space that can promote social activity, all while creating a visual density at this busy intersection. This design move alters the way pedestrians within this neighborhood analyze and understand the use of the "median."



- Design Moves:
- 1 Textured Crosswalk
 - 2 Seating Area
 - 3 Bus Stop
 - 4 Turn-Around Plaza

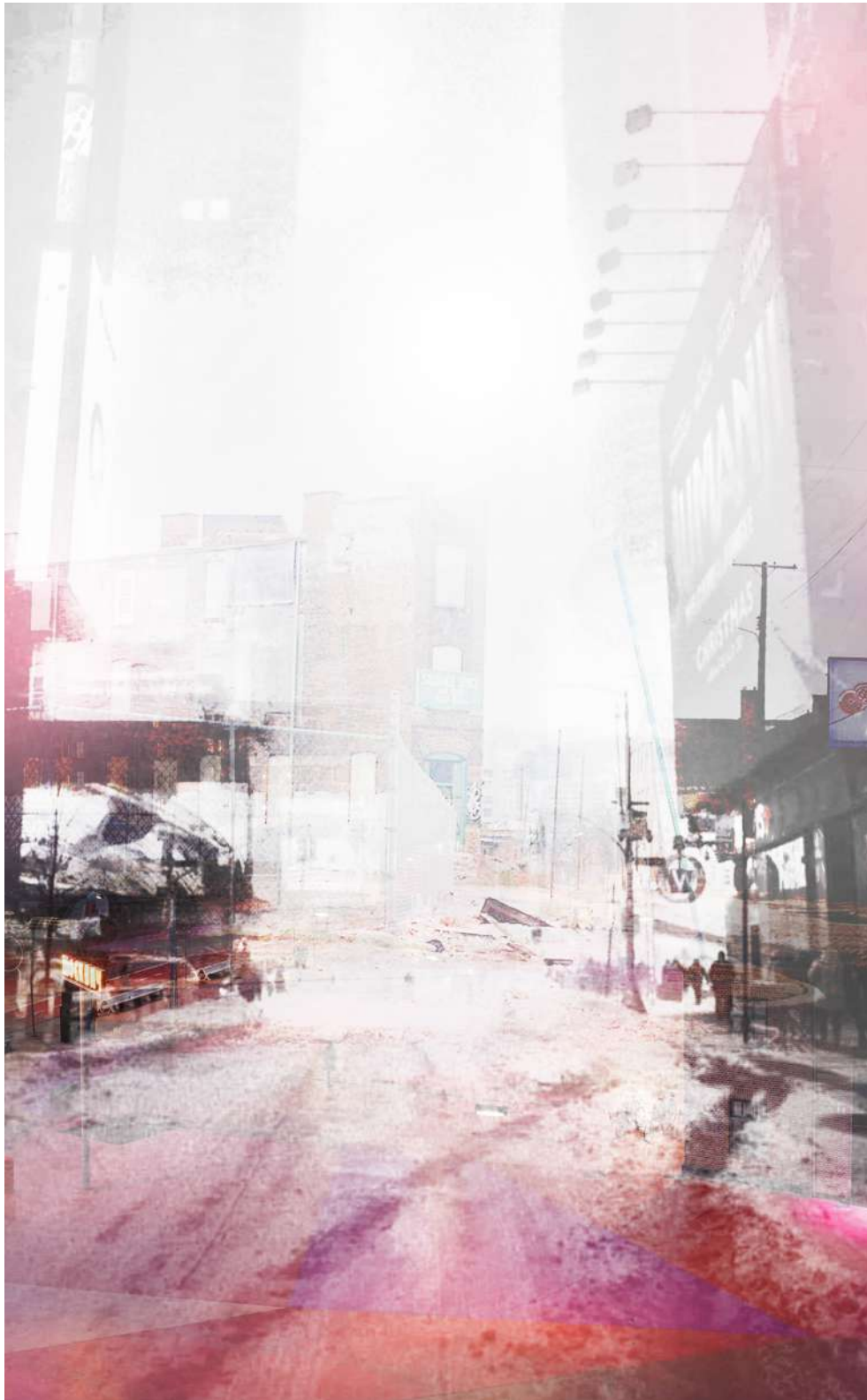
Figure 87: Median Diagram

5.5 Altering the Pedestrian Experience

A large component of these three neighborhood design proposals was the idea of altering the pedestrian experience, through challenging the subjective perception within these neighborhoods. Subjective analysis is a large component of the way in which walkability is defined, and so, it is also essential in the way the design proposals were carried out in these neighborhoods. These design interventions allows for this type of analysis to begin to promote an interpretive understanding of urban space, in particular in Conant Gardens, the North End, and Kettering-Butzel. Ultimately, these proposals were centered around reintroducing walkability through a sensorial approach that would create a new and unique perception of the pedestrian experience within these three neighborhood nodes.

To understand how these proposals could begin to challenge the pedestrian experience within these areas, further analysis needed to be conducted on the existing perception. Through going back and walking as well as observing these specific neighborhoods, to conduct additional subjective analysis, conclusions could begin to be drawn within these areas. Once these were established, then the design proposals could effectively be crafted to be responsive. Through shaping or enhancing the pedestrian experience, these design interventions began to also influence the human perception of urban spaces. Utilizing different elements of the *Four S's*, design could truly begin to enhance the human perception in these neighborhood nodes.

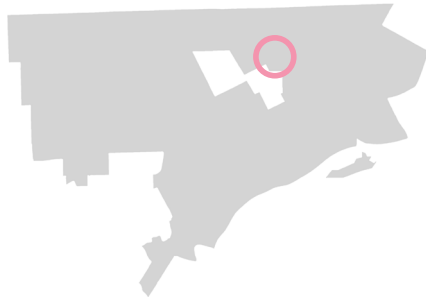
The next several pages, begin to showcase different ways the pedestrian experience was influenced based on the different design methods utilized in Conant Gardens, The North End, and Kettering-Butzel.



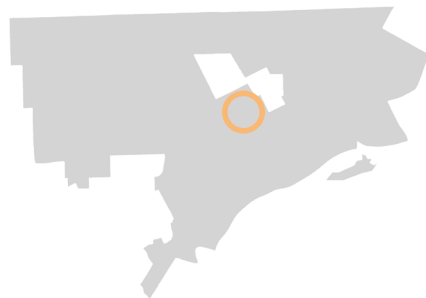
Enhancing Human Perception through Design

Through each design proposal, the underlying goal was to truly begin to challenge the human pedestrian experience within each of these three neighborhoods. Doing so in multiple ways, this can begin to challenge the pedestrian experience not only in these neighborhoods, but on a larger scale as well.

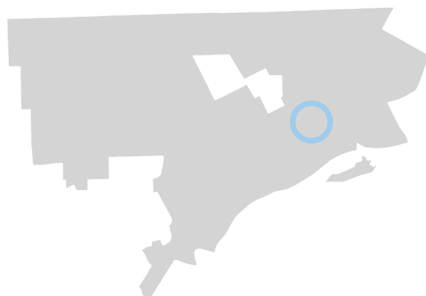
Conant Gardens



The North End




Kettering-Butzel



Conant Gardens

How does this proposal alter the Pedestrian Experience?

Primary Design Tool: **Speed** 

Utilizing a design approach centered around different methods of controlling speed, the proposal for Conant Gardens was centered around attempting to reinvent the way that pedestrians, and those traveling with a vehicle, understand and perceive the street edge. The design solution for this neighborhood crafts a sensorial experience that would permanently alter the way that pedestrians understand and perceive the street and the sidewalk. Through painting the streets, as well as creating new interventions along the street edge, such as the vendor space, or the waiting zone, the way in which the residents of this neighborhood understand and utilize this node is altered. Through changing the perception of this neighborhood node, walkability can begin to be achieved, as the pedestrian experience becomes more exciting, and ultimately enhanced.



Human Perception of the Sidewalk




Human Perception of the Street

Figures 89-90: Conant Perception

The North End

How does this proposal alter the Pedestrian Experience?

Primary Design Tool: **Scale** 

Through a design approach based on utilizing scale in order to promote different types of smell, speed, and sounds, the proposal for the North End ultimately alters the way people move through a neighborhood. By revamping the understanding of the traditional scale of the Street, the Alley, and the Vacant Lot, the design solution for the North End changes the way people interact with their neighborhood, and their neighborhood node.



Human Perception of the Alley



Human Perception of the Vacant Lot



Human Perception of the Street

Figures 91-93: Kettering Perception

Kettering-Butzel

How does this proposal alter the Pedestrian Experience?

Primary Design Tool: **Sound** 

The design approach for Kettering-Butzel was focused around promoting different types of sound, based on design moves that reflected Scale, Smell, and Speed. Through this, the perception of the neighborhood, as well as the pedestrian experience within this node would reflect the unique ways that sound is being created. The two main design moves in this neighborhood, the transformation of the median, and the revitalization of two existing parking lots, began to not only promote different types of sounds, but utilize them as a design tool. Overall, within Kettering-Butzel, the design proposal alters the pedestrian experience by providing a new and unique understanding of what the Median, and the Parking Lot can be within this neighborhood, as well as within the specific community hub.



Human Perception of the Median



Human Perception of the Parking Lot

Figures 94-95: Kettering Perception



5.6 How it Works

These proposals, in addition to being focused on addressing site specific concerns through altering the pedestrian experience, were ultimately about promoting walkability. Each of the three design strategies were centered around promoting walkability while being adaptable within different seasons, types of weather, and times of day.

A crucial component of creating effective design strategies is that they couldn't just be utilized on a sunny day in the middle of July, but year round, no matter what weather condition. Although some of the smaller programming interventions in these proposals, such as the planter beds outside of Korash Florist, or the game boards on the *Social Street*, would likely be utilized more in the summer, the main neighborhood strategies were adaptable year round. In Conant Gardens, the *Painted Street*, is a design move that would permanently change the way this neighborhood node is experienced, as it doesn't matter if it is raining, snowing, or sunny, the way that street edge is experienced is altered. It provides a new experience no matter the condition. In the North End, the utilization of the pedestrian-only streets, and the vacant lot to connect them, would also permanently change how people can move the neighborhood. With that, it would still be able to be used no matter what weather condition or time of day, even if the smaller interventions weren't able to be used. In Kettering-Butzel, similarly, the *Pedestrian Median*, is a move that alters the way people walk through this neighborhood node, and that would still be applicable no matter what season or time of day it is.

Overall, all three proposals had permanent design solution that were applicable in every season, time of day, and weather type.

Enhancing the Journey

Ultimately, these design proposals were focused within specific nodes or hubs, that were identified by an extensive mapping and analysis process. Through altering the perception of the pedestrian within these nodes, the residents and workers of each of the three neighborhoods begin to experience walkability through a new and unique lens. Over time, this begins to change the way people walk within these neighborhoods, and eventually, this behavior is transferred beyond these specific nodes. As a part of this, the journey, whether it is from a resident's house or place of work, to these specific nodes, becomes an intriguing opportunity.

Each of the three proposals within this thesis, are more so the phase one of completely beginning to reintroduce walkability in these areas. The first phase, was strengthening the existing neighborhood nodes to promote a new and unique type of walkability. The solutions were focused more on a Tactical Urbanism approach, that were easier achieved then saying creating three new mixed-use developments in this area. In doing so, these proposals, truly begin addressing the needs of the community, as well as enhancing the daily walk for those who have to commute by foot.

The next step in this process, is to allow the strategies within this node to begin to seep into the more residential areas of the neighborhood. Which creates a journey for pedestrians, residents, or workers in these areas. In what ways can streetscape improvements, or installations (such as the example on the left), or another type of solution begin to create a more enjoyable walk, not only who have to commute by foot daily, but also for those wanting to walk. This phase 2 per say, becomes a crucial component of truly strengthening the argument on bridging the gap on how walkability is achieved within the city of Detroit,





A Model for Detroit?

Overall, the goal of this thesis was to challenge the way that walkability can be achieved in the city of Detroit. Through defining walkability through a subjective lens, an analysis process inspired neighborhood design proposals that were centered around a sensorial based approach. Through this approach, the solutions that were created aimed to challenge the human perspective of what the pedestrian experience could be, or look like in each of the three neighborhoods.

Although this thesis focused on three neighborhoods, the overarching goal was to begin to show different ways that walkability can be achieved across the city of Detroit. Each neighborhood is unique, there are different characteristics and different challenges, so there is not a universal design approach to reintroducing walkability. That is the ultimate problem that surrounds the typical approach to walkability. In this thesis, each design proposal was different, as it focused on different aspects of each neighborhood node to activate. Although each of the three was rooted in a sensorial based approach, they were implemented, and designed in different ways. The three neighborhood schemes uncovered several unique aspects that can be taken into other neighborhoods. However, although the design proposals are important, the part of this thesis that really begins to mold itself into a model for reintroducing walkability to Detroit, is the analysis and mapping process.

The element that can really begin to shape the way walkability is achieved and thought about in Detroit is the subjective analysis process. Then, combining this analysis, with community input, allows for proposals and design strategies to be unique, and specific, to each neighborhood that they are in. Which ultimately, begins to effectively bridge the gap on the way that walkability is implemented in Detroit.



Figure 96: *Urban Atmosphere*

Epilogue

Overall, the goal of this thesis was to challenge the way that walkability is being thought about within the city of Detroit. As a city that has several unique urban conditions, the typical, or generalized version of walkability is ineffective in Detroit. The way in which walkability is implemented in the city has to be challenged. With that understanding, this thesis defined walkability as the subjective analysis of pedestrian-friendly urban environments. Through this definition, the understanding could be more focused around the individual, or the “pedestrian,” instead of the urban asset.

By diving into the research around subjective analysis and subjective perception, a unique conclusion was crafted on how humans interact with the urban environment. Doing research on how humans perceive things, the ideology of the *Four S’s* was created to create almost a criteria on how urban space should be analyzed and understood. This thesis sought to test this theory within different urban conditions through walking. Some of these environments were in downtown Detroit, or in Philadelphia, or in the three neighborhoods this thesis focused on. This analysis, research, and understanding, broadened the view of how effective subjective analysis could be for achieving walkability within Detroit. This was really put to test in three neighborhoods in which the design proposals were in.

In Conant Gardens, the North End, and Kettering-Butzel, a series of intense analysis was done in order to understand these three unique neighborhoods. This ultimately led to three design proposals that were crafted to begin to effectively achieve walkability in the city of Detroit. These proposals were focused on enhancing the pedestrian experience instead of seeking to drive up market-demand.

Overall, through an incredible year-long process, this thesis concludes, for now, with the understanding that walkability can be achieved within the city of Detroit when it is pushed in unconventional ways that are truly responsive to the urban conditions that is being solved for.



Figure 97: *Subjective Understanding*

"As urban planners, architects, or designers, in a city like Detroit, that has a unique set of urban conditions unlike anywhere else in the world, we have to always strive to go beyond the standard norms in order to create innovative solutions that respond to the conditions we are solving for."

- Aaron Danko

A handwritten signature in black ink, appearing to read 'A Danko'.

Bibliography:

- [1]: Brown, T.M. "The Most Walkable Cities in America." Thrillist, Thrillist, 17 May 2017.
- [2]: Opticos Design — September. "What Makes a Community Walable?" Opticos Design, CLPFA, 31 Oct. 2017.
- [3]: Laker, Laura. "Where Is the World's Most Walkable City?" The Guardian, Guardian News and Media, 12 Sept. 2017
- [4]: Herst , John. "Josh Herst - Chief Executive Officer." Walk Score Blog, Walkscore, 2013.
- [5]: Speck, Jeff. Walkable City Rules: 101 Steps to Making Better Places. Island Press, 2018.
- [6]: Boyle, Robin. "Could the 20-Minute Neighborhood Work in Detroit?" Detroit Free Press, Detroit Free Press, 15 June 2016,
- [7] Sadik-Khan, Janette, and Seth Solomonow. Streetfight: Handbook for an Urban Revolution. Penguin Books, 2017.
- [8]: Raven, Benjamin. "Detroit Jumps into Top 3 for 'Increasing Walkability in National Ranking.'" Mlive, 2016.
- [9]: Jeffers, Kristen. "Seven Characteristics of Walkable Neighborhoods." Build a Better Burb, 1 Sept. 2017.
- [10]: Shrikant, Aditi. "Why Walkable Cities Are Good for the Economy, According to a City Planner." Vox, Vox, 26 Oct. 2018.
- [11]: Tanner, Kristi. "Detroit Still Losing Population - but It Could Be a Whole Lot Worse."Detroit Free Press, Detroit Free Press, 24 May 2018.
- [12]: Sugrue, Thomas J. The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit: with a New Preface by the Author. Princeton University Press, 2005.
- [13]: Mondry, Aaron. "Report: Since 2010, Detroit Added More Walkable Urban Spaces than Any Other U.S. City." Curbed Detroit, Curbed Detroit, 25 June 2019.
- [14]: Schwartz, Samuel I., and William Rosen. Street Smart: the Rise of Cities and the Fall of Cars. PublicAffairs, 2015.
- [15]: Jeffers, Kristen. "Seven Characteristics of Walkable Neighborhoods." Build a Better Burb, 1 Sept. 2017.
- [16]: Budick, Seth. "What Makes a City Walkable?" PlanPhilly, 2008,
- [17]: Berg, Nate. "Walkable Cities, Walkable Neighborhoods." Planetizen, 2010.
- [18]: Taylor, Kathryn L. "Objective and Subjective Assessments of Normal Walking Pace, in Comparison with That Recommended for Moderate Intensity Physical Activity." PMC Exercise Science, 2010.
- [19]: Leyden, Kevin. "Social Capital and the Built Environment: The Importance of Walkable Neighborhoods." AJPH, Island Press, Oct. 2011.
- [20]: Leinberger, Christopher B. "Philly's Many Walkable 'Center Cities.'" Brookings, Brookings, 28 July 2016,
- [21]: Leslie, Eva, and Frank Lawrence. "Residents' Perceptions of Walkability Attributes in Objectively Different Neighbourhoods: a Pilot Study." Science Direct, 2005.
- [22]: Taylor, Kathryn L. "Objective and Subjective Assessments of Normal Walking Pace, in Comparison with That Recommended for Moderate Intensity Physical Activity." PMC Exercise Science, July 2010.
- [23]: Dubey, Abhimanyu, et al. "Deep Learning the City: Quantifying Urban Perception at a Global Scale." Computer Vision – ECCV 2016 Lecture Notes in Computer Science, 2016, pp. 196–212., doi:10.1007/978-3-319-46448-0_12.
- [24]: Heathcote, Edwin. "Become an FT Subscriber to Read: 'Architecture on an Urban Scale'." Subscribe to Read | Financial Times, Financial Times, 2008.
- [25]: Sim, David. Soft City: Building Density for Everyday Life. Island Press, 2019.
- [26]: Paskus, Laura. "What Is Sound Science?" Living in Bosnia, McGraw-Hill, 2003.
- [27]: Deziel, Chris. "What Is Speed?" Sciencing, 2 Mar. 2019.
- [28]: Bodo Kubartz (2014) Urban Smellscapes: Understanding and Designing City Smell Environments, The AAG Review of Books, 2:3, 99-101, 2019.
- [29]: Pallardy, Carrie. "What Do Chicago Neighborhoods Smell like?" Neighborhoods.com, Neighborhoods.com, 29 Aug. 2018.
- [30]: Montgomery, Charles. Happy City: Transforming Our Lives through Urban Design. Farrar, Straus and Giroux, 2014.
- [31]: Magiac, Mike. "Population Density for U.S. Cities Statistics." Governing, 2018.
- [32]: Kusume, Yasushi. "Designing For All Five Senses." Fast Company, Fast Company, 9 July 2018.
- [33]: Mondry, Aaron. "An Update on All 14 of the City's Neighborhood Plans." Curbed Detroit, Curbed Detroit, 9 Apr. 2019.
- [34]: Laing, Gordon. "7 Reasons Why Maps Are Important." Barrachd, UKAS INC, 2019.

Figures:

Figure 1: *Components of the Twenty Minute Neighborhood* from https://www.researchgate.net/figure/The-20-minute-neighbourhood_fig18_323468192

Figure 2: *Components of Walkable Neighborhoods* by Aaron Danko

Figure 3: *Subjective Analysis in Detroit* by Aaron Danko

Figure 4: *Benefits of Walkable Communities Diagram* by Aaron Danko

Figure 5: *Pedestrian-Friendly Environments Diagram* by Aaron Danko

Figure 6: *Street Section* by Aaron Danko

Figure 7: *Subjective Analysis of the Crosswalk* by Aaron Danko
Adapted from: <https://positiveroutines.com/too-busy-productivity/motion-blurred-busy-crosswalk/>

Figure 8: *Subjective Analysis of Open Streets Detroit* by Aaron Danko

Figure 9: *Subjective Analysis of Capitol Park Detroit* by Aaron Danko

Figures 10-15: *Subjective Analysis of Capitol Park Detroit* by Aaron Danko

Figure 16: *The Four S's and Subjective Analysis* by Aaron Danko
Adapted from: <https://www.thelocal.es/20161129/six-of-spains-most-stroll-able-streets-spain-beautiful-travel>

Figure 17: *Subjective Scale* by Aaron Danko
Adapted from: <https://www.pinterest.com/pin/209206345159726128/>

Figure 18: *Subjective Sound* by Aaron Danko
Adapted from: <http://www.pngall.com/sound-waves-png>

Figure 19: *Subjective Speed* by Aaron Danko
Adapted from: <https://www.corporatecomplianceinsights.com/organizational-speed-digital-age/>

Figure 20: *Subjective Smell* by Aaron Danko
Adapted from: <https://www.tiempodev.com/blog/what-is-smoke-testing-in-software-testing/>

Figure 21: *Density in Detroit* by Aaron Danko

Figures 22-23: *Neighborhood Selection Criteria* by Aaron Danko
Adapted from: <https://detroitmi.gov/department/planning-and-development-department>

Figure 24: *Conant Gardens Figure Ground Map* by Aaron Danko

Figure 25: *Conant Gardens Land Use and Mobility Map* by Aaron Danko

Figure 26: *The North End Figure Ground Map* by Aaron Danko

Figure 27: *The North End Land Use and Mobility Map* by Aaron Danko

Figure 28: *Neighborhood Location Diagram* by Aaron Danko

Figure 29: *Kettering-Butzel Figure Ground Map* by Aaron Danko

Figure 30: *Kettering-Butzel Land Use and Mobility Map* by Aaron Danko

Figure 31: *Subjective Map of Scale in the North End* by Aaron Danko

Figure 32: *Overlaid Subjective Map of Conant Gardens* by Aaron Danko

Figure 33: *Sound Map of Conant Gardens* by Aaron Danko

Figure 34: *Smell Map of Conant Gardens* by Aaron Danko

Figure 35: *Speed Map of Conant Gardens* by Aaron Danko

Figures 36: *Scale Map of Conant Gardens* by Aaron Danko

Figure 37: *Overlaid Subjective Map of Conant Gardens* by Aaron Danko

Figures 38-41: *Node Analysis of Conant Gardens* by Aaron Danko

Figure 42: *Overlaid Subjective Map of the North End* by Aaron Danko

Figure 43: *Sound Map of the North End* by Aaron Danko

Figure 44: *Smell Map of the North End* by Aaron Danko

Figure 45: *Speed Map of the North End* by Aaron Danko

Figures 46: *Scale Map of the North End* by Aaron Danko

Figure 47: *Overlaid Subjective Map of the North End* by Aaron Danko

Figures 48-51: *Node Analysis of the North End* by Aaron Danko

Figure 52: *Overlaid Subjective Map of Kettering-Butzel* by Aaron Danko

Figure 53: *Sound Map of Kettering-Butzel* by Aaron Danko

Figure 54: *Smell Map of Kettering-Butzel* by Aaron Danko

Figure 55: *Speed Map of Kettering-Butzel* by Aaron Danko

Figures 56: *Scale Map of the Kettering-Butzel* by Aaron Danko

Figure 57: *Overlaid Subjective Map of Kettering-Butzel* by Aaron Danko

Figures 58-61: *Node Analysis of Kettering-Butzel* by Aaron Danko

Figure 62: *Conant Gardens Neighborhood Zones* by Aaron Danko

Figure 63: *The North End Neighborhood Zones* by Aaron Danko

Figure 64: *Kettering-Butzel Neighborhood Zones* by Aaron Danko

Figure 65: *Rendering of Painted Street in Conant Gardens* by Aaron Danko

Figure 66: *Abstract Red-Lining* from <https://www.fastcompany.com/3061873/how-urban-design-perpetuates-racial-inequality-and-what-we-can-do-about-it>

Figure 67: *Rendering of Painted Street in Conant Gardens* by Aaron Danko

Figure 68: *Assets Diagram Conant Gardens* by Aaron Danko

Figure 69: *Design Proposal for Conant Gardens* by Aaron Danko

Figures 70: *Painted Street Rendering* by Aaron Danko

Figure 71: *Social Space Rendering* by Aaron Danko

Figure 72: *Painted Street Axonometric Diagram* by Aaron Danko

Figure 73: *Rendering of Play Street in The North End* by Aaron Danko

Figure 74: *Assets Diagram The North End* by Aaron Danko

Figure 75: *Design Proposal for The North End* by Aaron Danko

Figures 76: *Social Street Rendering* by Aaron Danko

Figure 77: *Social Street Rendering #2* by Aaron Danko

Figure 78: *Social Street Axonometric Diagram* by Aaron Danko

Figures 79: *Transition Lot Rendering* by Aaron Danko

Figure 80: *Play Street Rendering* by Aaron Danko

Figure 81: *Play Street Axonometric Diagram* by Aaron Danko

Figure 82: *Rendering of Pedestrian Median in Kettering* by Aaron Danko

Figure 83: *Assets Diagram Kettering-Butzel* by Aaron Danko

Figure 84: *Design Proposal for Kettering-Butzel* by Aaron Danko

Figures 85: *Pedestrian Median Rendering* by Aaron Danko

Figure 86: *Pedestrian Median Rendering #2* by Aaron Danko

Figure 87: *Pedestrian Median Axonometric Diagram* by Aaron Danko

Figure 88: *Perception of the Pedestrian Experience* by Aaron Danko
Adapted from: <https://slowstreets.wordpress.com/2015/10/26/critical-elements-to-make-pedestrian-streets-work/>

Figures 89-90: *Pedestrian Experience in Conant Gardens* by Aaron Danko

Figures 91-93: *Pedestrian Experience in The North End* by Aaron Danko

Figure 94-95: *Pedestrian Experience in Conant Gardens*

Figure 96: *The Urban Atmosphere* by Aaron Danko

Figure 97: *Subjective Understand* by Aaron Danko
Adapted from: <https://slowstreets.wordpress.com/2015/10/26/critical-elements-to-make-pedestrian-streets-work/>

Images:

Image 1: *Walking in Detroit* from
<https://www.theguardian.com/world/gallery/2013/jul/19/detroit-goes-bankrupt-in-pictures>

Image 2: *Walking through the Crosswalk* from
<https://www.theguardian.com/world/gallery/2013/jul/19/detroit-goes-bankrupt-in-pictures>

Image 3: *Walking in front of the Packard Plant* from
<https://www.theguardian.com/world/gallery/2013/jul/19/detroit-goes-bankrupt-in-pictures>

Image 4: *Bike Lanes* from
<https://www.seattlebikeblog.com/2018/05/23/bike-lanes>

Image 5: *Walkscore Data* from
<https://humantransit.org/2010/10/walkscorecom-and-the-lure-of-the-single-score.html>

Image 6: *Historic Detroit* from
<https://www.historicdetroit.org/galleries/old-city-hall-old-photos>

Image 7: *Death of the American City* from
<https://www.theguardian.com/cities/2014/apr/03/the-death-of-a-great-american-city>

Image 8: *Philadelphia City Hall* taken by Aaron Danko

Image 9: *Detroit Riverfront Plan* from
<https://nessmagazine.com/detroit-east-riverfront-framework-plan/>

Image 10: *Tyree Guyton* from
<https://www.nytimes.com/2019/05/09/magazine/tyree-guyton-art-detroit.html>

Image 11: *People of Detroit* from
<https://www.metrotimes.com/detroit/while-downtown-detroit-has-the-spotlight-pontiac-plots-a-quiet-revival-of-its-own/Content?oid=21552905>

Images 12-15: *Images of Conant Gardens* taken by Aaron Danko

Images 16-19: *Images of The North End* taken by Aaron Danko

Images 20-23: *Images of Kettering-Butzel* taken by Aaron Danko

Images 24: *Four Seasons* from
<https://www.wxyz.com/news/snow-emergencies-declared-in-these-metro-detroit-cities>

Images 25: *Novella Installation-Detroit Design Competition* from
<https://bustler.net/news/7433/winners-of-the-detroit-city-of-design-competition-re-imag-ine-the-possibilities-for-safe-and-walkable-neighborhoods>

Image 26: *Open Streets Detroit* from
<https://opportunitydetroit.com/blog/open-streets-detroit-offers-free-street-fair-activities>

Appendix:

Personal Interviews with Neighborhood Residents and Workers:

Interview #1:

Who: Dalana McNeal-Norman
When: 01/05/2020

Q: I've heard a lot about Seventh Day Adventist and Christian Methodist, is it true they play a vital role for the neighborhood, and have you attended any events there?

A: "Man, I've been in both Seventh Day and Christian Methodist so much for different parties and events, I don't even know where to begin."

Interview #2:

Who: Khalil "Kay" Felder
When: 12/17/2019

Q: Where do you typically walk to the most in Conant Gardens?

A: "One of the spots that I'd always walk to is that lot next to the Asian Corned Beef, that's where all the school kids go to shoot dice."

Interview #3:

Who: Tiffany Williams
When: 12/21/2019

Q: If you could fix or improve anything within the neighborhood what would it be?

A: "If I could change anything, it would be that we don't have any real bus-stops, they're all falling apart, that needs to be fixed first."

Interview #4:

Who: Vanessa Alanis
When: 1/18/2020

Q: What is your favorite part about living in the North End?

A: "For me, my favorite part about living here is all of the festivities in the summer, especially the Block Party."

Interview #5:

Who: Dane Finshaw
When: 1/24/2020

Q: What is your favorite part about living in the North End?

A: "This neighborhood has a unique spirit, and I feel that the North End embodies Detroit, I mean, what other neighborhood is centered around farming?"

Interview #6:

Who: Lala Jones

When: 02/11/2019

Q: Where do you typically walk to the most in the North End?

A: "Miss Virginia's is the spot all summer, my kids love the ice cream, I like just catching up with Ms. V."

Interview #7:

Who: Charles Buthia

When: 1/27/2020

Q: Have you enjoyed living here over the years?

A: "Absolutely, I have enormous pride for the neighborhood I come from, there's nothing like it."

Q: Where do you typically walk to the most in the Lower East Side?

A: "For me, not only as a kid, but even now, Dueweke Park's been the local spot. All of the neighborhood kids go here, typically to hoop, we used to have some crazy games of Twenty-One."

Interview #8:

Who: Jim Malaney

When: 1/14/2020

Q: What is your favorite place to go to in this neighborhood?

A: "Typically, I'll go to King's for lunch during the week, and everyday, Jared, who's a homeless guy, greets you as you walk to the door, he always asks how is it going boss, before asking for change. "

Interview #9:

Who: Scott Byner

When: 12/18/2019

Q: What is the toughest part about walking in this area?

A: "The biggest concern for me is trying to cross Gratiot, those people just fly along there, they have no regard for anyone but themselves. Nobody does the speed-limit. "

