



Camille Cauchois, Kyle Strand, and Robert Strickling

Introduction

History

The Longfellow neighborhood of Minneapolis originally was part of Richfield, a suburb to the south, but it was annexed to the city as part of a land purchase in 1887 (Hennepin County Library). Once streetcar lines were built outwards from the downtown business district and riverside industrial areas, Longfellow quickly became populated as a working-class infill suburb (James). The main factor that attracted residents to Longfellow was its opportunity for space and homeownership: lots were spacious enough for lawns and gardens and were advertised as low as \$300 in 1914 (Lake Street Council). Its population has long been middle class and family oriented, with a gradually increasing influx of immigrants (MN Compass).

The neighborhood became distinctive within the city for its Bungalow houses, an architectural movement based on affordability and beauty in functionality. Today the neighborhood is full of signage that declares it a “Traditional Bungalow Neighborhood” and the neighborhood plan book encourages and informs residents to maintain its historic character. The neighborhood’s most well-known landmark is Minnehaha Park near its southern border, which became a popular national sojourn after being featured in Henry Wadsworth Longfellow’s poem, “The Song of Hiawatha.” The neighborhood of Longfellow takes its name from the poet, and the Park is both a notable tourist draw and a favorite recreational area for locals (Lake Street Council).

Characteristics

Greater Longfellow as it stands today consists of five neighborhoods including Longfellow proper, Howe, Hiawatha, Seward, and Cooper (Map 1). This five-neighborhood area is bordered on the east by the Mississippi River and Hiawatha Ave. (Highway 55) on the west. To the north is the neighborhood of Seward around the Midtown Greenway and to the south is Minnehaha Park. This area is served by the Hiawatha Light Rail Line and is one of the only places in Minneapolis outside of downtown that is served by direct bus lines to St. Paul (City of Minneapolis).

Housing

Several housing styles dominate the Longfellow landscape including Sears Catalog Homes, bungalows, and larger Victorian-style houses. The unifying characteristic is that the

overwhelming majority are single-family homes (Lake Street Council). These different building styles also represent economic divisions in the neighborhood. The larger and more ornate Victorian houses dominate the landscape along the Mississippi River to the east and are more prevalent in the southern neighborhood of Hiawatha, near Minnehaha Park. Many of the homes in the neighborhood are declining in value because they are older structures. This exacerbates the gap between the more valuable Victorians that retain value better than the bungalows and Sears Catalog Homes.

People

The population has experienced a slight decline over the last several decades. This trend has been characterized by a steadily declining white population and an influx of other ethnicities that cannot make up for the loss (MN Compass). The increasing Hispanic population is likely driven by the growing Hispanic community to the west of Greater Longfellow, especially along the Lake Street corridor where numerous services and stores catering to this population are located.

Current Issues

The current issues in the Longfellow neighborhood include the population decline and housing stock decline. The housing stock is aging due to the significant presence of 1920s bungalow-style homes. As there has been a push to diversify the housing stock and provide more options for housing, there has been a decline in homeowners since 2000. As of 2010, there were 739 vacant units out of 13,708 (MN Compass). Due to the population and housing stock decline there is a need to revitalize the neighborhoods to attract more residents.

In addition to home vacancy, there is commercial vacancy as well. Lake Street is one of two main commercial corridors in the Longfellow neighborhood; however there is about 14% commercial vacancy and about 40% office vacancy along Lake Street (Urban, 3).

The Longfellow Community Council is a citizen participation group that aims to promote and foster a community throughout the neighborhood. They began their Neighborhood Development Committee in an effort to address the current concerns of the community. The current issues are primarily regarding new developments under construction, such as the 46th St. and 46th Ave. office-residential complex. In addition, the Longfellow station at 38th St. and Hiawatha and the Howe School Site at 38th St. and 43rd Ave. are under development. The River Gorge restoration project and Great Streets Facade Improvement Program are geared towards improving neighborhood aesthetics, protecting and enhancing the natural features of the neighborhood, and promoting community (Longfellow Community Council).

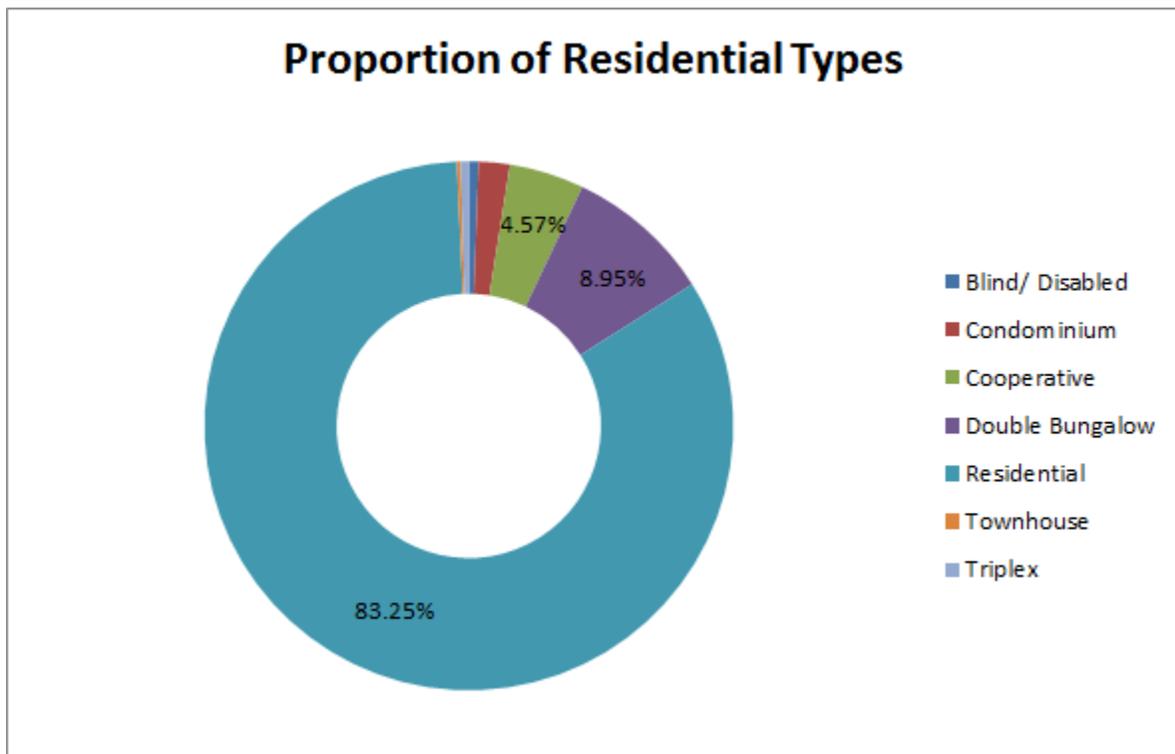
Creating a more equitable community is a concern as well as 16.1% of the residents in Longfellow receive an income below the poverty line. In addition, there are no public high schools in the neighborhood and therefore students must travel further distances to get to school.

Analysis & Discussion

Counts of types of residential parcels in the Greater Longfellow Neighborhood:

- Blind/Blind Joint Tenancy/Disabled/Disabled Joint Tenancy: 55
- Condominium: 177
- Cooperative: 425
- Double Bungalow: 832
- Residential: 7,739
- Townhouse: 22
- Triplex: 46
- Total: 9,296

Proportions of types of residential parcels in the Greater Longfellow Neighborhood:



Mean and Standard Deviation Values for each variable at the neighborhood scale:

Owner-Occupancy Rate Mean: 73.27%
Owner-Occupancy Rate Standard Deviation: 26.18%
Vacancy Rate Mean: 1.79%
Vacancy Rate Standard Deviation: 3.18%
Building Condition Mean: 4.13
Building Condition Standard Deviation: 0.29
Value Retention Mean: -5.99%
Value Retention Standard Deviation: 8.06%

Rationale for decisions

All of the maps and analysis included in the HMI process are based on the residential units within the neighborhood. To determine the inclusion of residential units, we sifted through all of the land types included in the Metro GIS regional parcel data set and determined which ones could be counted as residential. In addition to the parcels that are labeled as residential (typically single-unit homes), we included the categories Blind, Blind Joint Tenancy, Condominium, Cooperative, Disabled, Disabled Joint Tenancy, Double Bungalow, Non 4BB Compliant, Residential-zero lot line, Townhouse, and Triplex. The most notable type of parcel that we did not include is apartments because we are trying to create a picture of the owner-occupied housing market. Apartment buildings represent the rental housing market and their data are not compatible with the four variables we used to calculate the HMI.

The HMI is calculated at the block level, but only for blocks that we qualify as residential blocks. Through a calculation of statistics and discussion with the Longfellow Community Council, we decided that the appropriate threshold for a residential block is five residential parcels per block. The average number of residential parcels per block in the greater Longfellow area is 24 with a standard deviation of 15. There are 522 blocks total of which there are 385 with at least one residential parcel. Of those 385, there are 20 blocks with fewer than five residential parcels. We feel that a block that contains at least five residential parcels has a strong enough presence of residential use to be included in the HMI.

Interpretation of map patterns and trends

The first variable that we examined is owner-occupancy rates (Map 2). For the neighborhood overall, the mean owner-occupancy rate is 73.27% with a standard deviation of 26.18%. The highest owner-occupancy rates are observed in the blocks along the river, which also have high market values and excellent building conditions. Owner-occupancy rates are also high in blocks that cluster around residential amenities and services such as the neighborhood's parks, the Midtown Greenway, and Minnehaha Academy. Owner-occupancy is higher in blocks that are farther away from downtown Minneapolis, with a visible jump in ownership south of Lake Street. The highest concentration of blocks with low owner-occupancy (or high renter proportions) center on Lake Street and Franklin Avenue. As the two major commercial arteries,

it makes sense that these blocks have high rates of renters due to their labor pools of temporary employment. The Seward neighborhood in particular can be seen as an intermediary zone between the high-rental neighborhood of Cedar-Riverside to the north and the more suburban tracts to the south: predictably it has Longfellow's lowest proportion of owner-occupied homes.

To calculate the vacancy rate we utilized U.S. Postal Service data to determine which residential parcels are vacant or occupied. We encountered some difficulty as some parcels returned no data regarding their vacancy status. To fix this problem, we individually checked each address in order to determine if it is a valid residential parcel and if so, if it is vacant or not. We eliminated parcels that do not have a structure on them, those that do not have a residential structure (e.g. only a garage exists on the parcel), and apartment buildings. Some of the addresses that did not return results are no longer valid addresses. The eliminated parcels do not appear on the vacancy rate map.

Fortunately for Longfellow, vacancy is not a major issue across the neighborhood. The mean vacancy rate by block is 1.79% with a standard deviation of 3.18%. There are few high vacancy blocks throughout the neighborhood as seen in the vacancy by block map (Map 4). The area of highest concern according to the block level map appears to be a stretch of blocks adjoining to the north of the Midtown Greenway around the center of the study area, with vacancy rates as high as 25%. However, this area on the parcel map (Map 3) shows only 3 vacant properties in a less dense concentration than other vacancies; the block only appears to be highly vacant because it has fewer parcels than the average block. Visiting these areas, there appeared to be a couple of 'For Sale' signs but in general the houses appeared to be maintained with well-trimmed lawns. Although the vacancy rate on these blocks is higher than in the rest of the neighborhood, it does not seem to be having the negative ramifications that make vacancy a dangerous problem for housing markets. Therefore, the individual vacancies on the parcel map may be more helpful than block level vacancy because the size of the blocks can skew the apparent concentration of unoccupied houses. It is hard to generalize a spatial trend within the vacancy by parcel map, but one conclusion is that vacancy appears to be the least common in Seward, the neighborhood closest to downtown.

The building condition variable reflects the data from the most recent assessments done in 2012 by the City of Minneapolis Assessors Office. The building condition rating is determined by evaluating the house on various external features. The evaluated features include the condition of windows, foundation, siding, and porch, but do not include the condition of the roof because they assume that as soon as it fails, it will be replaced. The building condition rating scale ranges from one to seven. A one represents the highest condition rating, or a structure in the best condition. A seven represents the lowest condition rating, or a structure in the worst condition. The mean building condition rating is 4.13, which corresponds with 'Average', with a standard deviation of 0.29.

The building condition variable at the parcel level (Map 5) followed the trend of properties along and near the Mississippi River receiving stronger condition ratings, as with the blocks in

Seward that have more new or newly-renovated properties. The blocks along Snelling Ave. and Minnehaha Ave. lie in a more industrial part of the neighborhood which may contribute to their poor condition ratings. When analyzing the building condition trends at the parcel level it is apparent that parcels with better condition ratings tend to be grouped together, but parcels with the lowest rating stand on their own. These freestanding parcels may represent an individual's lack of investment in their parcel and can skew the HMI for a block as well as estimated market values of neighboring parcels. The housing condition variable at the block level (Map 6) reveals the overall trend in the neighborhood of 'Average' and 'Average minus' conditions. The average condition ratings are clustered along the river with the rest of the neighborhood primarily receiving average minus ratings. There is one extreme outlier which is the block that contains the Becketwood Senior Living Cooperative and that averaged a rating of 'Excellent' at the block level.

Unsurprisingly, the most pronounced trend seen in both the 2007 and 2011 estimated market value by parcel maps (Maps 7 and 8) is the highest values along the river, where owner-occupancy and housing condition also see their highest scores. Other than the obvious higher market values of the riverfront-fringe, a spatial pattern of market value on the parcel level is hard to generalize, although property values appear to be decidedly lower around transportation corridors – the Light Rail and the Midtown Greenway. The rest of the neighborhood shows a lot of variation in housing value within blocks, and so the greatest trend that can be observed is the change in value from 2007 to 2011. It is quite clear that much of the neighborhood depreciated in value, with many parcels shifting from “bluer” values– which represent the 3 highest echelons of market value, towards green and yellow – the two lowest. In general many parts of the neighborhood become “greener” and “yellowier” between the years, and some sections lose all blue values entirely. The change in market value from 2007 to 2011 by individual parcel can be seen in Map 9.

When these are aggregated to the block level a map of average value retention is created (Map 10). The mean percentage of value retention at the parcel level is -5.99% with a standard deviation of 8.06%. As expected, the majority of the middle part of the neighborhood on average has lost more than 5% of its value, and a sizeable portion of the rest of it has stayed constant, either 5% above or below zero on average. Only 26 blocks (out of 365) have increased in value on the average by 5% or more. These 26 blocks are mainly on the river-fringe, but several occur along Minnehaha Avenue, suggesting that money has been put into redevelopment in this area near the Light Rail. These Minnehaha Avenue blocks are generally quite small, but may show that housing along transportation corridors, while seemingly undervalued on the parcel map, might be a place for successful redevelopment.

The housing market index is an index that compiles the four raw variables to create a relative score that assesses the strength of the housing market by block in the neighborhood. Each raw variable is weighted differently in the calculation of the housing market index, according to the specifications provided by the Longfellow Community Council. The variables of vacancy rate and value retention have a weight of eight, building condition ratings have a weight of seven, and the owner-occupancy rate has a weight of four. These weightings reflect the importance of

each variable in assessing the strength of the housing market in the greater Longfellow neighborhood.

The trend in the HMI follows the trends of the raw variables and reveals a pattern of varying degrees of housing market strength throughout the greater Longfellow neighborhood (Map 11). The blocks along the river tend to have higher estimated market values, greater value retention, better condition ratings, lower vacancies and high rates of owner-occupancy. The overall pattern of the distribution of the HMI reflects the impact of the river, a natural amenity. However, the trend does not remain as strong when comparing the blocks surrounding the parks in the neighborhood; the river has a stronger effect on positively impacting the HMI rating. The blocks along the Mississippi River and in the northwest corner of the Seward neighborhood present themselves as the strongest sector of the housing market within the neighborhood. Conversely, primary transportation corridors have a negative effect on the HMI rating. The weakest HMI rating concentrates around Lake Street and Snelling Ave., two arterial streets that act as transportation corridors. Blocks that are close to commercial and transportation corridors experience lower estimated market values, less value retention, poorer condition ratings, higher vacancy rates and lower rates of owner-occupancy.

By visiting the blocks with strong HMI ratings along the Mississippi River and in the northwest corner of Seward, we determined that they seem to experience a higher degree of investment and upkeep. There were more new or newly-renovated properties in these areas. One of the most visible trends of this higher degree of investment came in the form of gardens. Many of the blocks with a high HMI rating had similar housing stock to the lower HMI blocks, but had beautiful well-kept gardens adding to the appeal of the streetscape. Other examples of investment included the degree of thought put into exterior home improvements. For instance, the areas with lower HMI tended to feature exterior renovations that did not completely blend in with the rest of the house or unfinished and unpainted woodwork, among other examples.

HMI process and its applicability

The HMI provides a more nuanced method of evaluating the strength of an area's housing market. Other methods used for the same purpose, such as LISC's housing market index, evaluate an area on the tract level; the problem with this approach is that entire neighborhoods are generalized into a single score. The HMI used in this project uses data from individual parcels and generalizes these data to the block level. Housing market strength viewed at the block level grants a more specific look into the housing strength within a neighborhood, highlighting weak and strong areas as opposed to neighborhood averages. This index takes into account four concise variables that are easy to understand in their connection to market strength, making it easier to digest than methods that use variables like lien mortgages and velocity of home purchase. Furthermore these four variables can be adjusted within the HMI score: each is given a weight that affects the calculation. This makes the HMI adaptable to the preferences of the client, in case they determine a certain variable is more pertinent to their neighborhood and should rank higher than the others. This index produces a layout of market variance within a neighborhood, detailing specific patterns and anomalies,

which give neighborhood planners constructive information about where to concentrate their efforts to stabilize the market.

However, this HMI scale also has flaws and should not be seen as a perfect indication of neighborhood housing vitality. Both the owner-occupancy and housing condition factors draw some skepticism in their relation to housing market strength. Owner-occupancy is a good indication of the status and makeup of a neighborhood but assuming that high owner-occupancy means good market strength could imply that renting is bad for the market. High rental neighborhoods can be equally strong and indeed, conversion of single-family homes to rental can mean that a housing market is recovering. Housing condition is based on a ranking by an associate of the Minneapolis Assessor's Office on a loosely-defined scale of 1-7, and this designation is based on qualitative and subjective observation from different individuals. The rating is often an estimate of the building's condition based on its exterior and not necessarily its interior, so it cannot always be trusted to be accurate, and should not be seen as consistent across different parts of the city. While this HMI is perhaps more convincing and easily interpreted than other methods, its limitations should be acknowledged when it is used to analyze an area's housing market strength.

Conclusions & Recommendations

Important Themes & Incorporation of Findings

The most important findings of our analysis come from the data and maps of the individual variables. By providing a more nuanced analysis of each variable with a smaller area (at the block level as opposed to block group or census tract), the Longfellow Community Council can identify specific problems to work on. Due to their work at the local level, they tend to focus more on specific problems and programs, as opposed to generalizing issues as the Housing Market Index does. Through identifying patterns of the raw variables at the block level, the Longfellow Community Council can target their programs and engagement to more specific issues in more specific locations. For example, home improvement loan programs that are currently targeted at the neighborhood level can be targeted at the block level so that they reach the homes most in need of a loan. Blocks with the lowest building condition rating can be targeted so that those residents who are in need of a loan can be made aware of the opportunities and potentially avoid fines for not complying with city ordinances.

Specifically, our findings lead us to recommend the Longfellow Community Council to continue to help homeowners invest in their homes not only monetarily but also in terms of time. Aspects like gardening both in front of houses but also in the few vacant lots in the neighborhood appears to have a very positive effect on the housing market in these areas at relatively low cost. A neighborhood organization might be able to help homeowners interested in gardening or home improvements find volunteers to help. This is an avenue that requires more research but may have the potential to help strengthen housing markets.

Future Directions

The current federal neighborhood stabilization program works to prevent foreclosure in neighborhoods throughout the United States. However, the program is carried out at the neighborhood level. Projects such as the Housing Market Index at the block level have the ability to add nuance to national, large-scale programs and increase their effectiveness.

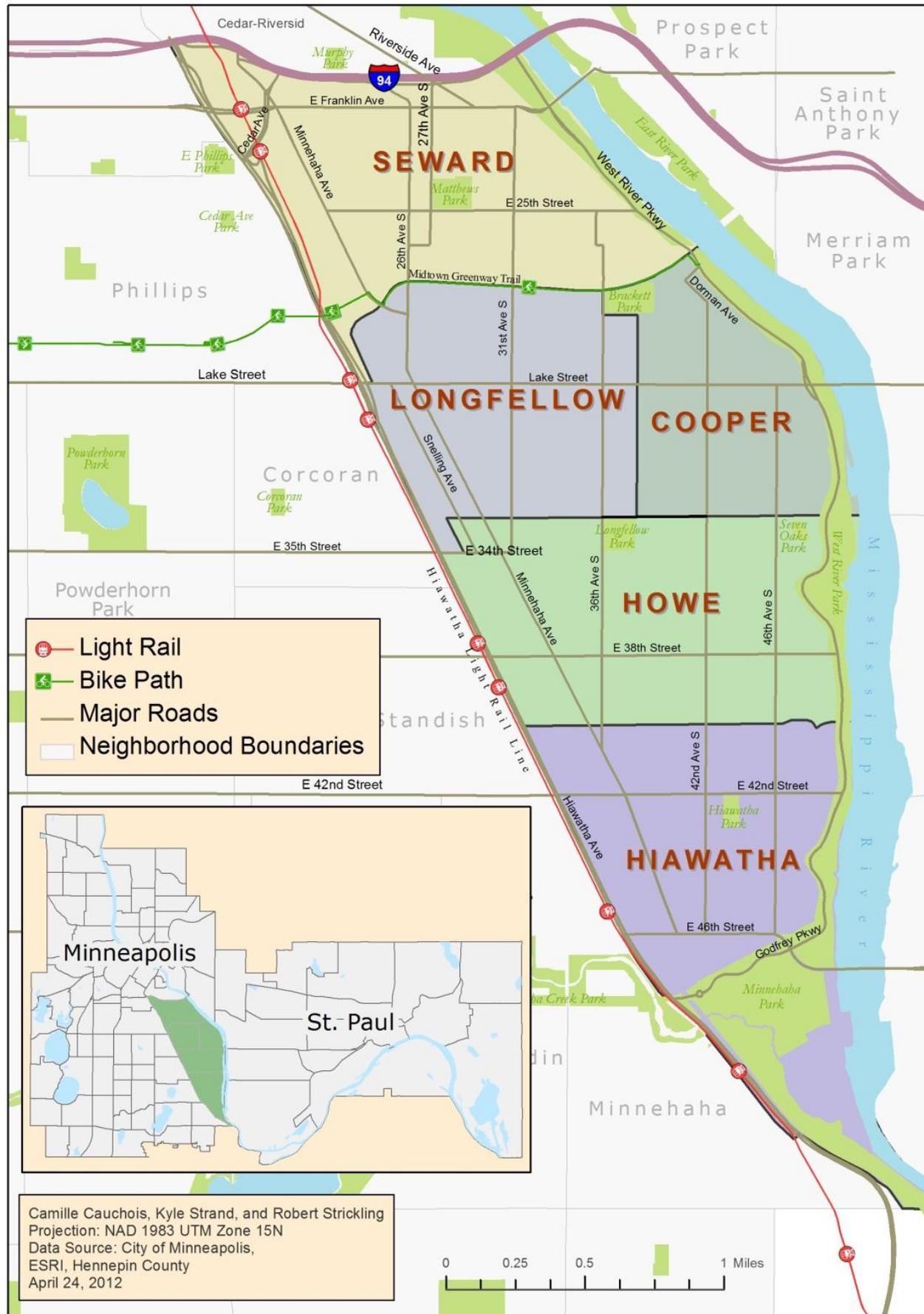
Despite the challenges of the Housing Market Index, it is a useful tool that is more precise than many of those in use by policy makers at the state and national levels. Therefore, it should be continued to be refined and implemented to help assess housing market strengths for targeted areas and uses. This housing market index shows interesting patterns in the variables but does not tell the story of what is causing those patterns, what it means and what action can be taken to help. This can only be carried out through additional field work after completing the statistical analysis.

To create a more complete picture of the Housing Market Index in a neighborhood, rental properties must be included. All of the neighborhood groups weighted the owner-occupancy rate variable as the least important, reflecting their belief that owner-occupancy is not a strong determinant of neighborhood strength. Neighborhoods with a large rental market can have a strong housing market as well. Therefore, to assess the true strength of Twin Cities neighborhoods, rental parcels must be included. The inclusion of rental properties presents the need to develop a rental market index that is based on a different set of variables as well as a method to combine the housing market index and rental market index into one standardized value.

Map 1: Reference Map

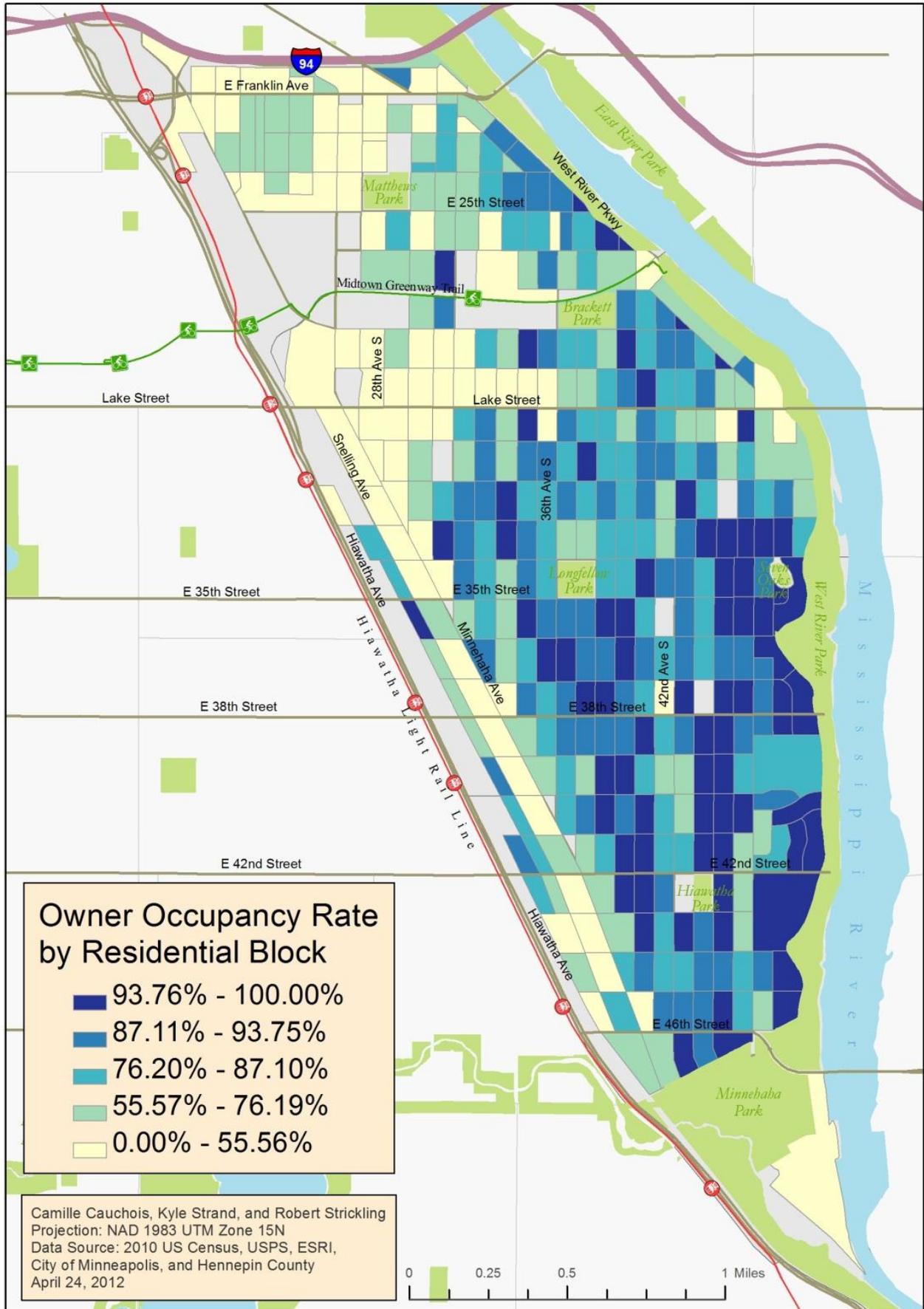
Greater Longfellow Neighborhood

Minneapolis, MN



Owner Occupancy Rate by Block

Greater Longfellow Neighborhood



Vacancy by Parcel

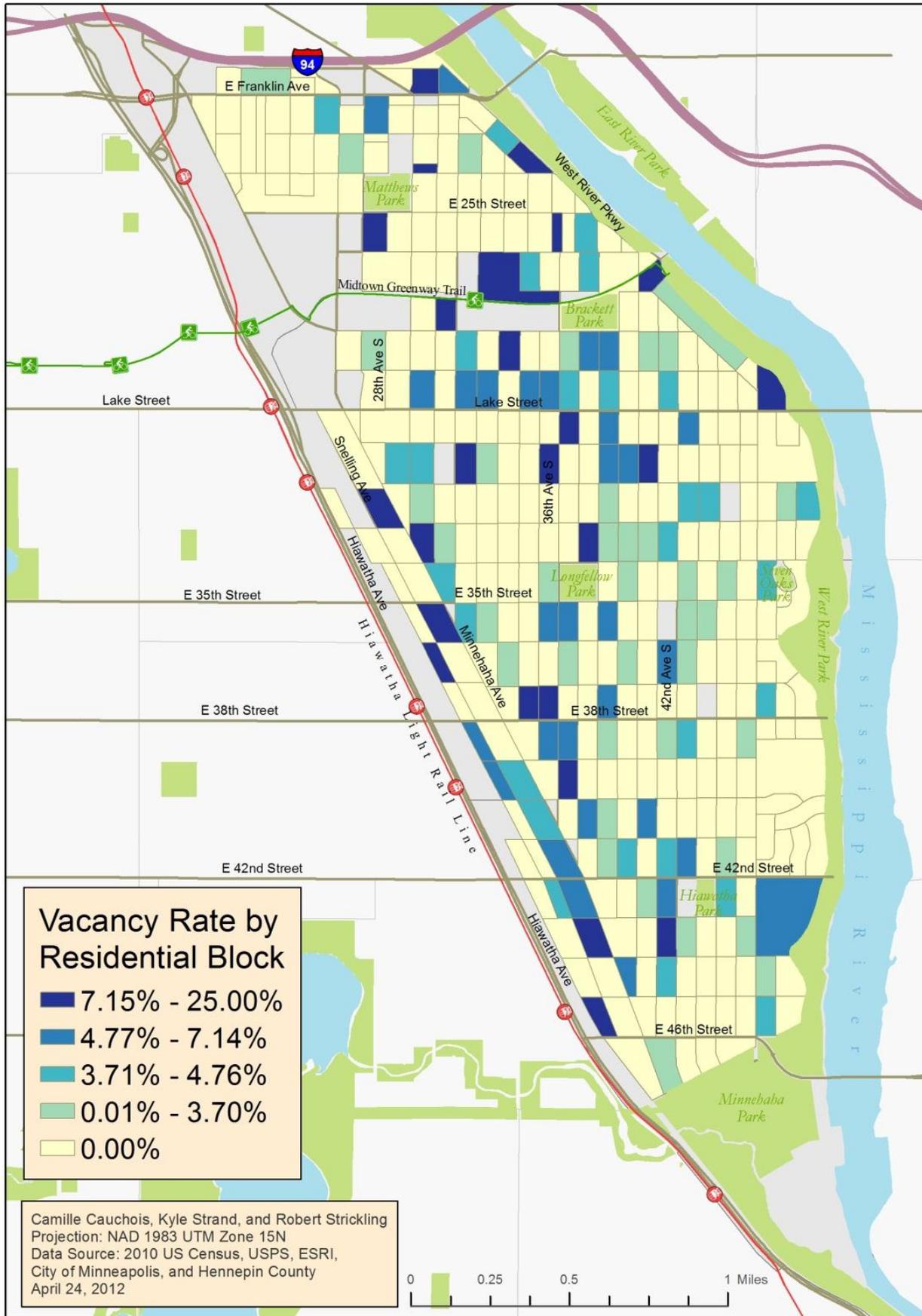
Greater Longfellow Neighborhood



Map 4: Vacancy Rate by Block

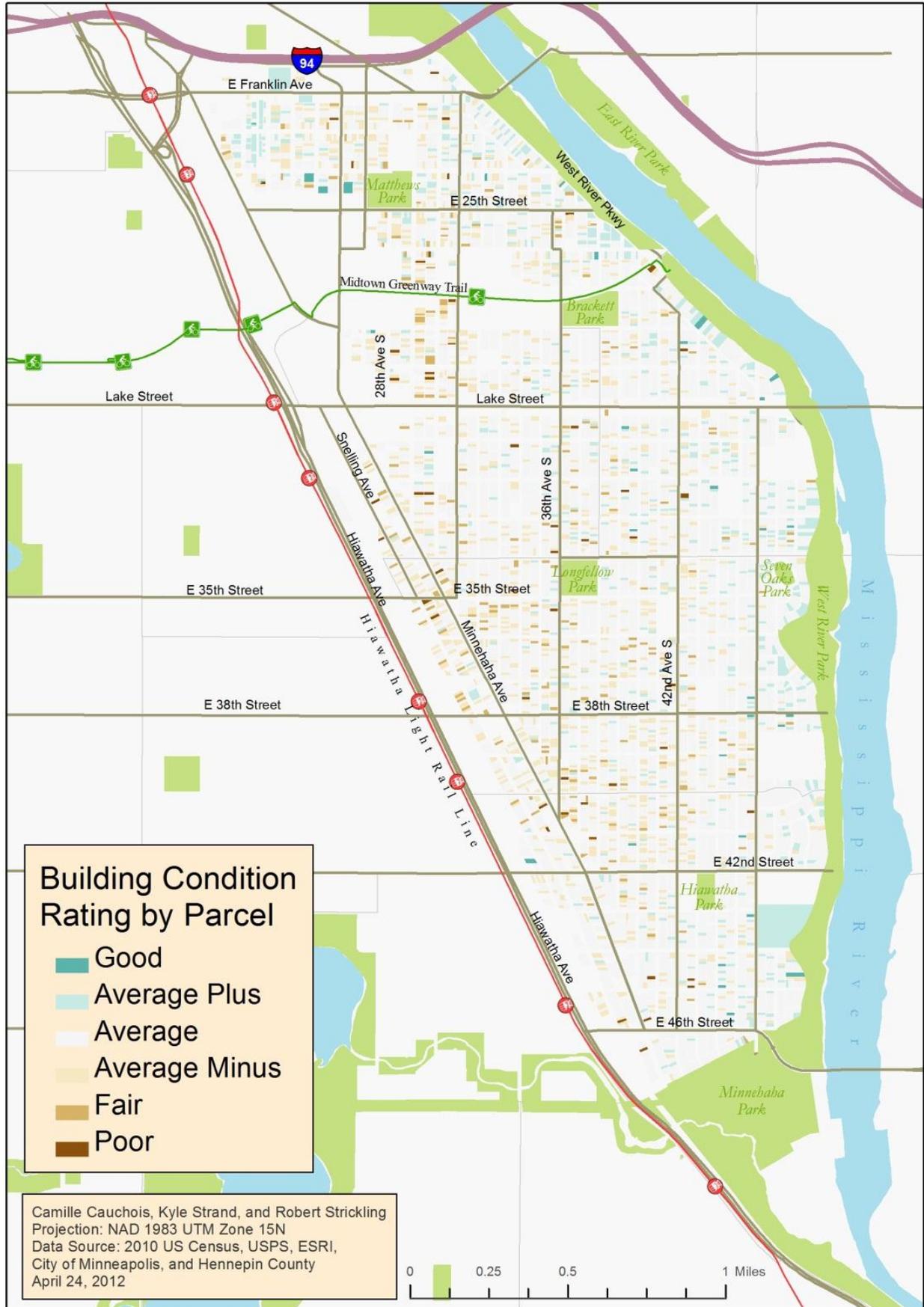
Vacancy Rate by Block

Greater Longfellow Neighborhood



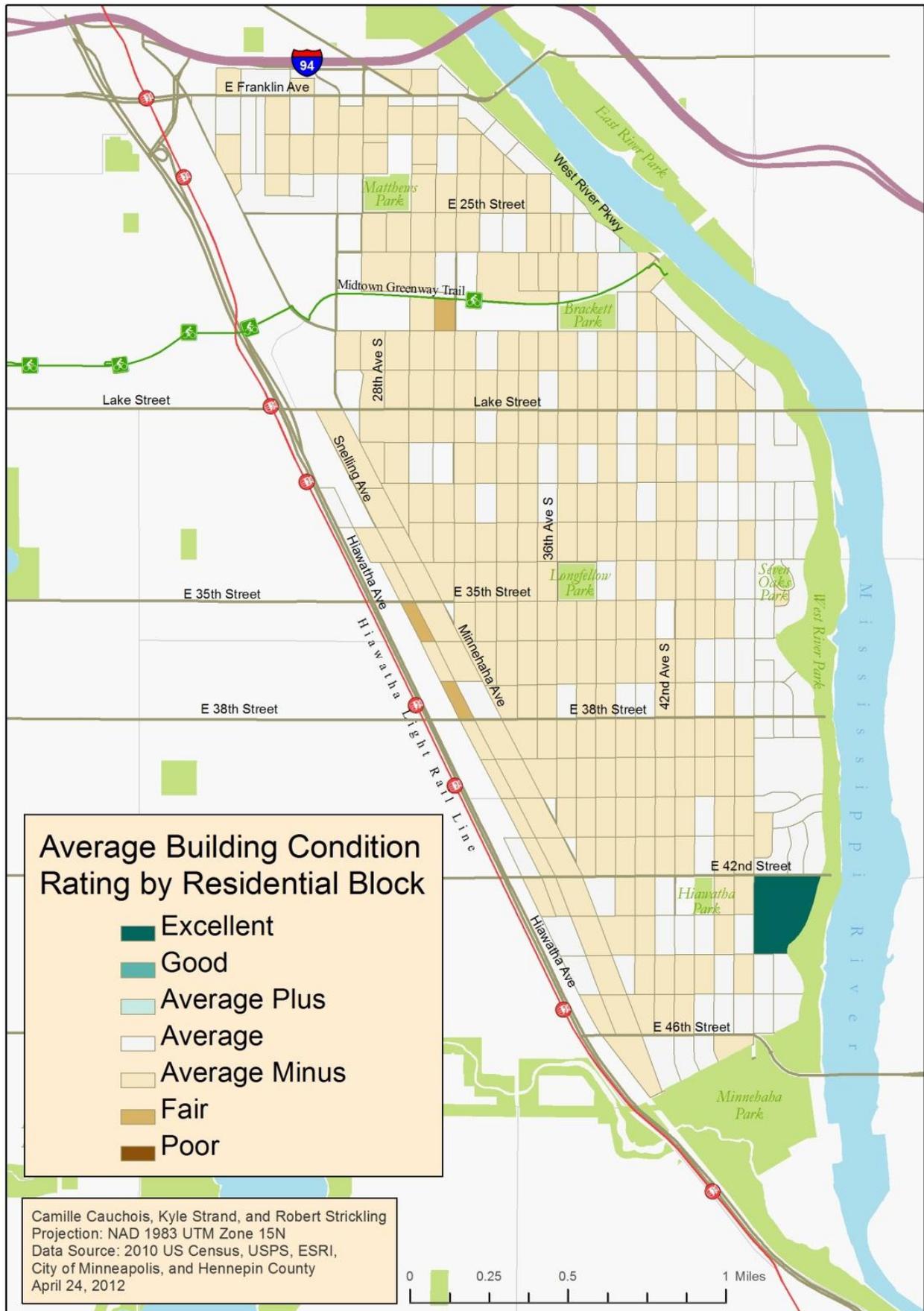
Building Condition Rating by Parcel

Greater Longfellow Neighborhood



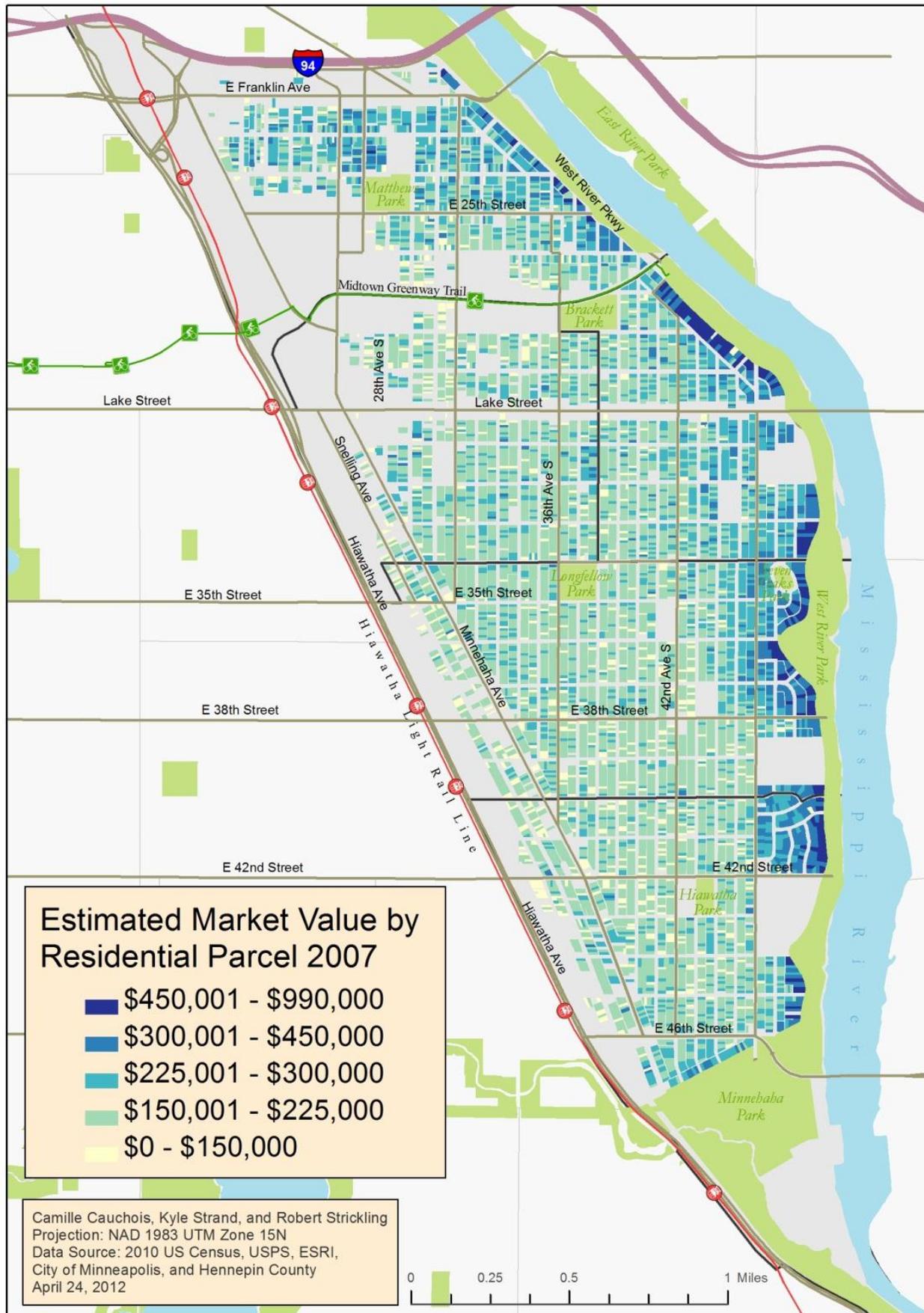
Building Condition Rating by Block

Greater Longfellow Neighborhood



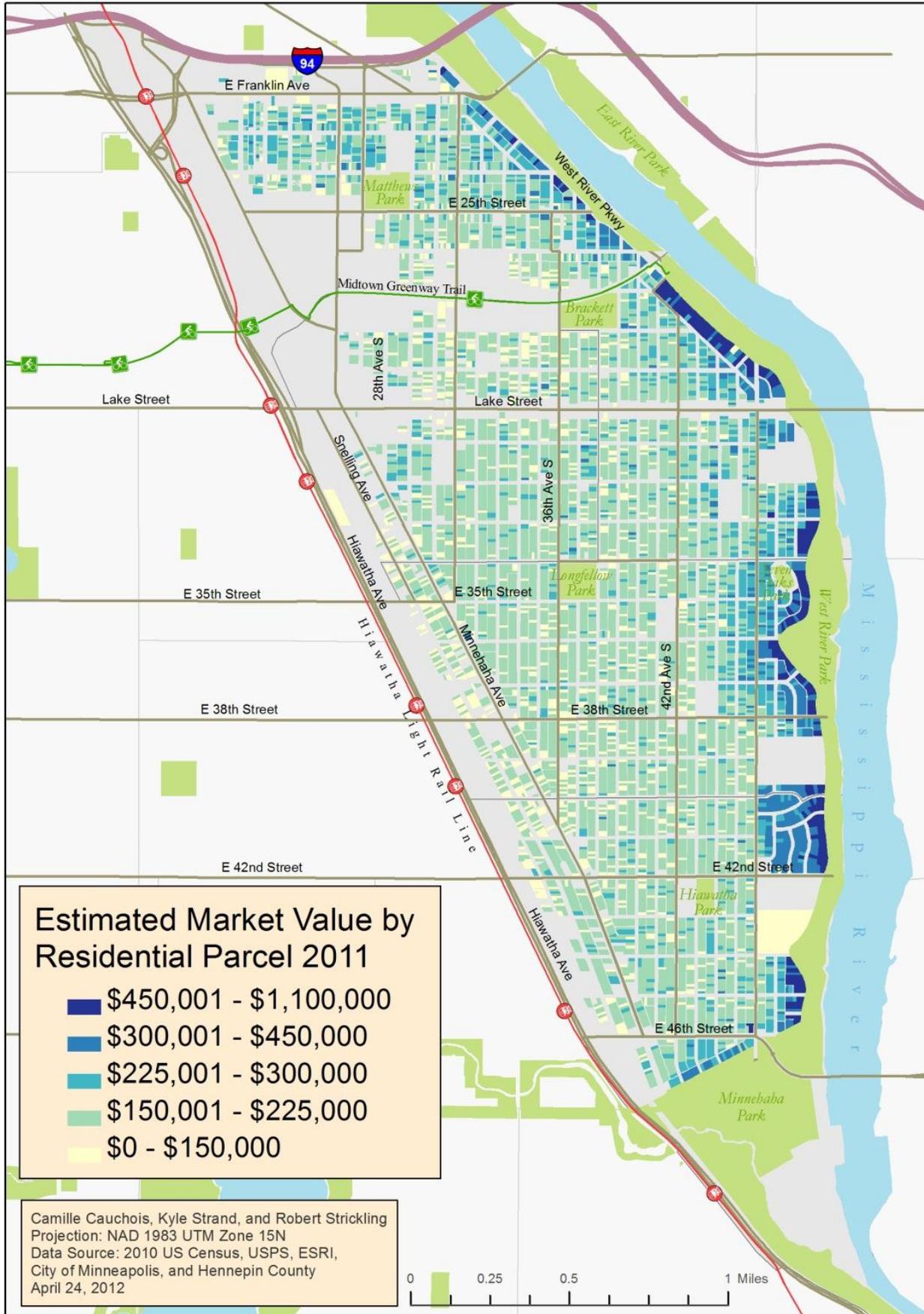
Estimated Market Value by Parcel 2007

Greater Longfellow Neighborhood



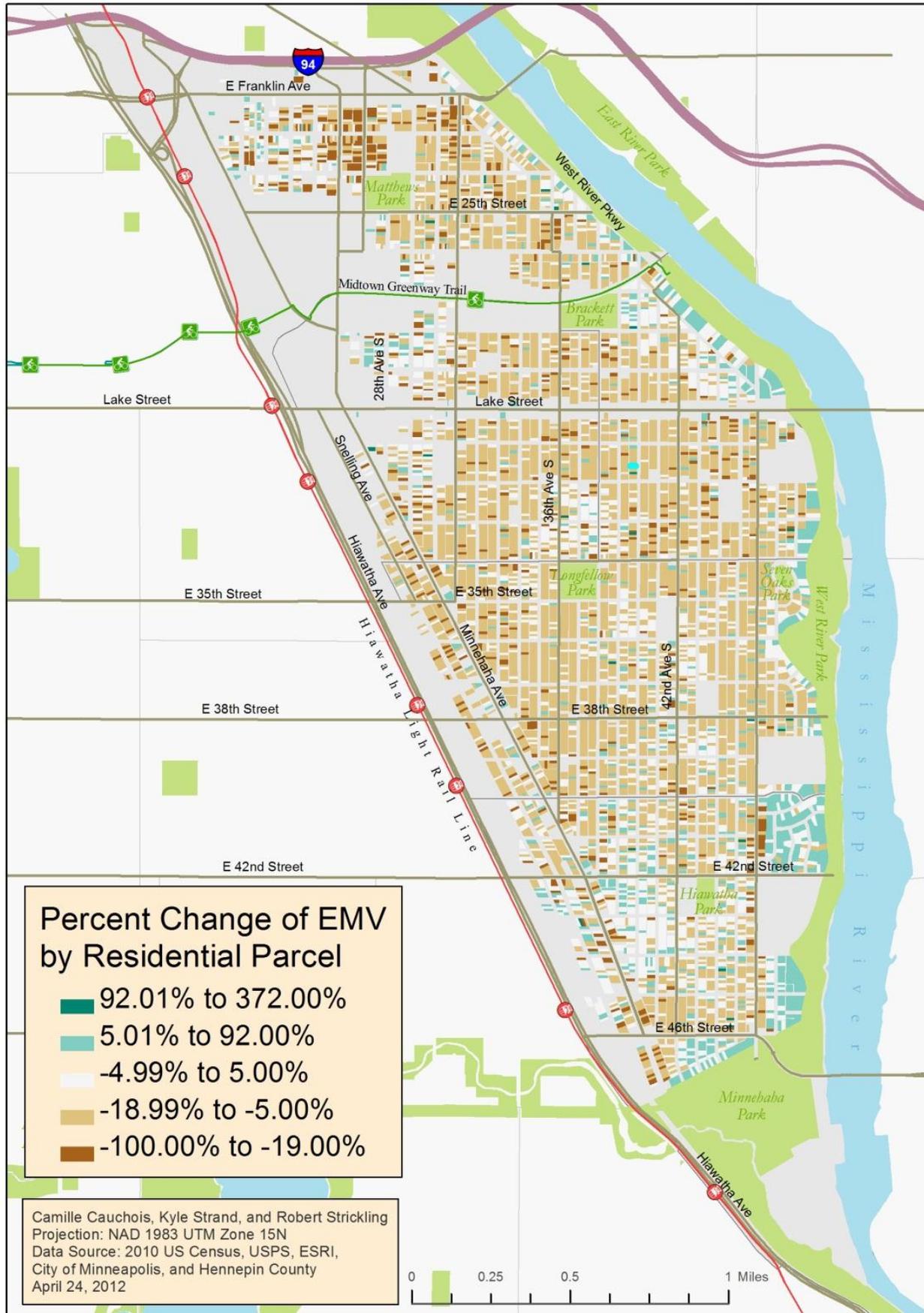
Estimated Market Value by Parcel 2011

Greater Longfellow Neighborhood



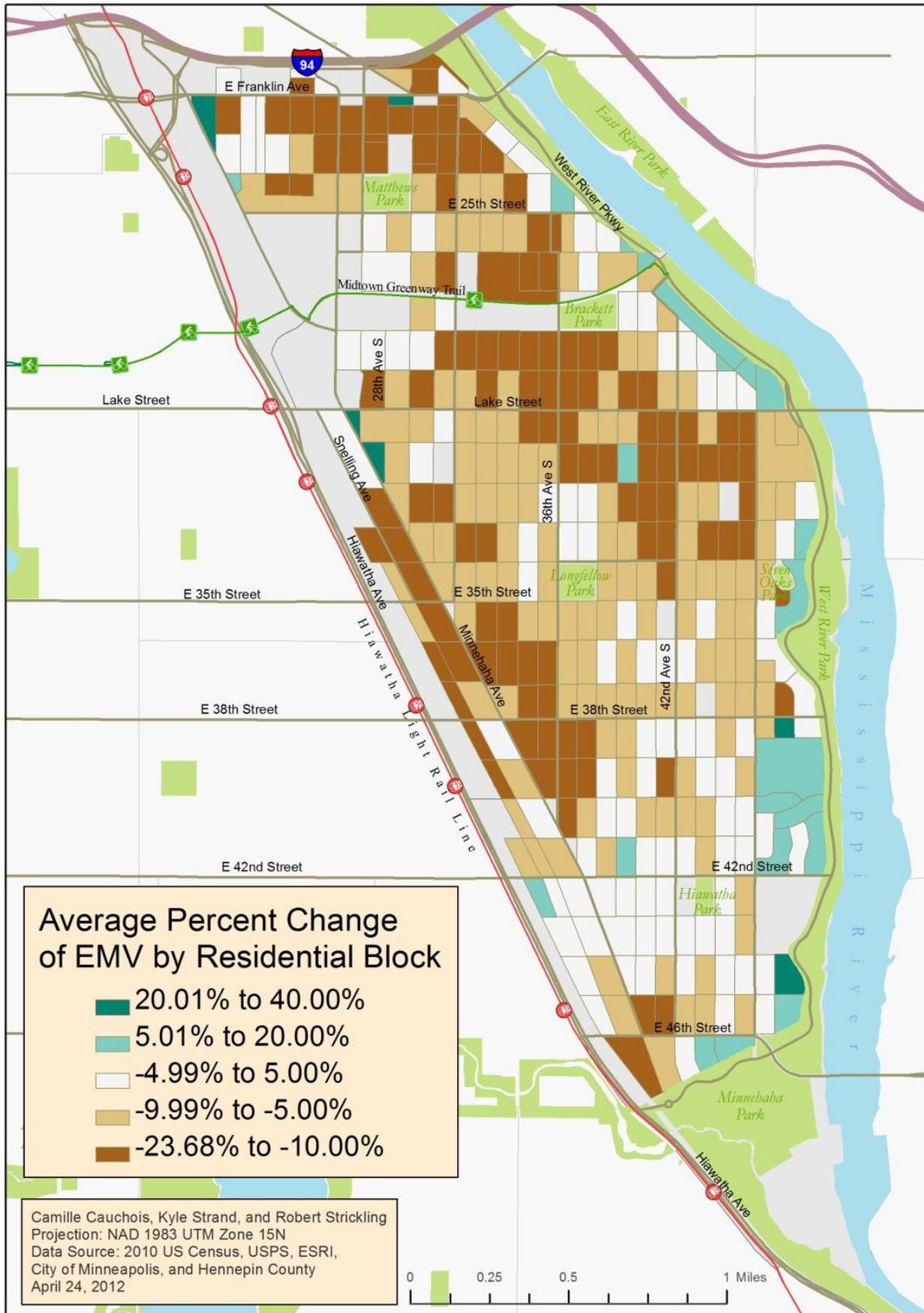
Change in Estimated Market Value 2007-2011 by Parcel

Greater Longfellow Neighborhood



Change in Estimated Market Value 2007-2011 by Block

Greater Longfellow Neighborhood



Map 11: Housing Market Index by Block

Housing Market Index by Block

Greater Longfellow Neighborhood

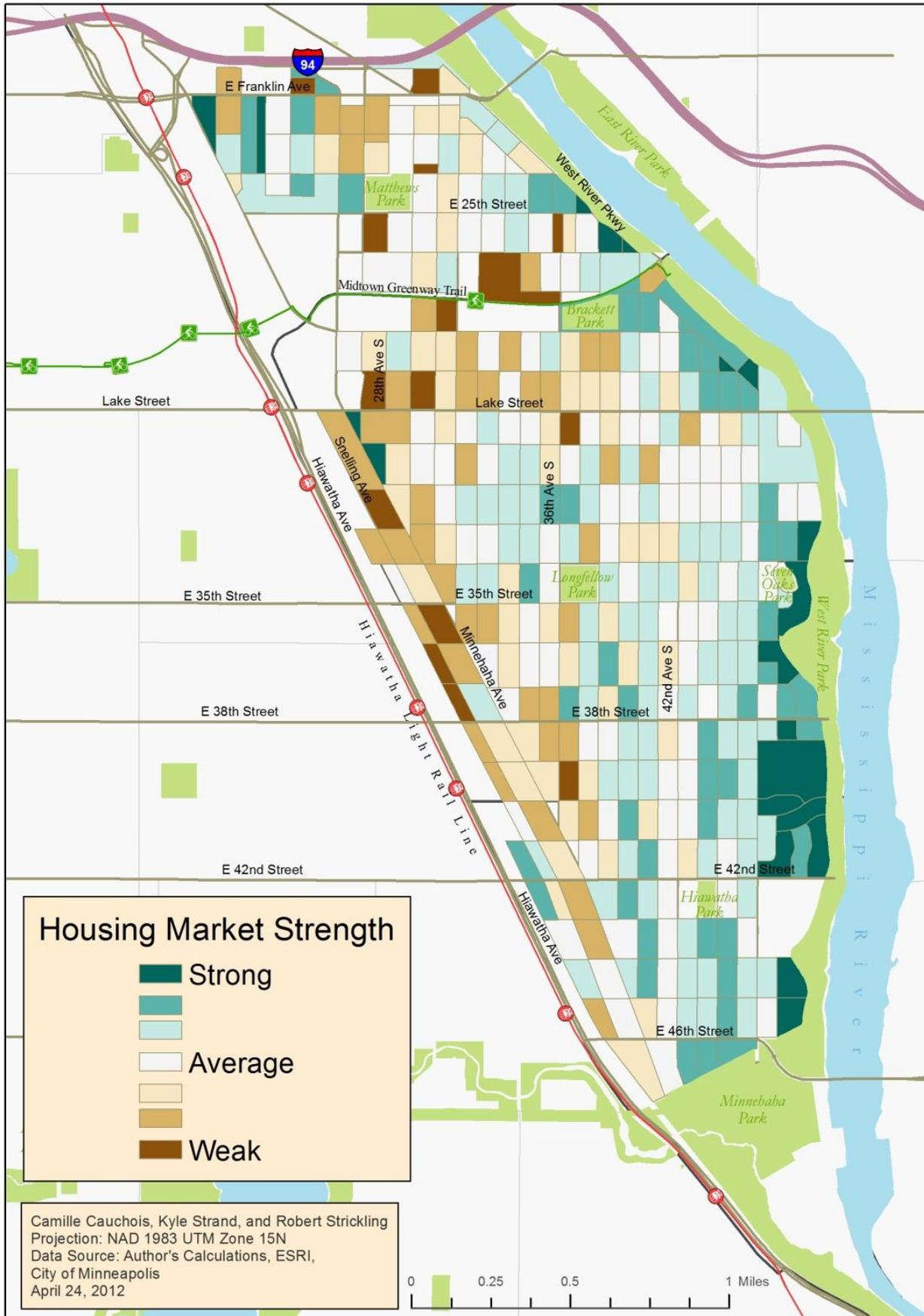


Image1: High HMI Block



Image 2: High HMI Block



Image 3: Low HMI Block



Image 4: High HMI Block (Milwaukee Avenue Development in NW Seward)

