



2012

Beecher Neighborhood Stabilization Plan



Prepared for
the Genesee County Metropolitan Planning Commission

in collaboration with
Michigan State University Urban Planning Practicum

by
 Austen T. Ayres
 James E. Bonfiglio
 Justin J. Dunn
 Gentjan Heqimi,
 Ye Ji Kim
 Hanbing Liang
 Gino M. Piccirilli
 Raymond J. Whearley



Table of Contents

| | |
|---|----|
| Table of Contents | 2 |
| i. Preface | 5 |
| ii. Acknowledgements | 7 |
| iii. Executive Summary | 9 |
| I. Introduction | 11 |
| 1.1 Client Introduction | 12 |
| 1.2 Project Introduction | 12 |
| 1.3 Project Overview | 12 |
| 1.4 Project Methodology | 12 |
| II. Site Profile | 15 |
| 2.1 Site Location | 16 |
| 2.2 Character | 21 |
| 2.3 History | 21 |
| 2.4 Socioeconomic Profile | 22 |
| 2.4.1 Population | 22 |
| 2.4.2 Age Distribution | 22 |
| 2.4.3 Race & Ethnic Composition | 23 |
| 2.4.4 Educational Attainment | 25 |
| 2.4.5 Household Income | 26 |
| 2.4.6 Employment | 27 |
| 2.4.7 School Performance | 28 |
| 2.4.8 Crime Rate | 30 |
| 2.4.9 Socioeconomic Summary | 31 |
| III. Site Factors | 35 |
| 3.1 Zoning | 36 |
| 3.1.1 R-2 & R-3 Single Family Residential Districts | 37 |
| 3.1.2 RM-1 District | 37 |
| 3.1.3 C-1 Local Commercial District | 37 |
| 3.1.4 C-2 District | 38 |
| 3.1.5 OS District | 38 |
| 3.2 Land Use | 39 |
| 3.3 Nonconforming Uses | 41 |
| 3.4 Transportation | 42 |
| 3.4.1 Broad Infrastructure | 42 |
| 3.4.2 Internal Infrastructure | 42 |
| 3.4.3 Commuting Patterns | 44 |
| 3.4.4 Public Transit | 45 |
| 3.5 Market Profile | 48 |
| 3.6 Community Amenities | 52 |
| 3.7 Sewer & Water Infrastructure | 53 |
| 3.8 Site Factors Summary | 54 |
| IV. Land Use Analysis | 57 |
| 4.1 Housing Stock | 58 |
| 4.1.1 Housing Tenure | 58 |
| 4.1.2 Median Housing Value | 59 |
| 4.1.3 Median Year Structure Built | 59 |
| 4.2 Land Inventory | 60 |



| | |
|--|-----|
| 4.2.1 Region 1 | 62 |
| 4.2.2 Region 2 | 62 |
| 4.2.3 Region 3 | 62 |
| 4.2.4 Region 4 | 63 |
| 4.2.5 Region 5 | 63 |
| 4.2.6 Region 6 | 63 |
| 4.2.7 Region 7 | 64 |
| 4.2.8 Region 8 | 64 |
| 4.2.9 Region 9 | 64 |
| 4.2.10 Inventory Regions Summary | 65 |
| 4.3 Land Ownership and Occupancy | 66 |
| V. Demolition Assessment | 69 |
| 5.1 Demolition Policy Overview | 70 |
| 5.2 Demolition Assessment | 71 |
| 5.3 Examples | 73 |
| 5.3.1 Building A | 73 |
| 5.3.2 Building B | 73 |
| 5.3.3 Building C | 74 |
| 5.4 Abandoned Parcel Condition | 74 |
| 5.4.1 Region 1 | 76 |
| 5.4.2 Region 2 | 76 |
| 5.4.3 Region 3 | 76 |
| 5.4.4 Region 4 | 77 |
| 5.4.5 Region 5 | 77 |
| 5.4.6 Region 6 | 77 |
| 5.4.7 Region 7 | 78 |
| 5.4.8 Region 8 | 78 |
| 5.4.9 Region 9 | 78 |
| 5.5.10 Abandoned Parcel Condition Summary | 79 |
| VI. Case Studies | 81 |
| 6.1 Voluntary Associates in Grand Boulevard Neighborhood | 82 |
| 6.2 Toronto's Abandonment Issues Campaign for Affordable Housing | 82 |
| 6.3 Sideyard Expansion in Detroit, Michigan | 83 |
| 6.4 The Church Brew Works (Pittsburgh, Pennsylvania) | 84 |
| VII. Community Input Study | 87 |
| 7.1 SWOT Analysis 1 | 88 |
| 7.2 Public Forum | 88 |
| 7.3 SWOT Analysis - Practicum Team | 89 |
| 7.4 Combined Analysis | 90 |
| VIII. Recommendations | 93 |
| 8.1 Future Land Use Scenario 1 - Preservation | 94 |
| 8.2 Future Land Use Scenario 2 - Growth | 97 |
| 8.3 Land Use Scenario 1 vs. Land Use Scenario 2 | 100 |
| 8.4 Land Use Discussion "Sending & Receiving" | 101 |
| IX. Endnotes | 103 |
| X. Table of Figures | 107 |
| XI. Appendix 1 | 111 |
| XII. Appendix 2: Parcel Scores | 115 |



Beecher Stabilization Plan



i. Preface

Planning Practicum is the capstone course for both undergraduate and graduate students in the Urban and Regional Planning program at Michigan State University. The course is a test of theoretical, practical, and communication skills. It gives students the opportunity to be involved with a professional project within the field, through which they apply the knowledge and resources they have learned and acquired through the program.

At the start of the course, students select from a list of clients whom which they may choose to work with. Professors oversee projects and assign students into groups where students develop a product reflective of the client needs. This project is the result of such a partnership.



Beecher Stabilization Plan



ii. Acknowledgements

We would like to extend our gratitude to the following individuals for their time, knowledge, guidance, and resources in the development and realization of this project:

- Christine A. Durgan, Principal Planner, Genesee County Metropolitan Planning Commission
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- Beecher Community Development Council

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Beecher Stabilization Plan



iii. Executive Summary

The study is in support of the Neighborhood Stabilization Plan (NSP) 1 & 3 funding granted by the U.S. Department of Housing and Urban Development (HUD) to the Genesee County Metropolitan Planning Commission (GCMPC). A portion of these grants were allocated to Beecher site, located in Mount Morris Township, Genesee County, Michigan. The area has experienced noticeable property abandonment and blight. To revitalize distressed portions of this neighborhood, GCMPC requested a land use analysis and recommendation on the future of this neighborhood.

The methodology used included a socio-economic profile, analysis of the physical characteristics of the site, a thorough examination of land uses, inclusion of community input, an analysis of case studies for proven neighborhood stabilization methods in communities across the United States and Canada, and recommendations. The socio-economic profile was conducted to gain a thorough understanding of the demographic and economic trends of Beecher site and the surrounding environment. Analysis was based on the past and future projected trends, as well as comparisons with Mount Morris Township, Genesee County and the State of Michigan. The socio-economic profile analysis was followed by a site factor analysis to assess the physical characteristics of Beecher site. The site factor analysis examined the existing zoning, land use, and their nonconforming uses; transit data; site and regional market profiles; and the identification of community assets. A thorough land use analysis was conducted to assess the habitable condition, ownership, and occupancy of parcels within the neighborhood. These conditions were assessed as part of a windshield inventory conducted by the student practicum team of parcels during the months of February and March of 2012. Collected data were recorded and analyzed with ArcGIS and GRASS GIS. To strengthen site related data collection and findings, a community input session was held in the month of March 2012. The purpose of this session was the identification of possible strengths, weaknesses, opportunities, and threats (SWOT) for the region. This SWOT analysis was supplemented by a public forum, and independent SWOT analysis by this practicum team to identify recurring themes. To supplement site related data, case studies were conducted to identify successful strategies used in other neighborhood rehabilitation efforts. Four case studies were identified: motivating social groups to identify community leaders and encourage community activity, development of affordable housing to establish social equity, sideyard expansion as an activity to eliminate vacancy and blight, and adaptive reuse of existing structures.

Based on the methodology used throughout the extent of this study, two land use redevelopment plans were formulated to provide future and transformative plans for Beecher site. These land use scenarios present two different approaches to land use. The first scenario emphasizes preservation and assumes no growth in population; redevelopment efforts and current trends are not likely to change, and preservation of the land may be a viable solution. The second scenario emphasizes redevelopment of existing land uses; redevelopment of vacant and abandoned properties into new or similar uses is likely to occur. Each land use scenario implements six land use activities through logic rules. These rules present guidelines for these two land use scenarios, and represent the fundamental differences and consistencies between the two scenarios.



Beecher Stabilization Plan





I. Introduction

The following is an introduction to the client, the project, and the general vision of this practicum project.

1.1 Client Introduction

Genesee County Metropolitan Planning Commission (GCMPC) provides services, staff resources, and technical support to Genesee County municipalities with the needs and demands of a rapidly urbanizing county. GCMPC is composed of two divisions: Community Development and Transportation; headed by Director-Coordinator Julie Hinterman. The clients for this project are the Genesee County Metropolitan Planning Commission with direction provided by Christine A. Durgan, Principal Planner; Sheila Taylor, Senior Planner; and Anna King, Associate Planner.

Genesee County applied for and received several grants from the Neighborhood Stabilization Program (NSP) of the U.S. Department of Housing and Urban Development (HUD). Administered by the Genesee County Metropolitan Planning Commission, these federal funds provide an opportunity to revitalize distressed neighborhoods throughout the county. A portion of these grants must be used to acquire and rehabilitate houses.

GCMPC requests a land use analysis of the Beecher Neighborhood, termed in this report as Beecher Site, in Mount Morris Township, Genesee County, Michigan. The client has guided this practicum group throughout the process of inventory and analysis. More information on Genesee County and additional programs operated by the GCMPC and other county departments can be found at <http://www.gc4me.com/>.

1.2 Project Introduction

This project derives from NSP 1 & 3 funding granted by HUD. This federal program provides GCMPC an opportunity to engage in neighborhood revitalization efforts throughout the county. A portion of these grants have been allocated to the Beecher neighborhood, located in Mount Morris Township. At the request of Genesee County, this project seeks to create a land use plan for the future function of this neighborhood. Additionally, Genesee County, its Land Bank, and local units of government seek to create a common vision for the area.

1.3 Project Overview

Through study and analysis, the MSU practicum team has produced an assessment of the Beecher neighborhood based on its geography, social and economic profiles, land uses, and land ownership. Innovative reuse ideas for vacant land were researched while maintaining realistic development plans for the short and long terms.

Producing an analysis of this caliber requires a detailed inventory of all parcels within the Beecher neighborhood. Vacant land, its configuration, and current uses were identified. With these and through identifying the ownership of land parcels, criteria were established for strategic demolition. From our full analysis of the Beecher neighborhood parcels, recommendations are provided to sell existing vacant sites to adjacent homeowners. Development recommendations for viable parcels in the short and long term are provided, and the best method for implementing such a land use plan will be determined. Additionally, several alternative land use options for these parcels are provided.

1.4 Project Methodology

Parcel data were gathered from Mount Morris Township, Genesee County, and Land Bank jurisdictions. These data were augmented with Environmental Systems Research Institute (ESRI) Business Analyst Online (BAO)

to provide market conditions, forecasts, and analysis of physical characteristics of Beecher Site to identify community assets which may support development in the area. Parcels were inventoried between January and February of 2012 by this practicum team to determine whether a parcel was occupied, vacant, or abandoned. Abandoned parcels were photographed. Definitions were crafted as follows:

occupied - possessing one or more man-made structure on the parcel

vacant - an empty parcel of land with no man-made structures present

abandoned - a parcel of land that appears to have been previously occupied but has since fallen into disrepair; a parcel of land which contains unkempt structures or yards; a parcel of land which contains a partially or completely destroyed structure, by fire or Act of God

Data were parsed, organized, and verified across several databases with geographic information system (GIS) softwares ESRI ArcGIS and GRASS GIS. GIS is a type of computer software designed to work with geographic information. This software enables deep analysis and interpretation of geographic data through the production of maps.

After the completion of this neighborhood parcel inventory, a targeted case study analysis of selected cases was conducted. A focus group involving neighborhood residents of Beecher Site was conducted. Following the analysis of all collected data, recommendations and final conclusions were compiled.



Beecher Stabilization Plan



II. Site Profile

Before a future land use plan of an area can be created, a thorough understanding of the demographic and economic trends of Beecher Site and its surrounding environment is necessary. Data presented in this section will assist this study in providing conclusions and recommendations that are aligned with the community's trends and needs.



2.1 Site Location

Beecher Site is located in the eastern-central portion of the lower peninsula of the State of Michigan (Figure 2.1.1). Within Genesee County, the site resides in the eastern corner of Mount Morris Township.



Figure 2.1.1: State of Michigan
Source: ESRI, generated February 2012



Beecher Site is adjacent to three different municipalities; the City of Flint to the south, Mount Morris Township to the north, and Genesee Township to the east (Figure 2.1.2).

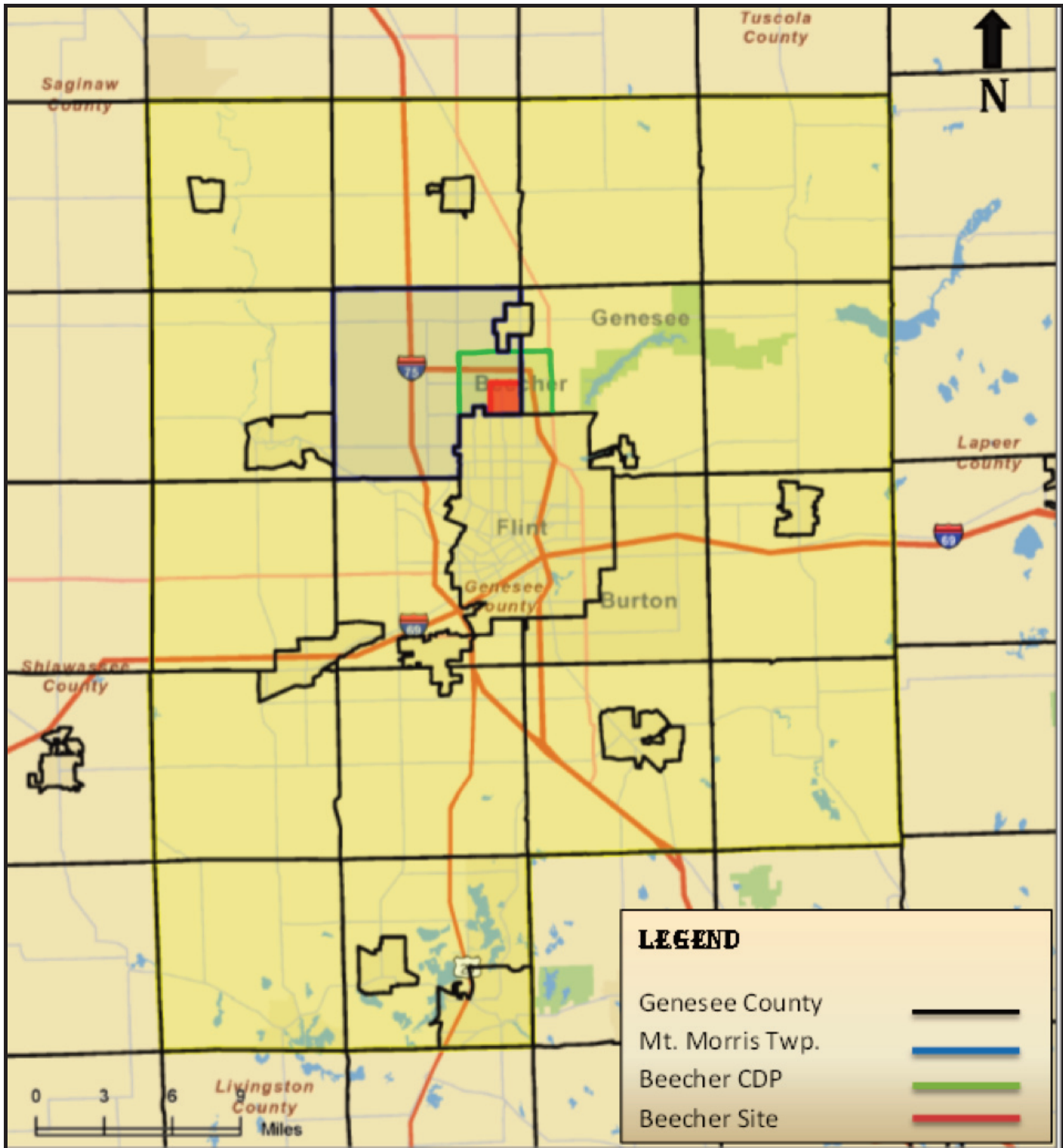


Figure 2.1.2: Location - County, Township, CDP, Site
Source: ESRI, generated February 2012

Beecher Stabilization Plan

Beecher Site is further situated within the boundaries of Beecher CDP, a census-designated place (CDP) within Mount Morris Township. Beecher CDP is slightly larger than Beecher Site (Figure 2.1.3). This CDP is used by the U.S. Census for statistical usage only.

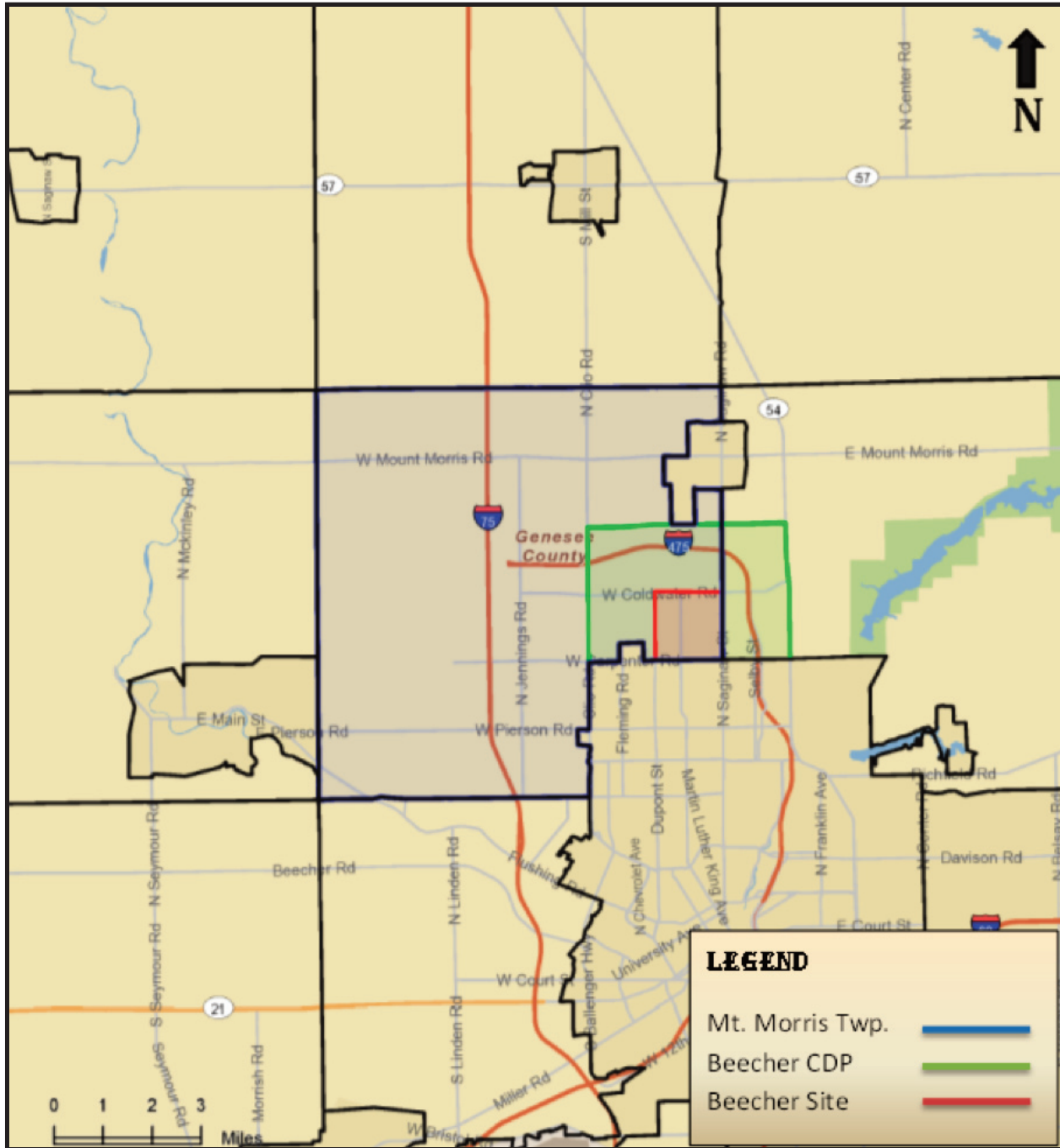


Figure 2.1.3: Location - Township, CDP, Site
Source: ESRI, generated January 2012

Beecher Site consists of a square shape section and covers a region of approximately 1.03 square miles within Beecher CDP (Figure 2.1.4).

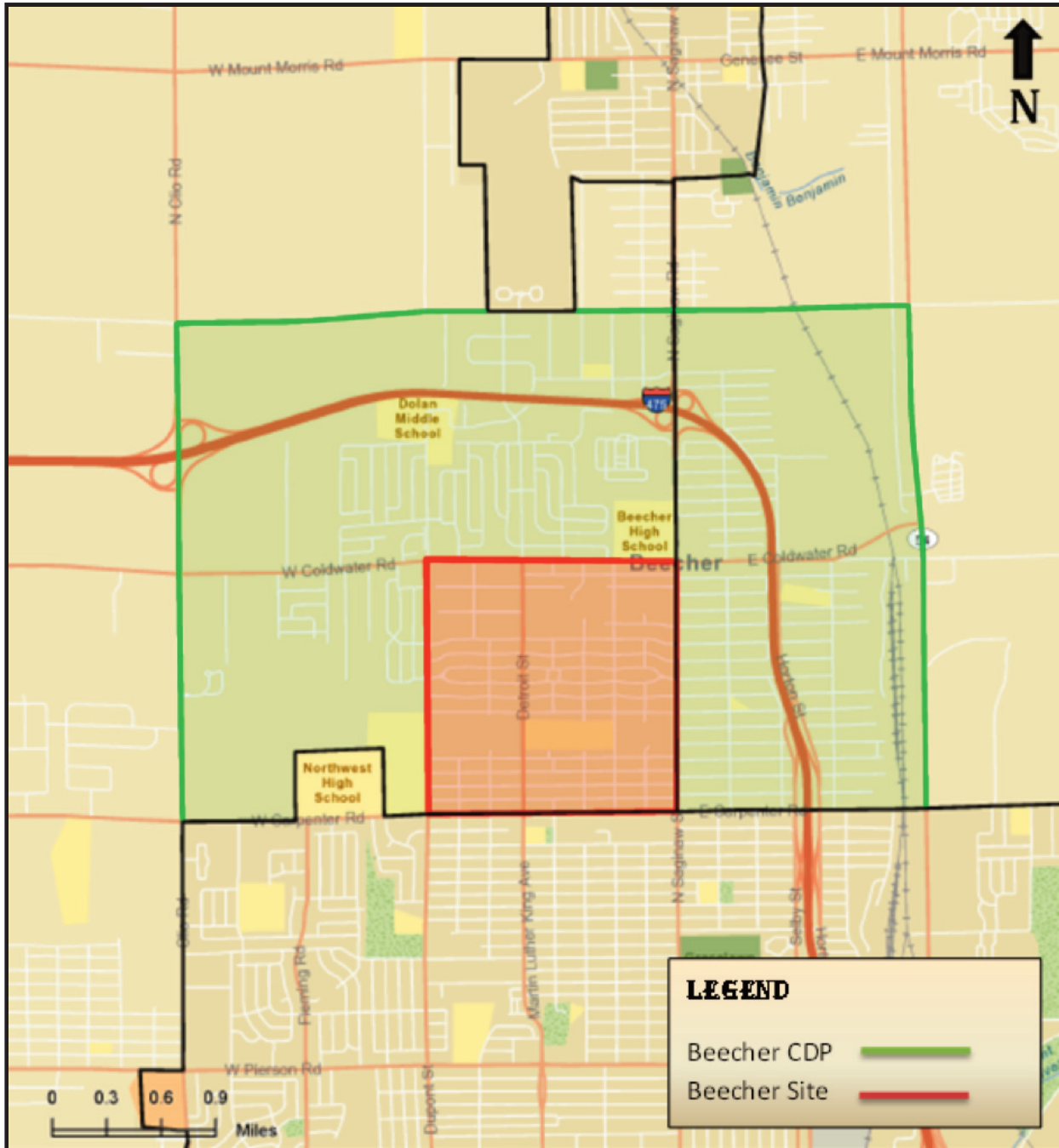


Figure 2.1.4: Location - CDP, Site
Source: ESRI, generated January 2012



Beecher Stabilization Plan

Beecher Site is delineated by three thoroughfares; on the north side by Coldwater Road, south side by Carpenter Road, east side by Saginaw Street, and several dead-end roads on the west side, depicted in Figure 2.1.5.



Figure 2.1.5: Site Location
Source: ESRI, generated January 2012



2.2 Character

As of 2010, Beecher Site is comprised of a total population of 3,038 residents, 48% of which are female and 52% are male. These residents reside within a total of 1,505 households; an estimated 39.9% of which are owner-occupied. Housing units are mainly characterized as detached single family homes with an average year built of 1967.¹ Beecher Site is largely residential with commercial and public properties located primarily along the three major thoroughfares. As part of Beecher CDP, the area is served by Beecher Community School District (BCSD) which includes one early childhood school, two elementary schools, one middle school, one high school, and one adult & alternative high school.² The area also has its own designated fire department known as Mount Morris Township Fire Department 3.³ Additionally, public utility Beecher Metropolitan Water and Sewer District (BMWSD) was established in 1938 and continues to serve residents as the only public agency of its kind within Genesee County. BMWSD provides services to all properties within BCSD boundaries at below-average prices.⁴ Township officials believe the utility lines for Beecher Site were constructed in the 1930s with 60-year mains, now likely near the end of their reliable use and capacity.

2.3 History

According to Mount Morris Township officials, development of Beecher Site began in the 1920s. One major initiative begun by General Motors (GM) was to sell building materials to residents for house building.⁵ It is likely that a portion of Beecher residents were once employed by GM. No written record of this initiative could be found.

Several historical records were located about the Flint Tornado of 1953. On June 8, 1953 an F5 tornado traveled 2 miles between the City of Flint and Beecher Site.⁶ With 900 injured, 116 lives lost, and 20% of residences within Beecher Site destroyed,⁹ the tornado also sculpted large swirls into the earth. This tornado remains the 10th deadliest ever recorded in the United States.⁷ Figures 2.3.1 and 2.3.2 illustrate physical damage following the aftermath of the tornado.



Figure 2.3.1: Flint Tornado Destruction
Source: Flint Public Library

Economic anchor GM closed eight Buick facilities in 2006.



Figure 2.3.2: Flint Tornado Destruction 2
Source: Flint Public Library

2.4 Socioeconomic Profile

The socioeconomic profile has been compiled in terms of population, age distribution, racial composition, educational attainment, household income, unemployment, and crime. Data has been compiled from the Environmental Systems Research Institute (ESRI) and based upon information provided by the U.S. Census Bureau. Data is provided for Beecher Site, Mount Morris Township, Genesee County, and State of Michigan and follows trends from 2000 to 2010, including 2015 estimations to guide future plans and recommendations.

2.4.1 Population

Future services and needs of an area are based in part upon an estimated change in population. Growth indicates that an area is attracting new residents and assets may need to be developed to match rising demand. Conversely, population loss is usually associated with an over-saturated housing market and property decline.

Table 2.4.1.1 presents populations trends from 2000, 2010 and projections for 2015 for Beecher Site, Mount Morris Township, Genesee County, and State of Michigan.

Table 2.4.1.1 Population Trends

Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI forecasts for 2010 and 2015

| Year | Beecher Site | | Mount Morris Twp | | Genesee County | | State of Michigan | |
|------|------------------|--------|------------------|--------|------------------|--------|-------------------|--------|
| | Population Total | %Δ | Population Total | %Δ | Population Total | %Δ | Population Total | %Δ |
| 2000 | 3,375 | n/a | 23,725 | n/a | 436,141 | n/a | 9,938,444 | n/a |
| 2010 | 3,038 | -9.99% | 22,200 | -6.43% | 424,800 | -2.60% | 10,104,633 | 1.67% |
| 2015 | 2,893 | -4.77% | 21,427 | -3.48% | 414,605 | -2.40% | 10,039,343 | -0.65% |

These data illustrate that all three geographic entities have experienced population decline since the year 2000; this decline is projected to continue into 2015. Out of the four geography entities, Beecher Site has experienced the greatest decline with nearly 10% population loss. Mount Morris Township follows with 6.43%, while Genesee County as a whole experienced a smaller decline of 2.6%. In contrast, the State of Michigan experienced a 1.6% growth in population during the same period. Such a drop in population indicates the possible existence of an abandoned housing supply, and a possible decline in aggregate purchasing power for the surrounding environment.

2.4.2 Age Distribution

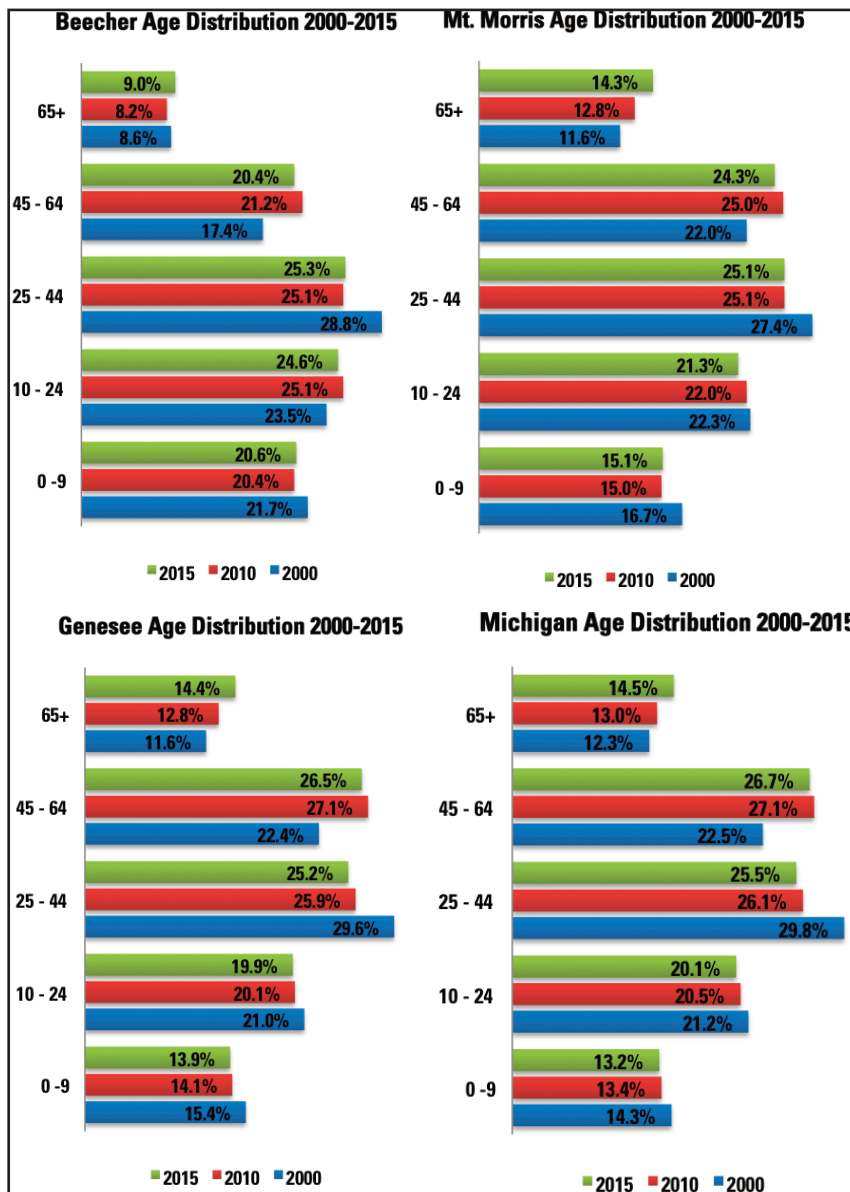
Age distribution of a community may influence housing desires and services that residents may require. Regions with a high percentage of elderly population will likely desire access to medical services and smaller, more manageable housing units. In contrast, families with young children will likely desire access to playgrounds, larger single family homes, and high-achieving schools.

Table 2.4.2.1 in Appendix 1 presents age distribution trends for 2000, 2010, and predictions for 2015 for Beecher Site, Mount Morris Township, Genesee County, and the State of Michigan. Figure 2.4.2.1 illustrates these figures below.

According to the presented data, in 2010 Beecher Site is characterized by an expansive pyramid for age distribution consisting of a higher percentage of youth (age groups 0-9 and 10-24) and smaller percentage of

Figure 2.4.2.1 Age Distribution

Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI forecasts for 2010 and 2015



elderly (65+). The age groups of 0-9 and 10-24 make up a combined 45.6% of the population, 21.7% and 23.5% respectively. The elderly (65+) make up an estimated 8.2% of the population while population for age groups 25-44 and 45-64 makes up a combined 46.3% of the population; or 25.1% and 17.4% respectively. Overall, the Beecher area is reported of having a median age of 28 as of 2010. This age distribution has been similar since 2000 and this trend is projected to continue into 2015 as well.

Comparatively, in 2010 Beecher Site consists of the youngest composition of youth population among the three geographic entities, with Mount Morris Township following second with a combined youth population of 37%, elderly population of 12.8% and median age of 35; Genesee County with a combined youth population of 34.2%, elderly population of 12.8%, and median age of 37; and State of Michigan with a combined youth population of 33.9%, elderly population of 13%, and median age of 38. Similar to the subject site, Mount Morris Township, Genesee County and the State of Michigan experience minimal change in age distribution within themselves. However, according to the data, while population in

Beecher Site is characterized by a slight decline in its median age, Mount Morris Township, Genesee County, and the State of Michigan have been experiencing an increase in their median age. These estimations are projected to remain similar into 2015.

This age distribution, characterized by a larger youth and smaller elderly proportion, indicates that Beecher Site may be in need of different types of services than other geographic units analyzed. To ensure the likelihood of resident retention within Beecher site, it is important that future development efforts in the area consider such an age composition.

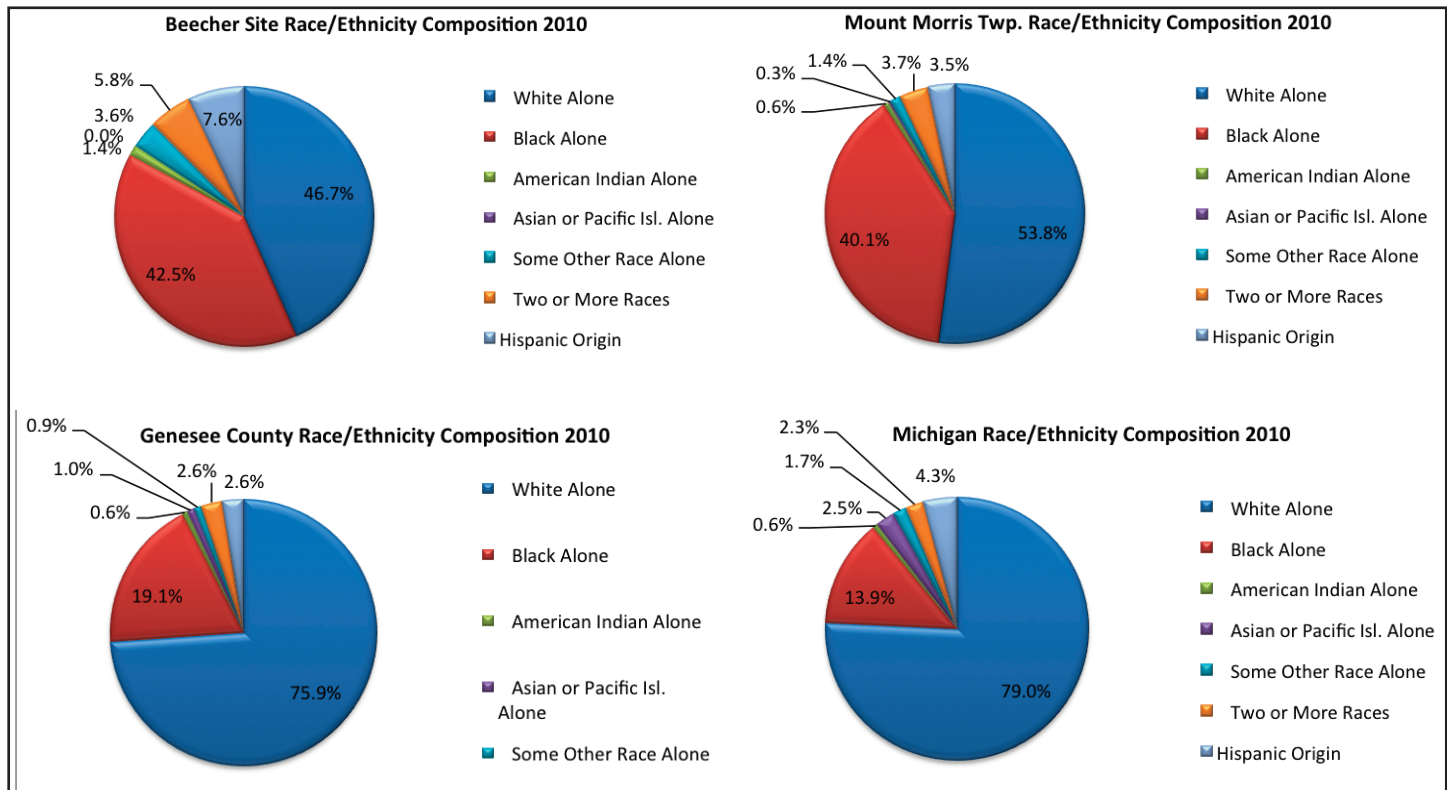
2.4.3 Race & Ethnic Composition

Table 2.4.3.1 in Appendix 1 presents racial and ethnic composition trends for 2000, 2010, and predictions for 2015 for Beecher Site, Mount Morris Township, Genesee County, and the State of Michigan, also shown in Figure 2.4.3.1

Beecher Stabilization Plan

Figure 2.4.3.1 Race & Ethnic Composition

Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI forecasts for 2010 and 2015



According to the presented data, Beecher Site is characterized by a slightly larger proportion of minority population within its geographical boundaries. The largest group of minorities is represented by Black or African American population which in 2010 comprised approximately 42.5%, followed by individuals of Hispanic origin with 7.6%. Minority composition (non-white) encompasses more than half of the total population. Non-white population has been increasing since 2000 and is further projected to increase in the future as well. The rise of the diversity index for the target area is a further indication of these changes among race and ethnicity of the population. The diversity index is a measure of the racial and ethnic composition of the community as a whole. It calculates the likelihood that two persons chosen at random from the same area, will belong to a different race or ethnicity. The index ranges from zero to 100, where a score of 100 indicates that when two persons from the same area are chosen at random their likelihood of being of a different race or ethnicity is 100 percent; while a score of zero indicates that the area is completely homogeneous in terms of race and ethnicity. As of 2010 Beecher site has a diversity index of 65.7 which describes the subject site as an above-average heterogeneous community.

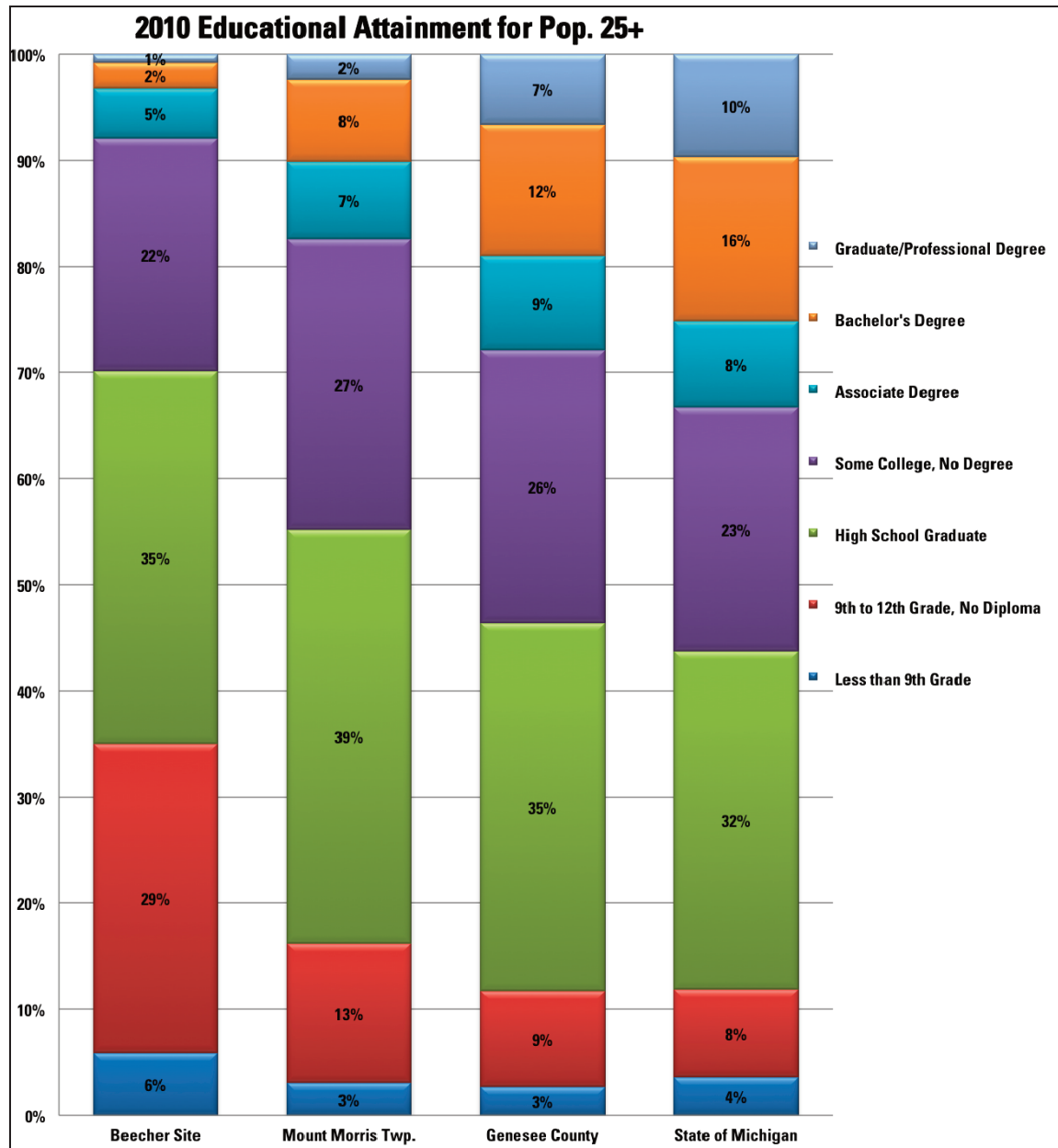
From a comparative perspective, the Beecher site consists of the highest composition of minorities. Mount Morris Township is somewhat reflective of Beecher site in terms of racial composition, with individual of Hispanic origin comprising the largest difference among the two (3.5% Hispanic origin for Mount Morris Township vs 7.6% Hispanic origin for Beecher site as of 2010). Diversity index is also 10% lower for Mount Morris, indicating a less heterogeneous community. Despite these changes, the largest difference is seen for Genesee County and the State of Michigan. These two regions are mostly composed of White population which comprises 76% and 79% of individuals respectively. In comparison, Black or African American population comprises 19% for Genesee County and 14% for Michigan; while individuals of Hispanic Origin comprise 2.6% for the County and 4.3% for Michigan. These two areas are further characterized by a diversity index of 41.8 for the County and 40.9 for the Michigan, indicating the existence of a more homogeneous and less heterogeneous community in both cases. Based on this analysis, it should be noted that although the subject area is characterized by a heterogeneous population, comparisons indicate that there exists racial concentrations within its boundaries and slightly less so for Mt. Morris Township in comparison to Genesee County and State of Michigan.

2.4.4 Educational Attainment

Educational Attainment is a social indicator closely correlated with income. The region characterized by the largest proportion of population with post-secondary education is likely possesses higher individual incomes and wealth. Table 2.4.4.1 in Appendix 1 illustrates educational attainment for population over the age of 25 for 2010 for Beecher Site, Mount Morris Township, and Genesee County. Below, Figure 2.4.4.1 depicts these data graphically.

Figure 2.4.4.1 Educational Attainment

Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI forecasts for 2010 and 2015



Beecher Site displays a lower post-secondary educational attainment when compared to Mount Morris Township, Genesee County and the State of Michigan with 7.9%. This figure is approximately half that of the post-secondary educational attainment of Mount Morris Township, 1/3 smaller than that of Genesee County, and 1/4 that of the State of Michigan. Population 25+ with 9th to 12th grade and no degree or less than 9th grade follow a similar association with the population in Beecher site; these two groups are approximately two times greater than that of the other geographies analyzed. The majority of the population in this area is characterized by the attainment of a High School degree or less at 70%, while the population with a graduate/professional degree comprises the smallest proportion of the population at 0.8%. This small proportion of post-secondary educational attainment for population 25+, indicates that the Beecher Site may be composed of a lower amount of individual income

Beecher Stabilization Plan

compared to the other geographic units analyzed.

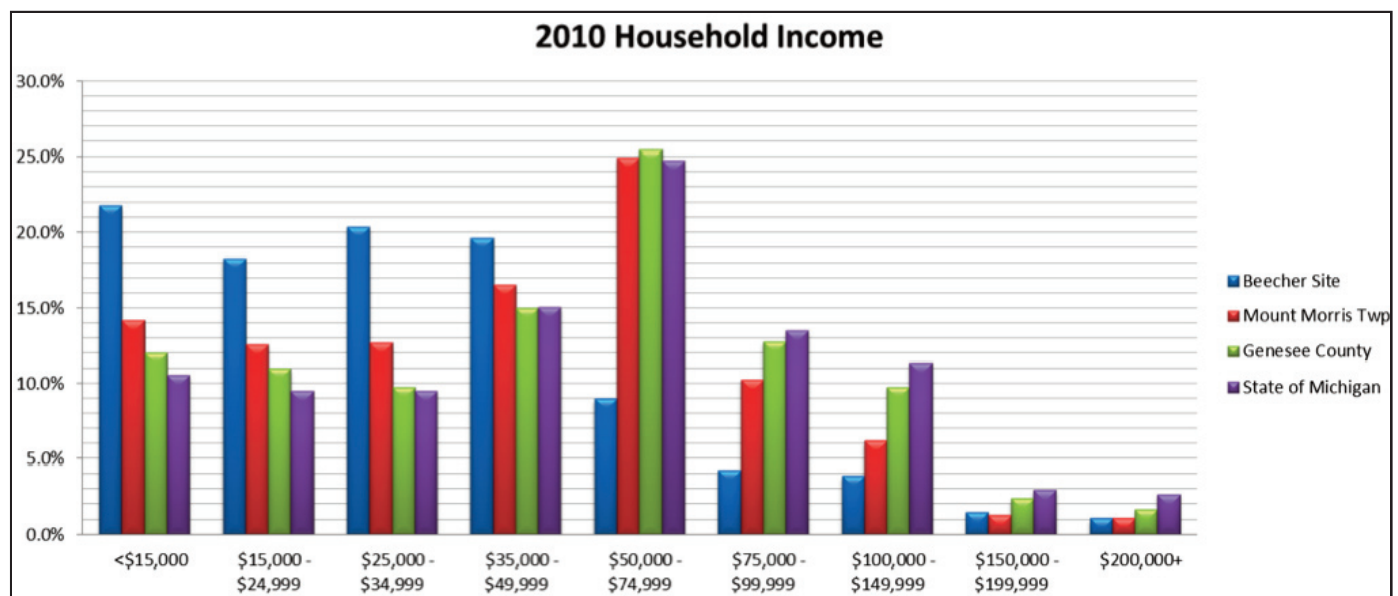
2.4.5 Household Income

Household income is an indicator of monetary wealth. The existence of a large household income, or lack thereof, can impact many things: from the ability of the population to supply their basic needs such housing, homeownership, transportation, and healthcare, to the acquisition of more lucrative activities such as recreation and entertainment. A region with high household income levels tends to suggest the existence of greater disposable income and larger consumer markets.

Table 2.4.5.1 in Appendix 1 presents household income trends for 2000, 2010, and projections for 2015 for Beecher site, Mount Morris Township, Genesee County, and the State of Michigan. Figure 2.4.5.1 below illustrates 2010 household income for the four geographic entities.

Figure 2.4.5.1 Household Income

Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI forecasts for 2010 and 2015



According to the presented data, approximately 80% of the population in the subject area for 2010 is below the Area Median Income (AMI) of the county, with the majority of the population (21.8%) falling in the household income range of \$15,000 or less. Conversely, the smallest proportion of the households (1.1%) falls into the \$200,000+ range. From 2000 to 2015 the region could experience some positive increase in income levels. This change is noticeable in the median household income of the Beecher area which has risen 25% from \$24,622 to \$30,603 from 2000 to 2010. These income level increases have been occurring at similar rates among Mount Morris Township, Genesee County, and the State of Michigan households as well. However, as previously mentioned, the median income for these three geographic entities is also much higher than that of the subject area. For 2010, these figures are as follows: \$30,603 for Beecher site, \$43,635 for Mount Morris Township, \$51,734 for Genesee County, and \$67,356 for the State of Michigan.

It is important to note that these household income conditions exist in Beecher Site despite a larger average household size (2.85) than the other geographic entities. Individual earned incomes may be less for Beecher Site than the other geographic entities.

This analysis shows that the majority of households in the subject site are under stressed conditions relative to their household income. Poverty is likely a common occurrence among households. In 2010, for a family or household of three (reflective of average household size of the Beecher area), the poverty threshold was reported at \$17,374 . The majority of the households fall below the County AMI which indicates little disposable income.

2.4.6 Employment

Employment levels are an indication of community stability. With low unemployment, there is generally a balanced supply and demand among available jobs for an available, qualified civilian workforce over the age of 16, with many types of jobs available. Typically when joblessness is low, resident attraction to the area tends to be high.⁹ Conversely, a high joblessness rate places stress upon a community for available income, quality of life, as well as increasing instance of mortgage default by homeowners.¹⁰

Table 2.4.6.1 in Appendix 1 presents the unemployment levels for the civilian population 16+ for 2010 and projections for 2015 for Beecher site, Mount Morris Township, Genesee County, and the State of Michigan; Table 2.4.6.2 illustrates the industry this civilian population is employed in as of 2010, solely for presentation of occupational distribution of the population. Figures 2.4.6.1 and 2.4.6.2 illustrate these two tables graphically.

Figure 2.4.6.1 Unemployment Rate

Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI forecasts for 2010 and 2015

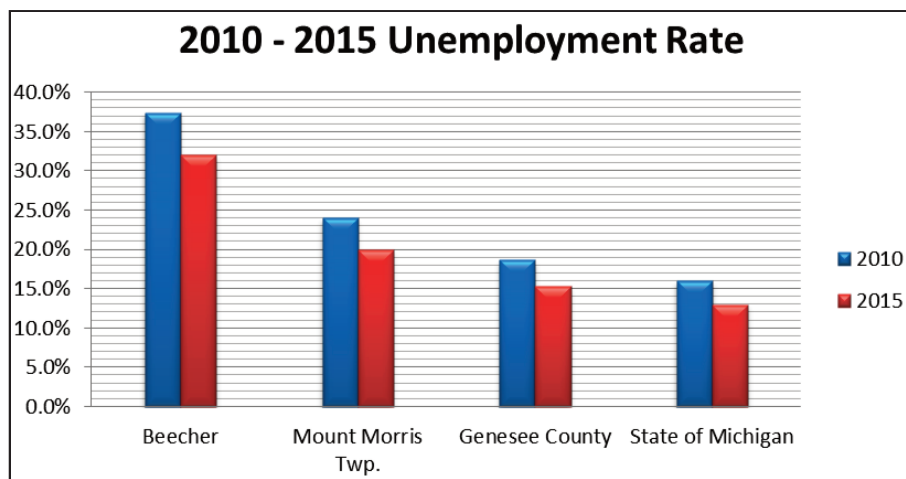
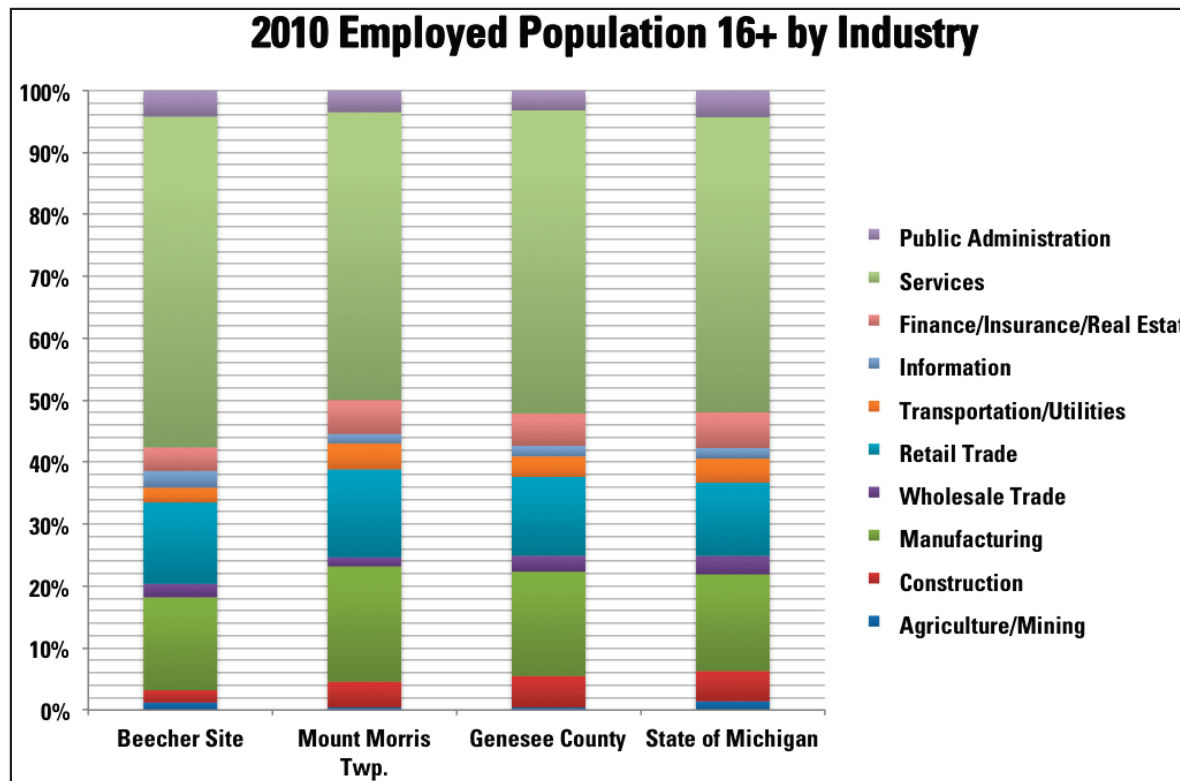


Figure 2.4.6.2 Employment by Industry

Source: U.S. Census Bureau



Beecher Stabilization Plan

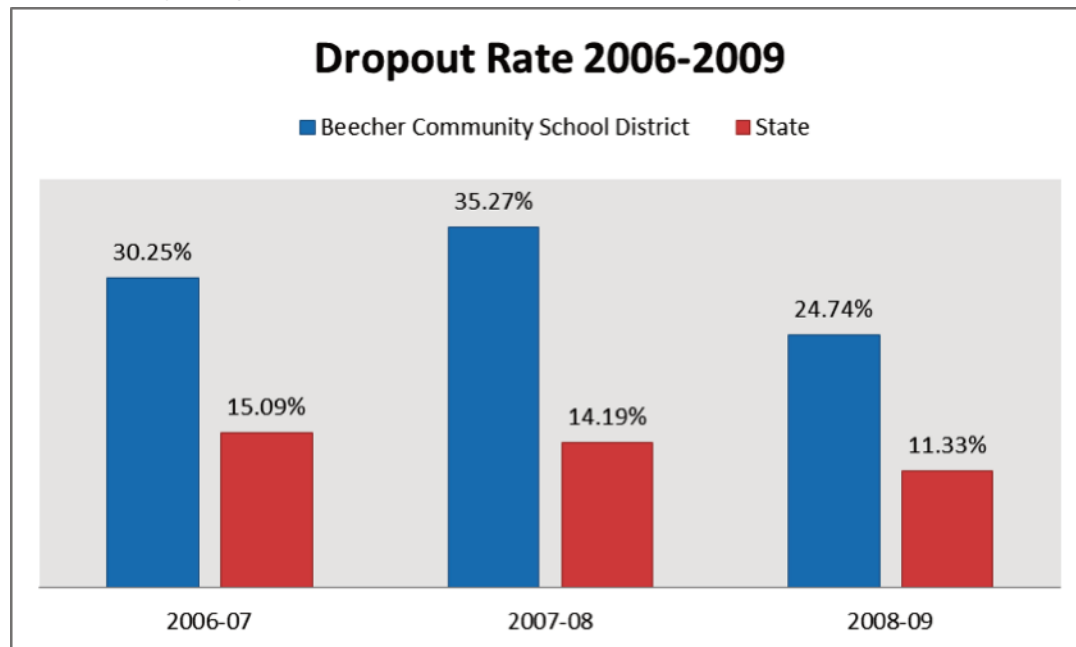
According to the presented data, 37.4% of the civilian population 16+ in the subject area is unemployed. This figure is considerably higher than that of Mount Morris Township, Genesee County, and the State of Michigan, which have an unemployment rate of 24%, 18.7%, and 16% respectively. While this figure is expected to decline by 2015, for Beecher Site this will still be above the 30% level, and approximately 10% higher, 16% higher and 19% of the expected unemployment rate for Mount Morris Township, Genesee County, and the State of Michigan.

This high rate of unemployment among the civilian population in the labor force residing in Beecher Site is an indication of this region's stresses. With approximately 1 in 3 of the analyzed population reportedly unemployed, reduced quality of life, reduced disposable income, increased inability to meet financial obligations, and sustained demand for public services is likely to follow. In terms of occupation, nearly half of residents living in Beecher Site are employed in the service industry, with manufacturing, and retail service industries also comprising the majority. These figures are similar to the other three geographic entities analyzed and do not present any outliers.

2.4.7 School Performance

Neighborhood conditions are closely correlated with educational achievement and school performance. Students living in distressed neighborhoods tend to perform poorly in school and are at a greater risk for a lower graduation rate.^{11, 12} Consequently, an analysis of the school performance of Beecher Site can provide a general perspective on the condition of the site. This analysis compares the trends of school performance and graduation rates for School District 25240, commonly known as Beecher Community School District (BCSD) against the State of Michigan trends and averages. Schools in BCSD include Beecher High School, Beecher Middle School, Beecher Adult & Alternative, Dailey Elementary, Tucker Elementary, and Early Childhood. Figure 2.4.7.1 presents dropout rates of BCSD and State of Michigan averages for school years 2006 through 2009. Figure 2.4.7.2 through 2.4.7.5 presents school performance for these two geographies for the 2008-2009 school year based on test scores in reading and mathematics from the Michigan Educational Assessment Program (MEAP) examination for 8th grade students, and Michigan Merit Examination (MME) for 11th grade students.

Figure 2.4.7.1 BCSD Dropout Rate
 Source: Michigan Department of Education, 2006-2009



The Beecher Community School District is characterized by a higher dropout rate than that of the State of Michigan. For the 2008-2009 school years, approximately 24.7% or 1 in 4 students dropped out from one of the schools in the school district. For the same year, this figure was approximately 13% higher than that of the State of Michigan. Although trends from 2006-2009 illustrate a noticeable decrease in dropout rates for the

BCSD, this decrease was not steady. Fluctuations were apparent from 2006-2007 to 2007-2008. Comparatively, the State of Michigan is characterized by a steady decrease in dropout rates for the school years analyzed.

Figure 2.4.7.2 MEAP 8th Grade Reading Scores
 Source: Michigan Department of Education, 2008-2009

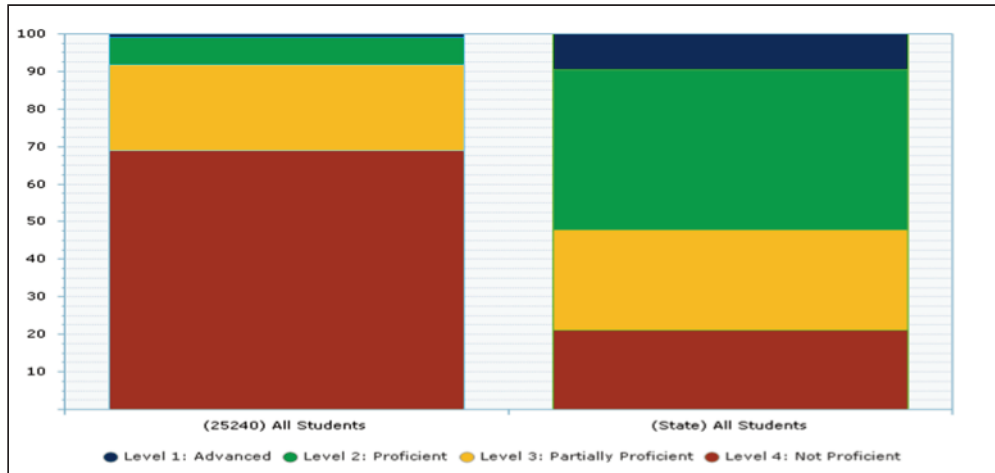


Figure 2.4.7.3 MEAP 8th Grade Mathematics Scores
 Source: Michigan Department of Education, 2008-2009

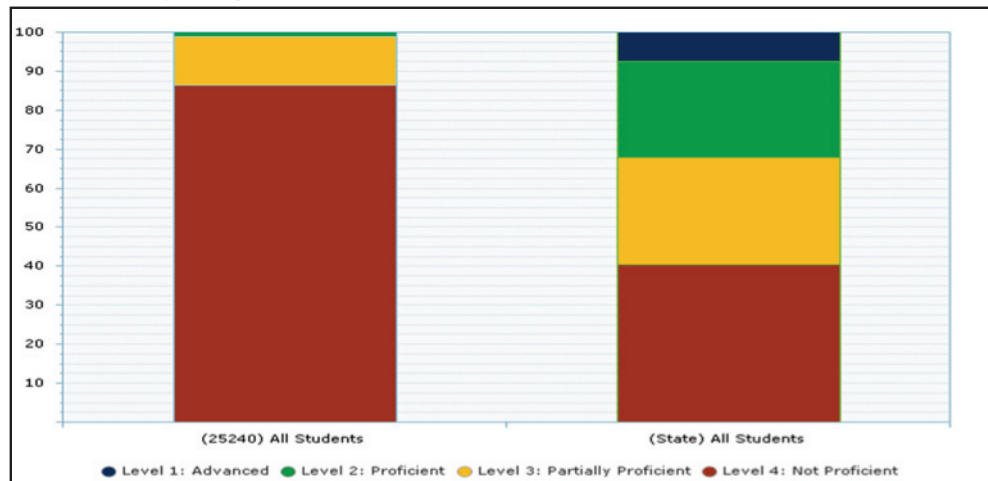
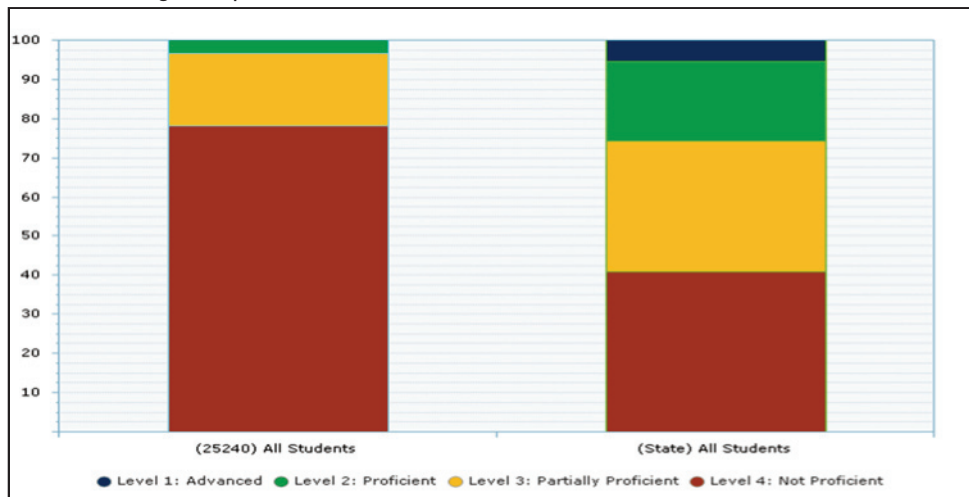


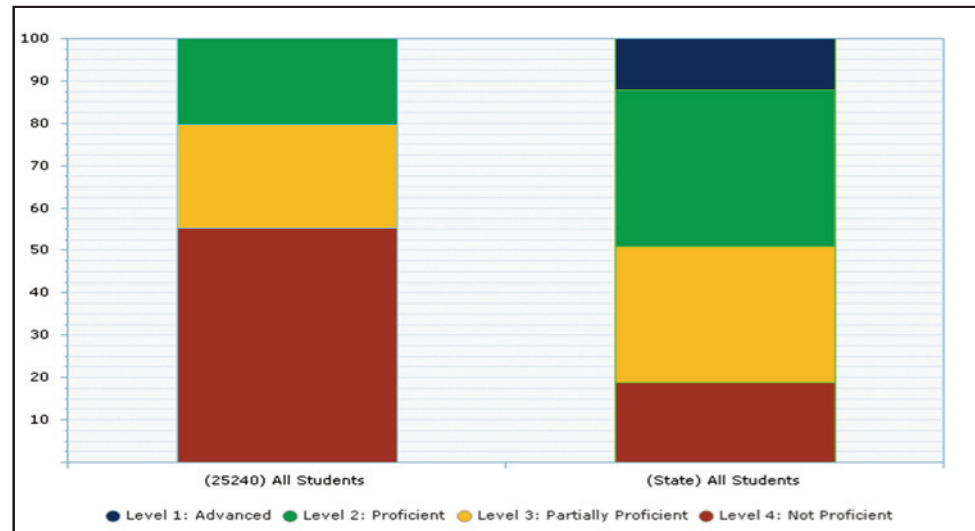
Figure 2.4.7.4 MME 11th Grade Mathematics Scores
 Source: Michigan Department of Education, 2008-2009





Beecher Stabilization Plan

Figure 2.4.7.5 MME 11th Grade Reading Scores
Source: Michigan Department of Education, 2008-2009



In terms of school performance, the BCSD underperforms when compared to the overall school districts in the State of Michigan. In all cases, more than 50% of students in the Beecher school district were categorized as “Not Proficient” in terms of the subject analyzed. In comparison, students for the State of Michigan in the “Not Proficient” bracket are characterized by lower rates which range between 20% to 40%, and are generally half of the rate represented by students in the Beecher school district under the same category analyzed. The poorest aggregate performances were reported by 8th grade students, while 11th grade students fared slightly better, for both units of analysis.

Based on dropout rates and school performance for students in BCSD and the correlation between neighborhood conditions and school performance, the Beecher site can be characterized as a poor and disadvantage neighborhood. Furthermore, the high dropout rate and poor school performance makes the affected population less likely to acquire employment opportunities, more likely to live in poverty, and more likely to become involved in crime.^{13, 14, 15} The aggregate complications of these factors can place stress on the local economy. As a result of these findings, these education related implications should be considered when implementing future land use patterns for the study area.

2.4.8 Crime Rate

Crime incidence provides one perspective on the safety and well-being of individuals and households in a specific area. Crime is also correlated with socio-economic conditions of an area, most notably age composition, unemployment, and rate of poverty. A location characterized by a large male population aged 10 to 30 is more likely to be associated with high crime rates. This condition is also called the age-crime curve, with crime rates typically increasing during ages 10-13 during preadolescence, reaching peak around age 14-19 in late adolescence, than declining steadily once age 30 is passed. Economically, high poverty and unemployment often coincide with increased crime; as household and disposable incomes decrease and employment is lost, opportunity to acquire wealth through legitimate means becomes scarce. Crime is often pursued when faced with these circumstances.^{17, 18}

Figure 2.4.8.1 presents violent crime rates for Mount Morris Township, the State of Michigan, and the United States from 2007 to 2009. Violent crime is defined by the Federal Bureau of Investigation (FBI) as murder and nonnegligent manslaughter, forcible rape, robbery, and aggravated assault. Figure 2.4.8.2 presents property crime rates for Mount Morris Township, the State of Michigan, and the United States from 2007 to 2009. Property crime is defined by the FBI as burglary, larceny-theft, motor vehicle theft, and arson.



Figure 2.4.8.1 Violent Crime Rate
Source: FBI, Uniform Crime Reports

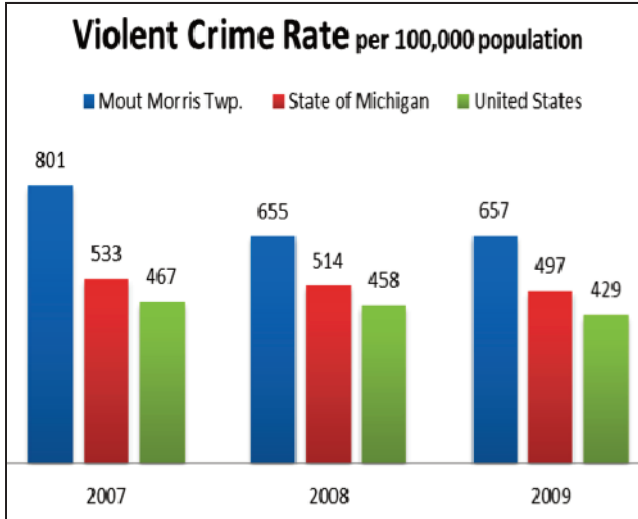
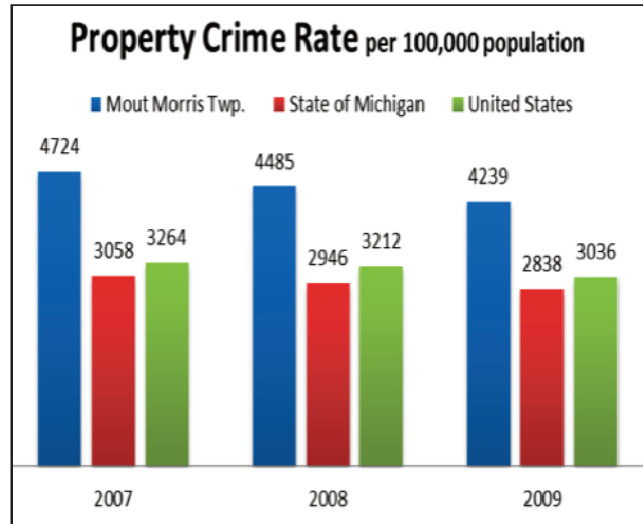


Figure 2.4.8.2 Property Crime Rate
Source: FBI, Uniform Crime Reports



Crime rate in Mount Morris Township is higher than that of the State of Michigan and the whole United States for both violent and property crimes for all three years reported. In 2009, violent crime in Mount Morris Township occurred 25% more frequently than that in the State of Michigan, and 35% greater than the national rate. Property crime exhibits similar patterns. From 2007 to 2009, both violent and property crime rates for all units of analysis experienced steady decline. According to the Michigan State Police, Mount Morris Township saw a modest increase in the rate of arrest during 2010. However the rate of violent crime in Mount Morris Township was 68% higher while property crime was 84% higher than the state average for the same year.

The elevated crime rates can be a cause for concern. The data shows that safety, individual well-being, and property conditions in this region are more at risk than conditions in the state and the nation for the years analyzed. The data also acts as a reflection of the socio-economic conditions of the region which is characterized by a large youth population, high unemployment, and high poverty rate.

2.4.9 Socioeconomic Summary

The following is a summation of the socioeconomic trends and comparisons for Beecher Site based on the analysis conducted in the socioeconomic profile section. Comparisons, where available, were provided for the Beecher Site, Mount Morris Township, Genesee County, and the State of Michigan. Trends, where available, were provided for the year 2000, and 2010, as well as future predictions for 2015.

Population – Beecher site has experienced steady decline in population numbers from 2000 to 2010. This decline is expected to continue into 2015 and represent the largest proportion of decline out of the four geographic units analyzed, at approximately 10%. This drop in population indicates the possible existence of an abandoned housing supply, and a possible decline in aggregate purchasing power for the surrounding environment.

Age Distribution – Age distribution in Beecher site is characterized by a larger youth population (age groups 0-9 and 10-24) and smaller elderly population (age group 65+). These trends are in stark contrast to the other geographic entities analyzed. To ensure likelihood of resident retention within the neighborhood, it is important that future development efforts in the area are considerate of such age composition.

Race & Ethnic Composition – Beecher site is characterized by a heterogeneous race & ethnic composition with a diversity index of 65.7. Minority proportion comprises the majority of the population, with Black or African American population comprising the largest group with approximately 42.5% of the population, followed by individuals of Hispanic origin with 7.6%. Based on comparison analysis, data indicates the existence of possible



Beecher Stabilization Plan

racial concentration within the boundaries of Beecher Site.

Educational Attainment – The educational attainment level in Beecher Site at the post-secondary level is about half that of Mt. Morris Township, one-third of Genesee County, and one-quarter of the State of Michigan. This low proportion of post-secondary educational attainment indicates that the Beecher Site may be composed of a lower amount of individual income compared to the other geographic units analyzed.

Household Income - The majority of households in the Beecher site are under stressed conditions relative to their household income. Poverty is likely a common occurrence among households. For 2010, for a family or household of three (reflective of average household size of the Beecher site), the poverty threshold was reported at \$17,374. The majority of households fall below the County AMI which indicates little disposable income.

Employment - Beecher site is characterized by an unemployment rate of 37.4% as of 2010. This high rate of unemployment among the civilian population in the labor force residing in Beecher site is an indication of this region's stresses. With approximately 1 in 3 of the analyzed population reportedly unemployed, reduced quality of life, reduced disposable income, increased inability to meet financial obligations, and sustained demand for public services is a likely occurrence.

School Performance - Majority of the students attending schools in the Beecher Community School District are characterized by a high dropout rate and "Not Proficient" school performance. Based on these data and the correlation between neighborhood conditions and school performance, the Beecher site can be characterized as a poor and disadvantaged neighborhood. Furthermore, the high dropout rate and poor school performance makes the affected population less likely to acquire employment opportunities, more likely to live in poverty, and more likely to become involved in crime. The aggregate complications of these factors can place stress on the local economy.

Crime Rate – Beecher site is characterized by a higher crime rate than the Mount Morris Township, and State of Michigan average crime rates. These elevated crime rates can be a cause for concern. Data analyzed illustrates that public safety, individual well-being, and property conditions in this region are more at risk than conditions in the state and the nation for the years analyzed.







Beecher Stabilization Plan



III. Site Factors

The following section includes an analysis of the physical characteristics of Beecher Site. This effort is undertaken with the purpose of identifying viable community assets which may be used to support future constructive development. Topics have been selected based on field work conducted by this practicum team throughout the duration of this project, as well as practiced planning experience.

Beecher Stabilization Plan

3.1 Zoning

This section presents current zoning and permitted uses under the zoning ordinance of Mount Morris Township for Beecher Site. Figure 3.1.1 illustrates the zoning map for section 24 of Mount Morris Township which represents the study area in its entirety.

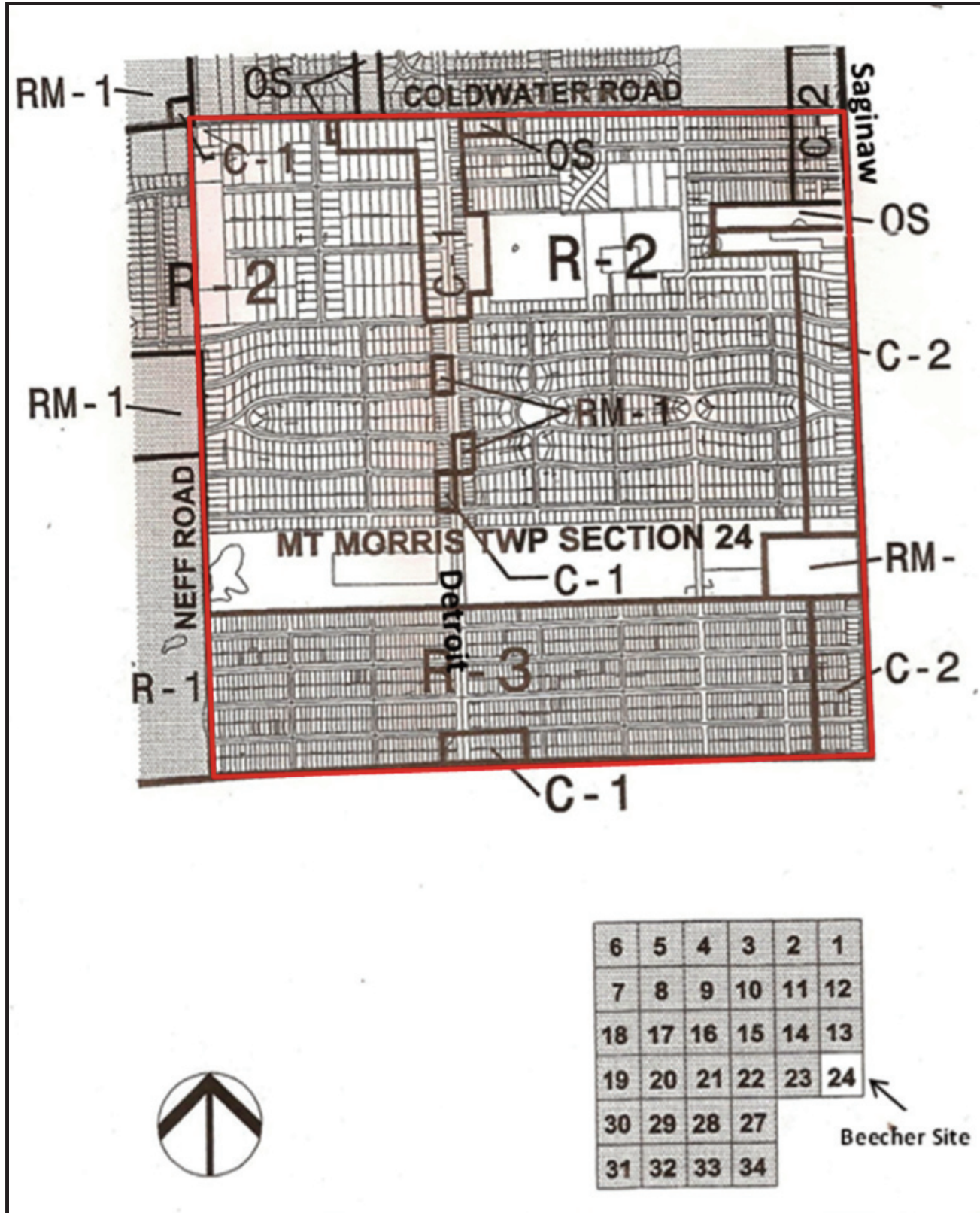


Figure 3.1.1 Mount Morris Twp Section 24 Zoning
Source: Mount Morris Township

According to the map, zones found within the boundaries of Beecher Site are:

- R-2:** Single Family Residential District
- R-3:** Single Family Residential District
- RM1:** Multiple Family Residential District
- C-1:** Local Commercial District
- C-2:** Community Commercial District
- OS:** Office Service District¹¹

3.1.1 R-2 & R-3 Single Family Residential Districts

The R-2 & R-3 districts comprise the majority of the surface area in Beecher Site, with the R-2 district covering the greatest area. The R-3 district defines the southern section of Beecher Site, from Downy Avenue southwards to Carpenter Road. Both R-2 and R-3 districts permit the construction and continued use of single-family residential units; while the districts are functionally identical, the R-2 district is characterized by its denser and smaller lots than the R-3 district.

Permitted principal uses under the R-2 & R-3 district include:

- § Single family detached dwellings
- § Publicly owned parks and other public open space
- § Public buildings and uses
- § Essential services excluding outside storage
- § State licensed child and adult care facilities providing care for less than seven (7) individuals.

Special uses under the R-2 & R-3 district include:

- § Churches and schools
- § Licensed child and adult care facilities providing care for seven (7) to twelve (12) individuals.²⁰

3.1.2 RM-1 District

The RM-1 district comprises small pockets along Detroit Street down the center of Beecher site and in the eastern corner of parcels along Downy Avenue. The purpose of the RM-1 district is to allow the construction and continued use of multiple-family residential units

Permitted principal uses under this district include:

- § Single family attached dwellings (townhouses, row houses, and quadraplexes)
- § Two-family dwellings
- § Multiple dwellings (garden style apartments)
- § Essential services excluding outside storage
- § State licensed child and adult care facilities providing care for less than seven (7) individuals

Special uses under the RM-1 district include:

- § Convalescent homes
- § Licensed child and adult care facilities providing care for seven (7) to twelve (12) individuals²¹

3.1.3 C-1 Local Commercial District

The C-1 district comprises a small section of the area along the middle and southern area of Detroit Street. The purpose of this zone is the establishment of local services and shopping facilities that might support the

Beecher Stabilization Plan

surrounding neighborhood.

Permitted principal uses under this district include:

- § Generally recognized retail business that supply commodities on the premises for persons residing in adjacent residential areas (e.g. groceries, books, clothing)
- § Convenience stores
- § Personal service establishments that perform services on the premises (e.g. repair shops, tailor shops)
- § Dry cleaning establishments or pick-up stations, dealing directly with the consumer
- § Business establishments which perform services on the premises such as, but not limited to, insurance offices and real estate offices
- § Essential services excluding outside storage
- § Publicly-owned buildings

Special uses under this district include:

- § Automotive service stations
- § Restaurants, not including drive-ins or drive-thrus or fast food restaurants
- § Bar and tavern
- § Child day care or nursery schools²²

3.1.4 C-2 District

The C-2 district defines the section of the target area solely located along Saginaw Street. The purpose of this zone is establishment and accommodation of large consumer based businesses which are generally clustered, characterized by a shared parking area and generate large traffic and pedestrian volume.

Permitted principal uses under this district include:

- § Any retail business whose principal activity is the sale of merchandise in an enclosed building (e.g. department stores, grocery stores, drug stores)
- § Any service establishment with an office, showroom or workshop
- § Clubs, civic and fraternal organizations and lodge halls
- § Restaurants or other places serving food or beverage
- § Theaters, assembly halls, concert halls or similar places of assembly when conducted completely within enclosed buildings
- § Public and private educational facilities and institutions
- § Athletic or physical fitness establishments
- § Greenhouses and landscape sales.
- § Financial institutions
- § Bar and taverns
- § Personal, financial, professional or business services

Special uses under this district include:

- § Indoor and outdoor businesses developed in planned relationship with other uses in the C-2 district
- § Child day care or nursery schools
- § Party stores²²

3.1.5 OS District

The OS district defines small sections of Beecher Site along Coldwater Road, Detroit Street, and the northern section of Saginaw Road. The purpose of this zone is to establish areas whose principal usage are office buildings,

which might act as a transition district between residential districts and other districts with the potential to detrimentally affect the residential district if located adjacent to them.

Permitted principal uses for this district include:

- § Office buildings for a variety of occupations (e.g. executive, administrative, professional)
- § Medical offices, including clinics, specialty stores that principally dispense products relating to medical facilities
- § Banks, credit unions, savings and loan associations and similar uses
- § Personal service establishments (e.g. barber shops, beauty shops)
- § Essential services excluding outside storage

Special uses for this district include:

- § Mortuary establishments
- § Publicly owned buildings, telephone exchange buildings and public utilities offices; not including storage yards, electrical transformer stations, substations or gas regulator stations
- § Animal hospital and veterinarian clinics
- § Child day care or nursery schools
- § Public, private, or parochial schools²⁴

3.2 Land Use

While a zoning map graphically represents the uses permitted upon a piece of land, a land use map graphically represents the current uses of the land. The two do not necessarily overlap for reasons such as: land use map predating the zoning map, recent rezoning, and non-compliant uses. To establish a comprehensive understanding of the Beecher Site the following section presents a land use analysis of Beecher Site and its built environment. Figure 3.2.1 shows the existing land use map for Beecher Site and its surrounding environment in February of 2012.

According to the Beecher existing land use map, the target area and its surrounding environment is composed primarily of residential units. Commercial units are located mostly along main thoroughfares and tend to follow a similar pattern as set under the commercial zoning districts for the area (C-1, C-2), primarily located on the eastern side of Beecher Site along Saginaw Street, and sporadically along the north-south thoroughfare Detroit Street.

The public/exempt land use covers a large amount of land within the site as well. This land use category is comprised of public institutions, public land or publicly owned vacant land such as green space, churches, school property and other related uses. They are located mostly on the southern side of the target area and cover approximately one-tenth of the land from Saginaw Street to the western most edge of the site; along Detroit Street adjacent to commercial units; on the north-eastern corner of the site between Detroit Street and Saginaw Street; and less densely on the north-western corner of the site. Public/exempt land uses are also found sparsely within the target area and the surrounding environment. However, these lots are likely publically-owned housing which currently stand vacant.

Industrial land uses comprise the smaller portion of existing use. Only two parcels are evident in the area illustrated. These are located outside the boundaries of Beecher Site, east of Interstate 75 (I-75).



Beecher Stabilization Plan

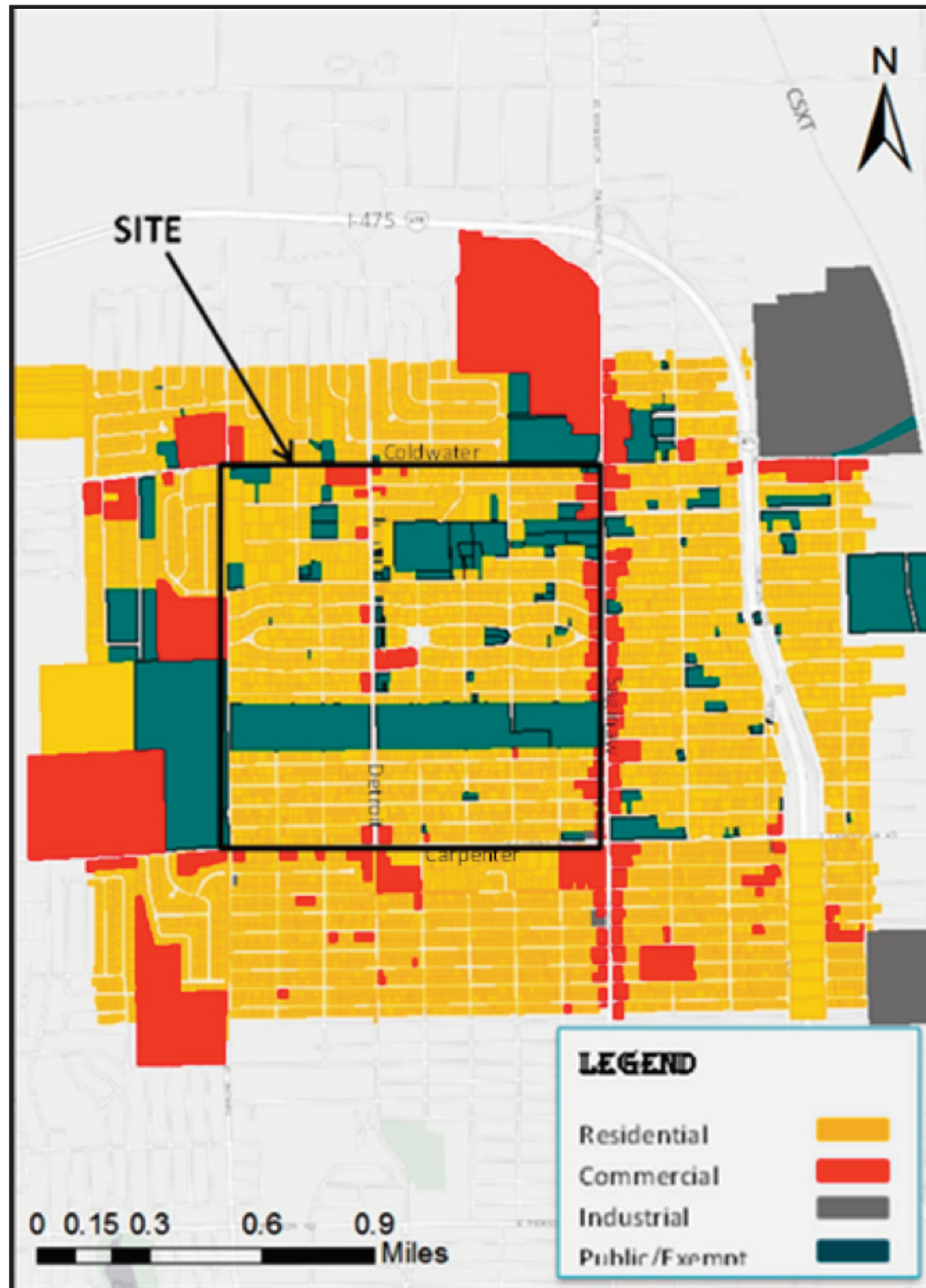


Figure 3.3.1 Beecher Existing Land Use
Source: Generated from Genesee County GIS data, February 2012

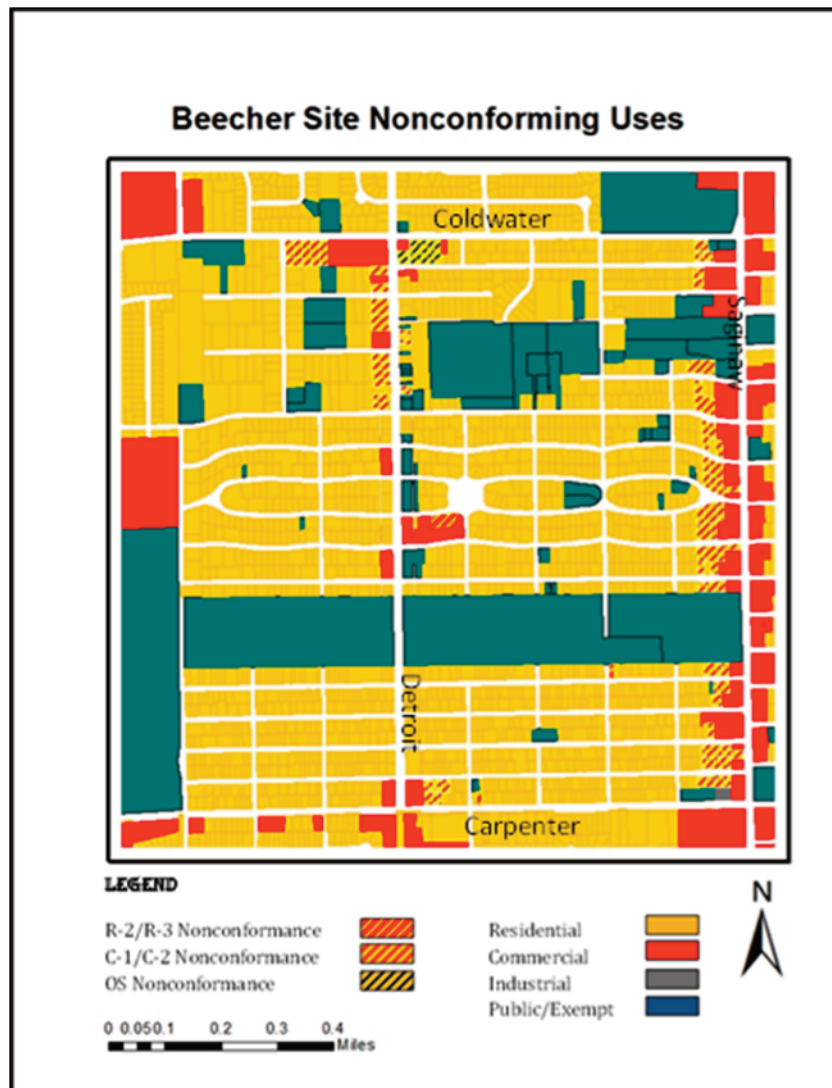


3.3 Nonconforming Uses

Previous analysis of the zoning and existing land uses of Beecher Site leads us to identify any nonconforming uses on the site. Nonconforming uses are uses of land that do not conform to the uses explicitly allowed under the Mount Morris Township Zoning Ordinance. Future conformance of nonconforming uses may be important to a community as it allows for compliance with regulations stated in the zoning ordinance, along with realizing the community vision as configured through the zoning regulations. Below, Figure 3.3.1 presents current nonconforming uses in Beecher Site. This map is only an approximation of nonconformance and should not be used for regulatory enforcement.

Figure 4.3.1 Beecher Site Nonconforming Uses

Source: Generated from Genesee County GIS data, March 2012



According to the presented map, Beecher Site is characterized by slight nonconformance as based on the zoning map and current land uses. Nonconforming uses are present in the following locations:

- West of Saginaw Road --- Current Use: Residential; Current Zoning: C-2
- North & South of Detroit Street --- Current Use: Residential; Current Zoning: C-1 & OS
- South of Detroit Street --- Current Use: Commercial; Current Zoning: R-3
- Central Beecher Site --- Current use: Commercial; Current Zoning: R-2



3.4 Transportation

Transportation and its infrastructure are important components of communities and economic development. Efficient transportation delivers economic and social opportunities by providing accessibility to markets, employment, and upwards socioeconomic mobility. When transportation is inefficient or poorly maintained, opportunities for growth may pass by.²⁵ Transportation infrastructure often outlines land uses and defines neighborhoods while acting both as a physical boundary and as a gateway to circulation. In this section, we analyze transportation, its patterns, and its infrastructures towards a future land use plan for Beecher Site.

3.4.1 Broad Infrastructure

Transportation in Beecher Site and its surrounding area is provided through several main arterial roads, thoroughfares, and highways. Several state and federal highways connect Beecher Site to other parts of Genesee County, the State of Michigan, and North America (Figure 3.4.1.1). Federal highways include: Interstate 75 (I-75), a major north-south interstate which connects Michigan with southeastern regions of the United States; and Interstate 475 (I-475), a bypass branch of I-75 which connects areas of the City of Flint with its parent highway I-75. Michigan Highway 54 (M-54) connects the City of Flint to other areas in Michigan.

Highway I-475 remains the closest in proximity to Beecher Site at four-tenths of a mile to the east; this highway runs east and continues north as it merges into I-75. On and off ramps to these highways are located both north and northwest of Beecher Site. State Highway M-54 is just one mile east, while I-75 lies 2.12 miles west. No other major roadways exist within five miles south of Beecher Site.

Beecher Site lies nine-tenths of a mile east of the CSX Transportation (CSXT) rail system. CSXT is one of several major rail freight systems in the United States, passing through 23 states. The nearest passenger rail service is 7.1 miles away in the City of Flint.

3.4.2 Internal Infrastructure

With an area of 1.03 square miles, Beecher Site is bordered by three main thoroughfares; with Saginaw Street to the east, Carpenter Road to the south, and Coldwater Road to the north. There are no bordering thoroughfares

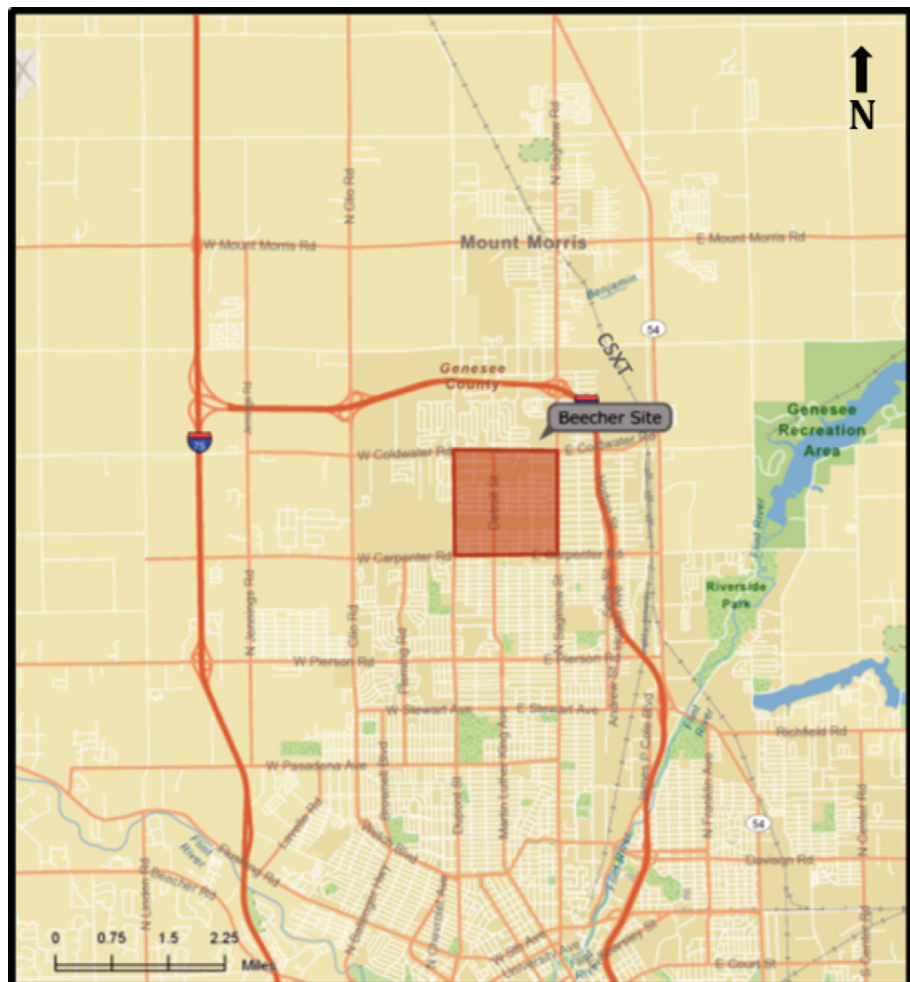


Figure 3.4.1.1 Main Transit Routes

Source: ESRI, generated January 2012





Figure 3.4.2.1: Beecher Site Street Network
Source: Flint MTA

rectangular oblong grid pattern. This pattern comes in part from the dead ends for all roads running east and west along the western border of Beecher Site at DuPont Street; roads running north of Downey Avenue, south of Cass Avenue, north of Princeton Avenue, and east of Louis Avenue. All roads, particularly those parallel to Downey and Cass Avenue are not continuous because current land uses including school property and green space create a barrier. Beecher Site also possesses a loop street pattern running both in both east-west and west-east directions as North & South Cornell Avenue in the middle of the site.

or minor streets to the west. This lack of roadway is termed a dead end as overgrown brush, shrubs, and metal fencing act as a border. These thoroughfares and dead ends are referred to in this section as the border. Street configuration of Beecher site within the border presents an irregular,

Most streets within the border serve the residents as a conduit for journeys from residencies to regions outside Beecher Site. Detroit Street runs north and south and is the only thoroughfare which crosses through the neighborhood (Figure 3.4.2.2). Based on field observations, sidewalks are nearly absent from Beecher Site; pedestrian mobility both to the surrounding area and within Beecher Site is marginal.



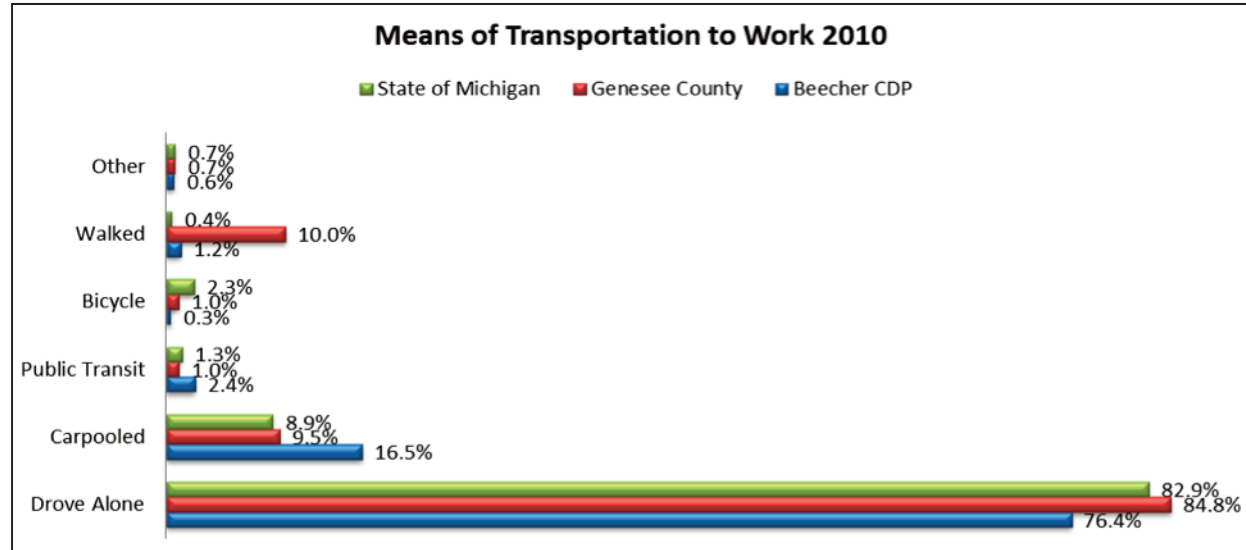
Figure 3.4.2.2 Detroit Street Thoroughfare & Typical Beecher Site Street (N. Cornell Ave)
Source: Google Earth, 2012

Beecher Stabilization Plan

3.4.3 Commuting Patterns

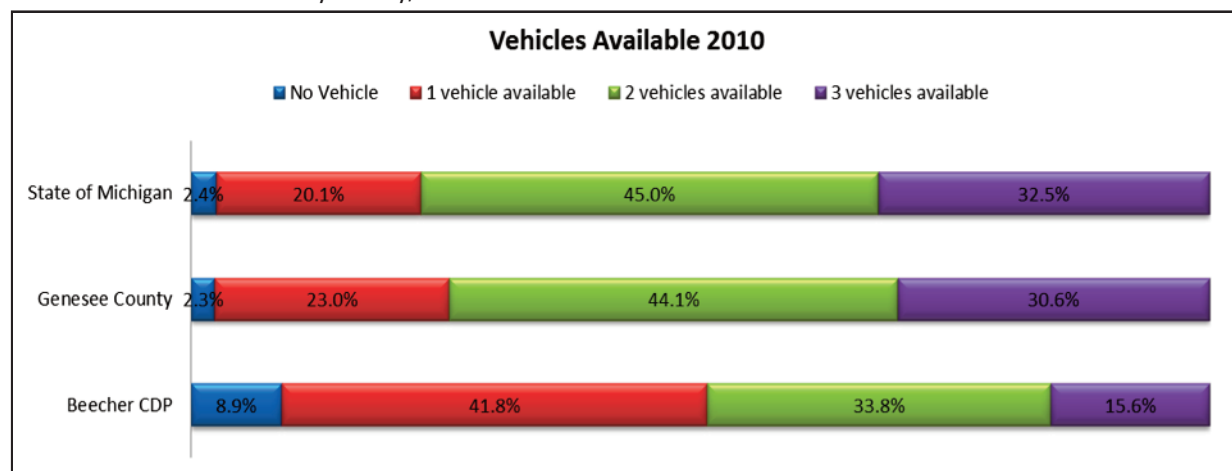
Transportation infrastructure within Beecher Site and its surrounding environment can facilitate increased circulation and economic activity within the community. Figure 3.4.3.1 illustrates modes of transportation to work for Beecher CDP, Genesee County, and the State of Michigan for 2010 that are enabled by current infrastructure.

Figure 3.4.3.1 Mode of Transportation to Work
 Source: American Community Survey, 2006-2010



The primary mode of transportation to work for the Beecher CDP is by driving alone at 76% of respondents; carpooling (16%), public transportation (2.4%), walking (1.2%), other (0.6%), and bicycle (0.3%). These variances are most distinct between residents who carpooled, used public transportation, and walked to work. Beecher CDP residents are more than twice as likely to carpool, walk, or use public transportation to work when compared against residents of Genesee County and the State of Michigan. These trends likely coincide with the number of vehicles available per household, as depicted in Figure 3.4.3.2.

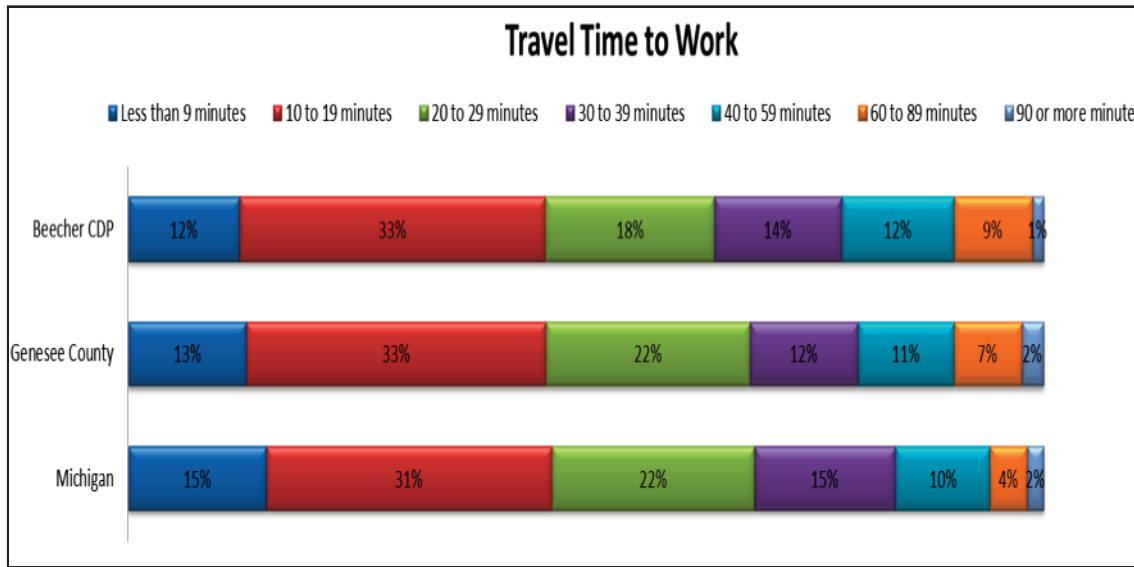
Figure 3.4.3.2 Available Vehicles
 Source: American Community Survey, 2006-2010



Approximately 9% of households in Beecher CDP own no vehicle while 42% own one vehicle. Four times as many households in Beecher CDP have no vehicles available when compared against Genesee County and the State of Michigan.

Figure 3.4.3.3 depicts commute length in minutes. Households in Beecher CDP commute for slightly greater time intervals to their place of employment than those of Genesee County and the State of Michigan.

Figure 3.4.3.3 Available Vehicles
 Source: American Community Survey, 2006-2010



5% more households in the Beecher CDP travel 30 minutes or more to work than residents in Genesee County and the State of Michigan. Comparatively, households working relatively close to their residence with a commute of 19 minutes or less are similar in proportion to that of Genesee County and the State of Michigan at 45% of households.

3.4.4 Public Transit

Public transportation is utilized by a significant portion of the Beecher CDP as their method of commuting to work. With 9% of Beecher CDP residents owning no vehicle, public transportation is a vital link providing individuals with mobility for employment, commerce, recreation, medical resources, and other services in the surrounding region.²⁷ Public transportation becomes ever more important in lower income areas where reliable, personal vehicles may not be attainable. Furthermore, the connection between public transit and economic development has been well documented. Some benefits of public transit and transit oriented development include connections of workers to jobs; connections of individuals to basic needs; spurs economic development on areas surrounding transit stations.²⁸ With this in mind, this section presents a brief analysis of the current public transit conditions within the study area to establish whether its current status can be an asset to future land use plans for the area.

Public transportation in and around Beecher Site is provided by Flint Mass Transportation Authority (MTA). Initiated in 1997, the MTA provides regional public transportation across Genesee County with concentration in the City of Flint, including routes into Oakland and Livingston Counties.²⁹ Figure 3.4.4.1 illustrates the location of 14 primary routes across Genesee County. Fares ranging from \$0.00 for children to \$1.50 for adults. Alternatively, monthly passes are also available.³⁰

Out of the 14 primary routes provided by the MTA, four directly service the subject site. These routes numbers, their location, and schedules are listed in Table 3.4.4.1. Bus stop signage consists of a single pole with bus sign; no other bus stop related infrastructure, such as shelters, maps, and timetables, are found at these locations. Figure 3.4.4.2 shows these bus stops on a map. Although ridership data for these four routes could not be found, MTA reports that general ridership for the 14 primary routes has increased steadily from 2003 to 2008, as depicted in Figure 3.4.4.3.

Beecher Stabilization Plan

Figure 3.4.4.1 Flint MTA Primary Routes
 Source: Flint MTA; retrieved February 2012

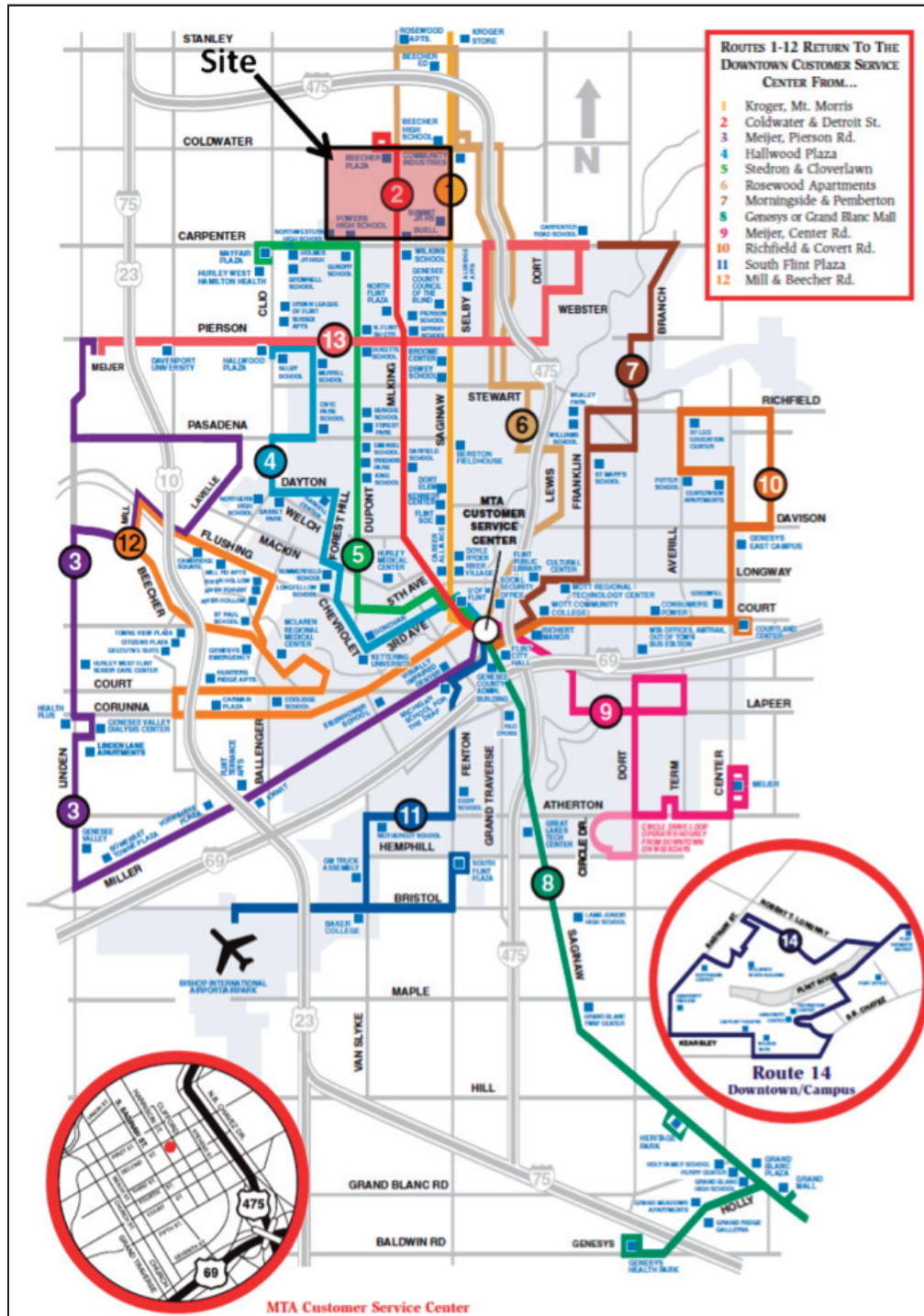


Table 3.4.4.1 Local Bus Routes
 Source: Flint MTA; retrieved February 2012

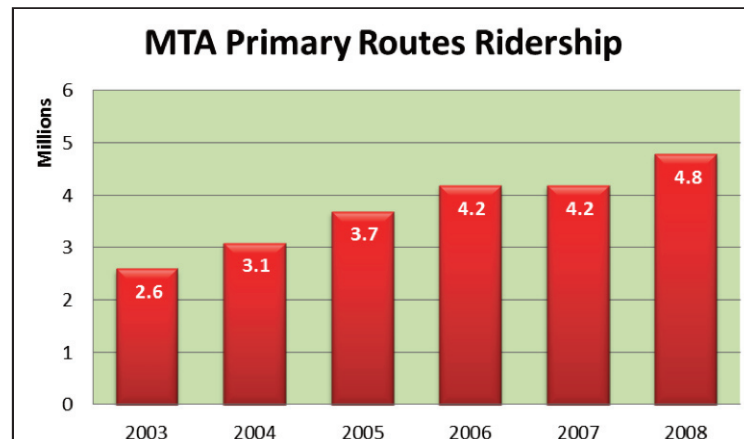
| Route # | Name | Location | Schedule |
|---------|--------------------------------|---|---|
| Route 1 | Kroger, Mount Morris | Eastern border, Saginaw Rd. | M-S: 6:30am-12:00pm Sun: 9:00am-7:25pm |
| Route 2 | Coldwater & Detroit Street St. | Center of site, Coldwater & Detroit St. | M-S: 6:30am-12:00pm Sun: 9:00am-7:25pm |
| Route 5 | Stedron & Cloverlawn | Southern border, Carpenter Rd. | M-S: 6:30am-12:00pm Sun: 9:00am-7:25pm |
| Route 6 | Rosewood Apartments | Northern Border, Coldwater Rd. | M-S: 6:30am-12:00pm Sun: 9:00am-7:25pm |

MTA reports that general ridership for the 14 primary routes has increased steadily from 2003 to 2008, as depicted in Figure 3.4.4.3. From 2003 to 2008 ridership on these routes increased by 84%. This increase in ridership numbers, accompanied by commuting patterns of the Beecher CDP population, demonstrates a supported need for public transit in the area. Furthermore, the well documented link between public transit and economic development may prove to be an asset to the future land use development of the Beecher Site.

Figure 3.4.4.2 Beecher Site Bus Stops
 Source: ESRI Business Analyst, March 2012



Figure 3.4.4.3 MTA Primary Routes Ridership
 Source: Flint MTA



3.5 Market Profile

A market profile analysis was conducted to assess the potential for commercial development in the area. The analysis was conducted against the backdrop of the Spending Potential Index (SPI) and the Surplus/Leakage Factor.

SPI is a measurement of spending per consumer household for a product within a specific area. Measurements are based on a value of 100 which represents the US national SPI average. A SPI value above 100 represents a higher rate of spending than the national average on a specific product for the area. A SPI value below 100 represents a lower rate of spending from the national average on a specific product for the area.³¹

The Surplus/Leakage Factor provides a single measurement of the supply, retail/commercial sales; and demand, retail/commercial potential. A retail industry reporting a leakage or positive value indicates that demand for a product or service within the specified area is being fulfilled by retail industries outside of the specified region; therefore demand for a product or service is larger than supply. While a surplus or negative value indicates that supply exceeds the demand for a product or service.³²

Table 3.5.1 represents the average spending amount and SPI for Beecher Site, Mount Morris Township, Genesee County, and the State of Michigan in 2010. Figure 3.5.1 represents a breakdown of the SPI for these geographies.

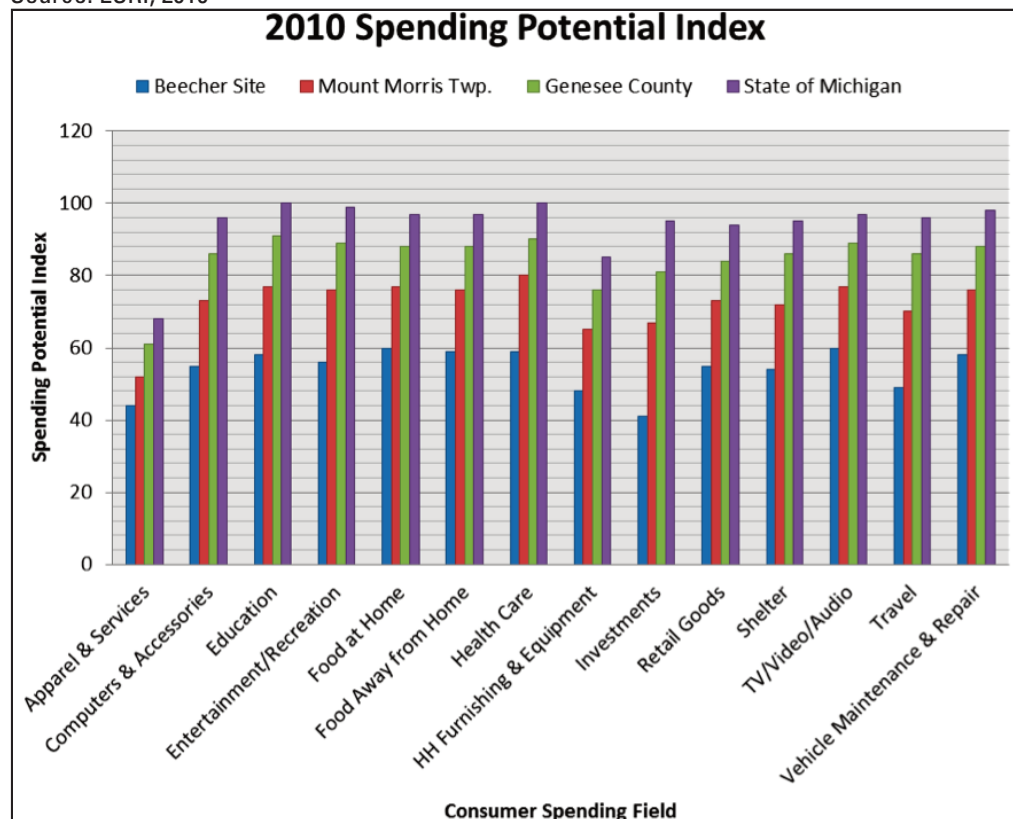
Table 3.5.1 Average Spending Potential Index

Source: ESRI, 2010

| 2010 Consumer Spending | Beecher Site | | Mount Morris Twp | | Genesee County | | State of Michigan | |
|------------------------|---------------|-----|------------------|-----|----------------|-----|-------------------|-----|
| | Average Spent | SPI | Average Spent | SPI | Average Spent | SPI | Average Spent | SPI |
| Average | \$2,605 | 54 | \$3,480 | 72 | \$4,063 | 85 | \$4,512 | 94 |

Figure 3.5.1 2010 Spending Potential Index

Source: ESRI, 2010



The average spending potential for Beecher Site is half that of the national average with an SPI 54. Comparatively, Mt. Morris Township, Genesee County, and the State of Michigan though still below the national average are still significantly higher than that of Beecher Site. Within Beecher Site, healthcare, food at home, food away from home, and TV/audio/video represent the highest SPI values, suggesting that most consumers purchase those products most often, and investments, apparel & services, and travel the least.

Overall the data indicates the existence of little disposable income for residents of the Beecher site. As a result the potential for retail development servicing residents of this area based on values of the SPI alone is marginal. It is important to note however that the SPI does not account for what exists currently within the area, therefore a final conclusion on the potential for commercial development cannot be concluded. To satisfy this need, Figures 3.5.2 to 3.5.4 presents the Surplus/Leakage Factor for retail industries within one (1) mile radius, three (3) mile radius, and five (5) mile radius of the center of the Beecher site.

Figure 3.5.2 Surplus/Leakage Factor 1 mile radius

Source: ESRI, 2010

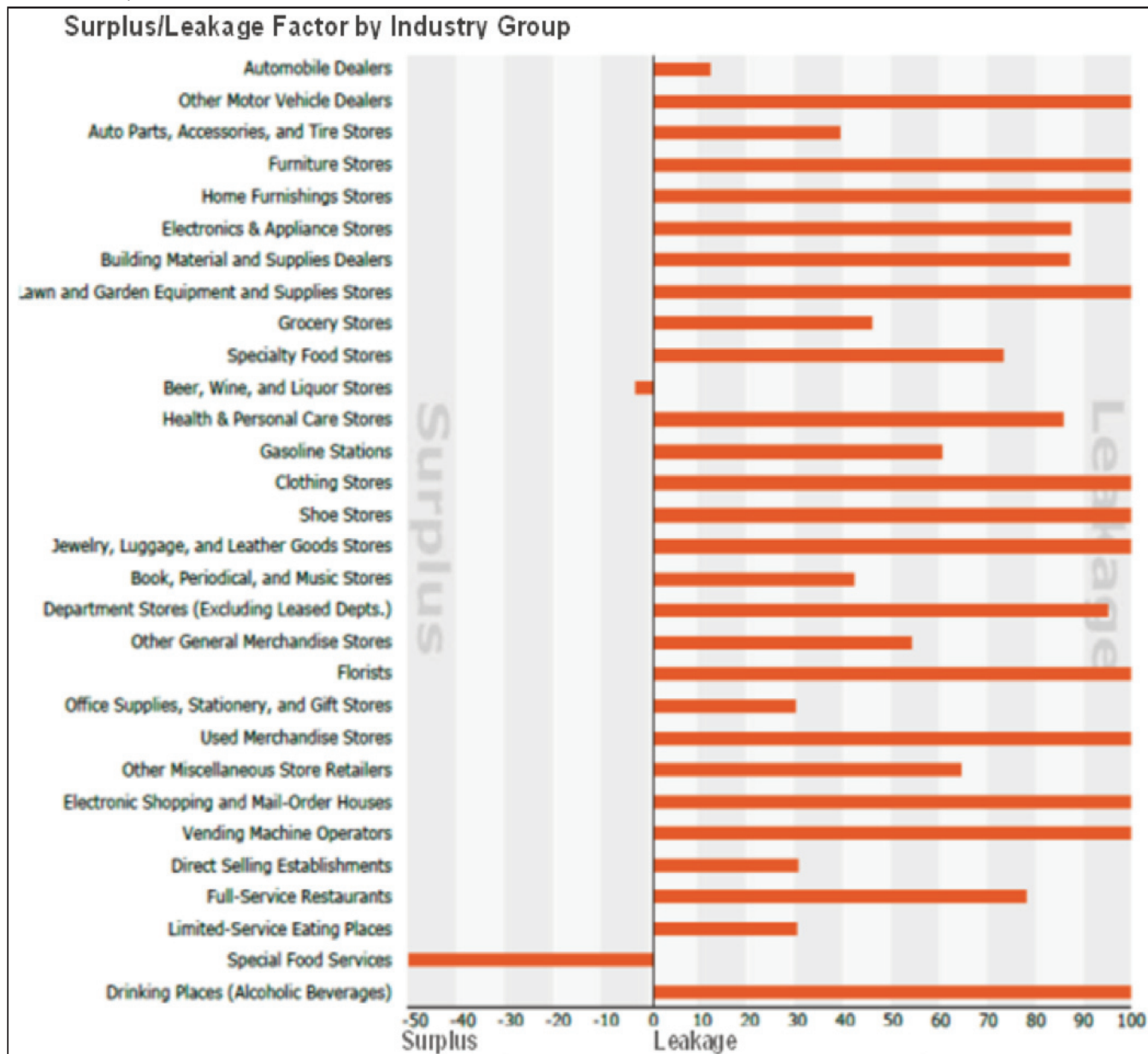


Figure 3.5.3 Surplus/Leakage Factor 3 mile radius

Source: ESRI, 2010

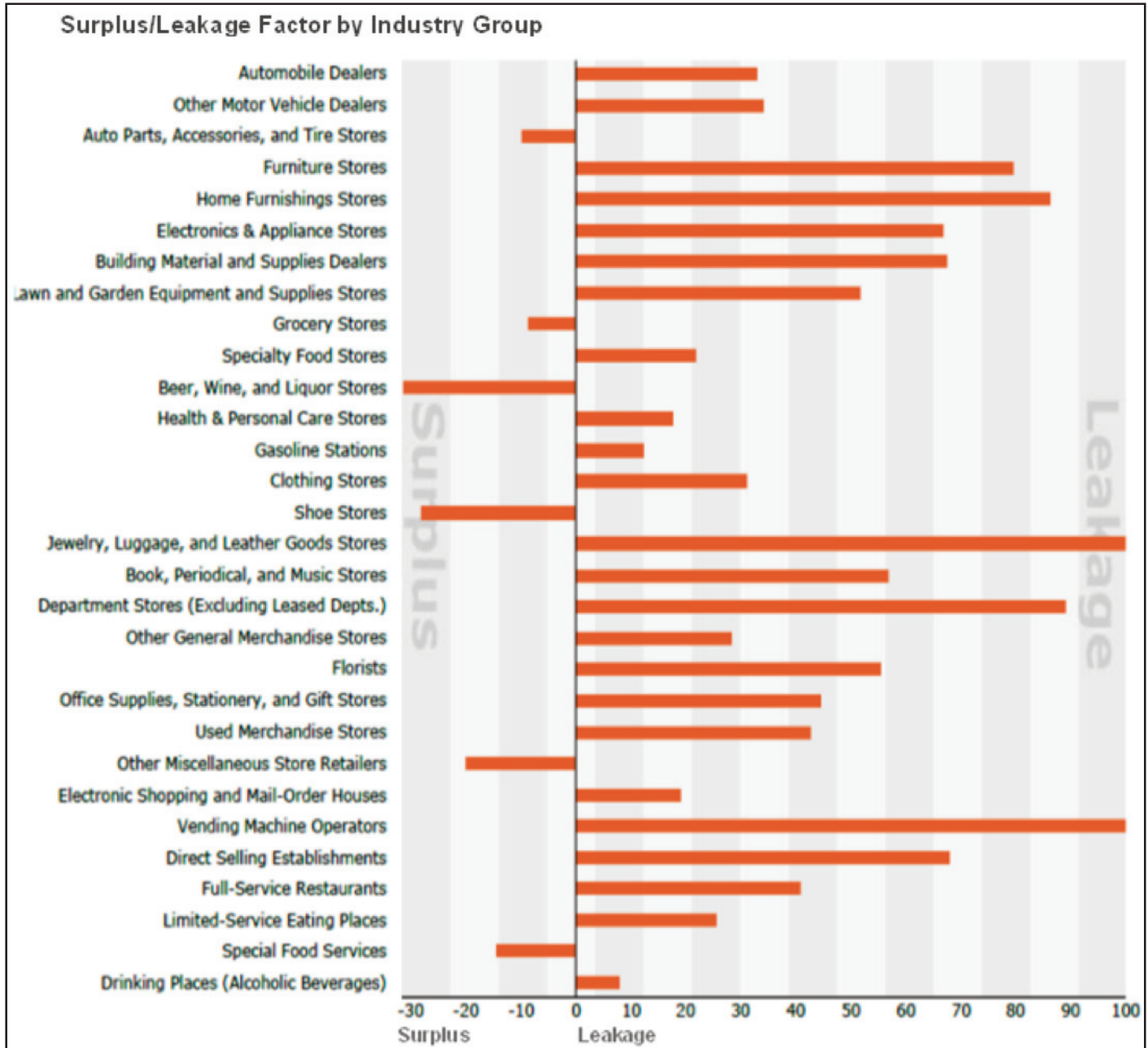
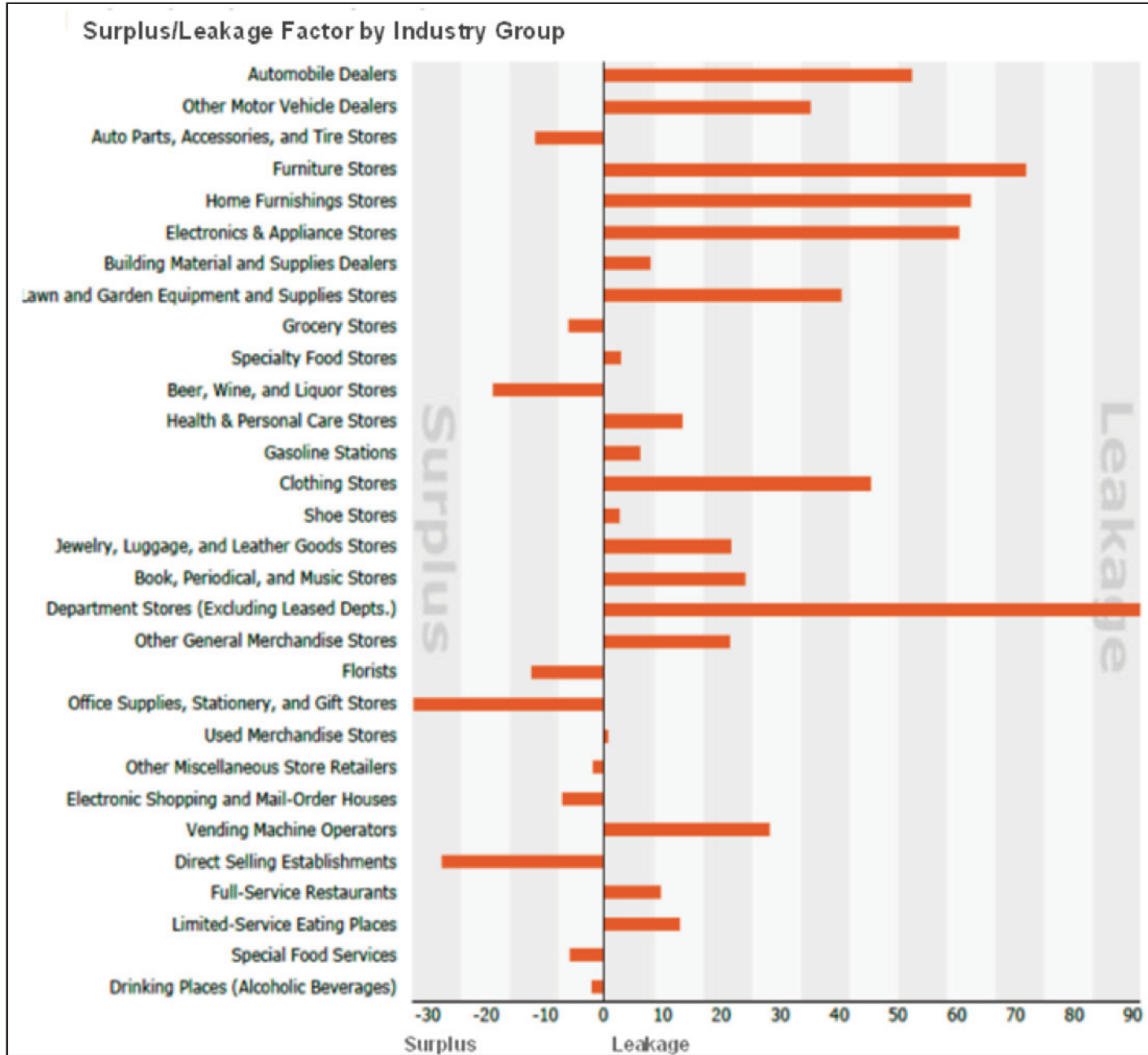


Figure 3.5.4 Surplus/Leakage Factor 5 mile radius

Source: ESRI, 2010





Beecher Stabilization Plan

The presented data illustrates leakage on virtually all industries within a one mile radius of the center of Beecher Site; a slight increase in surplus within a three mile radius, and a greater increase in surplus within a five mile radius. Surplus among the three analyzed geographic distances exists for the following industries:

- Auto parts, accessories, and tire stores
- Grocery stores
- Beer, wine, and liquor stores
- Shoe stores
- Florists
- Office supplies, stationary, and gift stores
- Other miscellaneous store retailers
- Electronic shopping and mail-order houses
- Direct selling establishment
- Special food services
- Drinking places (alcoholic beverages)

Due to a larger supply than demand curve for the above industries, the development of such retail stores in and around Beecher Site is not recommended. Following a process of elimination, from this analysis there may be potential for retail development for other retail industries. Among retail industries showing leakage, the following four industries are most significant, based on aggregate leakage/surplus factor across all three geographic units:

- Furniture stores
- Home furnishing stores
- Electronic & appliance stores
- Department stores (excluding lease depts.)

In conclusion, the analysis provided based on the SPI and leakage factor illustrates a potential demand for commercial development in Beecher Site. It is important to note that this demand is likely marginal due to the lower than national average SPI of households residing in Beecher Site, Mount Morris Township, and Genesee County, and represents a regional demand for commercial development and is not necessarily limited to Beecher Site alone.

3.6 Community Amenities

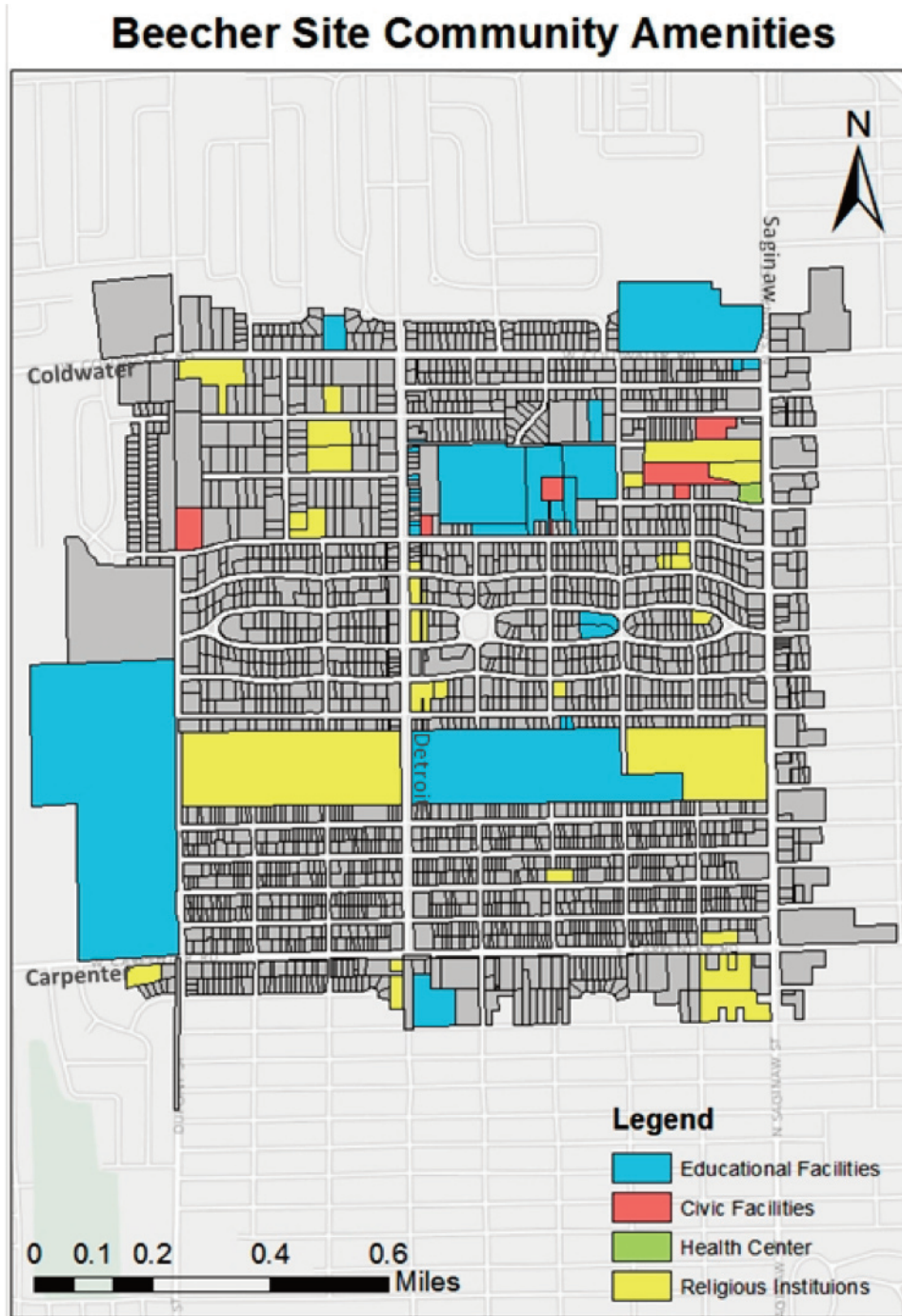
Community amenities represent those establishment within Beecher site which serve a specific purpose other than a commercial/retail development and which are open to the general public. The purpose of listing these features is to identify possible viable community anchors and/or assets which may be used to support the future land use development of the area.

Community amenities have been divided into four categories depending on what is available and they function they play. These include Educational facilities representing schools and structures whose main purpose is education; Civic facilities representing government run amenities such as fire department, water department etc; Health center representing those facilities whose main role is health related services; and Religious institutions which includes places of worship. Data has been collected and assembled from field work in March 2012 and GIS databases provided by Genesee County.

According to the data presented, there are 23 educational related parcels, 6 civic related parcels, 1 health related parcel, and 25 religious related parcels within the boundaries of the Beecher site. Their general distribution follows no cluster pattern as they spread out throughout the region. The only individual exception is provided by the civic facilities which are located in the northern portion of the site.



Figure 3.7.1 Beecher Site Community Amenities
 Source: Generated from field work and Genesee County GIS data



3.7 Sewer & Water Infrastructure

The following section is introduced to analyze current conditions of the sewer and water infrastructure within Beecher site. These utilities are provided by the Beecher Metropolitan Water and Sewer District, established in 1938. Sewer and water infrastructure can be an indicator of conditions of public underground utilities within the area of Beecher site. An aging sewer and water infrastructure can indicate the inability of the region to support future development within the area, and possible deteriorating conditions for existing development. An updated and well maintained system can indicate the opposite for the region.

Regretfully, sewer & water infrastructure for this site could not be obtained in time to be considered in this

Beecher Stabilization Plan

report. It is recommended however that such data be reviewed in the future if additional studies on the site are conducted in order to determine current conditions of the infrastructure and the role it can play on prospective revitalization efforts of the site.

3.8 Site Factors Summary

The site factors summary is presented to provide a summation of the physical characteristics analyzed in the Beecher site.

Zoning – Beecher site is zoned mostly R-1 and R-2 which allows for residential development. Commercial units (C-1, C-2) are zoned for east of the site along Saginaw Road and partially along Detroit Street. Office services districts (OS) are zoned for on small sections along Coldwater Road and Saginaw Road.

Land Use – Existing land use in Beecher site is characterized mainly by residential units. Commercial units are located primarily along Saginaw Road and partially along Detroit Street. Public or Exempt activities comprise a large section of the southern side of the target area and also comprise small parcels which spread out throughout the area.

Nonconforming Uses – Beecher site is characterized by slight nonconformance of uses as based on the zoning map and current land uses. Nonconforming uses are primarily located along Detroit Street, Saginaw Road, and Central Beecher site.

Transportation

Broad Infrastructure – Transportation in Beecher site and its surrounding area is provided through several main arterial roads, thoroughfares, and highways. Major transportation routes include several highways (e.g. I-75, I-475, M-54), and the CSX transportation Rail which is rail freight system.

Internal Infrastructure - Street configuration of Beecher site is mainly characterized by irregular, rectangular oblong grid patterns. Most streets act mainly as a conduit for journeys from residencies to regions outside of the Beecher Site. Detroit Street runs north and south and is the only thoroughfare which crosses through the neighborhood. Based on field observations, sidewalks are nearly absent from Beecher site; pedestrian mobility both in the surrounding area and within Beecher site is marginal.

Commuting Patterns – The primary mode of transportation to work for the Beecher CDP is by driving alone (76%), carpooling (16%), public transportation (2.4%), walking (1.2%). On a comparative perspective, these variations are most distinct between residents who carpoled, used public transportation, and walked to work. Approximately 9% of the population in the CDP own no vehicle, while 42% own one vehicle. In terms of commuting time, population in the CDP generally travels further to their place of employment than the population of Genesee County and the State of Michigan.

Public Transit - Public Transit in Genesee County is provided by the Flint MTA. The MTA operates 14 main fixed routes. Out of these, four fixed routes run adjacent or through the Beecher site. According to data provided by the MTA, these routes have experienced an 84% increase in ridership numbers from 2003 to 2008. This increase in ridership numbers, accompanied by commuting patterns of the Beecher CDP population, demonstrates a supported need for public transit in the area.

Market Profile - The market profile conducted to assess the potential for commercial development in the area was analyzed against the backdrop of the SPI and the leakage/surplus factor. Based on data analyzed on these



two elements, the study illustrates a potential demand for commercial development in Beecher site. It is important to note that this demand is likely marginal due to the lower than national average SPI of households residing in Beecher site, Mt. Morris Twp., and Genesee County.

Community Amenities – Community amenities within Beecher site were identified in terms of availability and the functions they play. Based on these criteria, with exception of the omission of commercial/retail development, 23 educational related parcels, 6 civic related parcels, 1 health care related parcel, and 25 religious related parcels were identified within the boundaries of Beecher site.

Sewer & Water Infrastructures - Sewer & water infrastructure for this site could be obtained for consideration in this report. It is recommended however that such data be reviewed in the future to determine current conditions of the infrastructure and the role it can play on prospective revitalization efforts of the site.





Beecher Stabilization Plan



IV. Land Use Analysis

The following section presents data gathered by this MSU practicum team, referred to in this section as “Team Genesee,” on land use, status of the housing stock, and occupancy of all structures found on a parcel of land within Beecher Site. These data are analyzed for the effects of parcel vacancy and abandonment both at present and in the near future.

4.1 Housing Stock

The housing stock section presents a general perspective on the housing conditions for households located within Beecher site. Data were collected through ESRI Business Analyst Online (BAO) which bases its findings upon data provided by the U.S. Census Bureau. It is important to note that such data include a margin of error, therefore figures are not completely accurate. Due to this factor this section has as its intent to act as a supplementary introductory role to the land use inventory and land use ownership following this analysis.

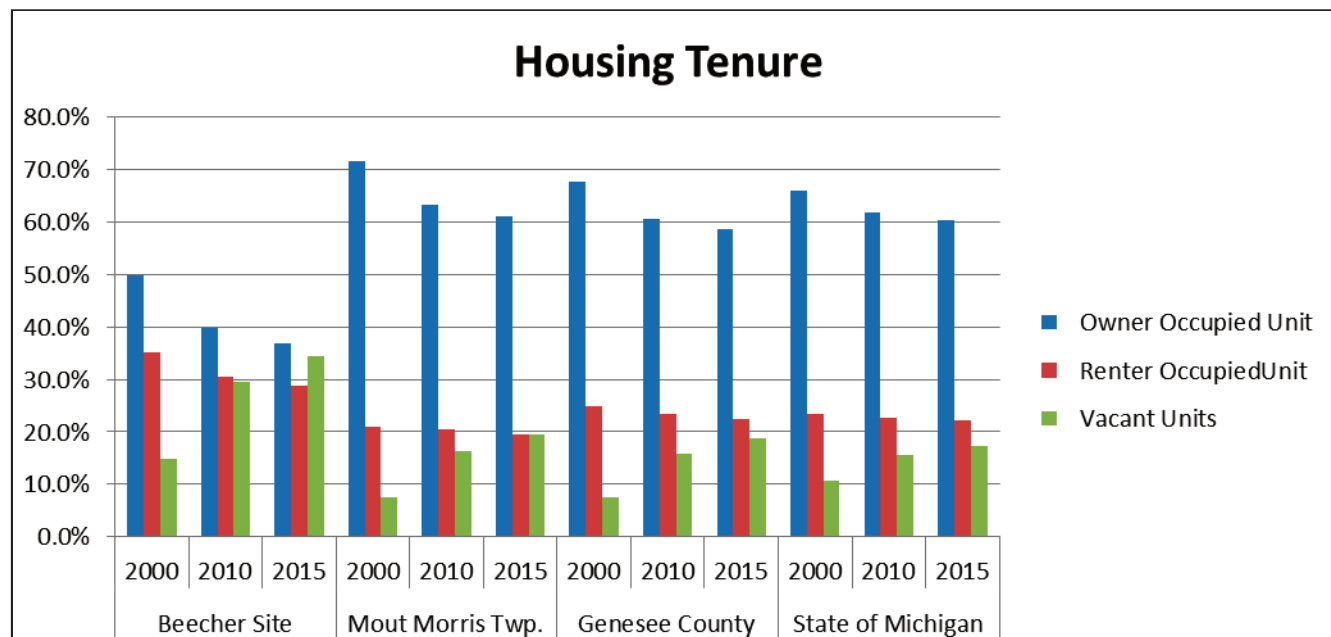
4.1.1 Housing Tenure

Vacancy rates are an important marker of a region’s economic status. A high vacancy rate entails the existence of a housing surplus. In comparison, a decline in housing vacancy suggests that the economic activity of a region is improving, consequently increasing housing demand. In the latter instance, existing vacant units are occupied and undesired units are renovated for future uses.³⁴

Table 4.1.1.1 in Appendix 1 presents housing tenure trends for 2000, 2010, and projections for 2015 for the Beecher site, Mount Morris Township, Genesee County, and the State of Michigan. Figure 4.1.1.1 provides data for these characteristics in graph form.

Figure 4.1.1.1 Housing Tenure

Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI, forecasts for 2000 and 2015



Presented data indicates that the Beecher site is characterized by a slightly larger rental housing market than the other geographic units analyzed. Renter occupied housing as of 2010 comprised approximately 30% of the total housing stock, while approximately 40% was characterized as owner-occupied housing. In comparison, Mount Morris Township, Genesee County, and the State of Michigan consist of a different housing tenure breakdown, where rental housing units comprise approximately 21% to 23% of their total housing stock; while owner occupied housing comprise approximately 61% to 64% of the housing stock.

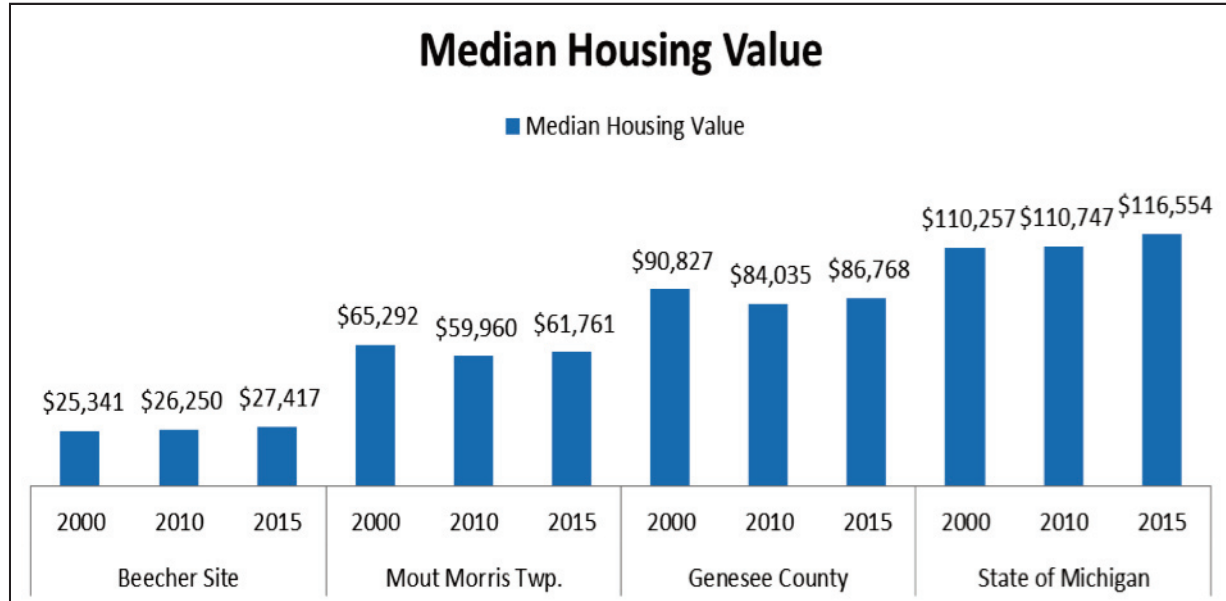
In terms of vacancies, housing units in Beecher site comprise a larger proportion of the housing stock than those of the other geographic units analyzed. As of 2010, vacancies comprised approximately 30% of the housing. These figures are nearly double what they were in 2000 and are projected to continue to rise going in into 2015. As a result of these trends and comparisons, data suggests the existence of a housing surplus in the Beecher site.

4.1.2 Median Housing Value

Median housing value reflects the median assessed price of housing units within a specific geography. Figure 4.1.2.1 illustrates median housing value for 2000, 2010, and projections for 2015 for Beecher site, Mount Morris Township, Genesee County, and the State of Michigan.

Figure 4.1.2.1 Median Housing Value

Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI, forecasts for 2000 and 2015



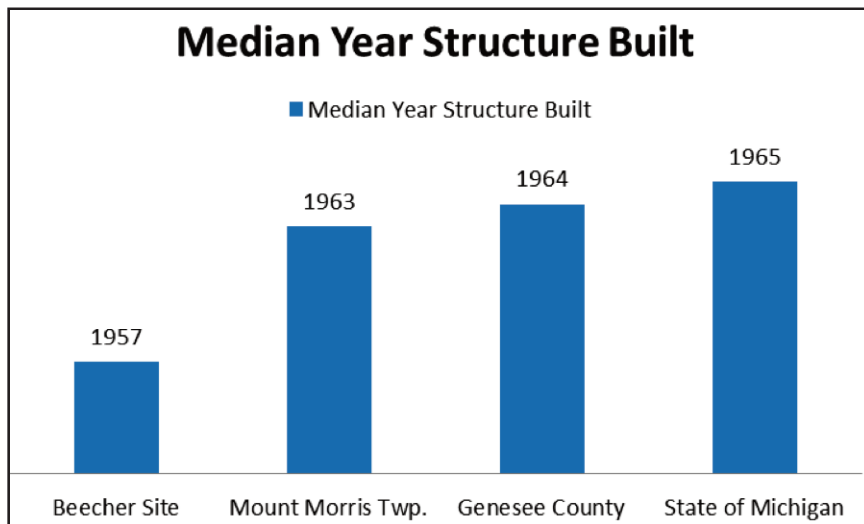
Median housing values in Beecher site have been experiencing a slight increase since 2000. Nevertheless, on a comparative perspective, these values are lower than those of the other geographic units analyzed. As of 2010, median housing values in Beecher site were approximately half of those of Mount Morris Township, 1/3 of the median housing value in Genesee County, and 1/5 of the median housing value in the State of Michigan.

4.1.3 Median Year Structure Built

Median year structure built represent the average age of the housing stock. Figure 4.1.3.1 illustrates median year structure built for Beecher site, Mount Morris Township, Genesee County, and the State of Michigan as of 2000. It should be noted that 2000 data was used instead of 2010 due to lack of accurate data for the geography of

Figure 4.1.3.1 Median Year Structure Built

Source: ESRI BAO



Beecher site.

Data presented illustrates that the age of the housing stock in Beecher site is older than that of other units analyzed. As of 2010, the median year structure built for this area was 1957. Comparatively, the housing stock of Mount Morris Township, Genesee County, and the State of Michigan was reported as 8 to 10 years younger at approximately 1963-1965. Consequently, in terms of the median year structure built, Beecher site can be said to be an outlier.



Beecher Stabilization Plan

4.2 Land Inventory

A windshield inventory of parcels was conducted at the beginning of the project. Parcels were classified as one of the following:

occupied: possessing one or more man-made structures on the parcel

vacant: an empty parcel of land with no man-made structures present

abandoned: a parcel of land which appears to have been previously occupied but has since fallen into disrepair; a parcel of land which contains unkempt structures or yards; a parcel of land which contains a partially or completely destroyed structure, by fire, water or Act of God

Parcels judged to be abandoned were photographed for later analysis. Data tables extracted from ArcGIS shapefiles provided by GCMPC officials were parsed into a Google Docs spreadsheet. Inventory was collaboratively coded onto this spreadsheet and parsed back into ArcGIS 9.2 and GRASS GIS for analysis and representation.

Initial inventory was taken on February 1, 2012. A second team of students were dispatched on February 22, 2012 to verify these data, assuring their consistency. Figure 4.2.1 presents the data collected and processed on March 18, 2012.

Of the 1,712 parcels within Beecher Site, inventory count as determined by Team Genesee is listed below in Table 4.2.1

For in-depth analysis, Beecher Site was divided into nine regions. These regions share similar characteristics and often exhibit clustering of inventory classifications. The nine regions are displayed below in Figure 4.2.2. Each of these regions is analyzed in detail on the following pages.

Table 4.2.1 Beecher Site Inventory Count
Source: Team Genesee

| Class | Count | % |
|--------------|--------------|-------------|
| Occupied | 1,178 | 68.8% |
| Vacant | 326 | 19.0% |
| Abandoned | 208 | 12.2% |
| Total | 1,712 | 100% |

Figure 4.2.2 Inventory Regions
Source: Team Genesee

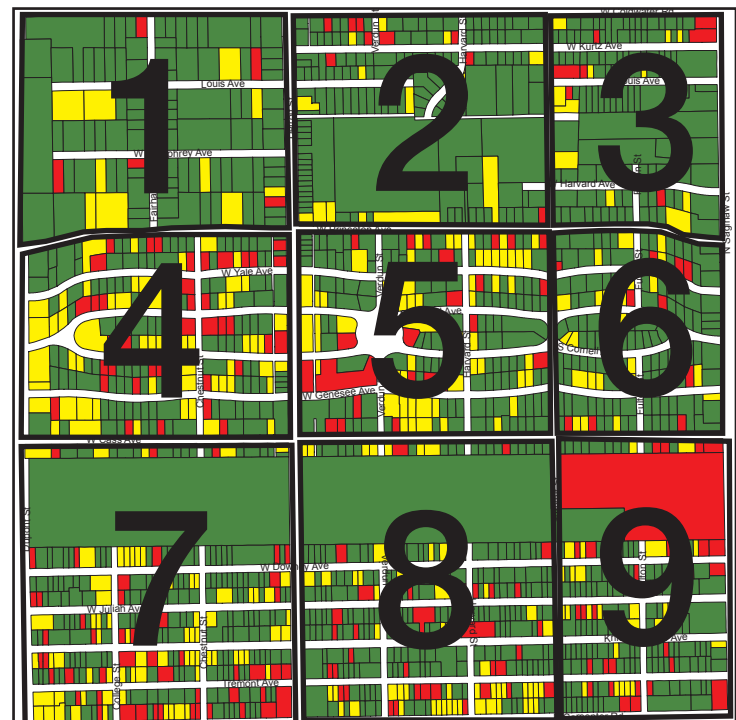
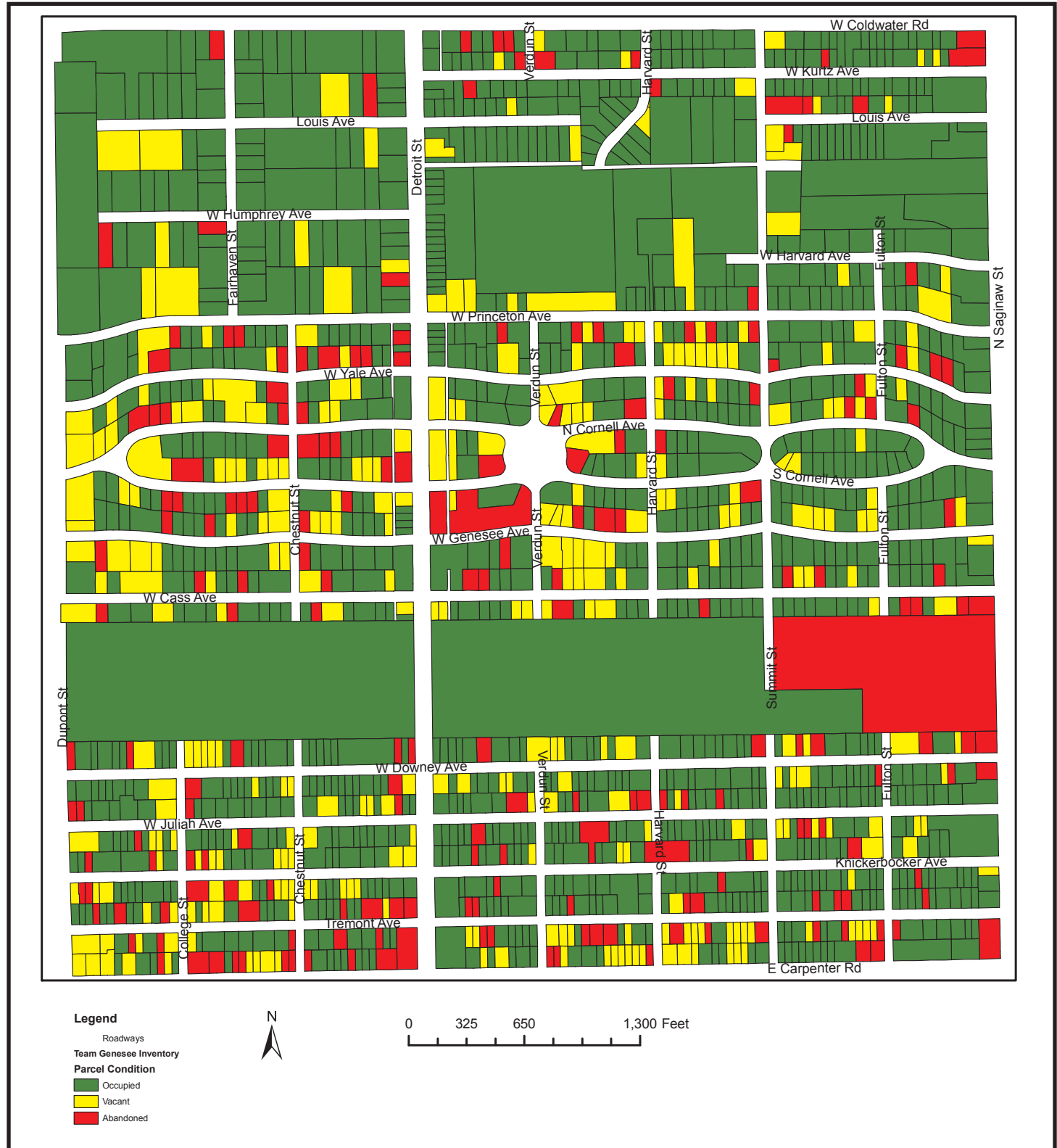


Figure 4.2.1 Parcel Inventory

Source: Team Genesee





Beecher Stabilization Plan

4.2.1 Region 1



Table 4.2.1 Region 1 Count
Source: Team Genesee

| Class | Count | % |
|--------------|-----------|-------------|
| Occupied | 84 | 84.8% |
| Vacant | 10 | 10.1% |
| Abandoned | 5 | 5.1% |
| Total | 99 | 100% |

Region 1 is characterized by the lowest proportion of abandoned parcels and the highest proportion of occupied parcels. The region is the northeastern corner of Beecher Site, with W Coldwater Road bordering to the north and Dupont Street to the west; W Princeton Avenue to the south and Detroit Street to the east. Two sets of vacant parcels lie adjacent to one another, while a third vacant parcel is adjacent to an abandoned parcel. The remaining three vacant parcels are scattered along W Humphrey Avenue and Louis Avenue.

Region 1 is characterized by the lowest proportion of abandoned parcels and the highest proportion of occupied parcels. The region is the northeastern corner of Beecher Site, with W Coldwater Road bordering to the north and Dupont Street to the west; W Princeton Avenue to the south and Detroit Street to the east. Two sets of vacant parcels lie adjacent to one another, while a third vacant parcel is adjacent to an abandoned parcel. The remaining three vacant parcels are scattered along W Humphrey Avenue and Louis Avenue.

4.2.2 Region 2

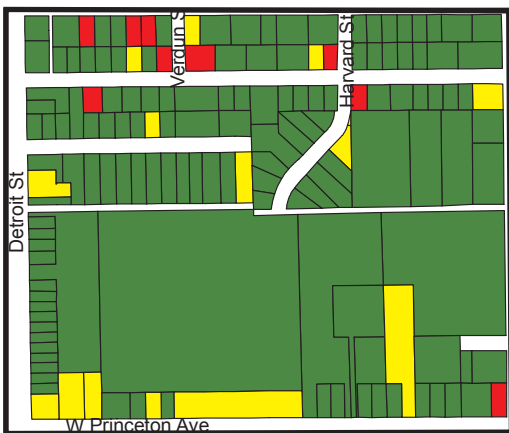


Table 4.2.2 Region 2 Count
Source: Team Genesee

| Class | Count | % |
|--------------|------------|-------------|
| Occupied | 130 | 84.5% |
| Vacant | 15 | 9.7% |
| Abandoned | 9 | 5.8% |
| Total | 154 | 100% |

Region 2 is characterized by a below-average number of abandoned and vacant parcels. The region is the northern central segment of Beecher Site, with W Coldwater Road bordering to the north and Detroit Street to the west; W Princeton Avenue to the south and Summit Street to the east. The large occupied parcel in the southwestern-central area belongs to Beecher Community School District, while the surrounding parcels are nearly entirely residential, with the exception of commercial parcels on the corner of W Kurtz Avenue and Detroit Street; and the corner of W Coldwater Road

Region 2 is characterized by a below-average number of abandoned and vacant parcels. The region is the northern central segment of Beecher Site, with W Coldwater Road bordering to the north and Detroit Street to the west; W Princeton Avenue to the south and Summit Street to the east. The large occupied parcel in the southwestern-central area belongs to Beecher Community School District, while the surrounding parcels are nearly entirely residential, with the exception of commercial parcels on the corner of W Kurtz Avenue and Detroit Street; and the corner of W Coldwater Road

and Detroit Street. Several vacant and abandoned parcels are surrounded by occupied parcels, but the majority of the few are adjacent to one another.

4.2.3 Region 3

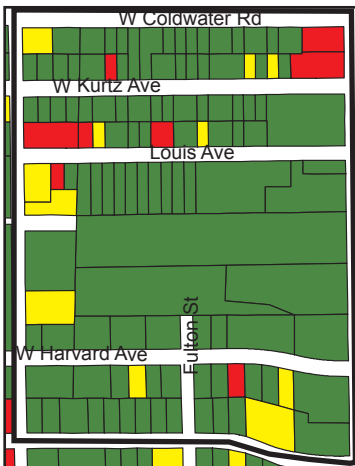


Table 4.2.3 Region 3 Count
Source: Team Genesee

| Class | Count | % |
|--------------|------------|-------------|
| Occupied | 102 | 84.3% |
| Vacant | 11 | 9.1% |
| Abandoned | 8 | 6.6% |
| Total | 121 | 100% |

The parcels bordering with N Saginaw Street are almost entirely commercial. Two exceptions to this are the Macedonia Missionary Baptist Church and Hamilton Community Health Network. Nearly all parcels between W Harvard Avenue and W Kurtz Avenue are unoccupied, with abandoned parcels in the center of unoccupancy.

Region 3 is characterized by the highest proportion of occupied parcels. The region is the northeastern corner of Beecher Site, with W Coldwater Road bordering to the north and N Saginaw Street to the east; W Princeton Avenue to the south and Summit Street to the west. The area is primarily residential.



4.2.4 Region 4

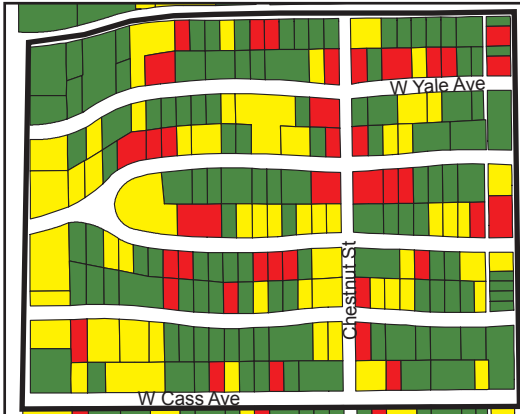


Table 4.2.4 Region 4 Count

Source: Team Genesee

| Class | Count | % |
|--------------|------------|-------------|
| Occupied | 121 | 56.3% |
| Vacant | 57 | 26.5% |
| Abandoned | 37 | 17.2% |
| Total | 215 | 100% |

Region 4 is characterized by the highest proportion of vacant parcels and the second-highest proportion of abandoned parcels. The region is the eastern-central segment of Beecher Site with Dupont Street as its western border and Detroit Street as its eastern; W Princeton Avenue to the north and W Cass Avenue to the south. The region is primarily residential with several parcels owned by the land bank scattered throughout. Two commercial lots exist along Detroit Street. Several abandoned or vacant parcels are surrounded by occupied parcels. The majority of vacant and abandoned parcels are tightly clustered together.

scattered throughout. Two commercial lots exist along Detroit Street. Several abandoned or vacant parcels are surrounded by occupied parcels. The majority of vacant and abandoned parcels are tightly clustered together.

4.2.5 Region 5

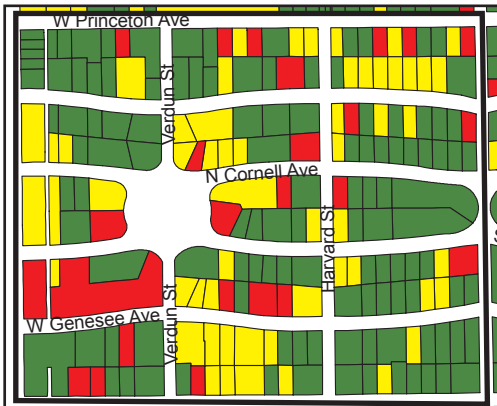


Table 4.2.5 Region 5 Count

Source: Team Genesee

| Class | Count | % |
|--------------|------------|-------------|
| Occupied | 118 | 60.2% |
| Vacant | 54 | 27.6% |
| Abandoned | 24 | 12.2% |
| Total | 196 | 100% |

Region 5 is characterized by the second highest proportion of vacant parcels. The region is at the center of Beecher Site with Detroit Street as its western border and Summit Street as its eastern; W Princeton Avenue to the north and W Cass Avenue to the south. While primarily residential, several vacant commercial parcels exist at the corner of Detroit Street and run along W Genesee Avenue to Verdun Street. Beecher School District owns two parcels at N & S Cornell Avenues at Summit Street. Almost an entire block along W Genesee Avenue is abandoned while another is vacant. Almost all abandoned or vacant parcels are adjacent and tightly clustered together.

Avenues at Summit Street. Almost an entire block along W Genesee Avenue is abandoned while another is vacant. Almost all abandoned or vacant parcels are adjacent and tightly clustered together.

4.2.6 Region 6

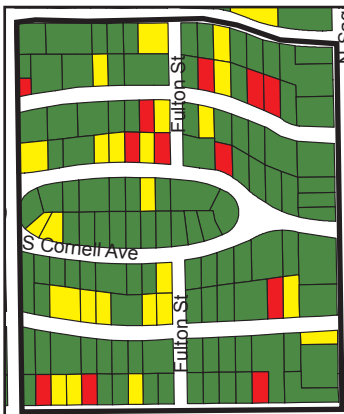


Table 4.2.6 Region 6 Count

Source: Team Genesee

| Class | Count | % |
|--------------|------------|-------------|
| Occupied | 108 | 75.0% |
| Vacant | 24 | 16.7% |
| Abandoned | 12 | 8.3% |
| Total | 144 | 100% |

Region 6 is characterized by the second-lowest proportion of abandoned parcels. The region is the western-central segment of Beecher Site with Summit Street as its western border and N Saginaw Street as its eastern; W Princeton Avenue to the north and W Cass Avenue to the south. A strip of commercial parcels lie along Detroit Street while the remainder of the region is residential with several land bank owned parcels. While a few abandoned or vacant parcels are isolated, the majority are adjacent to another abandoned or vacant parcel.

Beecher Stabilization Plan

4.2.7 Region 7

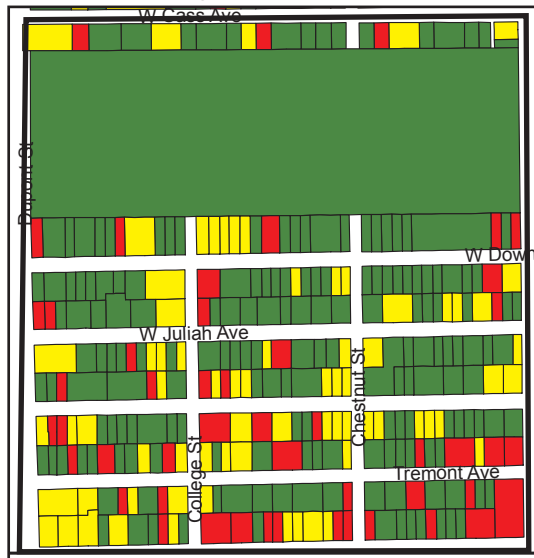


Table 4.2.7 Region 7 Count

Source: Team Genesee

| Class | Count | % |
|--------------|------------|-------------|
| Occupied | 184 | 60.3% |
| Vacant | 72 | 23.6% |
| Abandoned | 49 | 16.1% |
| Total | 305 | 100% |

Region 7 is characterized by the second lowest proportion of occupied parcels. It also contains the greatest number of parcels. The region is the southwest corner of Beecher Site with Dupont Street bordering to the west, W Carpenter Road to the south; W Cass Avenue to the North and Detroit Street to the east. With the exception of Express Mart of MI, LLC on the southeast corner of the region at the intersection of W Carpenter Road and Detroit Street, the area is entirely residential. The large parcel stretching the width of this region in the northern segment is currently occupied by Greater Friendship Azusa Ministries. Several vacant and abandoned parcels exist, but the majority are tightly clustered.

Region 7 is characterized by the second lowest proportion of occupied parcels. It also contains the greatest number of parcels. The region is the southwest corner of Beecher Site with Dupont Street bordering to the west, W Carpenter Road to the south; W Cass Avenue to the North and Detroit Street to the east. With the exception of Express Mart of MI, LLC on the southeast corner of the region at the intersection of W Carpenter Road and Detroit Street, the area is entirely residential. The large parcel stretching the width of this region in the northern segment is currently occupied by Greater Friendship Azusa Ministries. Several vacant and abandoned parcels exist, but the majority are tightly clustered.

4.2.8 Region 8



Table 4.2.8 Region 8 Count

Source: Team Genesee

| Class | Count | % |
|--------------|------------|-------------|
| Occupied | 203 | 68.8% |
| Vacant | 57 | 19.3% |
| Abandoned | 35 | 11.9% |
| Total | 295 | 100% |

Region 8 is characterized by containing the second greatest number of parcels. The region is the southern central segment of Beecher Site with Detroit Street bordering to the west, E Carpenter Road to the south; E Cass Avenue to the north and Summit Street to the west. One commercial parcel exists on the southwestern corner of the region, at the intersection of Detroit Street & E Carpenter Road. Beecher School District currently occupies the large parcel that stretches the length of the region in the northern segment. The remainder of the parcels are residential. While some abandoned parcels are isolated, the majority along Knickerbocker Avenue are tightly clustered.

Region 8 is characterized by containing the second greatest number of parcels. The region is the southern central segment of Beecher Site with Detroit Street bordering to the west, E Carpenter Road to the south; E Cass Avenue to the north and Summit Street to the west. One commercial parcel exists on the southwestern corner of the region, at the intersection of Detroit Street & E Carpenter Road. Beecher School District currently occupies the large parcel that stretches the length of the region in the northern segment. The remainder of the parcels are residential. While some abandoned parcels are isolated, the majority along Knickerbocker Avenue are tightly clustered.

4.2.9 Region 9

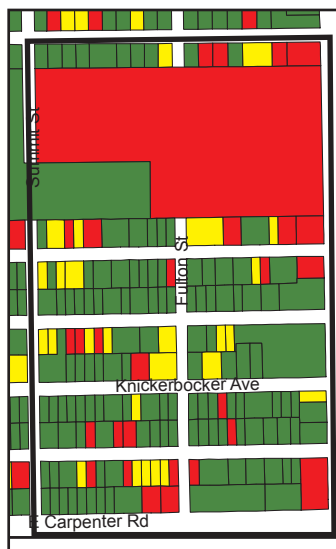


Table 4.2.9 Region 9 Count

Source: Team Genesee

| Class | Count | % |
|--------------|------------|-------------|
| Occupied | 128 | 70.0% |
| Vacant | 26 | 14.2% |
| Abandoned | 29 | 15.8% |
| Total | 183 | 100% |

Region 9 is characterized by nearly equal proportions of vacant and abandoned parcels. The region is the southeastern corner of Beecher Site with N Saginaw Street bordering to the east, E Carpenter Road to the south; Summit Street to the west, and E Cass Avenue to the north. This region possesses the most diverse land use of all regions analyzed. An industrial parcel lies along E Carpenter Road next to Grace Tabernacle Missionary. With the exception of the large vacant El Bethel Evangelical Baptist Church in the northern segment of this region, commercial parcels lie entirely along N Saginaw Street. The remainder of parcels are residential with tight clustering of vacant and abandoned parcels.

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4.2.10 Inventory Regions Summary

The majority of parcels within Beecher Site are occupied. Despite this, the majority of vacant and abandoned parcels are densely concentrated in the central regions 4, 5, and 6 between W Cass Avenue and W Princeton Avenue. This region is marked by a greater proportion of vacant parcels in a tightly clustered pattern. In contrast, the southern regions 7, 8, and 9 between W Downey Avenue and W Carpenter Road possesses more abandonments and fewer vacancies in a less defined clustered pattern. While there are some clusters of abandoned and vacant parcels adjacent to each other, there are few, if any, whole blocks of parcels that might be demolished for extensive redevelopment.

The reader is advised to consider the time of year during which this inventory was taken. Initial inventory was taken in late winter where a significantly greater number of parcels were judged to be abandoned. Upon revisiting the site in warmer weather during early spring, several parcels previously judged as abandoned were rejudged to be occupied. While this practicum team has done everything under their control to ensure data quality, error was measured consistently throughout this project at 1% or less for each inventory journey. This has been corrected as much as humanly possible through a number of relational databases and human perseverance.

Further study of regional occupancy must consider the proportion of vacancy and abandonment to the number of parcels in a studied region.

4.3 Land Ownership and Occupancy

Land occupancy often plays a role in the upkeep of a property. Owner occupied properties tend to be well-kept and maintained over the years. In contrast, absentee owned properties tend to be less well maintained. To determine whether a parcel is resident owned or absentee owned, data were analyzed with ArcGIS 9.2.

Land ownership was analyzed from data provided by Genesee County Metropolitan Planning Commission. Parcel attributes were queried across several fields provided in the shapefile. A large amount of data was provided, including parcel postal address; its parcel ID number; zoning district classification; type of parcel based on zoning district, including commercial, industrial, residential, and exempt; acreage; school district; the parcel's owner and address; the taxee's name and address; whether the parcel is exempt from taxation; the parcel's assessed value; and the CAP and state-equalized values of structure(s) residing upon the parcel. All operations performed in ArcGIS 9.2 were later verified with GRASS GIS.

It was noted early in the analysis that 166 of 1712 parcels within the Beecher Site area possessed no taxee information. It is unclear why these fields are null. We based this analysis on the potential difference between the owner's address, the taxee's address, and the parcel's address. It is assumed that the tax bill is sent to the taxee, and that their difference signifies a parcel being occupied by someone other than the owner of the parcel.

Parcels were selected by the following criteria:

IF owner's street = taxee's street AND owner's city = parcel's city
THEN the parcel is occupied by its owner

1,067 of 1,712 parcels were returned, approximately 62.2% of all parcels in Beecher Site. Figure 4.3.1 displays parcel occupancy.

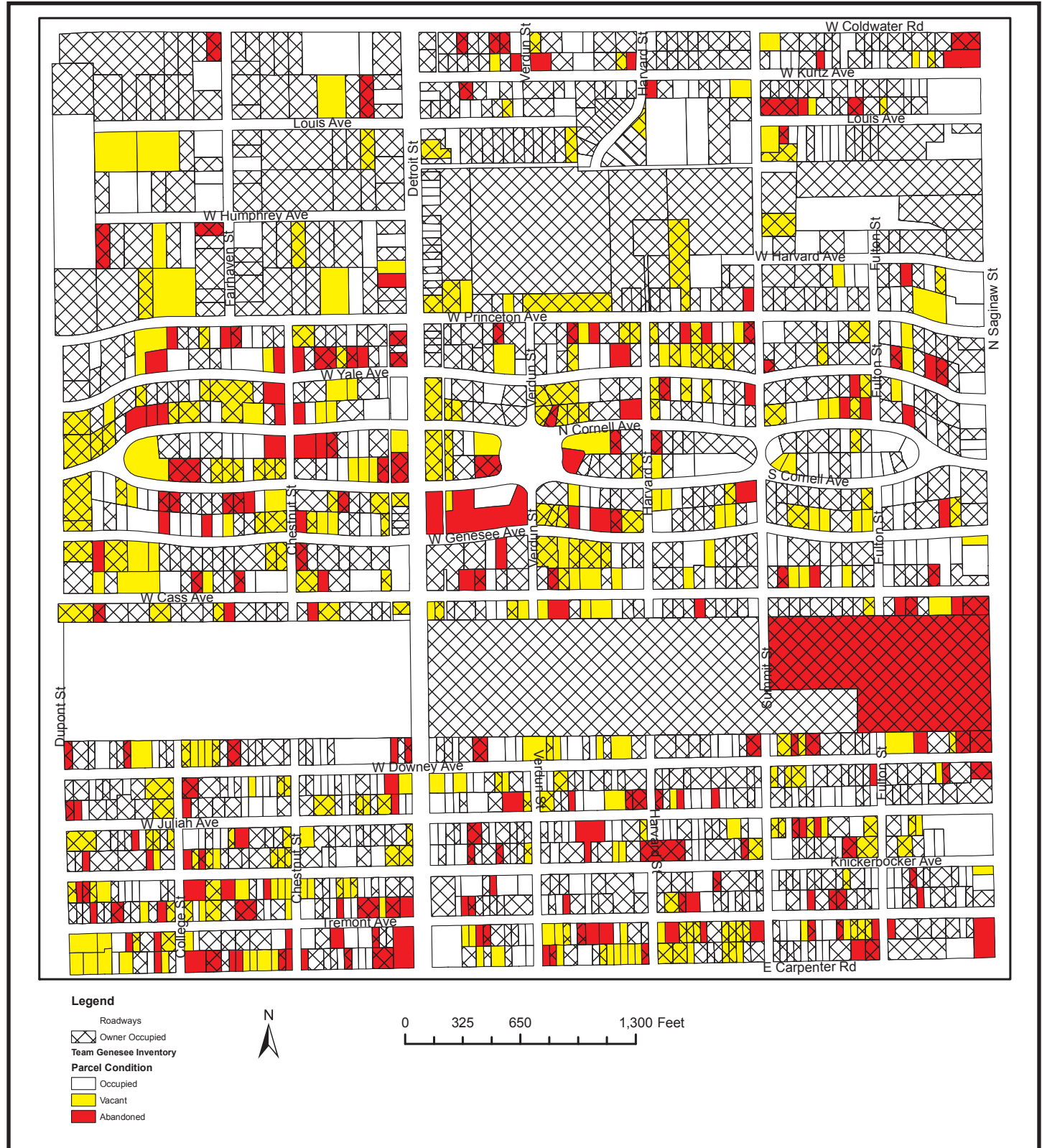
It is difficult to determine the accuracy of this method to identify parcels owned by their occupant. Several parcels identified as abandoned and vacant are marked as owner occupied. However, the majority of abandoned parcels are uninhabitable. The general trend seems to indicate that parcels not occupied by their owner tend to become vacant or abandoned. It seems likely that this trend will continue, and parcels currently classified as occupied by an absentee owner may become abandoned in the near future.

4.4 Land Use Summary

Beecher Site is characterized by a significant proportion of residents who live in rental housing and an increasing number of vacancies. Housing values are estimated at one-third of the surrounding area while the average age of a residential structure is ten years older than this same surrounding area. An inventory of land revealed that almost twenty percent of land parcels are vacant with another twelve percent abandoned. While determination of owner occupancy is not perfect, it is a window into the future where the central and southern areas of Beecher Site may be abandoned. We now turn to an assessment of demolition possibilities to free up unused land for new uses.

Figure 4.3.1 Owner Occupied Parcels

Source: Team Genesee; county and township GIS data





Beecher Stabilization Plan



V. Demolition Assessment

The topic of demolition will be utilized by this study to identify and prioritize those abandoned structures which may be appropriate for redevelopment under future proposed land use plans in this report. Creation and analysis of the demolition criteria is closely based on the NSP guidelines for demolition, as it represents the funding program currently driving the redevelopment plan in the Beecher site.

5.1 Demolition Policy Overview

Demolition is an eligible activity under the NSP enacted by the Department of Housing and Urban Development (HUD). As most federal, state, and local laws, this activity is defined by specific guidelines and regulations. Consequently, to ensure conformance and compliance with its rules, the activity of demolition needs to follow the guidelines and meet the definitions as described under the NSP.

Following are the definitions provided under this program which acts as guidance in defining properties which are eligible for demolition. This presented information will serve as the basis of the creation of the demolition criteria in this report. Information has been extracted from the Housing and Economic Recovery Act (HERA) Title III Sec. 2301 & the NSP Explanation of Property Types under Each Eligible Use, released by the Department of Housing and Urban Development (HUD) as of December 3rd, 2009.

The following are the definitions and guidelines related to the activity of demolition, an eligible use under the NSP.

“NSP Notice Definition: Blighted structure. A structure is blighted when it exhibits objectively determinable signs of deterioration sufficient to constitute a threat to human health, safety, and public welfare.

For “blighted structures”:

The NSP Notice defines “blighted structures”, as shown above. HUD has taken the position that any type of structure that is blighted may be demolished with NSP funds. This means that commercial, industrial or other types of structures may be demolished in addition to homes and residential structures in areas of greatest need.

In general, demolition must have an end use that meets a national objective (National Objectives: Benefiting low and moderate (L/M) income person; Addressing slums or blight; or meeting a particularly urgent community development need). There are a couple of cases in which the demolition can be an end itself. First, in a low moderate and middle income (LMMI) area, if the property creates an extreme danger to public health or safety (like a meth lab or collapsing structure), then it can be considered an area benefit (LMMI, Low/mod area benefit: the service area identified for activities is primarily low/mod income.). Second, if the demolition is done in concert with a coordinated program of redevelopment and/or rehab and/or new construction and/or other improvements, including other demolition, in a target area, which together can reasonably be expected to improve the area, then it can also qualify as LMMI.

In all other cases, as with property in a land bank, it should lead to an end use that is eligible and meets a national objective in NSP. In this respect, land banked property and demolished property are just interim uses for which end uses must be planned. Such eligible end uses could include housing (redeveloped on the property), sale (or donation) of the property as side lots to LMMI neighbors, donation of the property to a community garden group, or use of the property as a public facility like a park (in NSP1 only). If the property is acquired, it could temporarily be placed in a land bank, but the same requirements will ultimately apply to both types of property.

Redevelopment for “demolished or vacant properties”:

This Eligible Use allows communities to address the broadest range of property types. Because the legislation does not limit this use to homes and/or residential properties, HUD will permit grantees to acquire and redevelop ANY property type. This includes commercial or industrial property in addition to all types of residential property. Note that property acquired under Redevelopment need not be abandoned or foreclosed upon.

However, it MUST be vacant. Vacant properties include both vacant land and properties with vacant structures on the land. However, HUD understands redevelopment to imply that properties were once developed or are surrounded by existing development. Therefore undeveloped or greenfield sites, at the edge of development, may not be defined as an eligible use. Previously undeveloped in-fill sites are generally eligible.⁸⁵

To provide for a more practical use of these definitions which will than assist the creation of the demolition criteria, demolition practices in previous NSP cases were reviewed. Specifically demolition practices for NSP 2, in the City of Pontiac, MI were reviewed.

Currently the City of Pontiac is redeveloping a neighborhood in central Pontiac utilizing NSP 2 funding. The project is being run by the City of Pontiac in cooperation with multiple local and statewide non-governmental organizations (NGO). According to C.J. Felton, Program Development Supervisor at Community Housing Network, Inc. (CHN), one of the involved NGO's, demolition practices in the NSP 2 for the City of Pontiac are generally based on two factors

- Does the property have significant foundation damage where the dollar amount necessary to rehabilitate the structure is more expensive than demolition and new-construction?
- Is the demolition process conducted in concert with a comprehensive neighborhood revitalization plan?³⁶

5.2 Demolition Assessment

The following demolition assessment has been created based on the definitions provided under the NSP guidelines, and general methodology for identification of demolition eligible properties in the case of the City of Pontiac NSP 2 activity. The criteria created follows a scoring system of 1 to 3 where 1 presents the lowest value and 3 presents the highest value. Scores are provided for five categories: roof, door, window, siding, and lot & driveway. These categories represent the external feature of a structure, whose conditions can be visually analyzed without the need to inspect internal conditions of the unit. According to Kay Shull, Housing Inspector at CHN, visual inspections of these features provides a general perspective of internal structural foundation conditions (e.g. if structure is characterized by extreme fire damage on roof, water damage on sidings, windows and doors, the property likely suffers from internal structural foundation damage; if external conditions appear health, than the structure is less likely to be characterized by internal structural foundation damage).³⁷ Consequently, the creation, and analyses conducted based on this demolition criteria, assumes that extreme external damage upon these categories and correlated with internal structural foundation damage. As a result, as these assessments are observational, a thorough condition assessment, including interior assessment, is advised prior to taking any action in regard to these properties.

The following is the demolition criteria based upon, the definitions provided under the NSP guidelines, general methodology for identification of demolition eligible properties in the case of the City of Pontiac NSP 2, and the probable correlation between foundation damage and external structural features (e.g. roof, door, window, siding, lot & driveway) as classified Saturday 31 March 2012.

Beecher Stabilization Plan

| Criteria | Score | Description |
|---------------------------|-----------------------|--|
| Roof | 3 | No major damages. Roofing materials appear largely intact. |
| | 2 | Minor damages. Lack of maintenance is apparent but partial. Existing damages do not appear to act as a risk to public health. |
| | 1 | Severe damages from fire and/or water damage, other damage (e.g. termite), and possible acts of God. Roof conditions are further characterized by possible cave-ins and are likely to pose a risk to public health. |
| Door | 3 | Present, with no to very minor damages (e.g. paint damage). |
| | 2 | Boarded up or present but in poor condition. Damages do not appear to need complete door replacement. |
| | 1 | Not present. When existent, damage repair may only include complete door replacement. |
| Window | 3 | Present, with no to very minor damages. (e.g. paint damage) No glass damage. |
| | 2 | Boarded up or present but in poor conditions. Damages do not appear to need complete window replacement. |
| | 1 | Not present. When existent, damage repairs may only include complete window replacement. |
| Siding | 3 | No major damages. Siding materials appear largely intact. |
| | 2 | Partially present or need some maintenance. Existing damage do not appear to act as a risk to public health. |
| | 1 | Severe damages from fire and/or water damage, other damages (e.g. termite), and possible acts of God. Siding repairs are likely to require full replacement and may pose a risk to public health. |
| Lot & Driveway | 3 | Well kept lawn. Well maintained driveway. |
| | 2 | Overgrown lawn; lack of maintenance. |
| | 1 | Damaged lawn, over grown weeds, and in need of maintenance and clean up over period of time. |
| Raw Score | 5-15 | All five categories' scores are summed to create the parcel's raw score. Possible points are from 5 to 15. |
| Final Score | Good Condition | Houses with a final score of Good Condition have a raw score between 13 and 15. Houses appear in good condition with a probability of little to no structural damage. No major noticeable maintenance problems. |
| | Fair Condition | Houses with a final score of Fair Condition have a raw score between 9 and 12. Houses appear in need of repairs, however existing damages can be replaceable and are not likely to pose a risk to public health. |
| | Poor Condition | Houses with a final score of Poor Condition have a raw score between 5 and 8. Structural foundation damages are likely existent and replacement of exterior features and materials are likely not a viable solution. Houses further pose a risk to public health and are recommended for demolition. |

5.3 Examples

5.3.1 Building A



Source: http://4.bp.blogspot.com/_3QgxQKIS4kk/SwdGJ4xDV0I/AAAAAAAAANyM/kMPHIZhKZi8/s1600/100_5657.jpg

| Parcel # | Roof | Door | Window | Siding | Lot & Driveway | Raw Score | Final Score |
|-------------------|----------|----------|----------|----------|----------------|-----------|-----------------------|
| Building A | 3 | 2 | 3 | 3 | 2 | 13 | Good Condition |

No damages in the roof and siding. Windows are well maintained. The lot and driveway are in good condition. Despite the door being boarded up, Building A is overall in habitable condition.

5.3.2 Building B



Source: <http://daddu.net/wp-content/uploads/2009/09/house5.jpg>

| Parcel # | Roof | Door | Window | Siding | Lot & Driveway | Raw Score | Final Score |
|-------------------|----------|----------|----------|----------|----------------|-----------|-----------------------|
| Building B | 1 | 2 | 2 | 2 | 2 | 9 | Fair Condition |

Severe damage to the roof. Door is present but likely in need of repair. Several windows boarded up while others appear in good condition. Siding will require repair on the front of house. Driveway is usable and the lot is not intensely overgrown. Building B will need some repairs to achieve habitable condition.

Beecher Stabilization Plan

5.3.3 Building C



Source: http://cdn.booooooom.com/wp-content/uploads/2009/05/abandoned_houses_06.jpg

| Parcel # | Roof | Door | Window | Siding | Lot & Driveway | Total | Final Score |
|-------------------|----------|----------|----------|----------|----------------|----------|-----------------------|
| Building C | 1 | 1 | 1 | 1 | 1 | 5 | Poor Condition |

Building C has been partially destroyed by fire damage. The roof has partially fallen in, and doors and windows are not present. Some siding still exists but the majority has been damaged or destroyed beyond repair. The lot is not kept and litter has begun to collect in the front yard. The parcel on which Building C resides is not habitable until Building C is demolished.

5.4 Abandoned Parcel Condition

Presented on the following page in Figure 5.4.2 is a map of demolition classifications in Beecher Site. This map depicts the condition of structures on parcels of land previously classified in Section 4.2 as abandoned.

For in-depth analysis, Beecher Site was again divided into nine regions. The nine regions are displayed below in Figure 5.4.2. Each of these regions is analyzed in detail on the following pages.

| Condition | Count | % |
|--------------|------------|-------------|
| Good | 58 | 27.9% |
| Fair | 106 | 50.9% |
| Poor | 44 | 21.2% |
| Total | 208 | 100% |

Figure 5.4.1 Abandoned Parcel Regions

Source: Team Genesee

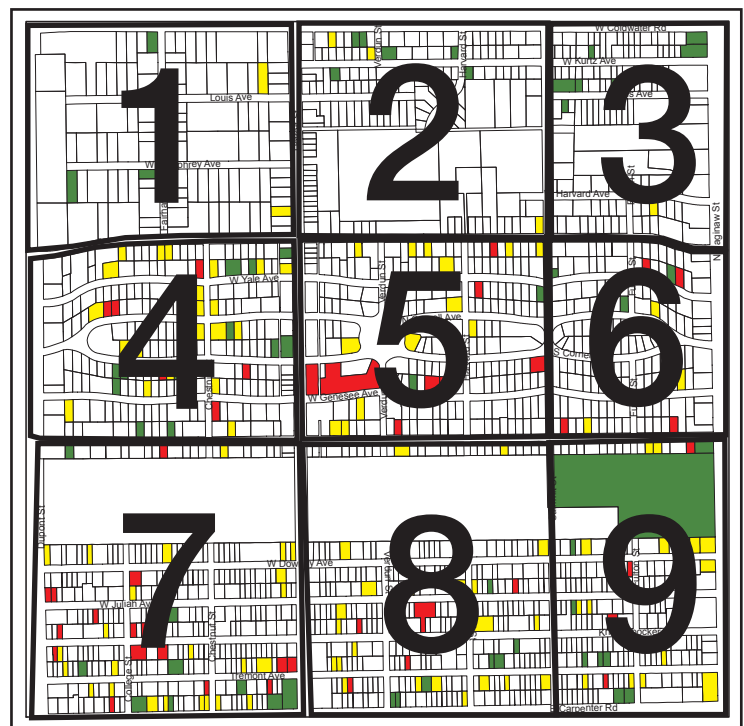
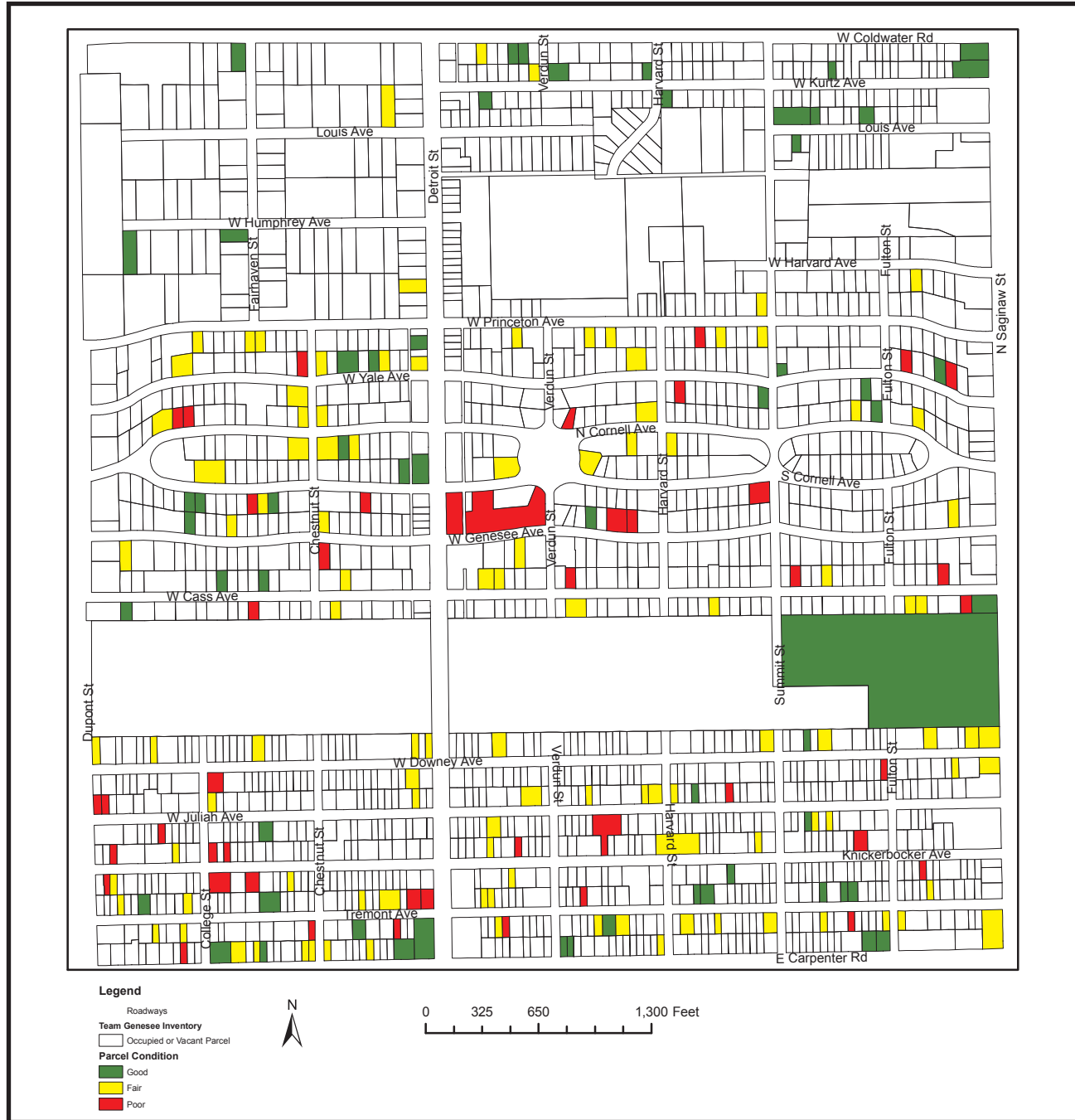


Figure 5.4.2 Abandoned Parcel Condition
Source: Team Genesee



Beecher Stabilization Plan

5.4.1 Region 1

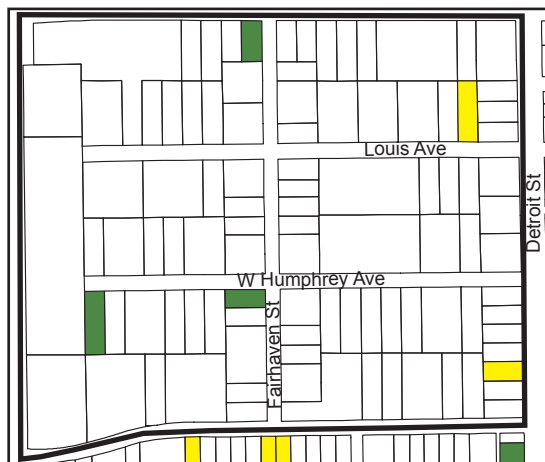


Table 5.4.1 Region 1 Count
Source: Team Genesee

| Condition | Count | % |
|--------------|----------|-------------|
| Good | 3 | 60.0% |
| Fair | 2 | 40.0% |
| Poor | 0 | 0.0% |
| Total | 5 | 100% |

Region 1 is characterized as the least abandoned area of Beecher Site. Over half of the vacant parcels in this region are suitable for habitation, while the remaining two could be occupied with minimal repairs. These parcels are scattered throughout this region amongst the other occupied parcels. This lack of clustering and overall habitable condition of these parcels likely renders demolition ineffective in this area.

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5.4.2 Region 2



Table 5.4.2 Region 2 Count
Source: Team Genesee

| Condition | Count | % |
|--------------|----------|-------------|
| Good | 6 | 66.7% |
| Fair | 3 | 33.3% |
| Poor | 0 | 0.0% |
| Total | 9 | 100% |

Region 2 is characterized as an area with sparse abandonment, concentrated mostly in the northern quarter along Coldwater Road and Louis Avenue. Some abandoned properties in good and fair condition are clustered around the intersection of Verdun Street and Louis Avenue. Other parcels in good condition lie further east at the intersection of Harvard Street and Louis Avenue. One parcel in fair condition lies in the southeastern corner of this region. There may be some advantage to demolishing homes along Coldwater Road with these parcels facing areas external to Beecher Site. With the overall habitable condition of these parcels, demolition is likely ineffective in this area. However, demolition of structures on parcels facing Coldwater Road may improve the external image of the neighborhood to the surrounding community.

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5.4.3 Region 3

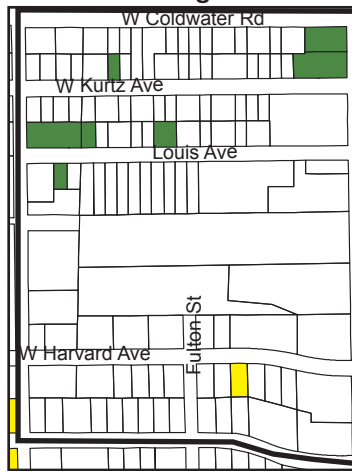


Table 5.4.3 Region 3 Count
Source: Team Genesee

| Condition | Count | % |
|--------------|----------|-------------|
| Good | 7 | 87.5% |
| Fair | 1 | 12.5% |
| Poor | 0 | 0.0% |
| Total | 8 | 100% |

Region 3 is characterized by the highest proportion of abandoned parcels in good, habitable condition. One of these commercial parcels in good condition directly faces Saginaw Street and likely requires minor repairs to become hospitable to commercial users. The remaining parcels in good condition lie along W Kurtz Avenue and Louis Avenue. Several of these parcels along Louis Avenue are clustered together on the western edge of region 3. The sole parcel in fair condition lies along W Harvard Avenue near the intersection of Fulton Street. With the overall habitable condition of these parcels, demolition is also likely ineffective in this area.

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5.4.4 Region 4

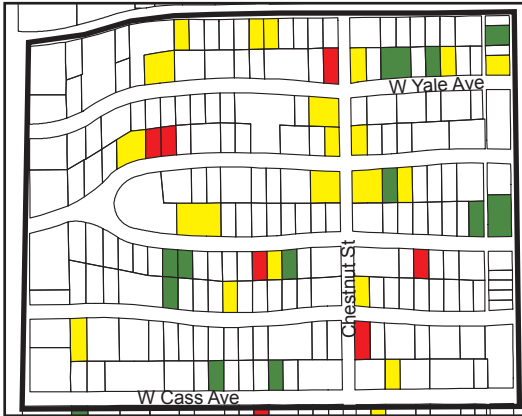


Table 5.4.4 Region 4 Count

Source: Team Genesee

| Condition | Count | % |
|--------------|-----------|-------------|
| Good | 11 | 29.7% |
| Fair | 20 | 54.1% |
| Poor | 6 | 16.2% |
| Total | 37 | 100% |

Region 4 is characterized by its significant clustering pattern of parcels in good and fair conditions. The largest concentration of these abandonments is focused along the northern segment of

Chestnut Street, where they fan out along every street. Several parcels in fair and good condition sit at the intersection of Chestnut Street and N Cornell Avenue, with two parcels in poor condition at the north and south ends of Chestnut. Demolition in areas where one parcel in poor condition sits adjacent to other abandoned parcels, such as S Cornell Avenue near the intersection of Chestnut Street, and near the end of N Cornell Street may help temper adjacent abandonments.

5.4.5 Region 5

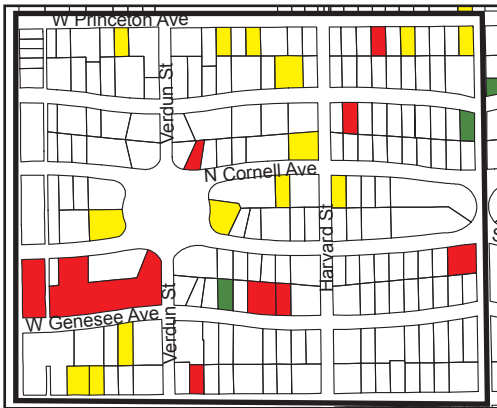


Table 5.4.5 Region 5 Count

Source: Team Genesee

| Condition | Count | % |
|--------------|-----------|-------------|
| Good | 2 | 8.3% |
| Fair | 14 | 58.3% |
| Poor | 8 | 33.3% |
| Total | 24 | 100% |

Region 5 is characterized by its significant clustering of parcels in poor condition along W Genesee Avenue and S Cornell Ave. One parcel in fair condition lies across the street from this cluster with

another parcel in fair condition kitty corner. The remaining parcels in fair condition are scattered through the central and northern areas of region 5. With a high concentration of parcels in poor condition along W Genesee Avenue and S Cornell Avenue, demolition in this corridor may be effective. This cluster pattern also provides an opportunity for a civic, community, or commercial use for the demolished land.

5.4.6 Region 6

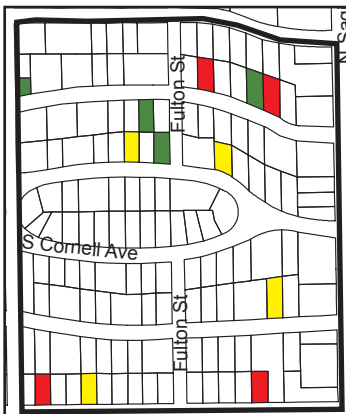


Table 5.4.6 Region 6 Count

Source: Team Genesee

| Condition | Count | % |
|--------------|-----------|-------------|
| Good | 4 | 33.3% |
| Fair | 4 | 33.3% |
| Poor | 4 | 33.3% |
| Total | 12 | 100% |

Region 6 is characterized by an even distribution of parcels in good, fair, and poor condition. Two of these parcels, one in poor condition and the other in good condition, lie adjacent to each other. A cluster of three parcels along N Cornell and W Yale Avenue touch only by their corners. Three other parcels in poor and fair condition lie along W Cass Avenue, with the remaining parcels scattered about the region. These parcels all lie well within the residential area of Beecher Site. Demolition of parcels adjacent to other parcels in good condition may help temper further abandonments.

Beecher Stabilization Plan

5.4.7 Region 7

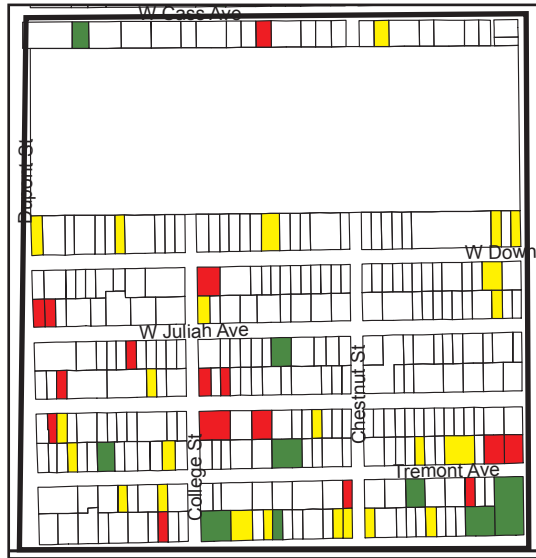


Table 5.4.7 Region 7 Count

Source: Team Genesee

| Condition | Count | % |
|--------------|-----------|-------------|
| Good | 9 | 18.4% |
| Fair | 24 | 49.0% |
| Poor | 16 | 32.6% |
| Total | 49 | 100% |

Region 7 is characterized by greatest proportion of parcels in fair and poor condition at 81.6%. None of these parcels in poor condition sit directly adjacent to each other; all sit with either an occupied or vacant parcel between them. As with the northern regions, this southern region sits facing the community outside Beecher Site. Many abandonments have occurred along W Carpenter Road; though they are in good and fair condition, demolitions in this area may help bolster the image that Beecher Site projects to the outside community. Additionally, demolition of parcels in poor condition along College Street may be effective in tempering abandonments in this region.

Region 7 is characterized by greatest proportion of parcels in fair and poor condition at 81.6%. None of these parcels in poor condition sit directly adjacent to each other; all sit with either an occupied or vacant parcel between them. As with the northern regions, this southern region sits facing the community outside Beecher Site. Many abandonments have occurred along W Carpenter Road; though they are in good and fair condition, demolitions in this area may help bolster the image that Beecher Site projects to the outside community. Additionally, demolition of parcels in poor condition along College Street may be effective in tempering abandonments in this region.

5.4.8 Region 8



Table 5.4.8 Region 8 Count

Source: Team Genesee

| Condition | Count | % |
|--------------|-----------|-------------|
| Good | 7 | 20.0% |
| Fair | 23 | 65.7% |
| Poor | 5 | 14.3% |
| Total | 35 | 100% |

Region 8 is characterized by containing the greatest number of abandoned parcels in fair condition. The majority of these parcels are scattered throughout the region. Several lie adjacent to a parcel of good or poor condition; one exception to this is the set of parcels in poor condition in the center of this region along Tremont Avenue and Knickerbocker Avenue. The majority of abandoned parcels seem to be clustered around these parcels in poor condition. Demolishing the cluster of abandoned parcels along Tremont Avenue and Knickerbocker Avenue may halt further abandonment of property.

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5.4.9 Region 9

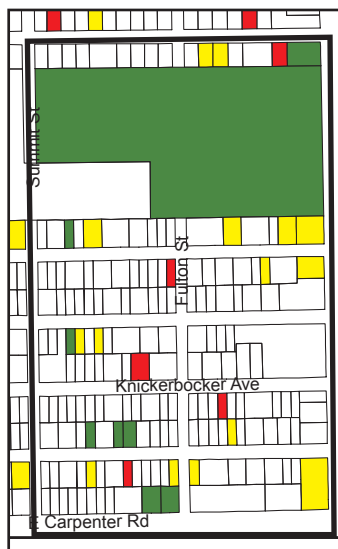


Table 5.4.9 Region 9 Count

Source: Team Genesee

| Condition | Count | % |
|--------------|-----------|-------------|
| Good | 9 | 31.0% |
| Fair | 15 | 51.7% |
| Poor | 5 | 17.3% |
| Total | 29 | 100% |

Region 9 is characterized by a large abandoned parcel facing Saginaw Street in good condition. Adjacent to this parcel are several others in fair condition and one in poor condition. Another outward facing abandoned parcel lies on the corner of Saginaw Street and W Carpenter Avenue. With its excellent street access, demolition may be effective on this parcel to bring future commercial development. Within region 9 lie five parcels in poor condition, along W Cass Avenue, Knickerbocker Avenue, Tremont Avenue, and Fulton Street. Demolishing parcels in poor condition along Knickerbocker Avenue may be effective in halting abandonment.

Region 9 is characterized by a large abandoned parcel facing Saginaw Street in good condition. Adjacent to this parcel are several others in fair condition and one in poor condition. Another outward facing abandoned parcel lies on the corner of Saginaw Street and W Carpenter Avenue. With its excellent street access, demolition may be effective on this parcel to bring future commercial development. Within region 9 lie five parcels in poor condition, along W Cass Avenue, Knickerbocker Avenue, Tremont Avenue, and Fulton Street. Demolishing parcels in poor condition along Knickerbocker Avenue may be effective in halting abandonment.

5.5.10 Abandoned Parcel Condition Summary

Abandoned parcels in the northern third regions 1, 2, and 3 are in overall habitable condition, while parcels in the central regions 4, 5 and 6 and southern regions 7, 8, and 9 exhibit fair and poor habitable qualities. From this assertion, demolition of abandoned parcels seem most effective in the central and southern regions of Beecher Site. These regions also exhibit the greatest number of abandoned parcels in all of Beecher Site. Some abandoned sites in poor condition tend to follow these criteria which may prove effective later in identifying strategic demolition sites:

- Regions with greater numbers of abandonments tend to exhibit clustering patterns around parcels in poor condition
- Abandoned parcels which face the community outside of Beecher Site tend to be adjacent to other abandoned parcels
- Abandonment along major thoroughfares tends to trickle into adjacent collector streets
- Abandoned commercial or public parcels tend to be good or fair in condition
- Abandoned residential parcels in areas with few abandonments tend to be in good or fair condition
- Areas with small parcel sizes tend to have more abandonments in fair and poor conditions

As before with the parcel inventory, the reader is advised that the condition of these parcels may change with the seasons. Several parcels initially judged to be in especially poor, abandoned condition were later observed to be in the process of renovation. While this practicum team has done everything under their control to ensure data quality, error was again consistently measured throughout this project at 1% or less for each inventory journey. This has been remediated as thoroughly as humanly possible under project time constraints through a number of relational databases and human perseverance.

Further study of parcel abandonment must compare proportion of abandonments to number of parcels in a studied region.



Beecher Stabilization Plan



VI. Case Studies

Case studies were conducted as part of this report to assist this study in identifying proven used strategies in neighborhood rehabilitation related efforts. Four cases were collected and analyzed. These are presented further in this section in the following order:

- Voluntary Associations in Grand Boulevard Neighborhood
- Toronto's Abandonment Issue Campaign for Affordable Housing
- Sideyard Expansion in Detroit
- The Church Brew Works (Pittsburgh, Pennsylvania)

6.1 Voluntary Associates in Grand Boulevard Neighborhood

The case study, Voluntary Association in Low-Income Neighborhoods, was based in the Grand Boulevard Neighborhood located near Chicago in 1996. This case study concerned the community, encouraging them to get involved and assist each other with the many challenges they face.

Grand Boulevard has a population of 36,000 residents. The area has experienced loss of manufacturing jobs similar to the Flint area and its auto industry. In effect, Grand Boulevard experienced a steady decline in housing conditions and in average income of the residents residing there. To alleviate these issues, various activities to understand these conditions were undertaken on a local level. Members of the group conducting these activities were largely citizens of the region. Multiple surveys were conducted to gather input utilizing a variety of methods such as phone usage, a block to block survey to gather information on the residents, interviews with the area's influential leaders, and also community based activities addressing the issues that residents had. In addition, maps were created which highlighted areas of opportunity. Some of the major questions answered were the communities thoughts on neighborhood projects, how to address the different issues that the community faces, and also inquiries contributing to economic development in the area.

In conclusion, the case study in Grand Boulevard found that citizens “could be encouraged to contribute even more than they already do to the economic and human development of their neighborhoods.”³⁸ Through community leaders, surveys, and local encouragement, previously unknown creativity and support was unveiled. In light of the findings of this case study, the integration of the Beecher community, and general community involvement in the revitalization plans of the Beecher site, may prove beneficial to the future land use plans of the area. Although an initiative similar to the one undertaken in the Grand Boulevard case study is outside the scope of this study, modest community input inclusion may still prove beneficial to the overall goals of this project. This input may take the form of a town hall focus group, charette and similar, with the findings collected by conducting this activity holding weight towards the creation of future land use plans.

6.2 Toronto's Abandonment Issues Campaign for Affordable Housing

David Wachsmuth, and Shiri Pasternak compiled several cases of abandonment issues in the city of Toronto. A campaign developed seeking to help address the city's housing crisis through the introduction of a “Use It or Lose It” bylaw that would see abandoned buildings expropriated and converted to affordable housing. After our inventory, we found the Beecher neighborhood in the same abandonment situation. David Wachsmuth and Shiri Pasternak conducted this study to examine this campaign and abandonment issue, but also to suggest the radical potential this bylaw has to address the basic needs for shelter. The case study was conducted for the entire city of Toronto, Canada in 2006. homes in Toronto, only a few hundred were found fully or partly vacant, boarded-up, or in poor repair. The reason for the Abandonment Issues campaign is an effort to get the City of Toronto to adopt a Use It or Lose It bylaw, which would see abandoned buildings converted by the City into affordable housing. The idea used here is social expropriation, which is, in the simplest terms, confiscation of private land for the establishment of social equality. “In 2006 a single social expropriation occurred in Toronto: a former rooming house on the major thoroughfare Queen Street West that had been damaged in a fire in 1998 and stood vacant ever since was expropriated by the municipal government. This building is now in the process of being redeveloped as affordable housing by the Parkdale Activity-Recreation Centre (PARC; a nearby non-profit community center and a member of the Abandonment Issues coalition) with federal and provincial subsidies.” This was the first example of what was to be done throughout the entire city. By expropriating the vacant building, the city set an inspiring precedent for the expropriation of private property for the explicit social aim of providing more affordable housing in Toronto, as would be the case in Genesee County. The situation with some abandoned properties in the Beecher neighborhood relate to Toronto's abandonment situation. If private property is

abandoned and not being utilized, it should be confiscated, and possibly used for more affordable housing units. This is just an example of possible considerations dealing with the abandonment situation in the Beecher neighborhood, and furthermore, Genesee County.

The problem we run into is the United States' eminent domain law which allows the government to seize a citizen's property without his or her consent, as long as they are compensated. A type of eminent domain that could work in this situation would be easement of right away. For an example, a utility company may obtain an easement over private land install and maintain power lines. The property owner remains free to use the property for any purpose which does not interfere with the right of way or easement. Another possible solution strays away from eminent domain and instead uses market forces. If zoning requirements were more flexible and acknowledged market principles, new projects could move forward without taking the rights of the existing landowners.

6.3 Sideyard Expansion in Detroit, Michigan

Blotting, or side yard expansion as it used to be called, is a technique, which involves homeowners in largely vacant neighborhoods purchasing adjacent lots at a reduced price. The homeowners can then use that extra land in a variety of ways. These uses can include gardens, garages, basketball courts, green space, and a variety of other uses. This in turn helps to get rid of vacant land, which can attract crime, illegal dumping of trash, and unsightly or unkempt parcels. It also helps to create a neighborhood that is more inviting and visually pleasing by having larger lots that are well maintained. Figure 6.3.1 below shows how a variety of different types of blots can transform a once partly vacant block.

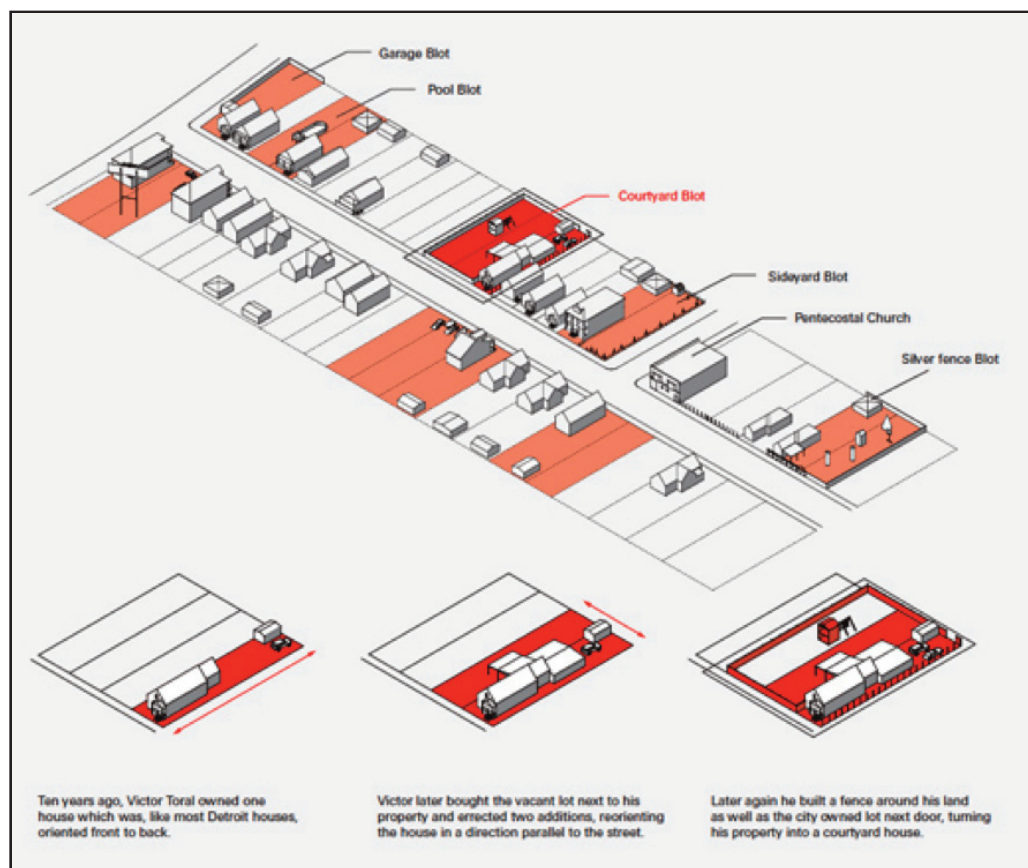


Figure 6.3.1: Blotting in Detroit

Source: <http://shrinkingcities.files.wordpress.com/2009/12/rebuilding-detroit-22.jpg>

Beecher Stabilization Plan

Blotting is a technique that has been around for a while as a redevelopment and urban decline solution. The city of Detroit is one of the areas where this has been taking place. Interboro a research and design firm out of New York City conducted a study on blotting in the Detroit area neighborhoods. They outlined several different examples of blotting, but most notably was the story of the Anderanin family. In this case the several properties surrounding the Anderanin family home became vacant. Jean Anderanin decided to purchase two of the properties directly next to the family home. Then seven years later in 1999, her son purchased the two vacant lots next to those already purchased by Jean. And in 2002 purchased another lot from the city of Detroit, extending the yard space to six parcels. The Anderanins then built a fence clearly marking the property line and began to work on making their backyard oasis. The yard contains a large garden, basketball hoop, gazebo, and several bird houses (2008). “The result, according to University of Michigan urban planning professor Margaret Dewar, is a better safer neighborhood” (2011).

There are certain criteria that need be met to allow land to be used for blotting. The requirements for sideyard expansion, according to the Genesee County Land Bank’s Side Lot Program are:

- (1.) The property requested is currently owned by the Genesee County Land Bank.
- (2.) The property requested is vacant real property with no structure on the site.
- (3.) The property requested is next to the applicant’s property with at least a 75% common boundary line on the right or left side.
- (4.) The applicant is the owner and living in the property next to the requested property.
- (5.) The applicant has never received a lot through the Side Lot Program.

Once it has been determined that a lot meets these requirements, the side lot can then be purchased for \$25.00, plus the foreclosure year’s taxes (if foreclosed in 2003 or before), a \$25.00 administration fee, and a \$14.00 filing fee. This program brings properties back onto the tax roll, while reducing the public costs associated with property maintenance (Side Lot Transfer, 2004). Homeowners are only allowed to purchase one lot under the Side Lot Program. If a homeowner would like to purchase additional lots they must fill out the Residential Property Insert Application – For Property with or without a Structure (Side Lot Transfer, 2004).

The technique of blotting may be a viable short-term solution for the Beecher neighborhood of Mount Morris Township. There are large number of vacant, abandoned and Land Bank owned parcels in the neighborhood, which are both in clusters and next to well-kept homes. These findings will be analyzed and used to create our final analysis where they are viable.

6.4 The Church Brew Works (Pittsburgh, Pennsylvania)

Adaptive reuse is the process of reusing an old structure for new purposes. It is implemented as a means for conserving land and reducing urban sprawl. On a larger scale, adaptive reuse is often a key factor in urban renewal programs that aim to revive dilapidated and often historic city centers. In residential terms, adaptive reuse commonly involves the purchase and conversion of old barns into modern living spaces. Old buildings often outlive their original purposes. Adaptive reuse, or re-use, is a process that adapts buildings for new uses while retaining their historic features. An old factory may become an apartment building. A rundown church may find new life as a restaurant... And a restaurant may become a church. Through adaptive reuse old, unoccupied buildings can become suitable sites for many different types of use. In Pittsburgh, Pennsylvania, St. John Baptist Church was built in 1902. Louis Beezer, Michael Beezer, and John Combs were the architects that designed the church/convent/school. By the 1950s, Pittsburgh was beginning to change and the church’s traditional Northern Italian Architectural style became outdated. Factories were closing up and shifting operations elsewhere and due to financial and organizational considerations, the Diocese (supervision) deconsecrated (removal of religious blessing) the church in 1993.

Redeveloper Sean Casey purchased St. John for \$191,200. The entire adaptive reuse project utilized 10,000 square feet of a new restaurant and brewery. Although it opened in the summer of 2006, the restaurant and brewery are currently still undergoing renovations. Since the opening of the Church Brew Works, 44 full-time and 40 part-time positions have been created. Also, while the surrounding neighborhood has not changed from the mixture of residential and commercial properties, the value of these properties has increased. Surrounding apartment complexes were sold to New York investors. One of the primary advantages of adaptive re-use projects is the time savings associated with working with an existing structure. Rather than demolishing an existing building and building a new one from scratch, the design and building team can re-use the building's foundations and external shell, and sometimes even some of the mechanical and electrical systems. Mount Morris Township could use adaptive reuse for most of the stagnant churches in the neighborhood. Reusing the once churches to act as a libraries or learning centers for the young growing families would have great potential for this community. These centers could improve test grades and decrease dropout rates, which in term reduces crime.³³



Beecher Stabilization Plan



VII. Community Input Study

This community input section is introduced to garner the knowledge of residents in Beecher Site, and identify possible strengths, weaknesses, opportunities, and threats of the region. These may be incorporated to improve the intended results of the future proposed land use plans of Beecher Site.

7.1 SWOT Analysis 1

A community input study was conducted on March 16th, 2012 at the Vera B. Rison Library in Mt. Morris Township, MI. The study, which took the form of a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis, was held at the monthly meeting of the Beecher Community Development Group. This group is comprised of concerned citizens and people who work in the community. To start the meeting, a brief overview of data findings and land inventory analysis was presented to the individuals attending the meeting. The presentation was followed by a question and answer session where some suggestions were given on who might be valuable to contact for more information on the community. A SWOT analysis was then conducted where the community input group was asked to identify the strengths, weaknesses, opportunities, and threats (SWOT) of the community. Only two members of the group completed the SWOT analysis.

The following is their aggregate response:

| | |
|------------------------------|---|
| <u>Strengths</u> | <u>Weaknesses</u> |
| Strong sense of community | Lack of jobs Poverty Declining property values |
| <u>Opportunities</u> | <u>Threats</u> |
| Low land and property values | Declining population in the northern area and south of I-69 |

7.2 Public Forum

In addition to the conducted SWOT analysis, a secondary public forum conducted at a School District Improvement Marketing Meeting on March 30th, 2011 and reflecting the typical process of a SWOT analysis, was provided to this practicum team. It should be noted that this analysis revolved primarily on the conditions of schools in the Beecher Community School District. Therefore, not all elements enlisted may apply to the conditions of the Beecher site as a whole. The following are the results of this forum:

| | |
|--|---|
| <u>Strengths</u> | <u>Weaknesses</u> |
| Strong partnership Dual enrollment Marketing/partnership meeting Town hall meeting Credit recovery Meets needs of community/food service Leadership by example Word of mouth Local libraries Recycling program Student council Salvation Army Student support Improved curriculum | Strong, determined parents Strong sense of community Students Code of conduct Head start Mott's Children's Health Center Expressway Desire to succeed GISD Gennet Student of the month Wade McCree Program College tours Sports Beecher Business Association |
| | Weaknesses were not analyzed in this meeting |

| <u>Strengths contd.</u> | | <u>Weaknesses</u> | |
|---|---------------------------------------|--|------------------------|
| Boys and Girls Clubs | High quality teacher | Weaknesses were not analyzed in this meeting | |
| Momentum | Tight knit community | | |
| Hard working, dedicated, strong teachers | Athletics | | |
| AP classes | BSIP | | |
| 21st century | Business district | | |
| Positive initiatives | Technology | | |
| Adult ed | Added funding | | |
| Want to do better | Up Ward Bound | | |
| Information center | Scholarships | | |
| Local colleges | Board of Education | | |
| Land | Parent facilitators | | |
| Community service | Evaluations | | |
| Training center | | | |
| New superintendent | | | |
| <u>Opportunities</u> | | | |
| Church | Strong partnership | Lack of parent participation | Rumors |
| Head start | Role models | Charter schools | Violent behaviors |
| Marketing to parents | Business growth | Unemployment rate | Stability |
| Grow our own students with skilled trades | Focus on standardized test scores | Continued bad press | Cuts in funding |
| Market/create image | BHS transformational plan | Teen pregnancy | Bullying |
| Community influence/youth advisory | Captive staff | Lack of technology | Dropout rates |
| More people involved in curb appeal | Opportunity with fine arts auditorium | Inappropriate cellphone use | Homeless |
| Transportation used for funding | Athletics | Law enforcement | Social network |
| Educate parents | After school program | Other community problems become ours | Violence |
| After school activities held by police department | Facebook and tech | Television | Bussing to others |
| Motivational speakers | Potential for growth | Threat of annexation of other districts | School of choice |
| Students mentoring | Safe district with PD | Legislation | Lack of control |
| Bring students back from other schools | Vision come to life | Community influence | Lack of school value |
| Strengthen curriculum instruction | Media | Lack of curb appeal | Lack of marketing |
| Bring competence and self-esteem to students | Community influence | Standardized test | Role models |
| Collaboration | Potential for growth | Single-parent family | Lack of core apathy |
| Have best district | Swimming pool | Parent training | Lack of trust |
| | Just do it | Beecher negative image | Media |
| | Vocational opportunities | Poverty | Religion out of school |
| | 100% graduation rate | Environment around school | Lack of dress code |
| | | Curb appeal | Transient community |

7.3 SWOT Analysis - Practicum Team

A third SWOT analysis was completed by members of this practicum team to supplement the Beecher community provided SWOT analysis. This SWOT analysis was completed in March 19th, 2012 and was conducted with the purpose of identifying recurring strengths, weaknesses, opportunities, and threats. The following are the results of the March 19th SWOT analysis:

Beecher Stabilization Plan

| | |
|---|---|
| <p><u>Strengths</u> Sense of community Community partnerships Compact development Transit Beecher Business District development involvement</p> | <p><u>Weaknesses</u> Low participation Vacancy/Abandonment Housing conditions Property values Pedestrian unfriendly Poor and/or declining socio-economic status</p> |
| <p><u>Opportunities</u> Community partnerships Churches Potential for commercial growth Available land Transit</p> | <p><u>Threats</u> Vacancy/Abandonment Crime School dropout rate Aging infrastructure Lack of funding Blight Poor and/or declining socio-economic status</p> |

7.4 Combined Analysis

The combined analysis aims to identify those elements in the previous SWOT analysis and public forum which are repeated in least two of the datasets. Conclusions and final analysis in this report will incorporate these findings where they are deemed as an appropriate and viable solution. The following are the results:

| | |
|---|--|
| <p><u>Strengths</u> Strong sense of community Partnerships Transit Beecher Business District development involvement</p> | <p><u>Weaknesses</u> Unemployment Poverty Declining property values</p> |
| <p><u>Opportunities</u> Community partnerships Churches Transit Potential for commercial growth</p> | <p><u>Threats</u> Vacancy/Abandonment Crime School dropout rate Property values Lack of funding Aging infrastructure Blight Poor and/or declining socio-economic status</p> |





Beecher Stabilization Plan



VIII. Recommendations

In accordance with the findings presented in this study, two land use scenarios were formulated to provide feasible and transformative redevelopment plans for Beecher site. These land use plans consider both short-term and long term land uses and present two different visions for the future direction of Beecher site.



8.1 Future Land Use Scenario 1 - Preservation

Land use scenario 1 focuses on land preservation with no population growth. The no growth scenario applies to areas with concentrations of vacancy and/or property abandonment. This scenario assumes that redevelopment efforts and current conditions are not likely to change; preservation of the land may be a more viable alternative. This method is conducted on a parcel by parcel basis with land use activities applied on parcels that were determined to be either vacant or abandoned. The characteristics considered for land use plan 1 are as follows:

- Site socioeconomic trends and comparisons
- Current Zoning, existing land uses and location of site amenities
- Regional and internal transportation conditions, including infrastructure and related trends
- Commercial viability
- Vacancy/Abandonment & blight concentration
- Affordable infill housing development
- Blotting activities
- Adaptive reuse activities considerate of existing land use
- Strengthen the sense of community

From these considerations, criteria were created for each land use activity. These criteria serve as rules or guidelines to decide which land use activities may be applicable to a specific parcel of land based on the land use plan. Six land use activities were created to realize this plan: infill housing, blotting, commercial, adaptive reuse, public transit infrastructure, and green space. Their definition, rules, and guidelines are as follows:

- **Infill Housing** – represents the new construction or rehabilitation of existing housing units into affordable housing dwellings. This land use activity is applied when the following criteria are met:
 - Property is abandoned with some structure on the site, AND
 - Property is zoned residential, AND
 - Abandoned parcel concentration consists of less than three (3) parcels in a horizontal row, AND
 - Blotting, adaptive reuse, commercial, and public transit infrastructure activities cannot be applied on parcels because of the criteria set up under these activities, AND
 - When blotting, adaptive reuse, commercial, and public transit infrastructure are applied, they reduce the concentration of abandoned and/or vacant parcels to less than three (3) parcels in a horizontal row
- **Blotting** – represents the Side Lot Program operated through the Genesee County Land Bank. This land use activity is applied when the following criteria are met:
 - Property is vacant with no structure on the site, AND
 - Property is zoned residential, AND
 - Property is next to an occupied residential property with at least 75% common boundary line on the right or left side, AND
 - Receiving property is limited to one (1) blotting activity, AND
 - Property lot is less than twice the size of the receiving property lot
- **Commercial** – consists of commercial activities on abandoned or vacant parcels. This land use activity is applied when the following criteria are met:
 - Property is either vacant or abandoned, AND
 - Property is adjacent to parcels zoned or used for commercial purposes, AND
 - Property is located along Saginaw, Coldwater, Carpenter, or Detroit streets, AND



- Property is located in close proximity to a proposed Public Transit Infrastructure activity, AND
 - Property receives priority for commercial usage if zoned commercial
- **Adaptive Reuse** – the rehabilitation of abandoned civic, educational, or religious facilities into development which provides potential services usually delivered by libraries, community centers, or learning centers. This land use activity is applied when the following criteria are met:
 - Property is abandoned with some structure on the site, AND
 - Abandoned structure is either a civic, educational, or religious facility and was used for either a civic, educational, or religious related purpose
 - **Public Transit Infrastructure** – consists of the development of infrastructure which supports public transit (e.g. bus shelters; adequate, safe bus stops). This land use activity is applied when the following criteria are met:
 - Property is either vacant or abandoned, AND
 - Property is located along Saginaw, Coldwater, Carpenter, or Detroit streets, AND
 - Property is located along a MTA fixed bus route, AND
 - Property is located at a central, enclosed location, or has the potential to be enclosed by several parcels with commercial or other non-residential use activities
 - **Green Space** – controlled and aesthetically pleasing vegetation (e.g. trees) or parks. This land use pattern is applied to parcels where no other feasible solution could be introduced. Such parcels are characterized by excessive concentrations of vacancy and/or abandonment. Green space represents the “no growth” approach of this land use alternative. This land use activity is applied when the following criteria are met:
 - Commercial, adaptive reuse, and public transit infrastructure activities are not applicable on parcels based on their criteria under these activities, AND
 - Green space takes precedence over properties applicable under infill housing and/or blotting activities if property is adjacent to a cluster of three (3) parcels designated as green space based on the previous rule, AND
 - Green space takes precedence over properties applicable under infill housing and/or blotting activities if the parcel is adjacent to a dead end

In addition to these land use activities, current occupied land uses are also presented in the following land use map. These represent existing parcels which are not vacant or abandoned. These are labeled as “occupied residential” for occupied residential dwellings; “occupied public/exempt” for occupied civic, educational, or religious facilities; “occupied commercial” for occupied commercial units; and “occupied industrial” for occupied industrial facilities. No changes were committed to these parcels.

Figure 5.1.1 illustrates the Beecher Site Land Use Scenario 1. Land use presented under this proposal appears fragmented in irregular patterns within the residential zones. These patterns result from the use of green space in areas of extreme vacancy or abandonment as configured under the criteria presented above. Commercial units proposed under this land use are located primarily along Detroit Street, Saginaw Road and Carpenter Road. Adaptive reuse is utilized on those properties already utilized for civic, educational, and religious facilities but may be vacant. Public transportation infrastructure is located on two parcels along Detroit Street near Cornell and Knickerbocker Road.

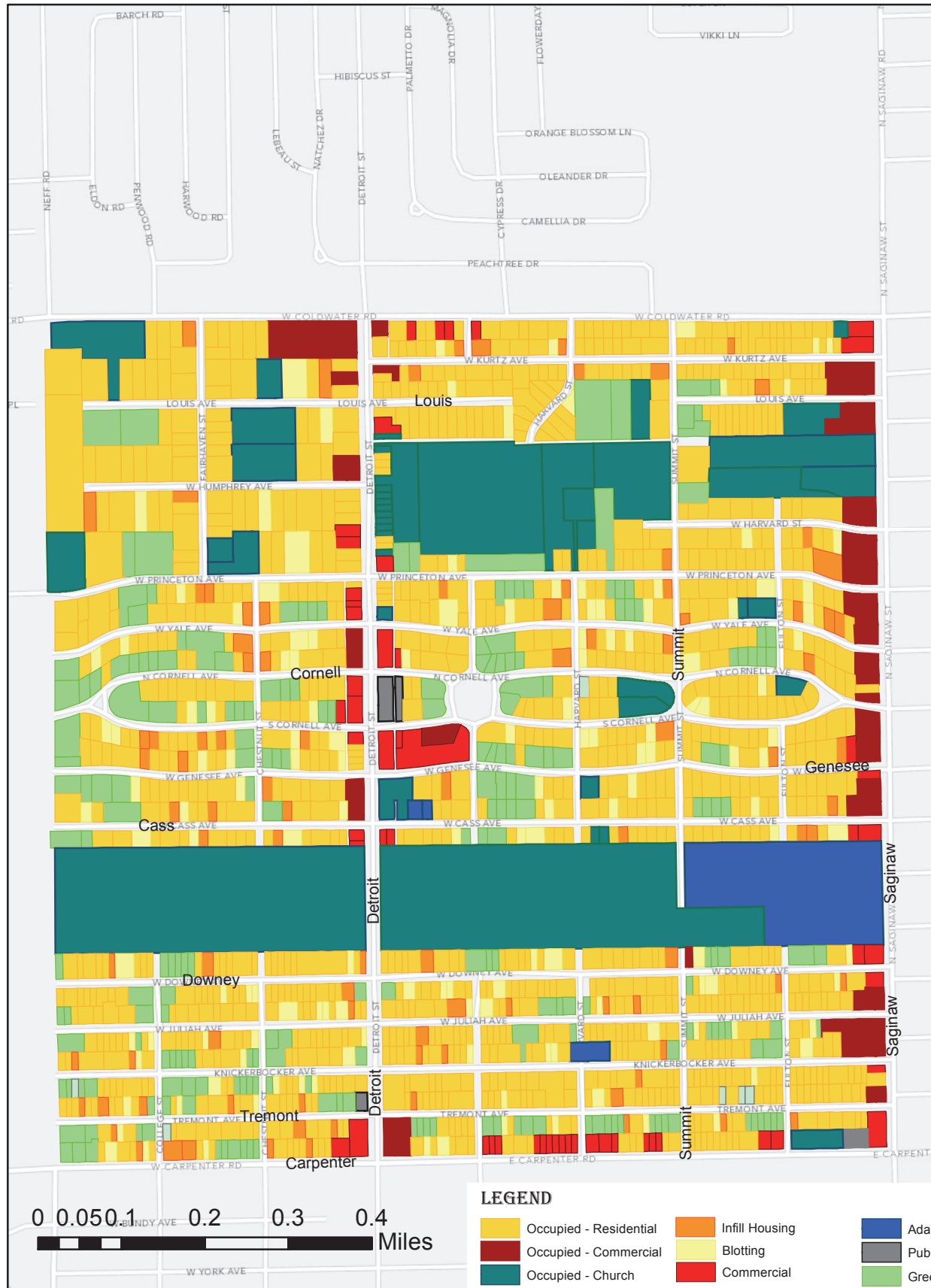


Beecher Stabilization Plan

Figure 8.1.1 Beecher Land Use Plan 1 Map

Source: Team Genesee

Beecher Land Use Scenario 1



Note: This map is prone to human error; crosschecking of proposed land use against existing conditions is advised.



8.2 Future Land Use Scenario 2 - Growth

Land Use Scenario 2 focuses on a pro-growth approach to land use. This approach considers redevelopment of vacant and abandoned parcels into new or similar uses as a viable alternative. This plan does not consider financial viability. Similar to Land Use Scenario 1, all land use patterns were developed through parcel by parcel analysis. The following are the characteristics on which this land use plan is based upon:

- Site socioeconomic trends and comparisons
- Development conscious of land use patterns and community amenities
- Transportation infrastructure development and related trends
- Commercial development
- Affordable infill housing development
- Blotting activities
- Adaptive reuse activities considerate of existing land uses
- Strengthen the sense of community

Similar to land use scenario 1, criteria were created for each land use activity. These criteria serve as rules and guidelines to decide which land use activities may be applicable to a specific parcel of land. Six land use activities were created for the realization of this plan: infill housing, blotting, commercial, adaptive reuse, public transit infrastructure, and green space. Their definition, rules, and guidelines are as follows:

• **Infill Housing** – new construction or rehabilitation of existing housing units into affordable housing dwellings. This land use activity is applied when the following criteria are met:

- Property is abandoned with some structure on the parcel, AND
- Property is zoned residential, AND
- Blotting, adaptive reuse, commercial, and public transit infrastructure activities cannot be applied to parcels because of the criteria set up under these activities

• **Blotting** – represent the Side Lot Program operated through the Genesee County Land Bank. This land use activity is applied when the following criteria are met:

- Property is vacant with no structure on the site, AND
- Property is zoned residential, AND
- Property is next to an occupied residential property with at least 75% common boundary line on the right or left side, AND
- Receiving property is limited to one (1) blotting activity, AND
- Property lot is less than twice the size of the receiving property lot, AND
- Blotting is applied if infill housing occurs on a previously abandoned parcel, and the newly developed infill housing fulfills all other blotting criteria

• **Commercial** – consists of commercial activities on abandoned or vacant parcels. This land use activity is applied when the following criteria are met:

- Property is either vacant or abandoned, AND
- Property is adjacent to parcels zoned or used for commercial purposes, AND
- Parcel receives priority for commercial if located along Saginaw, Coldwater, Carpenter, or Detroit streets, AND
- Parcel is located in close proximity to a proposed Public transit infrastructure activity, AND
- Property receives priority for commercial usage if zoned for commercial use

• **Adaptive Reuse** – the rehabilitation of abandoned civic, educational, or religious facilities into development

Beecher Stabilization Plan

which provides potential services usually delivered by libraries, community centers, or learning centers. This land use activity is applied when the following criteria are met:

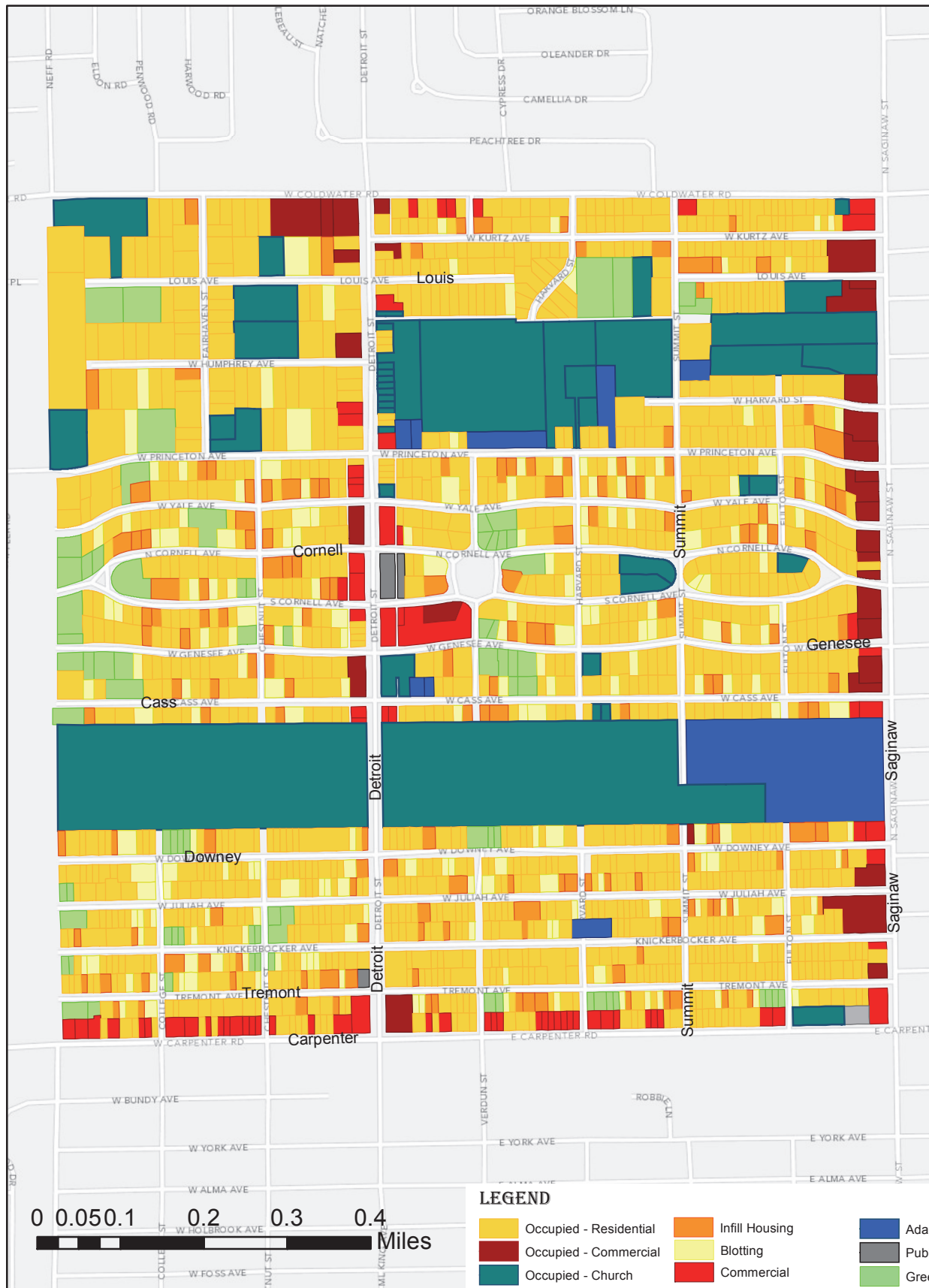
- Parcel is either vacant or abandoned, AND
 - For vacant properties, the parcels are located in areas characterized by a clustering of civic, educational, or religious facilities; for abandoned structures, the facility is either a civic, educational, or religious facility and was used for either a civic, educational, or religious related purpose
- **Public Transit Infrastructure** – consists of the development of infrastructure which supports public transit (e.g. bus shelters; adequate, safe bus shelters). This land use activity is applied when the following criteria are met:
 - Property is either vacant or abandoned, AND
 - Property is located along Saginaw, Coldwater, Carpenter, or Detroit streets, AND
 - Property is located along a MTA fixed bus route, AND
 - Property is located at a central location enclosed or has the potential to be enclosed by parcels used for commercial or other non-residential activities
 - **Green Space** – controlled and aesthetically pleasing vegetation (e.g. trees) or parks; a secondary option utilized in extreme cases of concentrated vacancy or abandonment. This land use activity is applied when the following criteria are met:
 - Commercial, adaptive reuse, public transit infrastructure activities are not applicable on parcels based on the criteria configured under these activities, AND
 - Green space takes precedence over properties applicable under infill housing and blotting activities if property is adjacent to a dead end

In addition to these land use activities, occupied land uses are also presented in the following land use map. These represent existing parcels which are not vacant or abandoned. These are labeled as “occupied residential” for occupied residential dwellings; “occupied public/exempt” for occupied civic, educational, or religious facilities; “occupied commercial” for occupied commercial units; and “occupied industrial” for occupied industrial facilities. No changes were committed to these parcels.

Figure 8.2.1 illustrates the Beecher Site Land Use Scenario 2. Land use presented under this alternative consists of minimal parcel fragmentation. Green space has been limited to the edges of large parcel groups. Infill housing and blotting are utilized to a greater degree. Commercial usage is located primarily along Detroit, Saginaw, and Carpenter roads. Frequency of Adaptive reuse is increased and concentrated on existing similar facilities to create a possible “anchor” effect. Public transportation infrastructure is located on two parcels along Detroit Street near Cornell and Knickerbocker Roads.

Figure 8.21 Beecher Land Use Plan 2 Map
Source: Team Genesee

Beecher Land Use Scenario 2



Note: This map is prone to human error; crosschecking of proposed land use against existing conditions is advised.



8.3 Land Use Scenario 1 vs. Land Use Scenario 2

The two land use plans differ based on the general theme each presents. Whereas land use scenario 1 considers growth unlikely and implements intensive utilization of green space, land use scenario 2 considers redevelopment a viable alternative. These differences are illustrated by the rules presented under each land use activity criteria.

The two plans differ primarily through their use of green space, which is used more prominently in land use scenario 1. Residential blocks are fragmented by this green space to keep maintenance and financial investment required to implement such changes at a minimum. In contrast, land use scenario 2 controls green space distribution to minimize block fragmentation while requiring a higher degree of financial investment and maintenance. Scenario 2 assumes that the population decline of the past several decades will reverse and new residents will move into Beecher site. Infill housing and blotting are more prominent in land use plan 2 while maintaining the residential identity of the neighborhood while requiring a higher degree of financial investment for its realization. Commercial and adaptive reuse activities are also more prominent in land use plan 2. Public transit infrastructure is the sole activity kept identical in both land uses. This activity is considered viable and located on the same parcels in both land use plans. Scenario 1 is a more likely implementation based on current trends and economic conditions of the region. In contrast, scenario 2 may act as a preparatory land use plan should economic conditions within the region experience increased growth.

Based on these comparisons and the maps provided, a SWOT analysis of each land use is as follows:

Land Use Scenario 1 **Preservation**

Strengths: Low development cost
 Low infrastructure maintenance cost
 Elimination of vacancies and abandonment
 Commercial growth

Weaknesses: Residential fragmentation
 Irregular residential blocks

Opportunities: Improved socio-economic status
 Increased income for Mt. Morris Township
 Strengthening of the Beecher commercial area
 Improved school performance
 Improved property values

Threats: Disinterest in blotting activities
 Lack of funding
 Aging infrastructure
 Elimination of blight may not result in economic development
 Potential decline for properties effected by residential fragmentation

Land Use Scenario 2 **Growth**

Elimination of vacancies and abandonment
 Enhanced commercial growth
 Public transit improvements
 Development of community service anchors
 Preserve residential identity
 Compact development

High development cost
 High infrastructure maintenance cost

Improved socio-economic status
 Transit oriented development
 Larger increase in income for Mt. Morris Twp
 Strengthening of the Beecher commercial area
 Improved school performance
 Improved property values

Disinterest in blotting activities
 Lack of funding
 Aging infrastructure
 Elimination of blight may not result in economic development



8.4 Land Use Discussion “Sending & Receiving”

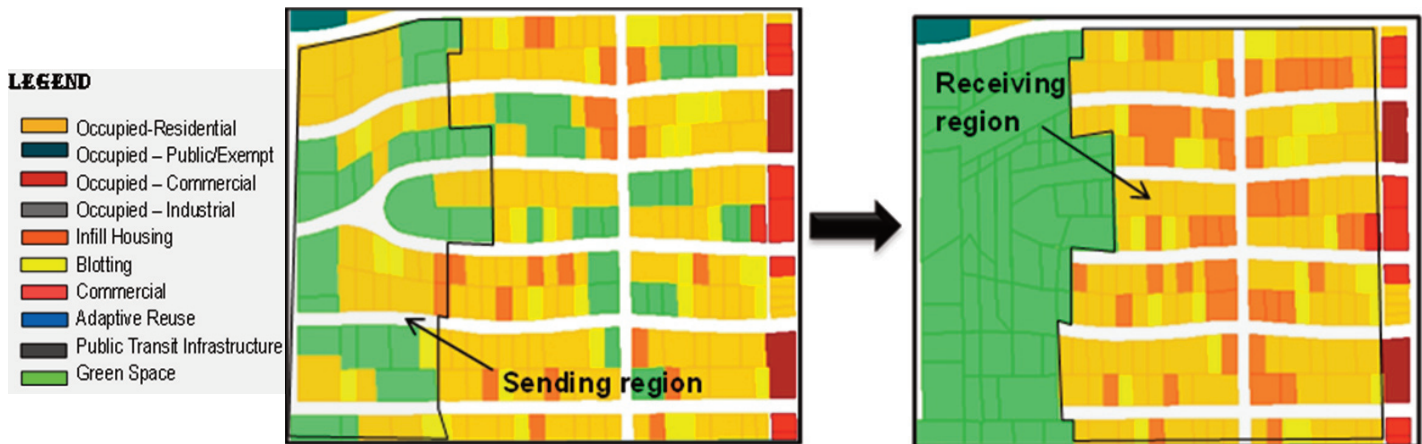
In concluding this project, the MSU Practicum team would like to offer a third scenario. This scenario is introduced as a discussion piece due to the previous scenarios. Through offering this alternative scenario, the team recognizes that complete underground physical infrastructure analysis should be conducted, and substantial community engagement in the process should be undertaken. Because of the time constraints of a fifteen week course the team was not able to conduct this analysis nor able to engage the community in substantial discussion. It is with these major caveats that this alternative is presented.

In this scenario, two regions exist within Beecher site: a sending region, the most distressed region within a specified district with a high rate of vacancy and abandonment; and a receiving region, a region within a specified district with a lower rate of vacancy and abandonment. Unoccupancies within the receiving region may be recent occurrences, but the receiving region is still taken care of in relative terms. With the two regions identified, a preservation approach is applied to the sending region while a redevelopment approach is applied to the receiving region. Under the preservation approach, vacancy and abandonment in the sending region are converted into green space. Occupied parcels and owners remaining within the area are transferred (sending) to the existing vacant and abandoned parcels in the redeveloping (receiving) region. The formerly occupied properties within the sending region are then converted to green space as well. Roads are closed off and any public infrastructure is taken offline. What results is one small, compact district preserving the residential identity of the area while eliminating vacancy, abandonment, and blight. This new compact district requires less maintenance of public infrastructure from the municipality, while the sending region remains green space until future redevelopment opportunities arise.

An example of how this process might be utilized in Beecher site is illustrated below. Figure 8.4.1 shows the section of the site cornered by Princeton, Genesee, and Detroit Streets. The first image shows this section before the sending & receiving approach is applied. This land use map has been taken from the proposed future land use scenario and is selected as a sample image based on the high number of vacancy and abandonment in the area. The second image illustrates how this section would appear if the sending & receiving process was applied to this area. This sequence is presented solely as a demonstration.

As illustrated from this example, the sending and receiving land use approach may prove viable in the elimination of blight, vacancy, and abandonment in Beecher site. As this process requires relocation of residents, extreme due diligence must be followed if this scenario is explored further. Community input must be a large part of the process and needs to guide the decision-making process, with emphasis placed on those residents who are most likely to be affected by this approach.

Figure 8.4.1 Sending & Receiving Land Use
Source: Team Genesee





Beecher Stabilization Plan





IX. Endnotes





Beecher Stabilization Plan

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Beecher Stabilization Plan





X. Table of Figures





Beecher Stabilization Plan

Figure 2.1.1: State of Michigan 16

Figure 2.1.2: Location - County, Township, CDP, Site 17

Figure 2.1.3: Location - Township, CDP, Site. 18

Figure 2.1.4: Location - CDP, Site 19

Figure 2.1.5: Site Location 20

Figure 2.3.2: Flint Tornado Destruction 2 21

Figure 2.3.1: Flint Tornado Destruction. 21

Table 2.4.1.1 Population Trends. 22

Figure 2.4.2.1 Age Distribution 23

Figure 2.4.3.1 Race & Ethnic Composition 24

Figure 2.4.4.1 Educational Attainment. 25

Figure 2.4.5.1 Household Income 26

Figure 2.4.6.2 Employment by Industry. 27

Figure 2.4.6.1 Unemployment Rate 27

Figure 2.4.7.1 BCSD Dropout Rate. 28

Figure 2.4.7.4 MME 11th Grade Mathematics Scores 29

Figure 2.4.7.3 MEAP 8th Grade Mathematics Scores. 29

Figure 2.4.7.2 MEAP 8th Grade Reading Scores 29

Figure 2.4.7.5 MME 11th Grade Reading Scores 30

Figure 2.4.8.2 Property Crime Rate 31

Figure 2.4.8.1 Violent Crime Rate 31

Figure 3.1.1 Mount Morris Twp Section 24 Zoning. 36

Figure 3.3.1 Beecher Existing Land Use 40

Figure 4.3.1 Beecher Site Nonconforming Uses 41

Figure 3.4.1.1 Main Transit Routes 42

Figure 3.4.2.2 Detroit Street Thoroughfare & Typical Beecher Site Street (N. Cornell Ave) . . . 43

Figure 3.4.2.1: Beecher Site Street Network 43

Figure 3.4.3.2 Available Vehicles. 44

Figure 3.4.3.1 Mode of Transportation to Work. 44

Figure 3.4.3.3 Available Vehicles. 45

Table 3.4.4.1 Local Bus Routes 46

Figure 3.4.4.1 Flint MTA Primary Routes 46

Figure 3.4.4.3 MTA Primary Routes Ridership 47

Figure 3.4.4.2 Beecher Site Bus Stops. 47

Figure 3.5.1 2010 Spending Potential Index. 48

Table 3.5.1 Average Spending Potential Index 48

Figure 3.5.2 Surplus/Leakage Factor 1 mile radius 49

Figure 3.5.3 Surplus/Leakage Factor 3 mile radius 50

Figure 3.5.4 Surplus/Leakage Factor 5 mile radius 51

Figure 3.7.1 Beecher Site Community Amenities 53

Figure 4.1.1.1 Housing Tenure. 58

Figure 4.1.3.1 Median Year Structure Built. 59

Figure 4.1.2.1 Median Housing Value 59

Figure 4.2.2 Inventory Regions 60

Table 4.2.1 Beecher Site Inventory Count 60

Figure 4.2.1 Parcel Inventory 61

Table 4.2.3 Region 3 Count. 62

Table 4.2.2 Region 2 Count. 62

Table 4.2.1 Region 1 Count. 62

Table 4.2.6 Region 6 Count. 63



| | |
|---|-----|
| Table 4.2.5 Region 5 Count | 63 |
| Table 4.2.4 Region 4 Count | 63 |
| Table 4.2.9 Region 9 Count | 64 |
| Table 4.2.8 Region 8 Count | 64 |
| Table 4.2.7 Region 7 Count | 64 |
| Figure 4.3.1 Owner Occupied Parcels | 67 |
| Figure 5.4.1 Abandoned Parcel Regions | 74 |
| Figure 5.4.2 Abandoned Parcel Condition | 75 |
| Table 5.4.3 Region 3 Count | 76 |
| Table 5.4.2 Region 2 Count | 76 |
| Table 5.4.1 Region 1 Count | 76 |
| Table 5.4.6 Region 6 Count | 77 |
| Table 5.4.5 Region 5 Count | 77 |
| Table 5.4.4 Region 4 Count | 77 |
| Table 5.4.9 Region 9 Count | 78 |
| Table 5.4.8 Region 8 Count | 78 |
| Table 5.4.7 Region 7 Count | 78 |
| Figure 6.3.1: Blotting in Detroit. | 83 |
| Figure 8.1.1 Beecher Land Use Plan 1 Map | 96 |
| Figure 8.2.1 Beecher Land Use Plan 2 Map | 99 |
| Figure 8.4.1 Sending & Receiving Land Use | 101 |
| Table 3.1.3.1: Racial Composition | 112 |
| Table 2.4.2.1: Age Distribution | 112 |
| Table 3.1.4.1: Educational Attainment. | 113 |
| Table 3.1.5.1: Household Income | 113 |
| Table 3.1.6.1: Civilian Population 16+ in Labor Force | 114 |
| Table 3.1.6.2: Employment Population 16+ by Industry | 114 |
| Table 4.1.1.1 Housing Occupancy | 114 |



Beecher Stabilization Plan





XI. Appendix 1



Beecher Stabilization Plan

Table 2.4.2.1: Age Distribution
 Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI forecasts for 2010 and 2015

| Population by Age | Beecher Site | | | Mount Morris Twp | | | Genesee County | | | State of Michigan | | |
|-------------------|--------------|--------------|--------------|------------------|---------------|---------------|----------------|----------------|----------------|-------------------|-------------------|-------------------|
| | 2000 | 2010 | 2015 | 2000 | 2010 | 2015 | 2000 | 2010 | 2015 | 2000 | 2010 | 2015 |
| Total | 3,378 | 3,037 | 2,893 | 23,725 | 22,200 | 21,427 | 436,141 | 424,800 | 414,605 | 9,938,444 | 10,104,633 | 10,039,343 |
| 0-4 | 10.2% | 10.4% | 10.7% | 7.4% | 7.4% | 7.6% | 7.3% | 7.0% | 6.9% | 6.8% | 6.7% | 6.5% |
| 5-9 | 11.5% | 10.0% | 9.9% | 9.3% | 7.6% | 7.5% | 8.1% | 7.1% | 7.0% | 7.5% | 6.7% | 6.7% |
| 10-14 | 8.8% | 7.8% | 8.2% | 8.4% | 7.1% | 7.4% | 7.7% | 6.9% | 7.1% | 7.5% | 6.7% | 6.8% |
| 15-24 | 14.7% | 17.3% | 16.4% | 13.9% | 14.9% | 13.9% | 13.3% | 13.2% | 12.8% | 13.7% | 13.8% | 13.3% |
| 25-34 | 13.6% | 12.8% | 13.8% | 12.5% | 12.7% | 13.1% | 13.6% | 12.5% | 12.5% | 13.7% | 12.6% | 12.7% |
| 35-44 | 15.2% | 12.3% | 11.5% | 14.9% | 12.4% | 12.0% | 16.0% | 13.4% | 12.7% | 16.1% | 13.5% | 12.8% |
| 45-54 | 10.4% | 11.8% | 10.2% | 12.6% | 13.4% | 11.8% | 13.7 | 15.0% | 13.4% | 13.8% | 15.0% | 13.7% |
| 55-64 | 7.0% | 9.4% | 10.2% | 9.4% | 11.6% | 12.5% | 8.7% | 12.1% | 13.1% | 8.7% | 12.1% | 13.0% |
| 65-74 | 5.4% | 4.9% | 5.7% | 7.2% | 7.3% | 8.6% | 6.6% | 6.9% | 8.5% | 6.5% | 6.9% | 8.5% |
| 75-84 | 2.6% | 2.5% | 2.5% | 3.6% | 4.2% | 4.2% | 3.8% | 4.2% | 4.2% | 4.4% | 4.2% | 4.1% |
| 85+ | 0.6% | 0.8% | 0.8% | 0.8% | 1.3% | 1.5% | 1.2% | 1.7% | 1.7% | 1.4% | 1.9% | 1.9% |
| 18+ | 64.6% | 66.2% | 66.5% | 69.9% | 72.8% | 73.5% | 72.6% | 74.5% | 75.0% | 73.9% | 75.8% | 76.1% |
| Median Age | 28.3 | 28.1 | 28.1 | 33.8 | 35.3 | 35.4 | 35.0 | 37.4 | 38.0 | 35.0 | 37.8 | 38.1 |

Table 3.1.3.1: Racial Composition

Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI forecasts for 2010 and 2015

| Population by Race/Ethnicity | Beecher Site | | | Mount Morris Twp | | | Genesee County | | | State of Michigan | | |
|---------------------------------|--------------|--------------|--------------|------------------|---------------|---------------|----------------|----------------|----------------|-------------------|-------------------|-------------------|
| | 2000 | 2010 | 2015 | 2000 | 2010 | 2015 | 2000 | 2010 | 2015 | 2000 | 2010 | 2015 |
| Total | 3,378 | 3,307 | 2,893 | 23,725 | 22,200 | 21,427 | 436,141 | 424,800 | 414,605 | 9,938,444 | 10,104,343 | 10,039,343 |
| White alone | 48.8% | 46.7% | 47.0% | 54.5% | 53.8% | 54.2% | 75.3% | 75.9% | 76.2% | 80.2% | 79.0% | 78.2% |
| Black or African-American alone | 41.7% | 42.5% | 41.5% | 40.2% | 40.1% | 39.3% | 20.4% | 19.1% | 18.4% | 14.2% | 13.9% | 14.0% |
| American Indian alone | 1.4% | 1.4% | 1.5% | 0.6% | 0.6% | 0.7% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% | 0.6% |
| Asian or Pacific Islander alone | 0.0% | 0.0% | 0.0% | 0.3% | 0.3% | 0.4% | 0.8% | 1.0% | 1.1% | 1.8% | 2.5% | 2.9% |
| Some Other Race alone | 3.2% | 3.6% | 3.8% | 1.3% | 1.4% | 1.5% | 0.8% | 0.9% | 0.9% | 1.3% | 1.7% | 1.9% |
| Two or More Races | 4.9% | 5.8% | 6.2% | 3.1% | 3.7% | 4.0% | 2.2% | 2.6% | 2.8% | 1.9% | 2.3% | 2.4% |
| Hispanic Origin | 6.8% | 7.6% | 8.0% | 3.0% | 3.5% | 3.7% | 2.3% | 2.6% | 2.8% | 3.3% | 4.3% | 4.9% |
| Diversity Index | 64.0 | 65.7 | 66.5 | 56.8 | 58.0 | 58.4 | 41.9 | 41.8 | 41.8 | 37.9 | 40.9 | 42.7 |

Table 3.1.4.1: Educational Attainment

Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI forecasts for 2010 and 2015

| | Beecher Site | | Mount Morris Twp | | Genesee County | | State of Michigan | |
|---|--------------|------|------------------|------|----------------|------|-------------------|------|
| | 2000 | 2015 | 2000 | 2015 | 2000 | 2015 | 2000 | 2015 |
| Total | 1,655 | | 13,988 | | 279,199 | | 6,687,894 | |
| Less than 9th Grade | 5.9% | | 3.1% | | 2.7% | | 3.6% | |
| 9th to 12th Grade, No Diploma | 29.1% | | 13.1% | | 9.0% | | 8.3% | |
| High School Graduate | 35.1% | | 39.0% | | 34.7% | | 31.9% | |
| Some College, No Degree | 21.9% | | 27.4% | | 25.7% | | 23.0% | |
| Associate's Degree | 4.7% | | 7.3% | | 8.9% | | 8.1% | |
| Bachelor's Degree | 2.4% | | 7.7% | | 12.4% | | 15.5% | |
| Graduate/Professional Degree | 0.8% | | 2.4% | | 6.6% | | 9.7% | |
| Post-Secondary Education (Associate's +) | 7.9% | | 17.4% | | 27.9% | | 33.3% | |

Table 3.1.5.1: Household Income

Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI forecasts for 2010 and 2015

| Households by Income | Beecher Site | | | Mount Morris Twp | | | Genesee County | | | State of Michigan | | |
|-------------------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|------------------|------------------|
| | 2000 | 2010 | 2015 | 2000 | 2010 | 2015 | 2000 | 2010 | 2015 | 2000 | 2010 | 2015 |
| HH Income Base | 1,205 | 1,058 | 1,011 | 8,844 | 8,413 | 8,160 | 170,030 | 167,786 | 164,321 | 3,788,780 | 3,885,903 | 3,871,714 |
| <\$15,000 | 27.2% | 21.8% | 20.7% | 17.5% | 14.2% | 12.2% | 16.0% | 12.0% | 10.2% | 14.1% | 10.6% | 8.9% |
| \$15,000 - \$24,999 | 23.7% | 18.3% | 15.5% | 16.5% | 12.6% | 9.8% | 13.3% | 11.0% | 8.4% | 12.4% | 9.5% | 7.2% |
| \$25,000 - \$34,999 | 22.3% | 20.4% | 18.1% | 14.6% | 12.7% | 10.7% | 12.7% | 9.8% | 7.9% | 12.4% | 9.5% | 7.7% |
| \$35,000 - \$49,999 | 11.4% | 19.6% | 17.6% | 16.8% | 16.6% | 13.5% | 15.8% | 15.0% | 11.7% | 16.5% | 15.1% | 12.0% |
| \$50,000 - \$74,999 | 5.6% | 9.0% | 12.3% | 19.1% | 25.0% | 29.6% | 20.1% | 25.5% | 29.0% | 20.6% | 24.8% | 27.2% |
| \$75,000 - \$99,999 | 3.8% | 4.3% | 5.6% | 8.5% | 10.3% | 12.1% | 11.4% | 12.8% | 14.3% | 11.4% | 13.5% | 14.9% |
| \$100,000 - \$149,999 | 4.4% | 3.9% | 6.0% | 5.1% | 6.2% | 8.7% | 7.8% | 9.8% | 13.0% | 8.6% | 11.4% | 14.8% |
| \$150,000 - \$199,999 | 0.5% | 1.5% | 2.5% | 1.0% | 1.3% | 2.0% | 1.5% | 2.4% | 3.2% | 2.1% | 3.0% | 3.9% |
| \$200,000+ | 1% | 1.1% | 1.7% | 0.9% | 1.1% | 1.5% | 1.4% | 1.7% | 2.2% | 2.0% | 2.7% | 3.5% |
| Median HH Income | \$24,622 | \$30,603 | \$32,669 | \$36,011 | \$43,635 | \$52,123 | \$42,134 | \$51,734 | \$58,062 | \$57,400 | \$67,356 | \$75,782 |
| Average HH Size | 2.88 | 2.85 | 2.84 | 2.68 | 2.63 | 2.61 | 2.54 | 2.50 | 2.49 | 2.56 | 2.53 | 2.53 |



Beecher Stabilization Plan

Table 3.1.6.1: Civilian Population 16+ in Labor Force

Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI forecasts for 2010 and 2015

| | Beecher Site | | Mount Morris Twp | | Genesee County | | State of Michigan | |
|----------------------------|--------------|-------|------------------|-------|----------------|-------|-------------------|-------|
| | 2010 | 2015 | 2010 | 2015 | 2010 | 2015 | 2010 | 2015 |
| Civilian Employed | 62.6% | 68.0% | 76.0% | 80.0% | 81.3% | 84.7% | 84.0% | 87.0% |
| Civilian Unemployed | 37.4% | 32.0% | 24.0% | 20.0% | 18.7% | 15.3% | 16.0% | 13.0% |

Table 3.1.6.2: Employment Population 16+ by Industry

Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI forecasts for 2010 and 2015

| | Beecher Site | Mount Morris Twp | Genesee County | State of Michigan |
|-------------------------------|--------------|------------------|----------------|-------------------|
| Total | 781 | 7,424 | 158,766 | 4,052,572 |
| Agriculture/Mining | 1.2% | 0.4% | 0.4% | 1.4% |
| Construction | 2.0% | 4.2% | 5.1% | 4.9% |
| Manufacturing | 15.0% | 18.6% | 16.8% | 15.6% |
| Wholesale Trade | 2.2% | 1.5% | 2.6% | 3.0% |
| Retail Trade | 13.1% | 14.2% | 12.7% | 11.8% |
| Transportation/Utilities | 2.4% | 4.2% | 3.3% | 3.9% |
| Information | 2.7% | 1.5% | 1.7% | 1.7% |
| Finance/Insurance/Real Estate | 3.8% | 5.5% | 5.2% | 5.8% |
| Services | 53.4% | 46.5% | 48.9% | 47.6% |
| Public Administration | 4.2% | 3.5% | 3.2% | 4.3% |

Table 4.1.1.1 Housing Occupancy

Source: U.S. Census Bureau, 2000 Census of Population and Housing; ESRI forecasts for 2010 and 2015

| Housing Tenure | Beecher Site | | | Mount Morris Twp | | | Genesee County | | | State of Michigan | | |
|----------------------------|--------------|--------------|--------------|------------------|---------------|---------------|----------------|----------------|----------------|-------------------|------------------|------------------|
| | 2000 | 2010 | 2015 | 2000 | 2010 | 2015 | 2000 | 2010 | 2015 | 2000 | 2010 | 2015 |
| Total Housing Units | 1,396 | 1,505 | 1,541 | 9,521 | 10,043 | 10,137 | 183,630 | 199,542 | 202,435 | 4,234,279 | 4,602,736 | 4,688,323 |
| Owner Occupied Units | 49.9% | 39.9% | 36.8% | 71.6% | 63.4% | 61.1% | 67.7% | 60.7% | 58.7% | 66.0% | 61.7% | 60.4% |
| Renter Occupied Units | 35.2% | 30.5% | 28.8% | 21.0% | 20.4% | 19.4% | 24.8% | 23.3% | 22.5% | 23.4% | 22.7% | 22.2% |
| Vacant Units | 14.9% | 29.6% | 34.4% | 7.4% | 16.2% | 19.5% | 7.5% | 15.9% | 18.8% | 10.6% | 15.6% | 17.4% |





XII. Appendix 2: Parcel Scores



Beecher Stabilization Plan

| ID | PARCELID | ROOF | DOOR | WINDOW | SIDING | LOTDRIVE | RAWScore | FINAL | CLASS |
|-------|---------------|------|------|--------|--------|----------|----------|-------|-------|
| 27226 | 14-24-200-021 | 3 | 3 | 3 | 3 | 3 | 15 | 3 | Good |
| 27267 | 14-24-529-079 | 3 | 2 | 2 | 3 | 3 | 13 | 3 | Good |
| 27268 | 14-24-529-080 | 3 | 2 | 2 | 3 | 3 | 13 | 3 | Good |
| 27271 | 14-24-529-083 | 2 | 2 | 2 | 3 | 3 | 12 | 2 | Fair |
| 27304 | 14-24-502-011 | 3 | 2 | 2 | 3 | 3 | 13 | 3 | Good |
| 27373 | 14-24-530-068 | 3 | 3 | 3 | 3 | 3 | 15 | 3 | Good |
| 27391 | 14-24-530-028 | 3 | 2 | 2 | 3 | 3 | 13 | 3 | Good |
| 27409 | 14-24-529-049 | 3 | 3 | 3 | 2 | 2 | 13 | 3 | Good |
| 27421 | 14-24-529-044 | 3 | 2 | 2 | 3 | 3 | 13 | 3 | Good |
| 27429 | 14-24-529-043 | 2 | 2 | 2 | 2 | 2 | 10 | 2 | Fair |
| 27585 | 14-24-529-032 | 3 | 2 | 2 | 3 | 3 | 13 | 3 | Good |
| 27615 | 14-24-501-023 | 3 | 2 | 3 | 2 | 3 | 13 | 3 | Good |
| 27655 | 14-24-503-001 | 1 | 2 | 2 | 3 | 2 | 10 | 2 | Fair |
| 27734 | 14-24-530-048 | 3 | 3 | 3 | 3 | 2 | 14 | 3 | Good |
| 27739 | 14-24-530-053 | 3 | 3 | 3 | 2 | 2 | 13 | 3 | Good |
| 27741 | 14-24-529-020 | 3 | 3 | 3 | 2 | 3 | 14 | 3 | Good |
| 27917 | 14-24-529-019 | 3 | 3 | 2 | 3 | 3 | 14 | 3 | Good |
| 28604 | 14-24-504-033 | 3 | 2 | 2 | 3 | 3 | 13 | 3 | Good |
| 28741 | 14-24-504-026 | 3 | 2 | 2 | 3 | 3 | 13 | 3 | Good |
| 28896 | 14-24-526-024 | 2 | 2 | 2 | 1 | 3 | 10 | 2 | Fair |
| 28951 | 14-24-502-038 | 3 | 2 | 3 | 1 | 2 | 11 | 2 | Fair |
| 29080 | 14-24-529-007 | 2 | 3 | 3 | 2 | 2 | 12 | 2 | Fair |
| 29265 | 14-24-553-038 | 2 | 3 | 3 | 2 | 2 | 12 | 2 | Fair |
| 29270 | 14-24-553-034 | 3 | 2 | 2 | 2 | 2 | 11 | 2 | Fair |
| 29273 | 14-24-553-032 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | Poor |
| 29279 | 14-24-553-024 | 3 | 2 | 2 | 3 | 2 | 12 | 2 | Fair |
| 29281 | 14-24-553-022 | 2 | 1 | 2 | 3 | 3 | 11 | 2 | Fair |
| 29283 | 14-24-553-019 | 2 | 2 | 2 | 3 | 3 | 12 | 2 | Fair |
| 29329 | 14-24-552-298 | 2 | 3 | 3 | 2 | 2 | 12 | 2 | Fair |
| 29330 | 14-24-552-297 | 2 | 2 | 2 | 3 | 3 | 12 | 2 | Fair |
| 29340 | 14-24-552-292 | 2 | 3 | 3 | 2 | 2 | 12 | 2 | Fair |
| 29344 | 14-24-553-010 | 3 | 2 | 2 | 3 | 3 | 13 | 3 | Good |
| 29447 | 14-24-552-245 | 3 | 2 | 2 | 2 | 3 | 12 | 2 | Fair |
| 29465 | 14-24-552-265 | 3 | 3 | 2 | 2 | 2 | 12 | 2 | Fair |
| 29468 | 14-24-552-266 | 3 | 3 | 3 | 2 | 2 | 13 | 3 | Good |
| 29474 | 14-24-552-226 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | Poor |
| 29481 | 14-24-552-268 | 3 | 3 | 3 | 3 | 3 | 15 | 3 | Good |
| 29498 | 14-24-552-270 | 3 | 2 | 2 | 2 | 2 | 11 | 2 | Fair |
| 29500 | 14-24-552-262 | 3 | 2 | 2 | 2 | 2 | 11 | 2 | Fair |
| 29503 | 14-24-552-271 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | Poor |
| 29508 | 14-24-552-279 | 2 | 3 | 2 | 1 | 2 | 10 | 2 | Fair |
| 29530 | 14-24-552-233 | 2 | 3 | 3 | 3 | 2 | 13 | 3 | Good |
| 29545 | 14-24-552-223 | 3 | 3 | 3 | 3 | 2 | 14 | 3 | Good |
| 29567 | 14-24-552-222 | 2 | 2 | 2 | 1 | 1 | 8 | 2 | Poor |
| 29660 | 14-24-552-208 | 3 | 3 | 2 | 2 | 3 | 13 | 3 | Good |
| 29689 | 14-24-552-194 | 2 | 1 | 2 | 1 | 2 | 8 | 2 | Poor |
| 29749 | 14-24-552-176 | 2 | 2 | 2 | 2 | 2 | 10 | 2 | Fair |
| 29761 | 14-24-552-202 | 3 | 2 | 2 | 3 | 3 | 13 | 3 | Good |
| 29845 | 14-24-552-110 | 2 | 1 | 2 | 2 | 2 | 9 | 2 | Fair |
| 29848 | 14-24-552-108 | 3 | 3 | 3 | 2 | 3 | 14 | 3 | Good |
| 29855 | 14-24-552-126 | 3 | 2 | 2 | 2 | 2 | 11 | 2 | Fair |
| 29904 | 14-24-552-147 | 2 | 2 | 2 | 1 | 3 | 10 | 2 | Fair |
| 29913 | 14-24-552-156 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | Poor |
| 29918 | 14-24-552-148 | 2 | 2 | 2 | 2 | 2 | 10 | 2 | Fair |

| | | | | | | | | | |
|-------|---------------|---|---|---|---|---|----|---|------|
| 29926 | 14-24-552-157 | 2 | 1 | 1 | 2 | 2 | 8 | 2 | Poor |
| 29927 | 14-24-552-106 | 2 | 3 | 2 | 1 | 1 | 9 | 2 | Fair |
| 29941 | 14-24-552-132 | 3 | 1 | 1 | 1 | 2 | 8 | 2 | Poor |
| 29956 | 14-24-552-158 | 2 | 2 | 2 | 2 | 2 | 10 | 2 | Fair |
| 30127 | 14-24-552-082 | 2 | 3 | 3 | 3 | 1 | 12 | 2 | Fair |
| 30132 | 14-24-552-084 | 3 | 1 | 3 | 2 | 2 | 11 | 2 | Fair |
| 30163 | 14-24-552-069 | 2 | 1 | 1 | 2 | 2 | 8 | 2 | Fair |
| 30169 | 14-24-552-068 | 3 | 3 | 3 | 3 | 2 | 14 | 3 | Good |
| 30180 | 14-24-552-067 | 2 | 3 | 3 | 2 | 2 | 12 | 2 | Fair |
| 30259 | 14-24-552-301 | 2 | 2 | 3 | 2 | 2 | 11 | 2 | Fair |
| 30309 | 14-24-552-037 | 2 | 3 | 3 | 2 | 2 | 12 | 2 | Fair |
| 30323 | 14-24-552-311 | 2 | 3 | 3 | 3 | 3 | 14 | 3 | Good |
| 30344 | 14-24-552-057 | 2 | 3 | 1 | 3 | 2 | 11 | 2 | Fair |
| 30491 | 14-24-551-298 | 1 | 1 | 1 | 1 | 2 | 6 | 1 | Poor |
| 30581 | 14-24-551-260 | 3 | 2 | 3 | 3 | 3 | 14 | 3 | Good |
| 30588 | 14-24-551-274 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | Poor |
| 30590 | 14-24-551-261 | 2 | 2 | 3 | 3 | 3 | 13 | 3 | Good |
| 30592 | 14-24-551-268 | 3 | 3 | 3 | 3 | 2 | 14 | 3 | Good |
| 30597 | 14-24-551-267 | 2 | 1 | 2 | 2 | 2 | 9 | 2 | Fair |
| 30602 | 14-24-551-266 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | Poor |
| 30668 | 14-24-551-191 | 2 | 2 | 1 | 2 | 2 | 9 | 2 | Fair |
| 30670 | 14-24-551-317 | 2 | 1 | 1 | 1 | 1 | 6 | 1 | Poor |
| 30696 | 14-24-551-216 | 3 | 3 | 3 | 3 | 2 | 14 | 3 | Good |
| 30709 | 14-24-551-214 | 1 | 2 | 1 | 2 | 2 | 8 | 2 | Poor |
| 30719 | 14-24-551-213 | 3 | 1 | 1 | 1 | 1 | 7 | 1 | Poor |
| 30727 | 14-24-551-236 | 2 | 3 | 3 | 2 | 2 | 12 | 2 | Fair |
| 30731 | 14-24-551-247 | 3 | 3 | 3 | 3 | 2 | 14 | 3 | Good |
| 30757 | 14-24-551-243 | 3 | 2 | 2 | 1 | 2 | 10 | 2 | Fair |
| 30943 | 14-24-551-153 | 2 | 3 | 2 | 1 | 2 | 10 | 2 | Fair |
| 30970 | 14-24-551-311 | 1 | 2 | 2 | 2 | 2 | 9 | 2 | Fair |
| 30976 | 14-24-551-143 | 1 | 2 | 2 | 1 | 1 | 7 | 1 | Poor |
| 31087 | 14-24-551-071 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | Poor |
| 31102 | 14-24-551-081 | 2 | 2 | 2 | 2 | 3 | 11 | 2 | Fair |
| 31107 | 14-24-551-084 | 1 | 1 | 1 | 1 | 2 | 6 | 1 | Poor |
| 31129 | 14-24-551-100 | 1 | 2 | 2 | 1 | 2 | 8 | 2 | Poor |
| 31135 | 14-24-551-105 | 3 | 2 | 2 | 2 | 1 | 10 | 2 | Fair |
| 31136 | 14-24-551-106 | 3 | 1 | 2 | 1 | 2 | 9 | 2 | Fair |
| 31145 | 14-24-551-113 | 1 | 3 | 3 | 2 | 2 | 11 | 2 | Fair |
| 31152 | 14-24-551-118 | 3 | 3 | 3 | 3 | 3 | 15 | 3 | Good |
| 31157 | 14-24-551-122 | 2 | 3 | 3 | 2 | 3 | 13 | 3 | Good |
| 31275 | 14-24-551-315 | 3 | 3 | 2 | 2 | 3 | 13 | 3 | Good |
| 31278 | 14-24-551-066 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | Poor |
| 31285 | 14-24-551-063 | 3 | 1 | 2 | 2 | 3 | 11 | 2 | Fair |
| 31286 | 14-24-551-062 | 2 | 2 | 2 | 2 | 3 | 11 | 2 | Fair |
| 31309 | 14-24-551-046 | 2 | 2 | 2 | 2 | 1 | 9 | 2 | Fair |
| 31324 | 14-24-551-035 | 3 | 2 | 2 | 1 | 2 | 10 | 2 | Fair |
| 31352 | 14-24-551-017 | 2 | 1 | 3 | 2 | 2 | 10 | 2 | Fair |
| 31363 | 14-24-551-011 | 1 | 2 | 1 | 1 | 2 | 7 | 1 | Poor |
| 31374 | 14-24-551-002 | 2 | 3 | 3 | 3 | 3 | 14 | 3 | Good |
| 31664 | 14-24-400-002 | 2 | 3 | 3 | 3 | 3 | 14 | 3 | Good |
| 32147 | 14-24-576-001 | 2 | 3 | 3 | 2 | 2 | 12 | 2 | Fair |
| 32148 | 14-24-578-060 | 3 | 2 | 2 | 1 | 2 | 10 | 2 | Fair |
| 32152 | 14-24-578-063 | 2 | 2 | 2 | 2 | 2 | 10 | 2 | Fair |
| 32170 | 14-24-578-071 | 3 | 2 | 2 | 2 | 1 | 10 | 2 | Fair |
| 32176 | 14-24-578-073 | 3 | 3 | 3 | 3 | 2 | 14 | 3 | Good |

Beecher Stabilization Plan

| | | | | | | | | | |
|-------|---------------|---|---|---|---|---|----|---|------|
| 32185 | 14-24-578-076 | 2 | 2 | 2 | 1 | 3 | 10 | 2 | Fair |
| 32256 | 14-24-578-102 | 2 | 2 | 2 | 1 | 3 | 10 | 2 | Fair |
| 32276 | 14-24-578-109 | 1 | 2 | 3 | 3 | 2 | 11 | 2 | Fair |
| 32280 | 14-24-578-111 | 2 | 2 | 3 | 1 | 2 | 10 | 2 | Fair |
| 32300 | 14-24-578-123 | 2 | 3 | 2 | 1 | 2 | 10 | 2 | Fair |
| 32319 | 14-24-578-134 | 2 | 2 | 2 | 2 | 2 | 10 | 2 | Fair |
| 32332 | 14-24-578-140 | 1 | 3 | 3 | 1 | 2 | 10 | 2 | Fair |
| 32442 | 14-24-576-002 | 2 | 2 | 2 | 1 | 2 | 9 | 2 | Fair |
| 32468 | 14-24-578-058 | 3 | 2 | 3 | 1 | 3 | 12 | 2 | Fair |
| 32495 | 14-24-578-052 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | Poor |
| 32607 | 14-24-578-010 | 1 | 3 | 2 | 2 | 3 | 11 | 2 | Fair |
| 32669 | 14-24-577-287 | 1 | 1 | 1 | 1 | 2 | 6 | 1 | Poor |
| 32756 | 14-24-577-220 | 2 | 2 | 2 | 1 | 1 | 8 | 2 | Poor |
| 32763 | 14-24-577-224 | 3 | 3 | 3 | 2 | 3 | 14 | 3 | Good |
| 32767 | 14-24-577-227 | 3 | 2 | 2 | 2 | 3 | 12 | 2 | Fair |
| 32771 | 14-24-577-228 | 2 | 2 | 2 | 1 | 2 | 9 | 2 | Fair |
| 32773 | 14-24-577-229 | 2 | 1 | 2 | 3 | 3 | 11 | 2 | Fair |
| 32787 | 14-24-577-234 | 2 | 2 | 1 | 1 | 3 | 9 | 2 | Fair |
| 32797 | 14-24-577-239 | 2 | 2 | 2 | 2 | 3 | 11 | 2 | Fair |
| 32815 | 14-24-577-248 | 2 | 2 | 2 | 2 | 2 | 10 | 2 | Fair |
| 32864 | 14-24-577-269 | 3 | 3 | 2 | 2 | 2 | 12 | 2 | Fair |
| 32884 | 14-24-577-276 | 1 | 1 | 2 | 1 | 2 | 7 | 1 | Poor |
| 32885 | 14-24-577-277 | 1 | 2 | 1 | 1 | 2 | 7 | 1 | Poor |
| 32999 | 14-24-577-186 | 2 | 2 | 2 | 1 | 2 | 9 | 2 | Fair |
| 33002 | 14-24-577-184 | 2 | 2 | 2 | 2 | 2 | 10 | 2 | Fair |
| 33003 | 14-24-577-183 | 3 | 3 | 3 | 3 | 2 | 14 | 3 | Good |
| 33073 | 14-24-577-152 | 3 | 2 | 2 | 2 | 2 | 11 | 2 | Fair |
| 33086 | 14-24-577-071 | 1 | 2 | 2 | 2 | 1 | 8 | 2 | Poor |
| 33122 | 14-24-577-132 | 3 | 3 | 3 | 2 | 3 | 14 | 3 | Good |
| 33159 | 14-24-577-120 | 2 | 1 | 2 | 2 | 1 | 8 | 2 | Poor |
| 33225 | 14-24-577-044 | 1 | 2 | 2 | 1 | 2 | 8 | 2 | Poor |
| 33240 | 14-24-577-055 | 2 | 2 | 3 | 2 | 2 | 11 | 2 | Fair |
| 33258 | 14-24-577-305 | 2 | 2 | 2 | 1 | 2 | 9 | 2 | Fair |
| 33290 | 14-24-577-079 | 2 | 1 | 1 | 1 | 2 | 7 | 1 | Poor |
| 33297 | 14-24-577-082 | 2 | 2 | 2 | 1 | 2 | 9 | 2 | Fair |
| 33346 | 14-24-577-103 | 2 | 1 | 2 | 1 | 2 | 8 | 2 | Poor |
| 33349 | 14-24-577-105 | 2 | 1 | 2 | 1 | 2 | 8 | 2 | Poor |
| 33352 | 14-24-577-108 | 2 | 2 | 2 | 1 | 2 | 9 | 2 | Fair |
| 33362 | 14-24-577-111 | 1 | 1 | 1 | 1 | 2 | 6 | 1 | Poor |
| 33567 | 14-24-577-010 | 3 | 3 | 3 | 3 | 3 | 15 | 3 | Good |
| 33678 | 14-24-576-274 | 2 | 2 | 1 | 2 | 2 | 9 | 2 | Fair |
| 33685 | 14-24-576-270 | 2 | 2 | 1 | 1 | 2 | 8 | 2 | Poor |
| 33691 | 14-24-576-268 | 1 | 2 | 1 | 2 | 2 | 8 | 2 | Poor |
| 33721 | 14-24-576-257 | 1 | 1 | 1 | 1 | 2 | 6 | 1 | Poor |
| 33725 | 14-24-576-258 | 2 | 3 | 2 | 2 | 2 | 11 | 2 | Fair |
| 33777 | 14-24-576-182 | 3 | 2 | 2 | 3 | 3 | 13 | 3 | Good |
| 33779 | 14-24-576-183 | 3 | 3 | 3 | 1 | 3 | 13 | 3 | Good |
| 33786 | 14-24-576-185 | 3 | 3 | 3 | 2 | 3 | 14 | 3 | Good |
| 33812 | 14-24-576-198 | 2 | 3 | 2 | 3 | 3 | 13 | 3 | Good |
| 33859 | 14-24-576-219 | 2 | 2 | 2 | 3 | 3 | 12 | 2 | Fair |
| 33867 | 14-24-576-222 | 1 | 1 | 2 | 1 | 2 | 7 | 1 | Poor |
| 33871 | 14-24-576-223 | 1 | 2 | 2 | 1 | 2 | 8 | 2 | Poor |
| 33878 | 14-24-576-225 | 3 | 2 | 2 | 2 | 3 | 12 | 2 | Fair |
| 33885 | 14-24-576-228 | 3 | 3 | 2 | 2 | 2 | 12 | 2 | Fair |
| 33909 | 14-24-576-237 | 3 | 2 | 2 | 3 | 3 | 13 | 3 | Good |

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| 33961 | 14-24-576-244 | 3 | 3 | 1 | 2 | 3 | 12 | 2 | Fair |
| 33972 | 14-24-576-249 | 2 | 3 | 3 | 2 | 3 | 13 | 3 | Good |
| 33976 | 14-24-576-252 | 2 | 1 | 1 | 2 | 3 | 9 | 2 | Fair |
| 34051 | 14-24-576-161 | 2 | 2 | 2 | 3 | 3 | 12 | 2 | Fair |
| 34055 | 14-24-576-160 | 2 | 2 | 2 | 2 | 3 | 11 | 2 | Fair |
| 34065 | 14-24-576-155 | 1 | 2 | 2 | 1 | 2 | 8 | 2 | Poor |
| 34072 | 14-24-576-152 | 1 | 2 | 3 | 1 | 2 | 9 | 2 | Fair |
| 34088 | 14-24-576-147 | 2 | 2 | 2 | 2 | 1 | 9 | 2 | Fair |
| 34100 | 14-24-576-141 | 3 | 2 | 2 | 2 | 3 | 12 | 2 | Fair |
| 34106 | 14-24-576-137 | 3 | 2 | 2 | 2 | 3 | 12 | 2 | Fair |
| 34114 | 14-24-576-131 | 3 | 3 | 2 | 2 | 2 | 12 | 2 | Fair |
| 34116 | 14-24-576-130 | 3 | 3 | 3 | 2 | 3 | 14 | 3 | Good |
| 34118 | 14-24-576-129 | 2 | 2 | 2 | 2 | 2 | 10 | 2 | Fair |
| 34139 | 14-24-576-119 | 2 | 2 | 1 | 1 | 2 | 8 | 2 | Poor |
| 34141 | 14-24-576-118 | 2 | 2 | 2 | 1 | 2 | 9 | 2 | Fair |
| 34155 | 14-24-576-111 | 1 | 2 | 2 | 2 | 1 | 8 | 2 | Poor |
| 34159 | 14-24-576-305 | 3 | 2 | 2 | 2 | 3 | 12 | 2 | Fair |
| 34164 | 14-24-576-108 | 3 | 3 | 3 | 1 | 3 | 13 | 3 | Good |
| 34172 | 14-24-576-105 | 1 | 2 | 2 | 1 | 2 | 8 | 2 | Poor |
| 34192 | 14-24-576-096 | 2 | 2 | 2 | 1 | 3 | 10 | 2 | Fair |
| 34197 | 14-24-576-093 | 3 | 2 | 2 | 1 | 2 | 10 | 2 | Fair |
| 34230 | 14-24-576-301 | 3 | 3 | 3 | 2 | 3 | 14 | 3 | Good |
| 34257 | 14-24-576-013 | 3 | 2 | 2 | 3 | 3 | 13 | 3 | Good |
| 34261 | 14-24-576-014 | 2 | 3 | 3 | 3 | 2 | 13 | 3 | Good |
| 34302 | 14-24-576-035 | 2 | 2 | 2 | 1 | 2 | 9 | 2 | Fair |
| 34313 | 14-24-576-046 | 3 | 3 | 3 | 3 | 3 | 15 | 3 | Good |
| 34315 | 14-24-576-047 | 3 | 2 | 2 | 3 | 3 | 13 | 3 | Good |
| 34335 | 14-24-576-058 | 2 | 3 | 3 | 3 | 3 | 14 | 3 | Good |
| 34345 | 14-24-576-062 | 1 | 2 | 2 | 1 | 3 | 9 | 2 | Fair |
| 34357 | 14-24-576-067 | 3 | 3 | 2 | 1 | 2 | 11 | 2 | Fair |
| 34362 | 14-24-576-068 | 2 | 1 | 3 | 1 | 3 | 10 | 2 | Fair |
| 34364 | 14-24-576-069 | 2 | 1 | 3 | 1 | 3 | 10 | 2 | Fair |
| 34375 | 14-24-576-074 | 3 | 3 | 3 | 2 | 3 | 14 | 3 | Good |
| 34376 | 14-24-576-075 | 2 | 3 | 3 | 1 | 3 | 12 | 2 | Fair |
| 34381 | 14-24-576-077 | 2 | 3 | 2 | 2 | 3 | 12 | 2 | Fair |
| 34384 | 14-24-576-078 | 2 | 3 | 3 | 3 | 2 | 13 | 3 | Good |
| 34392 | 14-24-576-081 | 2 | 1 | 2 | 1 | 1 | 7 | 1 | Poor |
| 33522 | 14-24-577-030 | 1 | 1 | 1 | 1 | 1 | 5 | 1 | Poor |
| 33594 | 14-24-576-294 | 2 | 2 | 2 | 2 | 2 | 10 | 2 | Fair |
| 33858 | 14-24-576-218 | 3 | 2 | 2 | 3 | 2 | 12 | 2 | Fair |
| 33837 | 14-24-576-209 | 1 | 1 | 2 | 1 | 3 | 8 | 1 | Poor |
| 33815 | 14-24-576-199 | 3 | 3 | 3 | 3 | 2 | 14 | 3 | Good |
| 33753 | 14-24-576-173 | 2 | 2 | 2 | 3 | 2 | 11 | 2 | Fair |
| 30184 | 14-24-552-066 | 2 | 2 | 2 | 3 | 2 | 11 | 2 | Fair |