Lansing, Michigan

General Motors Verlinden Avenue Site Feasibility Study

Urban and Regional Planning Department
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Executive Summary

Michigan State University Urban and Regional Planning Practicum students assembled this site feasibility report for a neighborhood group located in the City of Lansing, Michigan. At the request of the Northwest Lansing Healthy Communities Initiative (NWLHCI), a group of six students worked to provide realistic redevelopment strategies for the closed General Motors (GM) Lansing Car Assembly Plant (Plant #6) on Verlinden Avenue, located just west of downtown Lansing.

This site feasibility report focuses on the Westside Neighborhood section of the NWLHCI, an area bounded by Oakland Avenue to the north, Olds Avenue to the south, Clare Street to the west, and Martin Luther King Jr. Boulevard to the east. It provides realistic options for redevelopment of the GM site while considering the impact on the Lansing economy and the needs of surrounding neighborhood residents. It provides site-specific data pertaining to GM plant #6 and the facilities contained on that property. The report also identifies goals and recommendations to assist in the redevelopment of the former industrial site. The Westside Neighborhood Association (WNA) and representatives of the area have worked closely with the NWLHCI and representatives from the GM plant to generate ideas for redevelopment of the site. The common goal of all involved is to redevelop the area to boost local economy while preserving the unique character of the neighborhood.

There are five main components to this GM plant site feasibility study:

1. An overview of the current status of the GM Verlinden Avenue site, including site specific information such as land use, zoning, transportation routes, accessibility, visibility of the site, and infrastructure. Also, includes the GM redevelopment process and two pertinent GM industrial site redevelopment examples.

2. A socio-economic profile of the Westside Neighborhood and adjacent Lansing Township to gain insight into the character of the community and its residents since future redevelopment of the GM site will have a large affect on neighborhood residents.

3. A market analysis to assess market trends and demand for commercial, residential, and industrial/office use for the local, regional and state level in order to determine viable redevelopment options.

4. A regional assessment to examine regional factors that may influence the feasibility of different redevelopment options on the Verlinden Avenue site. To accomplish this, regional demographics, transportation networks,

financial incentives, construction costs, and quality of life factors were assessed.

5. A site assessment to determine which redevelopment options were most feasible for the GM plant site. Criteria were developed to rank possible redevelopment options, which included commercial retail, light industrial, office, and residential.

The socio-economic profile and market analysis revealed economic stability and potential for economic growth for the region surrounding the plant site. The adjacent neighborhoods to GM Plant #6, in particular, show strong demand for future retail or residential developments. As you move further away from the plant site, there is less market demand for commercial use due to a saturation of the regional market.

Regional assessment factors reflect the trends in market potential, workforce, financial incentives, access to regional amenities, and quality of life in the area. The assessment shows that the Lansing region is well-situated to attract new businesses and residents because the area provides economic stability, affordable housing, a qualified workforce, advanced education systems, and a relatively low cost of living. This suggests that Lansing is able to sustain many different types of development. Site assessment factors reflect the current status of the site in terms of land use and zoning, infrastructure, compatibility with surrounding land uses, access to the site, visibility of the site, and environmental conditions. An evaluation of the site factors resulted in similar scores for each development type. This suggests that the site could support many different types of redevelopment and that consideration should be given to mixing uses.

Recommendations were developed based on the regional and site assessments. Redevelopment recommendations are structured into three categories: current actions, temporary uses, and permanent uses. Current action suggests that the NWLHCI create a connection with the City of Lansing and Lansing Township, as well as act as a liaison between GM, potential developers, and the residents of the adjacent neighborhoods to help with the redevelopment process and build synergy between residents, local governments, businesses and developers. Temporary uses are recommended because the environmental status of the site is currently unknown and the redevelopment process is lengthy. Thus, considering a transitional temporary use is a good alternative because these uses require low investment with high potential economic gain, are not particularly intrusive on the adjacent neighborhood, and can be easily converted into other future uses. Potential temporary uses include converting the site to warehousing, storage, or a distribution center. In regards to permanent uses for site redevelopment, mixed-use including a combination of residential and neighborhood commercial or office development has been determined to have the most potential on this site because it is well-suited to several different uses and the region is able sustain many different types of development.

Introduction

Practicum Structure

The Urban and Regional Planning Program at Michigan State University offers a Planning Practicum course to give students an opportunity to integrate classroom-based knowledge with real-world situations. The faculty in the Urban Planning Department considers this course to be essential in the evolution of a student into a trained professional. This course has been designed to provide students with hands-on experience so that they can master data collection, interview, field work, mapping, and report-writing techniques. Students must also apply analytical techniques to understand the current state of a community, to develop feasible problem-solving strategies, and to assist in decision-making. To accomplish this, a team of undergraduate and graduate students apply their knowledge of the planning process to an actual community-based project. The course functions as a self-guided research assignment in which students gather appropriate data, synthesize and interpret those data, and make recommendations to a client on how to best approach their particular community issue. The culmination of the course is for student groups to prepare a professional written report and present findings to the client, as well as the professional planning community. The desired outcome of this course is that students will be exposed to actual work that professional planners and developers encounter in the planning profession.

Throughout the practicum process, students are guided by their community client contact(s) and the Urban Planning Practicum faculty advisors. Because of its participatory nature, the practicum process benefits students, client contact(s), community-based interest groups, and the community itself. This course offers a unique opportunity for students to gain invaluable planning experience, while community-based organizations receive a quality plan to guide development at relatively little cost.

Background

In the United States, the economy has shifted from manufacturing-based industry to knowledge-based industry. Consequently, a new economy has emerged; it is characterized by globalization, accelerated pace of product production and worker turnover, knowledge-driven industries, and specialized networks. These characteristics work in concert to give business firms a competitive advantage in a changing economy.[1] Michigan's economy, however, is deeply rooted in manufacturing-based industry; in particular, the automobile industry. For years, the automobile manufacturing industry brought economic prosperity to Michigan. Recently, the shift in the economy has caused Michigan to experience an economic downturn because the state has been ill-equipped to adapt to the changing economy. This is exemplified by layoffs and plant closures in the auto industry. In the new global economy, this has become the norm and not the exception.

Because of the number of closures of industrial facilities, including auto factories, there is a growing need for site feasibility studies to determine the best strategies for re-use and development of these industrial sites. This is of concern for Michigan, considering the large number of industrial facilities located in the state. In 2002, there were 15,193 manufacturing establishments in the State.[2] The City of Lansing alone has six General Motors (GM) auto industry facilities, one of which is now closed and two that are slated to be shut down by 2007. Industrial plant closures can have a negative impact on the economy, but they may also offer opportunities for communities, such as Lansing, to develop an economic strategy that is viable in the new global economy. In other words, innovative redevelopment of these industrial sites may be able to stimulate economic growth in Michigan.

[1] Blakely, E. J. and Bradshaw, T. K. 2002. Planning Local Economic Development: Theory and Practice. London, UK: Sage Publications

[2] http://factfinder.census.gov/servlet/IBQTable?_bm=y&-geo_id=&-ds_name=EC0231A2&-_lang=en

Client Information

The Northwest Healthy Communities Initiative (NWLHCI) was formed in 2000 when community members gathered for the Northwest Neighborhood Summit and identified recommendations for strengthening and sustaining healthy communities in the area. The NWLHCI is a 501(c)(3) non-profit organization that works to develop healthy communities located in Lansing's northwest side, specifically in the area bounded by the Grand River to north, east, and south (See Figure). The mission of the NWLHCI is to help sections of northwestern Lansing "through community engagement and mobilization, NWLHCI advances the development of healthy, vibrant communities by building capacity to identify needs and formulate strategies to create change." They subscribe to a visioning, planning, and action process to determine how residents want to improve their community, to advocate for proposed policies, and to develop proposed programs.[3]

[3] http://www.nwlhci.org/about.htm

As discussed, there are many industrial sites closing in Michigan due to a changing economy. This is a major issue in Lansing as auto industry facilities are closing at a rapid pace. In 2005, the Lansing Car Assembly Plant (GM Plant #6) on Verlinden Avenue was closed. This facility is located in the Westside Neighborhood, one of the neighborhoods represented by the NWLHCI. The NWLHCI has been working with the Westside Neighborhood Association (WNA) and representatives from GM to generate ideas for redevelopment of the site. Both the NWLHCI and the WNA feel that the redevelopment of the Verlinden Avenue site offers an opportunity to enrich the community both financially and culturally.

Role of Practicum Students

In light of community concerns about plant closures and future re-development of industrial sites, the GM Site Feasibility Study practicum team (GM team) carefully evaluated site-specific and neighborhood data to provide the NWLHCI with recommendations to create realistic redevelopment strategies for the Verlinden Avenue site that will provide a boost to the Lansing economy while meeting the needs of surrounding neighborhood residents. The GM team worked closely with the NWLHCI, the WNA, and GM to ensure that recommendations accurately reflected neighborhood desires and site limitations. Students were involved with data collection, analysis, and report and presentation production.

The GM site feasibility study required the GM team to examine the physical characteristics of the GM site, the socio-economic characteristics of the surrounding neighborhood, and the market potential of the surrounding area. Students analyzed these data and used their knowledge of the planning process to inform decision-makers as to the best options for redevelopment of the Verlinden Avenue site.

A formal presentation of the finding of this research was prepared and presented on April 24, 2006 to the NWLHCI Westside Alliance Steering Committee, at which WNA residents and stakeholders were present. This presentation was also made to Michigan State University Urban Collaborators, planning professionals, and interested citizens on May, 1, 2006.

Scope of Service

The scope of this project revolves around the Verlinden Avenue GM facility site and the surrounding Westside Neighborhood. The goal of this study is to recommend feasible redevelopment options for the now-closed Verlinden Avenue GM site that will benefit the City of Lansing and the adjacent neighborhood. To accomplish this, the following data were examined:

- Land use and current zoning of the study site
- The physical characteristics of the GM Verlinden Avenue site
- The socio-economic characteristics of the surrounding neighborhood
- Westside Neighborhood residents' opinions on options for redevelopment of the Verlinden Avenue site
- The market potential within a three mile radius of the study site
- Transportation routes and traffic counts in and surrounding the study site

These data were collected from various sources. Land use and zoning for the study area were determined by a review of the Lansing master plan and zoning documents. A visit to the GM Verlinden Avenue site and data from the assessor's office was used to determine the physical characteristics of the site. Socio-economic data was collected from the U.S. Census Bureau. To gain insight into residents' opinions, a questionnaire was created and distributed to a focus group consisting of people participating in a WNA meeting. After collecting and analyzing these data, a strengths, weakness, opportunities, and threats (SWOT) analysis was conducted to determine the resources that could be used as a basis for the development of a plan, the limitations, the favorable situations that could enhance redevelopment, and potential obstacles for redevelopment of the site. To determine which redevelopment options were most feasible for the Verlinden Avenue site, criteria were developed based on site-specific factors and a score was assigned to each redevelopment option. In addition, a descriptive analysis of regional factors that may influence the viability of redevelopment options was performed. The feasibility of a redevelopment option was based on its score from the site specific assessment and its outlook in a regional context. Based on these factors, recommendations were made as to which redevelopment options were best suited for the Verlinden Avenue site.

Section One: Site Description

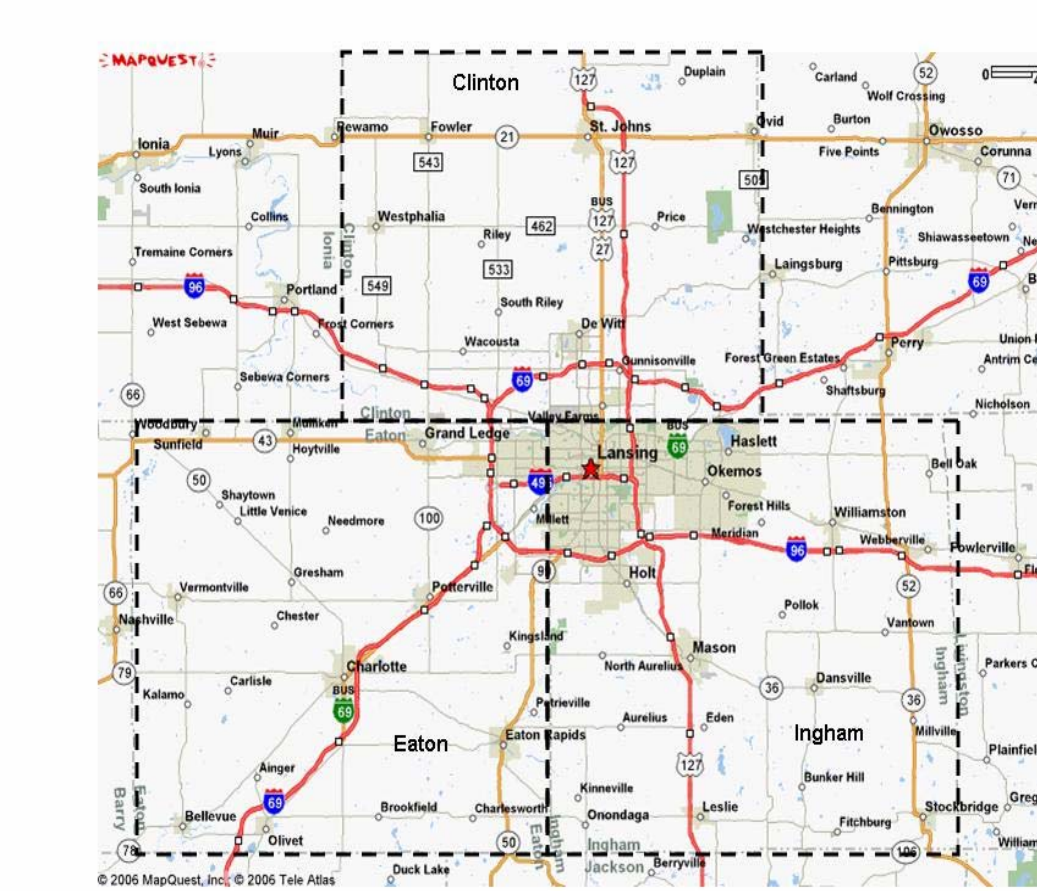
1.1 Study Site Location

The City of Lansing is located in the south-central region of the Lower Peninsula of Michigan. It is the capital of Michigan and is located approximately 90 miles northwest of Detroit and 65 miles southeast of Grand Rapids.

Figure 1.1: The Location of Lansing, Michigan

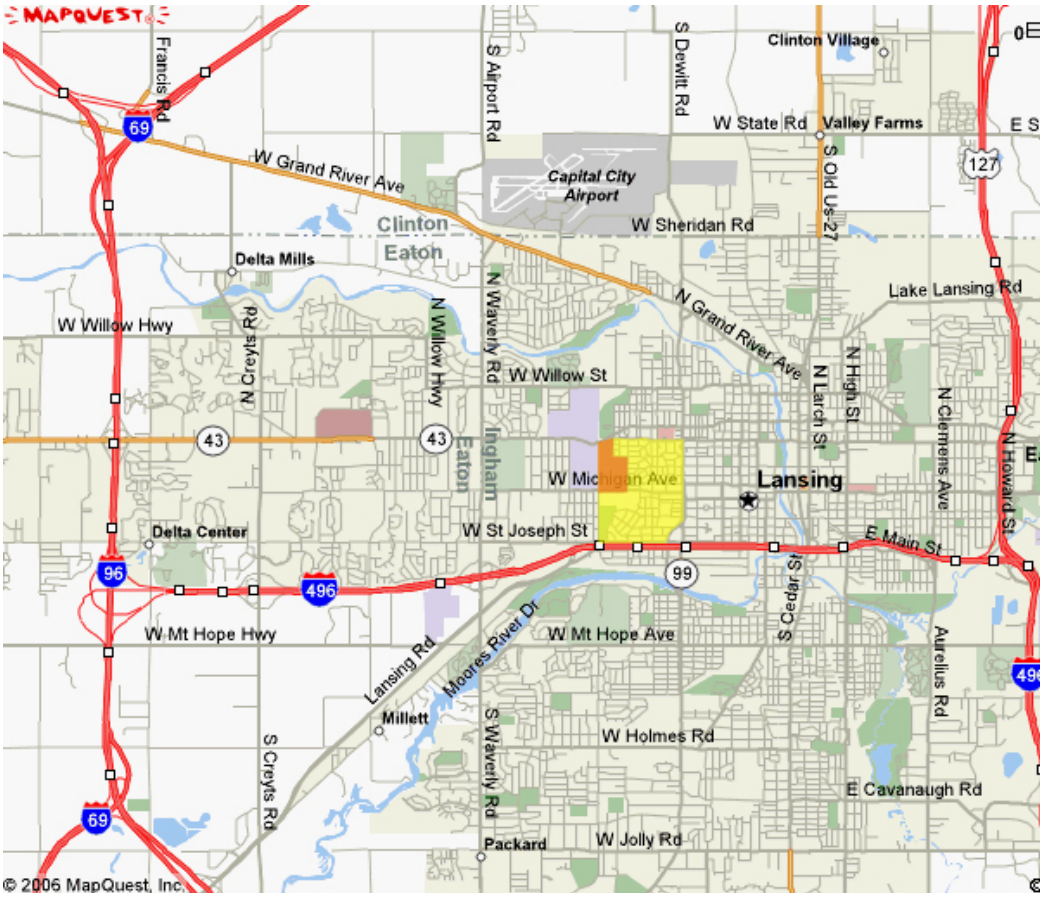
Lansing is located in the northwest portion of Ingham County, which is part of the Tri-County area. The Tri-County area also includes Eaton County to the west and Clinton County to the north. A small portion of the western edge of Lansing lies within the eastern portion of Eaton County, bordering Ingham County to the east.

Figure 1.2: The Location of Lansing in the Tri-County Area



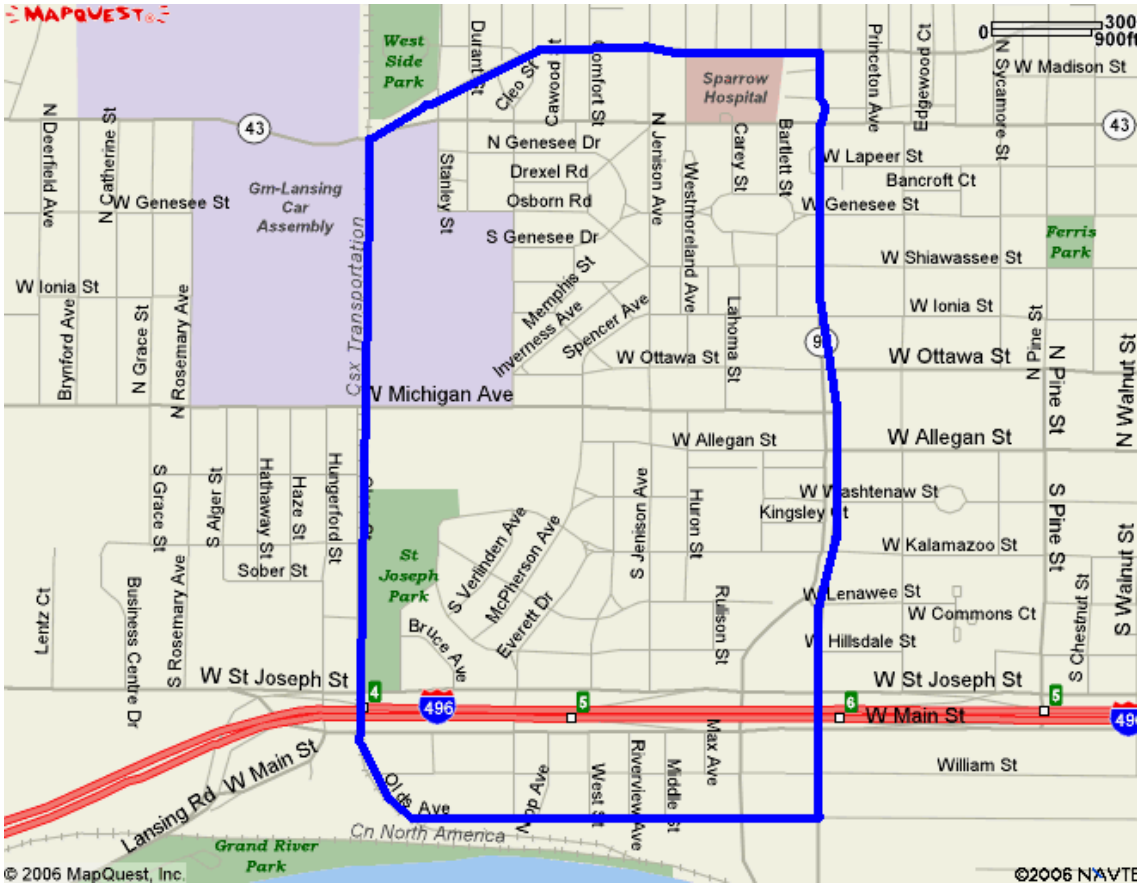
The study area is located in Lansing, Michigan; in the western section of the city (highlighted in yellow).

Figure 1.3: Location of Study Site in Lansing, Michigan



Although the purpose of this project is to make recommendations as to the redevelopment of the Verlinden Avenue GM site, the study area also encompasses the surrounding Westside Neighborhood. The study area is bounded to the north by Oakland Avenue (State Highway 43), to the east by Martin Luther King Jr. Boulevard (State Highway 99), to the south by Olds Avenue, and to the west by Clare Street. Along the western boundary, there is a railway spur that provides rail access for the three GM plants in the area, including the now-closed Verlinden Avenue plant.

Figure 1.4: Boundaries of Study Site



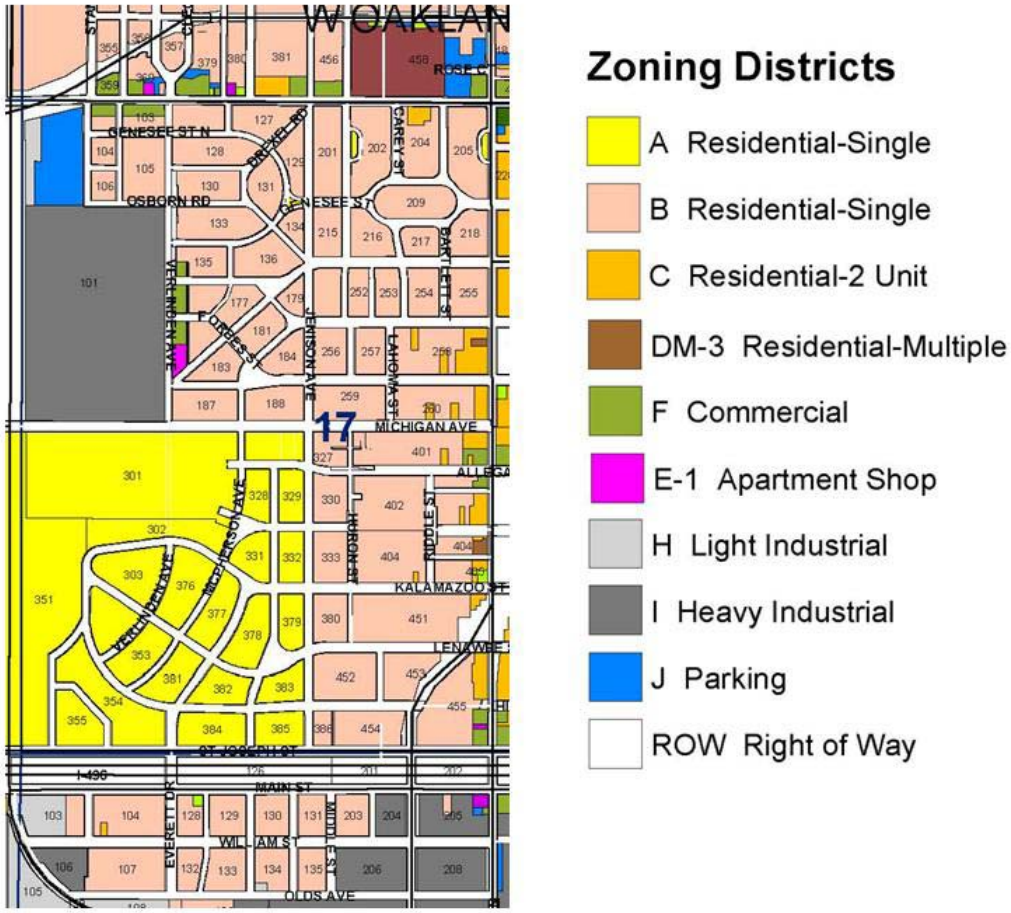
Study Site Boundary

1.2 Land Use and Zoning

Current Zoning

The Verlinden Avenue site is zoned as I Heavy Industrial and the parking lot located in the northern section of the site is zoned J Parking. The section of the site located between the parking lot and the railroad tracks is zoned H Light Industrial; a Lansing Board of Water and Light electrical substation is located there. Along Saginaw Street, from Stanley Street to Verlinden Avenue, the lots are zoned F Commercial. This section contains a restaurant and several small businesses. East of the plant site, along Verlinden Avenue, there is a section zoned F Commercial and E-1 Apartment Shop. The rest of the study area is zoned primarily A and B Residential-Single with some areas along Michigan Avenue, Martin Luther King Jr. Boulevard, and Saginaw Street zoned C Residential-2 Unit.

Figure 1.5: Zoning Map for the Study Site



Current Land Use

The existing land uses are similar to the current zoning (see Figure 1.5). The GM Verlinden Plant is a former industrial site. The majority of the study area is used for single-family residential housing. To the west of the Verlinden Plant is the GM Lansing Craft Center Plant. The two plants are separated by railroads running north south between the two properties. The Lansing Craft Center Plant shut down production in mid-March 2006, and will officially close at the end of its contract agreement with the local union[4]. The property directly north of the plant, on the corner of Osborn Street and Verlinden Avenue, was the Verlinden Street Elementary School, which has been closed since end of the 2005 school year. Currently, there are plans for a non-profit organization to move into the building. The property south of the GM plant, on Michigan Avenue is Sexton High School. The east side of Verlinden Avenue, between Inverness and Genesee, is a mix of commercial and service businesses, including Harry's Place Bar and Restaurant, and an American Legion Post. The south side of Saginaw Street, between Stanley Street and Verlinden Avenue, has a mix of commercial and other service businesses, including Big Tony's Pizza, and J&J Appliances and Furniture. There are also parks located on the corner of Stanley Street. and Osborn, as well as south of Sexton High School on Clare Street.

Westside Neighborhood Diner

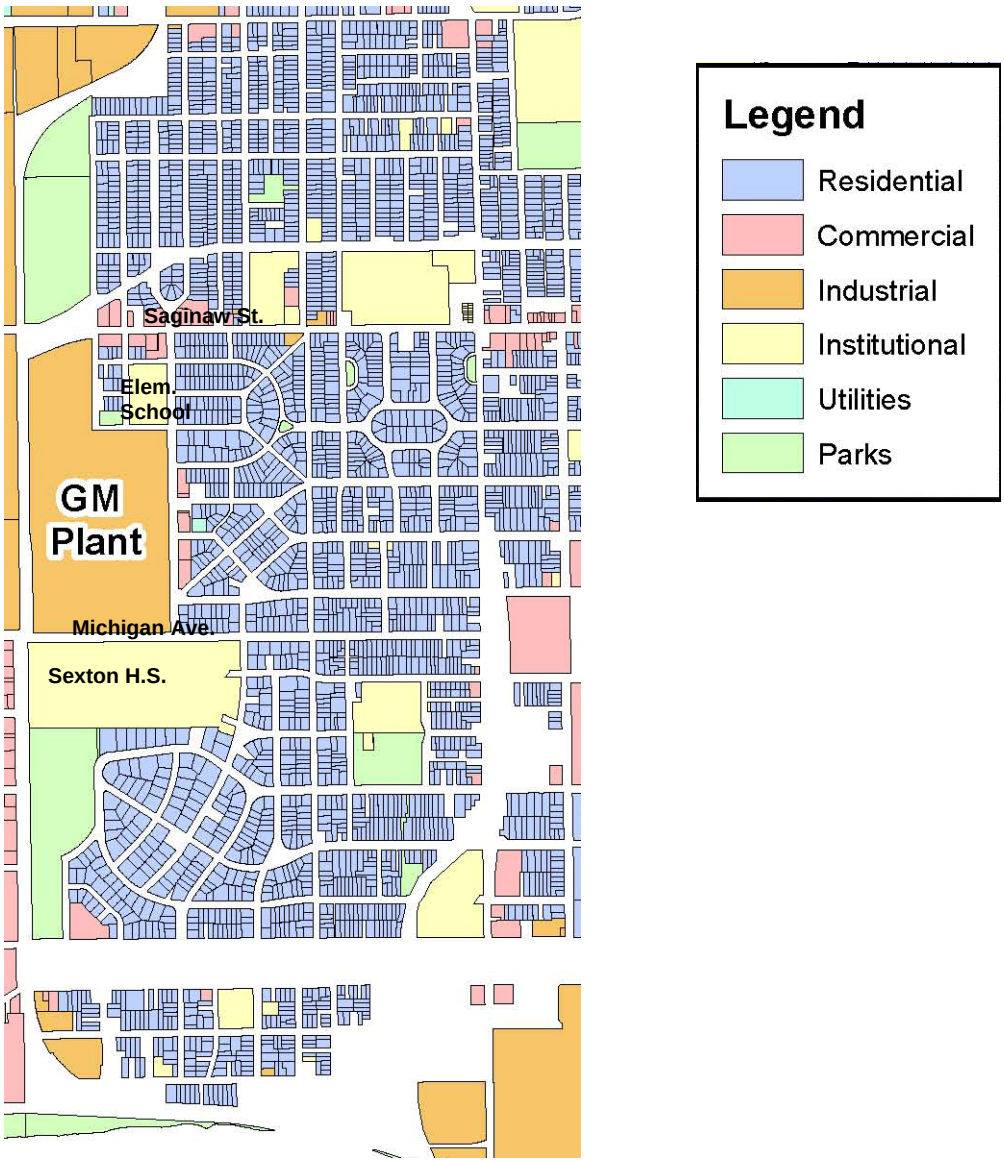
Local Commercial Business

Neighborhood Housing

Elementary School Playground

[4] Lansing State Journal online article found on March 31, 2006 at http://www.lsj.com/apps/pbcs.dll/article?AID=/20060317/NEWS03/603170315/1001/NEWS

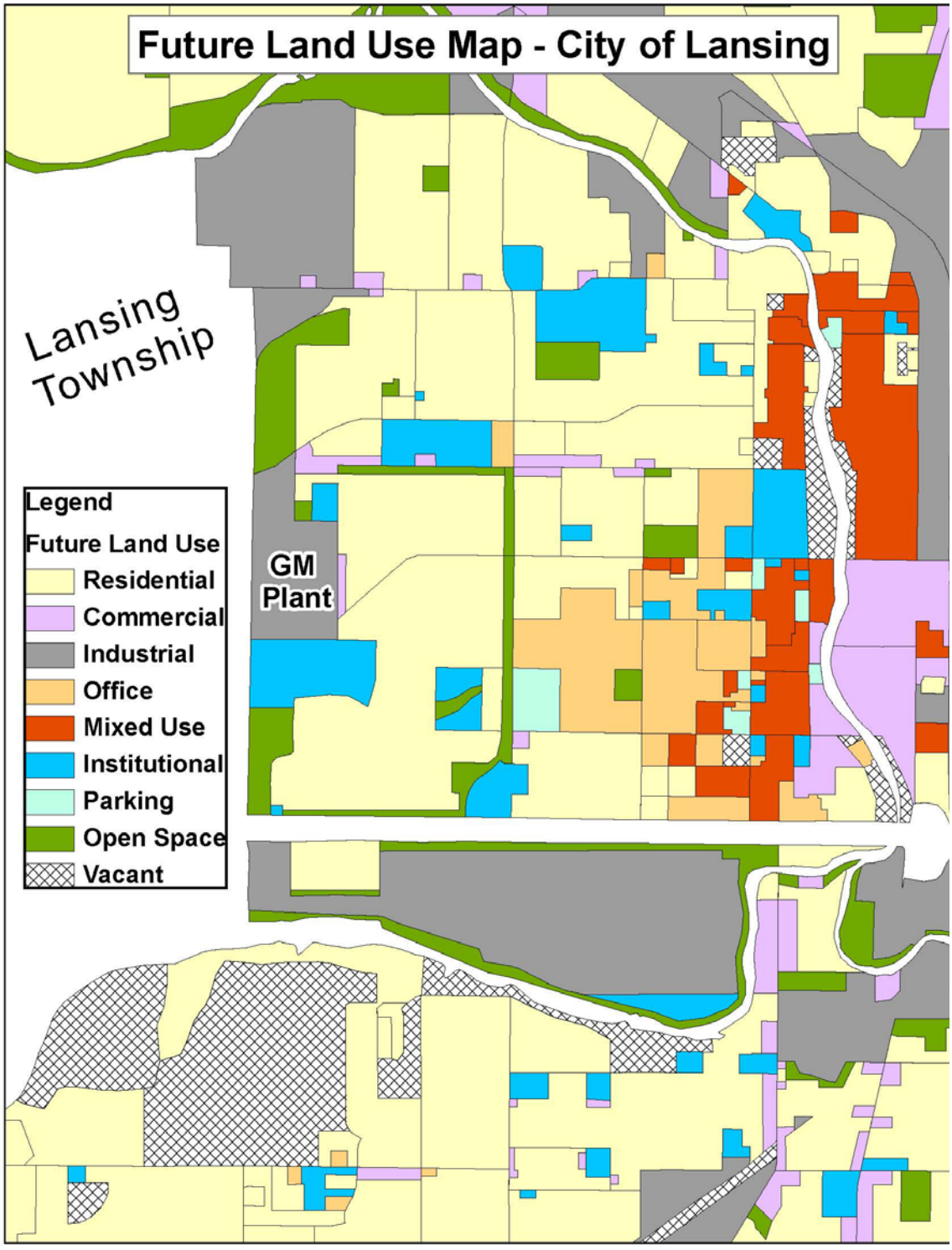
Figure 1.6: Current Land Use



Future Land Use

The City of Lansing's future land use plans for this area are primarily consistent with the existing land uses (see Figure 1.6). This may change at some point, but as of now the City of Lansing Planning Department has the vacant GM Verlinden Plant listed as industrial. No new plans have been developed by the City for this property. The High School south of the plant is proposed to remain a school indefinitely. The commercial properties on Verlinden Avenue, between Inverness and Genesee, are proposed to be used for commercial purposes. The same is planned for the commercial strip on the south side of Saginaw between Stanley Street and Verlinden. Also included in the future land use map are multiple green space conservation areas that designate spaces to be used for outdoor activities by neighborhood residents. To date, no major changes in future land use are being proposed for the study area.

Figure 1.7: Future Land Use



1.3 GM Verlinden Avenue Plant Site (Plant #6)

History

The Verlinden Avenue site has been used for car manufacturing since the early 1900s. What was initially farmland on the outskirts of Lansing became a prime site for automobile production. The first automobile plant was erected by R.E. Olds in 1901 to house his Olds Motor Works. In 1920, the Durant Motors factory was built on the site. After the demise of the Durant factory, GM purchased the property in 1935, built additional factory facilities, and produced various models of automobiles until May of 2005. The plant was known as the Lansing Car Assembly Plant. During this period, the plant housed GM's Fisher Body division, as well as the Buick-Oldsmobile-Cadillac factory. In recent years, the Chevrolet Malibu and the Pontiac Grand Am were produced at the plant.[5] Before the Verlinden Avenue GM plant closed, it employed approximately 3,500 workers.

Looking at GM Plant #6 from Southwest Corner

[5] http://en.wikipedia.org/wiki/Lansing_Car_Assembly

GM Site Boundaries

The Verlinden Avenue GM site in the City of Lansing is 57.14 acres.[6] The boundary of the Verlinden Avenue site runs south along Verlinden Avenue from the intersection of Verlinden Avenue and Osborn Road to Michigan Avenue, west along Michigan Avenue to Clare Street, north on Clare Street to Saginaw Street, east along Saginaw Street to Stanley Street, south on Stanley Street to Osborn Road, and east along Osborn Road back to Verlinden Avenue.[7]

Figure 1.8: Plant Site Boundaries

Boundaries of the Verlinden Avenue GM plant

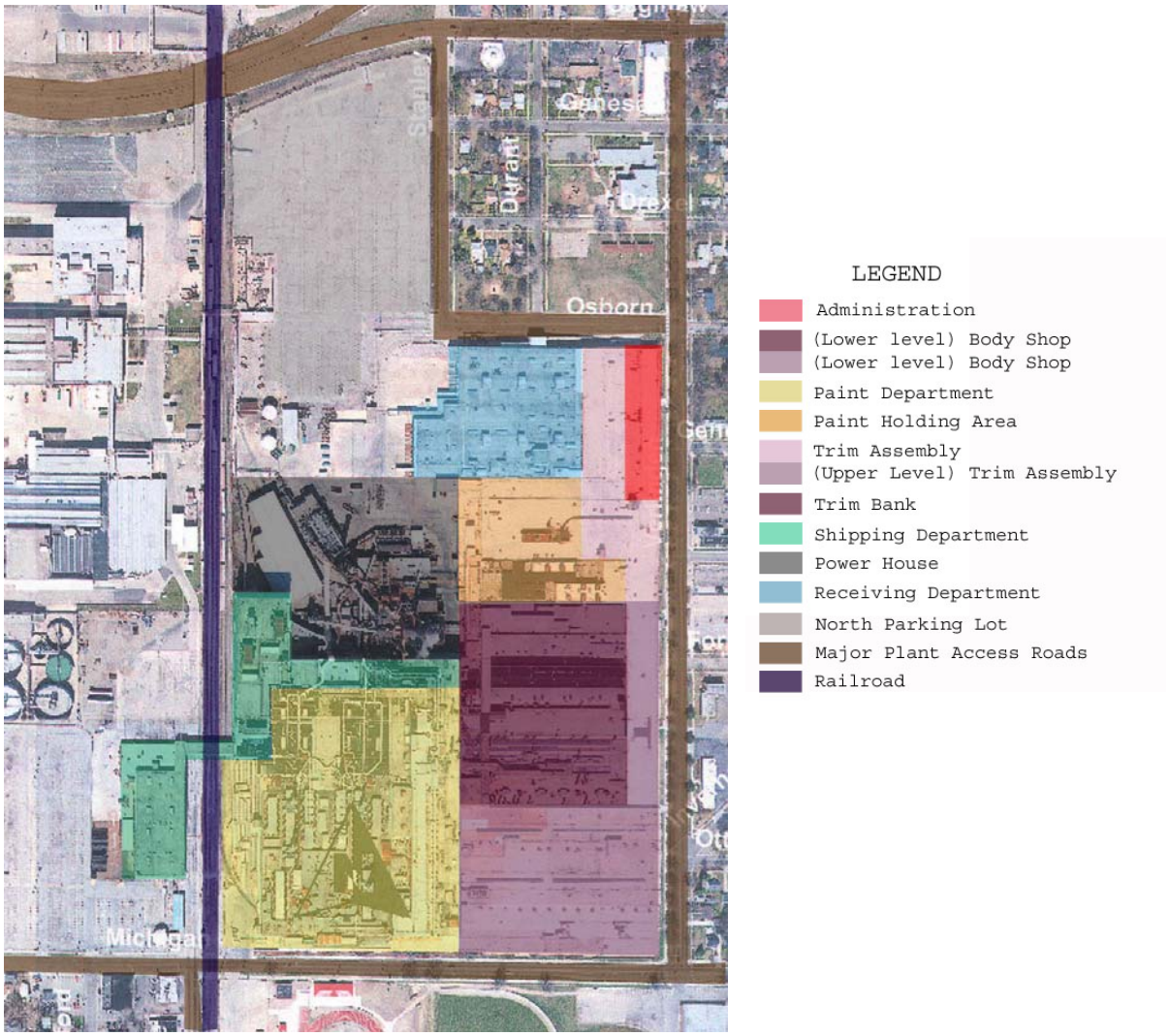
[6] D. M. Lee, Principal Appraiser for the Lansing City Assessor's Office, interviewed on February 1, 2006

[7] For an aerial view of the study site, refer to Appendix A

Site Description

The Verlinden Avenue site is six-sided; however, the site is reminiscent of a rectangle with the northeastern corner removed. The plant site is comprised of several different types of facilities.[8] Knowing the location of these buildings facilitates the understanding of past uses on different sections of the site. See Appendix B for a description of each structure on the site.

Figure 1.9: Location of Site-Specific Buildings



[8] J. Anthony, an UAW 602 Benefits Representative and former employee at the Verlinden Plant, interviewed on February 8, 2006

Utilities

Various utility suppliers currently have services available to the GM Verlinden Plant. The Lansing Board of Water and Light can provide the electrical and water services[9]. The City of Lansing can provide storm and sewer drainage services[10]. Southern Bell Company (SBC) can provide telephone, cable, and high-speed internet services[11]. Consumers Energy can provide the gas services[12].

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Assessed Value

According to the Lansing Assessor's Office, the assessed value of the land contained on the Verlinden Avenue site is $995,600. This assessed value is based on 57.14 acres. According to Vlahakis Commercial, a real estate company that deals with residential, commercial, and industrial properties, assuming that GM demolishes the buildings and performs the necessary environmental clean-up, and that there is access to utilities in good condition, the land would sell at $1.50 per square foot. The Lansing Board of Water and Light will maintain control of their 68,800 square foot electrical substation on the Verlinden Avenue site. Therefore at 55.56 acres, the total would be a little over $3.63 million for the vacant parcel of land.

Environmental Status

To date, there has been no baseline environmental assessment (BEA) of the Verlinden Avenue site.[13] Furthermore, there are no known plans to conduct a BEA at this time.[14] Not knowing the environmental status of the property has several consequences. First, it is difficult to estimate the costs of a possible environmental clean-up because there is no documentation available as to the types of contaminants that may be present. Second, potential contamination could limit the type of redevelopment (industrial vs. residential) because certain contaminants (e.g., Chloride Benzene) have a greater impact on human health. Third, state or federal restrictions may be placed on redevelopment depending on whether contaminants are present and, if so, what types of contaminants are there. In short, the presence of contaminants may limit what can and cannot be

[9] Rhonda Jones, Strategic Account Analysis of Lansing Board of Water and Light, phone interview on March 14th and 17th, 2006.
[10] Rob Rose, Principal Engineering Technician of City of Lansing Public Service Department, phone interview on March 16th, 2006.
[11] Jim (employee ID JP1484), Sales and Service Representative of Southern Bell Company (SBC), phone interview on March 13th, 2006.
[12] Jennifer Rogers, Customer Energy Specialist of Consumers Energy, phone interview on March 7th, 2006.
[13] S. Ghavami, Department of Environmental Quality Remediation and Redevelopment Division, Interviewed on February 6, 2006
[14] K. Carpenter, Regional Public Relations Department of GM, Interviewed on February 10, 2006

built on the site. Without a BEA, reuse plans on the site may not proceed beyond the drawing board.

GM Redevelopment Process

There is a standardized redevelopment process that GM undergoes when it closes an industrial site. The company is interested in making sure that those properties are returned to a productive use that will benefit the community in which they are located. To accomplish this, GM may sell the property, transfer ownership of the property to a non-profit organization, or retain ownership of the property and redevelop it themselves.[15] Regardless of who redevelops the property, former GM industrial sites have been redeveloped in various ways, such as industrial parks, sports fields, shopping centers, or golf courses.

To prepare facilities for redevelopment, GM uses a three step process:

1. Formulate a strategy. After the decision has been made to close a facility, the strategy for redevelopment begins. This includes input of local government agencies, real estate developers and public officials.
2. Decommission the facility. GM removes all equipment and moves out of the facility. During this process, sale, donation, and recycling options for surplus equipment are explored instead of just sending things to the local landfill.
3. Environmental Assessment. An environmental assessment is done by GM as part of the redevelopment process. This is a key step in addressing environmental issues and cleaning up the site and facilities.

In addition to the above steps, GM also invites local community leaders to work with them to create a redevelopment plan that has the potential to replace lost jobs and tax revenue. The company acknowledges that every community's needs are different, and an evaluation of the community needs must be performed to ensure that a redevelopment plan will benefit the community. This is done with the input of local public officials, public agencies, business leaders and real estate developers. Once a plan is created, local entities work together to promote the new development.

[15] www.gm.com

Figure 1.10: Flowchart of the GM Redevelopment Process.

The Verlinden Avenue site is currently in the Plant Decommissioning phase of the General Motors redevelopment process. At the time of this study, structures on the site are being demolished. The next step in the Plant Decommissioning phase will be to conduct an environmental assessment of the site. The Development Implementation phase entails the selection of a developer to redevelop the site and the necessary procedures to bring the redevelopment ideas to fruition. Community input begins during the latter part of the Plant Decommissioning phase. The community and other interest groups work with local government leaders and GM to decide the best use of the site that will benefit the adjacent neighborhood(s), the greater community, and the economy of the entire region. To provide input into the redevelopment of the Verlinden Avenue site, interest groups should talk with interested developers and GM contacts. By participating in the redevelopment process, this increases the likelihood that the end result will reflect local community needs and desires.

To gain insight into the different types of redevelopment that has occurred on former GM industrial sites, case studies were examined. The following are examples of redevelopment on former GM industrial sites.

Powertrain Offices: Pontiac, Michigan

GM recently consolidated its Powertrain engineering offices and test labs to one location, to improve operational efficiency. General Motors chose to redevelop a brownfield site in Pontiac, which is an older urban core city. The redevelopment of the Powertrain headquarters campus created about 1,200 GM jobs. In addition, GM successfully promoted the reuse of 65 acres of land

adjacent to the site by the United States Postal Service (USPS). This land was turned into a 950,000 square foot processing and distribution center. Furthermore, GM re-engineered the land for the USPS and provided the infrastructure to support both the needs of USPS and GM. The project resulted in 1,200 GM jobs at the consolidated site and over 1000 new postal service workers at this location.

Centerpoint Campus: Pontiac, Michigan

The GM truck and bus manufacturing site in Pontiac, Michigan was closed in 1989. In 1992, the former GM Truck and Bus manufacturing site was selected to house the new GM Truck Group headquarters and global engineering center. Nearly three-fourths of the existing building was demolished and the remaining 1.1 million square feet converted into office and laboratory space, resulting in the revival and reuse of a 4.4 million square foot industrial brownfield site. The project has also led to extensive commercial and retail business development, bringing new life and jobs to the area. Future developments at Centerpoint include a 600,000 square foot product engineering facility for GM.[16]

Future Plans

When a GM facility closes permanently, there is a standardized process which GM goes through to decommission and clean-up the site. Future plans for the Verlinden Avenue site are at this point, preliminary. There is indication, however, that GM is planning to sell the entire property to a third party developer.[17] Currently, there is no insinuation as to who may buy the property and what may be developed on the site. GM representatives have suggested that they are willing to work with the neighborhood on redevelopment ideas.

[16] http://www.gm.com/company/gmability/environment/plants/brownsfield_redev/study_pontiac.html

[17] K. Carpenter, Regional Public Relations Department of GM, Interviewed on February 10, 2006

1.4 Westside Neighborhood

History

The development of the Westside Neighborhood is tightly linked with the GM factories located on its western border. The neighborhood grew up around the automobile factories. As workers came for employment at the factories, houses were built to satisfy the demand for housing close to their place of employment.[18] Today, the Westside Neighborhood is characterized by older single-family homes on small lots with varied architecture styles and is occupied by a diverse group of people. "The Westside Neighborhood is a great place to live and raise a family because of its history, diversity and, most importantly, because it is made up of people who care about their neighbors."[19] Members of the neighborhood are active in the WNA and Lansing city politics. The WNA is one of Lansing's oldest neighborhood associations and is invested in what happens with the neighborhood.

Besides the social capital that is characteristic of this neighborhood, there are many other amenities present. First, the street blocks are short and pedestrian-friendly with paved sidewalks and ample street lighting. Second, the neighborhood contains Sexton High School and Riddle Elementary School. The Holy Cross Catholic Church in the neighborhood also runs a school and there is a Montessori school. Third, in addition to the Holy Cross Catholic Church, Westminster Church and Grace Lutheran Church are also in the neighborhood. Fourth, the Sparrow Hospital Saint Lawrence is at the north side of the neighborhood between Saginaw Street and Oakland Avenue. Fifth, there is a Lansing Board of Water and Light water pumping substation on the north side of Forbes Street, just east of the small commercial strip along Verlinden Avenue. The pumping station provides water services to the neighborhood and the GM site. Finally, there is the Letts Community Center located in the center of the neighborhood that provides meeting facilities, a small library, and recreational facilities.

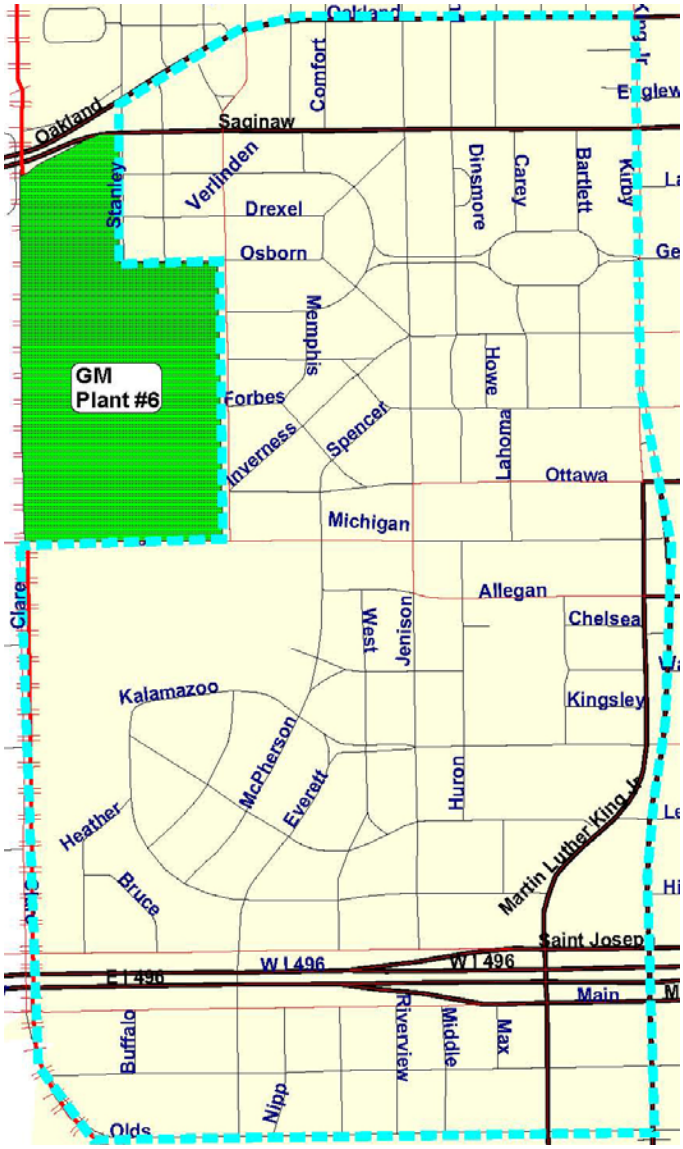
[18] P. Vaughn-Payne, Executive Director Northwest Lansing Healthy Communities Initiative, Interviewed on January 11, 2006

[19] B. Burns, President of the Westside Neighborhood Association *in* "Lansing Neighborhoods," Lansing State Journal, 13 May 2005.

Neighborhood Boundaries

The boundaries of the neighborhood run from the southwest corner of Oakland Avenue and Martin Luther King Jr. Boulevard southward to Olds Avenue, then west along Olds Avenue to Clare Street, then north to Oakland Avenue, and finally head east along Oakland Avenue back to Martin Luther King Jr. Boulevard.

Figure 1.11: Neighborhood Boundaries



Westside Neighborhood Boundary

Section Two: Neighborhood Socio-Economic Profile

The redevelopment of the Verlinden Avenue site will take place, in part, within the context of the adjacent Westside Neighborhood. It is, therefore, important to collect socio-economic data pertaining to the neighborhood to gain insight into the character of the community and its residents.

2.1 Methodology

To assess the demographic characteristics of the Westside Neighborhood, U.S. Census data for 1990 and 2000 were collected for the neighborhood, the City of Lansing, and the State of Michigan.[20] To gain insight into the diversity of the neighborhood, socio-economic data were collected at the Block Group level. The following Block Groups comprised the neighborhood:

1990

- Census Tract 4
  - Block Groups 2, 3, and 4
- Census Tract 15
  - Block Groups 4 and 6
- Census Tract 16
  - Block Groups 1 and 2

2000

- Census Tract 4
  - Block Groups 2, 3, and 4
- Census Tract 15
  - Block Group 1
- Census Tract 16
  - Block Groups 1 and 2

Note that the Block Group numbers changed in Census Tract 15 from 4 and 6 in 1990 to 1 in 2000. Although there was some realignment of the Block Group Boundaries for this Census Tract, the area encompassed in 1990 and 2000 was approximately equivalent. The Block Group Boundaries in the other Census Tracts remained relatively constant.

[20] www.census.gov

Figure 2.1: 2000 U.S. Census Tracts 4, 15, 16 in the Westside Neighborhood

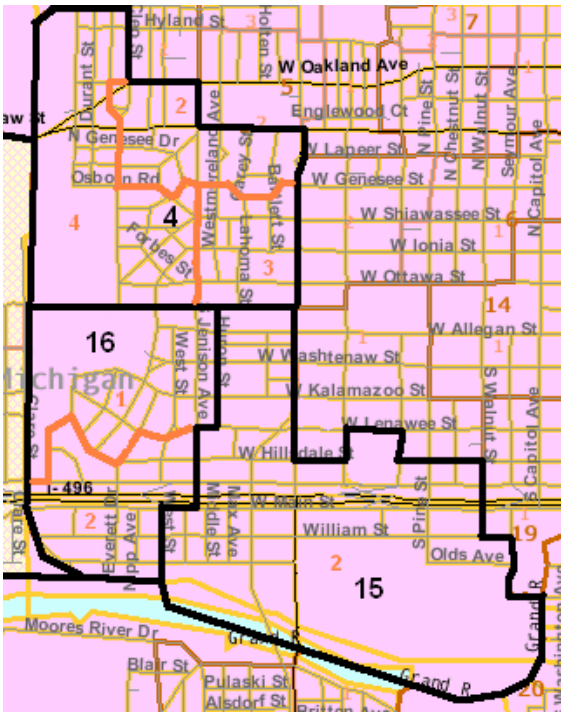
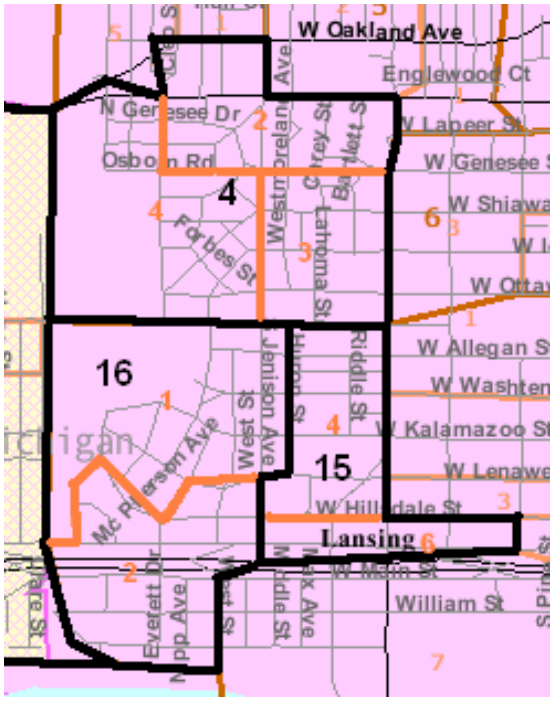


Figure 2.2: 1990 U.S. Census Tracts 4, 15, 16 in the Westside Neighborhood



Socio-economic data were examined using two methods: calculating percentages and calculating percent change over time. Calculating percentages allowed for insight as to the proportion of people within each category (e.g., education level), whereas calculating the percent change over time showed how some of the variables changed from one time period to the next. The following section outlines the most important results; for complete results see Appendix C.

2.2 Population Demographic Profile

Total Population

The State of Michigan saw an increase in total population of 6.9% from 1990 to 2000. The total population of Lansing, however, decreased from 127,321 to 119,128 during the same time period, which was a 6.4% decrease. The population trends in the Westside Neighborhood varied among sections. There was a decrease in total population in Block Groups 2 and 3 in Census Tract 4, as well as Block Group 1 in Census Tract 16. In fact, the population in these areas decreased more rapidly than in Lansing. On the other hand, there was rapid population increase in Block Group 4 in Census Tract 4 and Block Group 2 in Census Tract 15. For these Block Groups, the population increased as much as 52%. The sharp increase in total population in these Block Groups is most likely due boundary changes between 1990 and 2000. The area covered by these Block Groups in 2000 was much larger than in 1990. There was also a minor increase in population in Block Group 2 in Census Tract 16 at 3.2%. While the whole Westside Neighborhood increased from 4,712 in 1990 to 4,937 in 2000, the variability in population trends among different sections of the neighborhood illustrates that the population is only increasing in certain sections of the neighborhood.

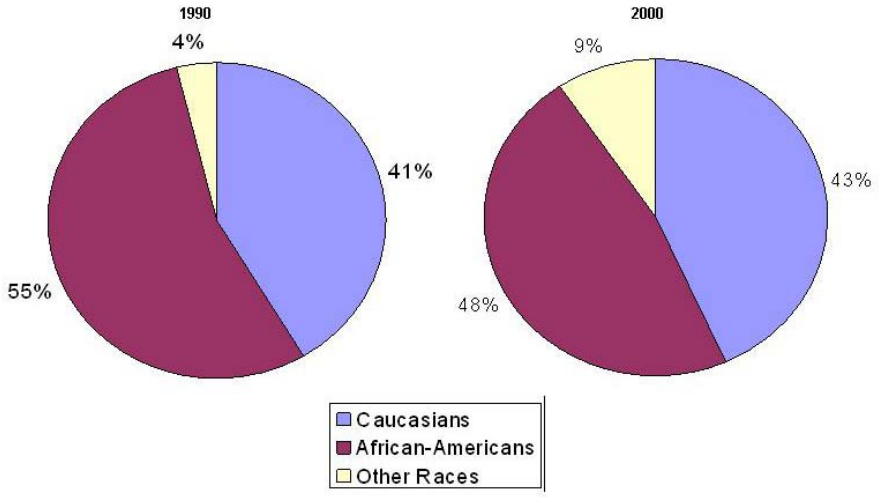
Table 2.1: The Percent Change in Population

Total Population			
	1990	**2000**	**% Change**
Michigan	9,295,297	9,938,444	6.92
City of Lansing	127,321	119,128	-6.4
Block Group 2 (CT 4)	919	817	-11.1
Block Group 3 (CT 4)	1,008	809	-19.7
Block Group 4 (CT 4)	553	841	52.1
Block Group 2 (CT 15)	959	1,314	37.0
Block Group 1 (CT 16)	703	568	-19.2
Block Group 2 (CT 16)	570	588	3.2

Race

The racial composition of the Westside Neighborhood remained consistent between 1990 and 2000. The percentage of Caucasians living in the neighborhood increased slightly, from 41% to 43%, while the percentage of African-Americans decreased slightly, from 55% to 48%. The racial group that saw the greatest increase over the 10-year time period consisted of other races, including Hispanics, Asians, and Native Americans. This group increased from 4% to 9% of the total neighborhood. These results show that there is some diversity in the racial make-up of the neighborhood and that this diversity has remained relatively stable. The diversity of this neighborhood is in contrast to the racial composition of the City of Lansing. In 2000, the population was 65% Caucasian, with a much smaller percentage of African-Americans (22%); the remaining 13% was made up of other races.

Figure 2.3: The Racial Composition of the Westside Neighborhood for 1990 and 2000

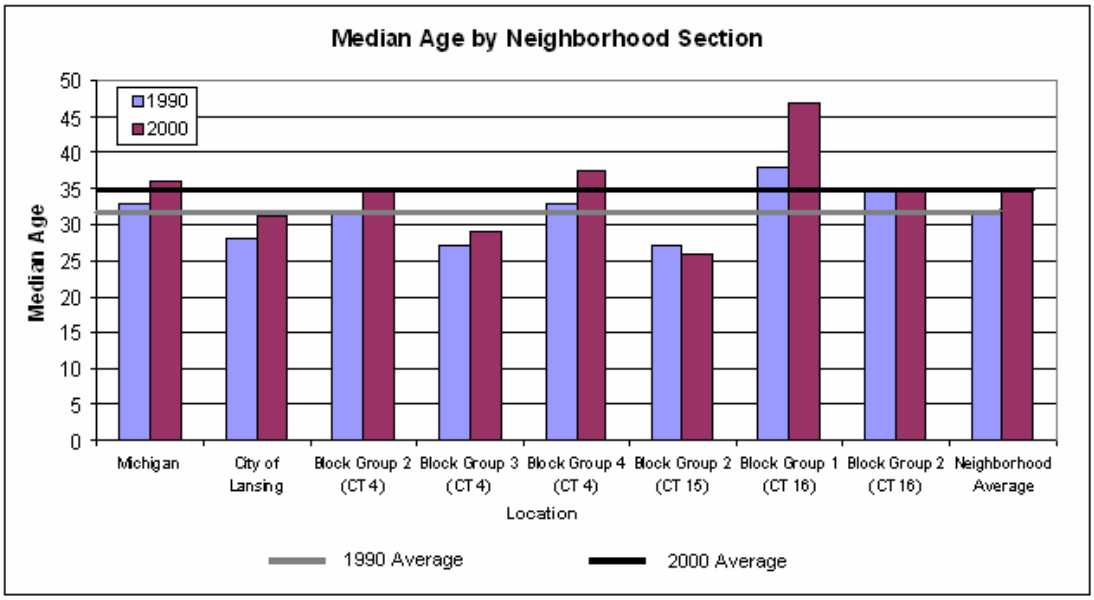


Age

The median age of residents increased from 28 years of age in 1990 to 31.4 years of age in 2000 for the City of Lansing. This increase translated into a 12% increase in the median age of residents in Lansing. The Westside Neighborhood also saw an increase in the age of the population during the same time period. The most drastic increase occurred in Block Group 1 in Census Tract 16 where the median age increased by 23%, from 38 to 47 years of age. Only the population in Block Group 2 in Census Tract 15 saw a decrease in the median age. The age of residents in the Westside Neighborhood as a whole increased from 32 to 35 years of age between 1990 and 2000, which was an

increase of 9%. These results suggest that the neighborhood population is aging at a slower rate than the City of Lansing.

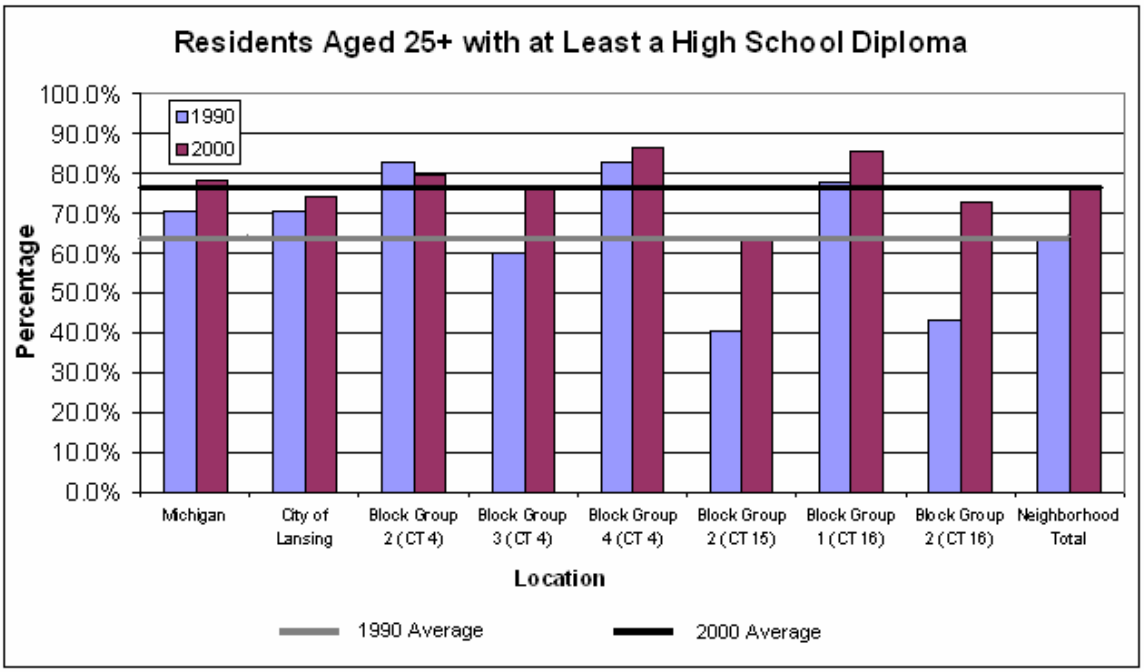
Figure 2.4: The Median Age of the Westside Neighborhood for 1990 and 2000



Education

For the most part, the percentage of the population aged 25 years or older that has attained at least a high school diploma has increased from 1990 to 2000 in the Westside Neighborhood. In 2000, the percentage of residents in the Westside Neighborhood aged 25 years or older that attained at least a high school diploma was 76%, which was slightly below the State average of 78%. This is in contrast to Lansing, in which the percentage of the population aged 25 years or older that has attained at least a high school diploma slightly decreased during the same time period to 74%. The population in the other sections of the neighborhood saw an increase in the percentage of the population aged 25 years or older with at least a high school diploma. These results indicate that more people with higher education levels are living in the neighborhood.

Figure 2.5: The Percentage of the Population with at Least a High School Diploma



2.3 Economic Profile

Unemployment

The number of people who were unemployed in Lansing decreased from 5,522 to 3,925 from 1990 to 2000, which was a decrease of almost 24%. The number of residents who were unemployed in the Westside Neighborhood was 232 in 1990 and 126 in 2000, which translated to a 46% decrease. In 2000, the percentage of residents who were unemployed in the Westside Neighborhood was 4.9%, but the unemployment rate varied throughout the sections of the neighborhood. Block Group 2 in Census Tract 15 and Block Group 2 in Census Tract 16 saw unemployment rates that were higher than in Lansing. This may be due to the fact that there were so few people unemployed in the neighborhood when compared to Lansing as a whole that even a slight increase in unemployment will result in a large increase in the percentage of unemployment. In spite of this pattern, the change over time indicated that unemployment levels have decreased, with the exception of Block Group 2 in Census Tract 4.

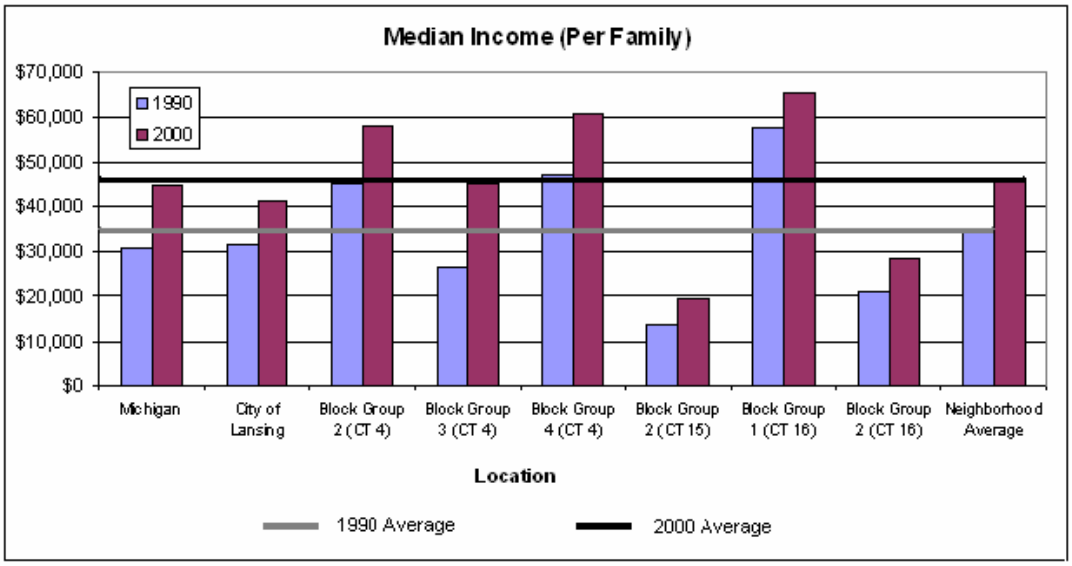
Table 2.2: The Percent of Unemployed Residents 1990 and 2000

Unemployment					
	1990	%	**2000**	%	**% Change**
Michigan	374,341	8.24	284,992	5.79	-23.87
City of Lansing	5,522	5.7	3,925	6.3	-28.9
Block Group 2 (tract 4)	5	0.7	11	2.1	120.0
Block Group 3 (tract 4)	74	9.6	26	6.7	-64.9
Block Group 4 (tract 4)	38	8.0	0	0	-100.0
Block Group 2 (tract 15)	56	9.1	56	11.8	0.0
Block Group 1 (tract 16)	20	3.8	0	0	-100.0
Block Group 2 (tract 16)	39	10.5	33	9.8	-15.4

Income

Median income levels increased in the Westside Neighborhood from $35,151 in 1990 to $46, 235 in 2000. The City of Lansing also had an increase, from $31,576 to $41,283. There was, however, variability in median income among the different sections of the neighborhood. The median income ranged from $28,000 to $66,000. The sections of the neighborhood with the lowest income were Block Group 2 in Census Tract 15 and Block Group 2 in Census Tract 16. The other sections of the neighborhood tended to show a median income that was at least $40,000. This disparity in income levels throughout the neighborhood reinforces the uniqueness of different sections of the neighborhood, in particular the southeast section of the neighborhood.

Figure 2.6: Median Income per Family in the Westside Neighborhood



2.4 Housing Profile

Housing Units

The number of housing units in Michigan increased 10% between 1990 and 2000. In contrast, the number of housing units in Lansing decreased slightly from 53,919 to 53,139 during the same time period. In the Westside Neighborhood, the number of housing units increased from 1827 to 2135, which was almost a 17% increase. Most sections of the neighborhood saw a decrease in the number of housing units. Block Group 4 in Census Tract 4 and Block Group 2 in Census Tract 15 were the exceptions in that there was a large increase in the number of housing units during the time period. This in part explained by the fact that the block group boundaries changed between 1990 and 2000 to include a much larger area, thereby skewing these numbers. Because most of the sections of the neighborhood saw a loss in housing units, this suggests that there is little growth in the number of residential housing units in the neighborhood.

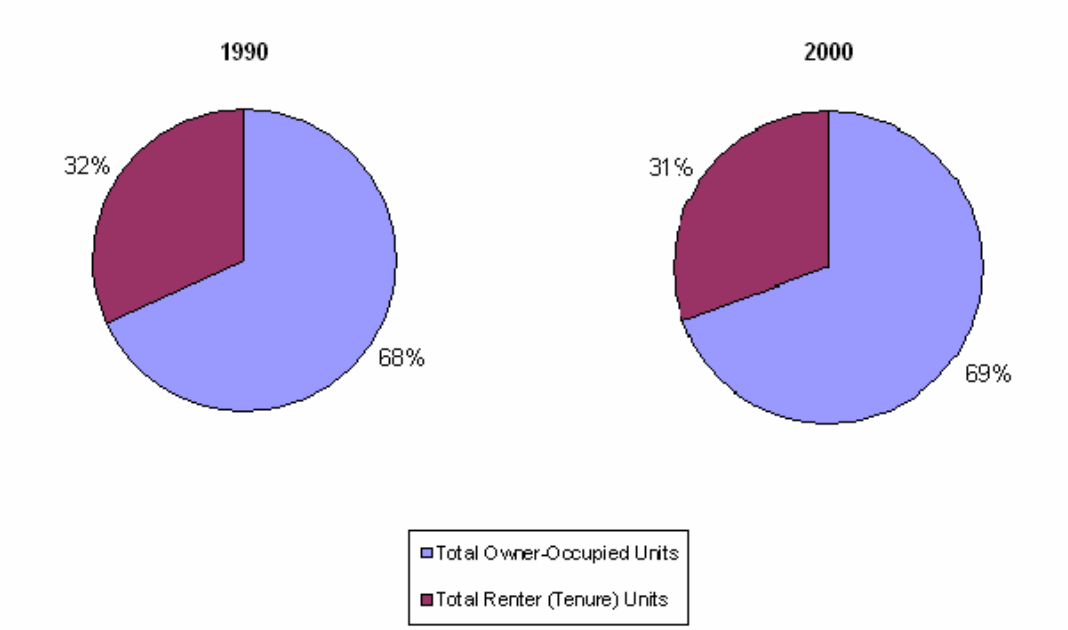
Table 2.3: The Number of Total Housing Units in the Westside Neighborhood

Total Housing Units			
	1990	**2000**	**% Change**
Michigan	3,847,926	4,234,279	10.04
City of Lansing	53,919	53,159	-1.41
Block Group 2 (CT 4)	352	343	-2.56
Block Group 3 (CT 4)	378	338	-10.58
Block Group 4 (CT 4)	210	386	83.81
Block Group 2 (CT 15)	394	574	45.69
Block Group 1 (CT16)	258	254	-1.55
Block Group 2 (CT 16)	235	230	-2.13

Occupancy

The percentage of owner-occupied housing units increased in Lansing and the Westside Neighborhood between 1990 and 2000, except in Block Group 2 in Census Tract 15 and Block Group 2 in Census Tract 16. In fact, the percentage of owner-occupied housing units was above 50% for Lansing and almost all sections of the neighborhood for both 1990 and 2000. The exception was Block Group 2 Census Tract 15, where the percentage of owner-occupied housing units was below 40%. These results suggest that most of the residents that live in the neighborhood are home owners, which increases the likelihood that they are invested in their community.

Figure 2.7: The Percentage of Owner-Occupied Housing Units for the Westside Neighborhood



Age of Housing Stock

In 2000, the median year housing units were built in Lansing was 1958; whereas in the Westside Neighborhood, the median year housing units were built ranged from 1939 to 1958. For the most part, the housing stock in the neighborhood is older than the housing stock in Lansing as a whole, as well as the entire State of Michigan. Block Group 2 in Census Tract 15 and Block Group 2 in Census Tract 16 contained the newest housing stock; the median year housing units were built was 1958 and 1950, respectively. These results suggest that this neighborhood is a relatively older section of Lansing.

Table 2.4: The Median Year Housing Units were Built According to the 2000 Census

	Median Year Housing Unit Built
Michigan	1965
City of Lansing	1958
Block Group 2 (CT 4)	1939
Block Group 3 (CT 4)	1939
Block Group 4 (CT 4)	1941
Block Group 2 (CT 15)	1958
Block Group 1 (CT 16)	1941
Block Group 2 (CT 16)	1950

Length of Residency in Neighborhood

In 2000, the median year for a householder to move into their home in the City of Lansing, and the State of Michigan was 1991. So, at least 50% of householders had lived in their current homes for almost 10 years. The average length of tenure for householders in the Westside Neighborhood was 12 years. Block Group 2 in Census Tract 4 was the exception and householders had only lived in the neighborhood for 5 years. In the remaining Block Groups, householders had been in the neighborhood up to 18 years. These results show that householders in the Westside Neighborhood are remaining in the neighborhood much longer than householders in Lansing or in Michigan. This suggests that there is not as much turnover in residences and that the neighborhood is relatively stable at this time.

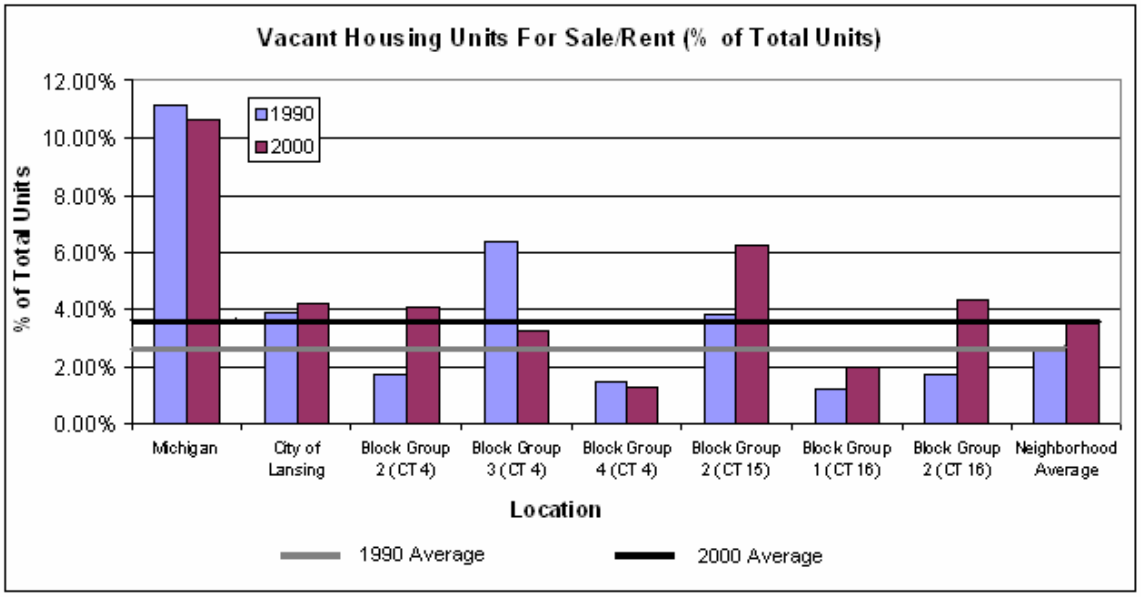
Table 2.5: The Tenure of Residents in Owner-Occupied Housing Units According to the 2000 Census

	Median Year Householder Moved Into Unit (Owner Occupied)
Michigan	1991
City of Lansing	1991
Block Group 2 (CT 4)	1995
Block Group 3 (CT 4)	1987
Block Group 4 (CT 4)	1990
Block Group 2 (CT 15)	1988
Block Group 1 (CT 16)	1982
Block Group 2 (CT 16)	1985

Housing Unit Status

The percentage of housing units in the Westside Neighborhood for sale or rent varied across different sections of the neighborhood, but the percentage of housing units for sale or rent in the neighborhood as a whole remained fairly constant between 2.5% and 3.5%. The most notable result was that the percentage of housing units that were for sale or rent stayed under 4%, except for Block Group 3 in Census Tract 4 in 1990, Block Group 2 in Census Tract 15 in 2000, and Block Group 2 in Census Tract 16 in 2000. These areas contain more rental housing; therefore, the higher vacancy rates may be a reflection of turnover of tenants. Overall, however, the results demonstrate low vacancy rates in the neighborhood, showing a stable neighborhood. Note the large change in vacant units for Block Group 2 of Tract 15; this is again due to the block group boundaries changing to include a larger area.

Figure 2.8: The Percentage of Housing Units for Sale or Rent



Section Three: Lansing Township

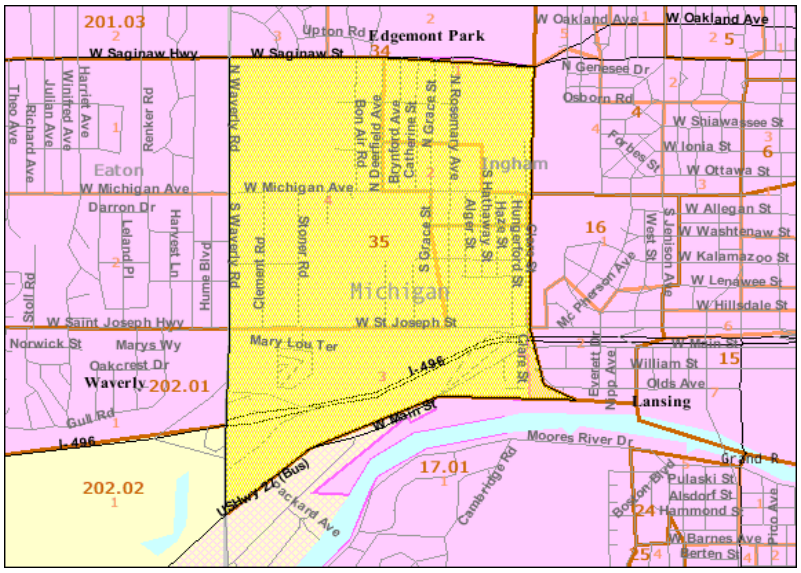
Due to its proximity to the closed GM Verlinden Avenue plant, the section of Lansing Township located immediately to west of the site will undoubtedly be affected by the site redevelopment. An examination of the socio-economic profile of the Lansing Township neighborhood provides insight into that community and will assist in developing recommendations that will promote redevelopment options that will benefit that neighborhood.

3.1 Methodology

To assess the demographic characteristics of the Lansing Township neighborhood immediately to the west of the Verlinden Avenue site, U.S. Census data for 1990 and 2000 were collected for the neighborhood, the State of Michigan, and the Westside Neighborhood.[21] The neighborhood was encompassed by Census Tract 35. So analysis was performed at that geographic level.

This neighborhood is bounded on the north by Saginaw Street, on the west by Waverly Road, on the south by I-496, and on the east by Clare Street. It is important to note that this section of Lansing Township contains the Waverly Hills Golf Course and the Michigan Avenue Park, so while it is a large Census Tract, there is actually a relatively small residential area.

Figure 3.1: 2000 U.S. Census Tract 35



[21] See Section 2 for Westside Neighborhood demographic details.

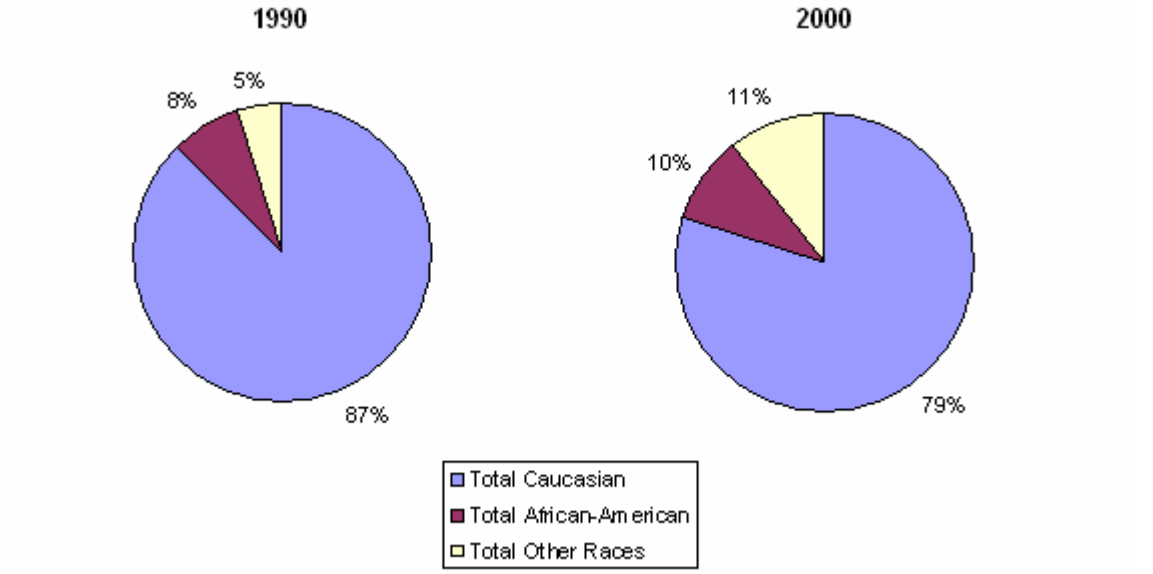
Socio-economic data were examined using two methods: calculating percentages and calculating percent change over time. Calculating percentages allowed for insight as to the proportion of people within each category (e.g., education level), whereas calculating the percent change over time showed how some of the variables changed from one time period to the next. The following section outlines the most important results

3.2 Population Demographic Profile

Population and Race

In 2000, Census Tract 35 contained about 3,000 people, which was roughly 60% of the population of The Westside Neighborhood. Of the 3,000 residents, 80% were Caucasian. The rest of the population was African-American or other minorities (e.g., Hispanic, Asian, or Native American). The racial composition of this area differed from the Westside Neighborhood in that there was little racial diversity among residents. When compared to the State of Michigan, however, the racial composition of residents in the Lansing Township section remains consistent with the racial composition of the population in the state. These results show that Census Tract 35 is much less diverse than the Westside Neighborhood, but is consistent with the state as a whole.

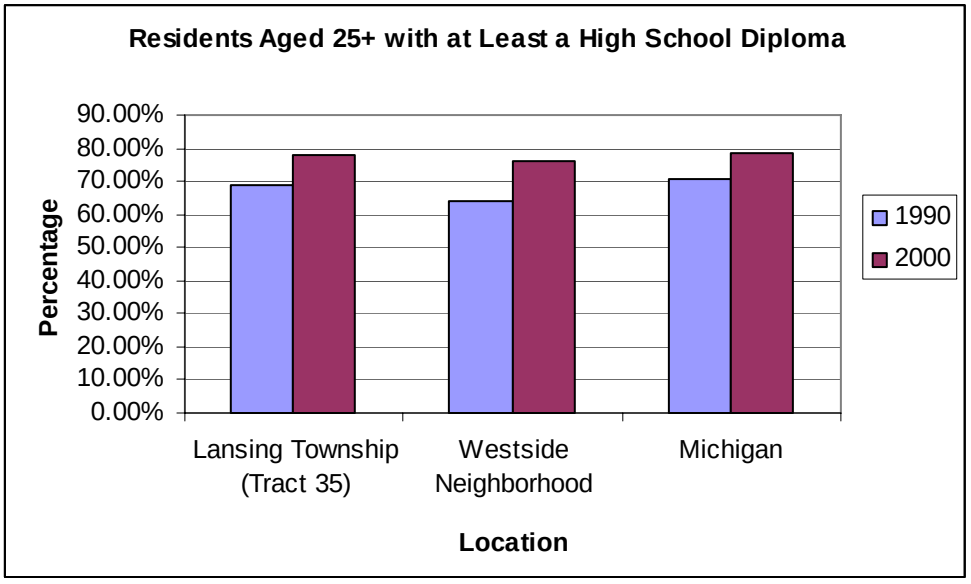
Figure 3.2: Racial Composition of Census Tract 35 for 1990 and 2000



Education

The percentage of the population aged 25 years or older that attained at least a high school diploma in Census Tract 35 was consistent with the State of Michigan and the Westside Neighborhood. In 1990, the percentage of the population aged 25 years or older that attained at least a high school diploma in Census Tract 35 was 68%, which was greater than in the Westside Neighborhood (65%) but smaller that the in the State (71%). In 2000, greater than 75% of the population in Census Tract 35 aged 25 years or older attained at least a high school diploma. This was consistent with the Westside Neighborhood and the State of Michigan. These results suggest that the education level of residents in this section of Lansing Township is in line with the surrounding area.

Figure 3.3: The Percentage of the Population with at Least a High School Diploma

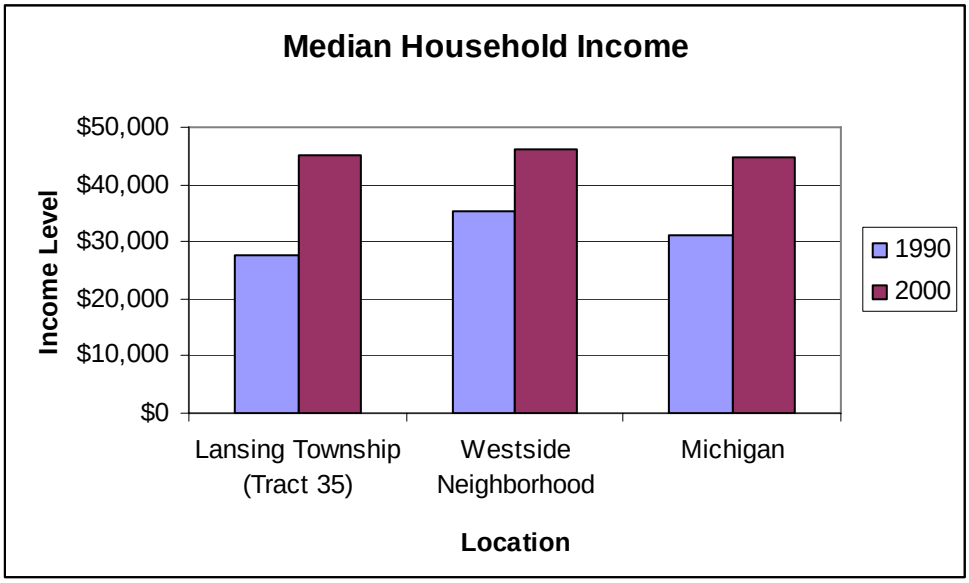


3.3 Economic Profile

Income

Median Income levels increased between 1990 and 2000 for residents in Census Tract 35. In 2000, the median income for residents in Census Tract 35 was $45,094. This was consistent with the median income of residents in both the Westside Neighborhood and the State of Michigan.

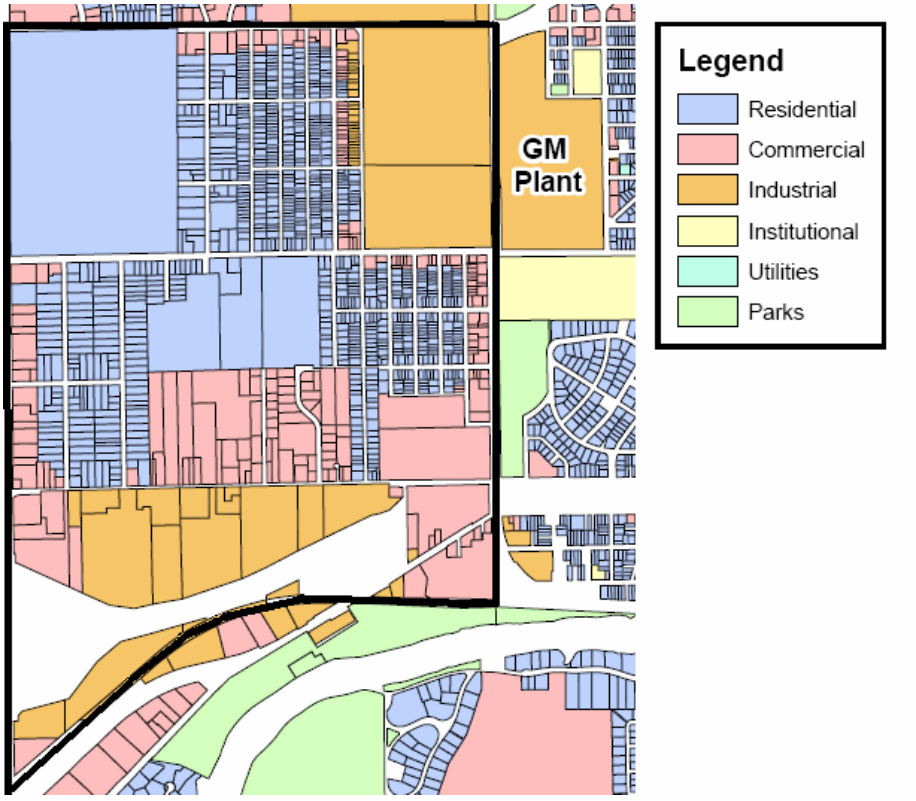
Figure 3.4: Median Income per Family in Census Tract 35



3.4 Current Land Use and Zoning

Tract 35 of Lansing Township is predominantly made up of residential, commercial, and industrial property. The commercial and industrial areas mainly surround the edges of the tract, while the residential areas are generally located in the center. The exception to this is the Waverly Hills Golf Course, located in the northwestern corner of the tract, which is also zoned as residential. Some of the businesses located in tract 35 are related to the nearby GM plants, such as UAW offices. Other businesses include barber shops, convenience stores, and other neighborhood businesses, as well as an L&L Food Center on the corner of Saginaw and Waverly Road.

Figure 3.5: The Current Land Use and Zoning in Census Tract 35



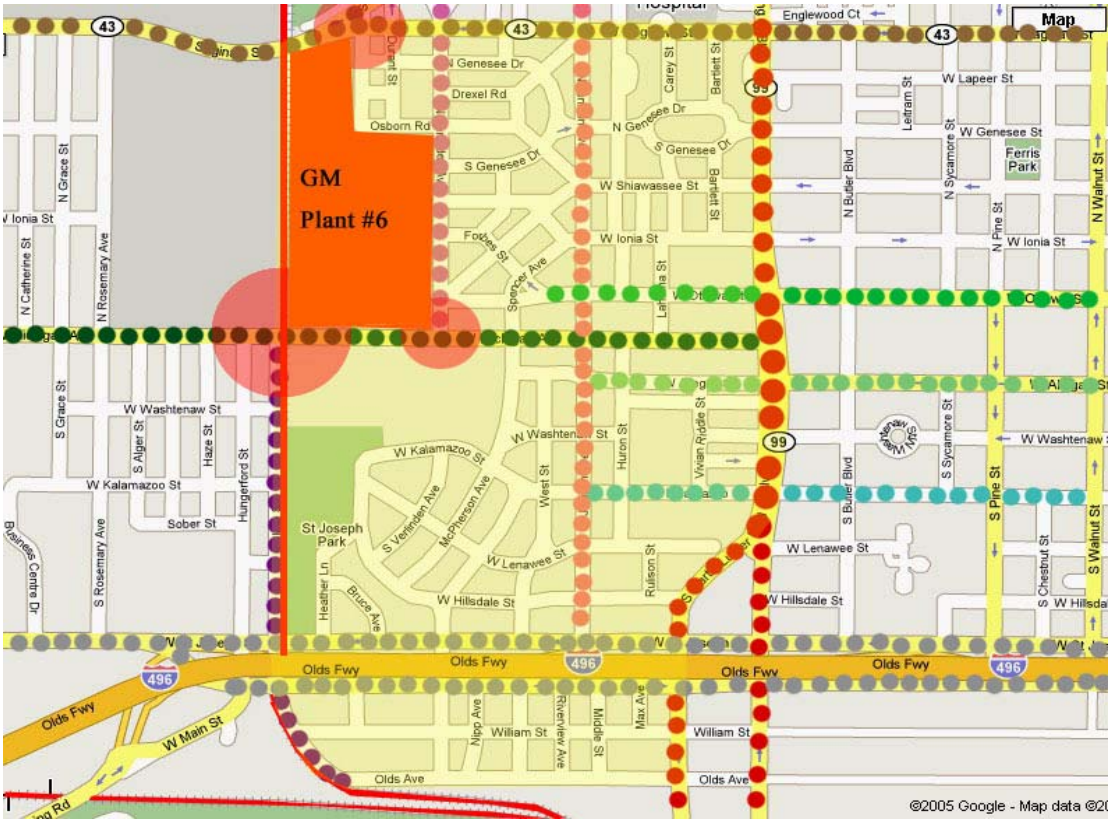
Section Four: Transportation & Accessibility

Data collected on traffic patterns, accessibility, visibility, and public transportation routes are necessary components when examining redevelopment strategies. This is because different categories of development (e.g., commercial or industrial) have specific requirements when it comes to transportation and accessibility needs. This section outlines the current status of traffic patterns surrounding the Verlinden Avenue site, as well as the accessibility to and visibility of the site to determine if the transportation and accessibility requirements for different types of redevelopment options are met.

4.1 Major Thoroughfares

The entire study site (which includes the Verlinden Avenue site and the surrounding Westside Neighborhood) is bounded by four major thoroughfares (see Figure 1.4). All four roads provide some sort of access to the Verlinden Avenue site. From Saginaw Street, the site can be accessed directly by Stanley Road or Verlinden Avenue. West Michigan Avenue is a two-lane east-west thoroughfare that runs directly through the middle of the neighborhood and right along the southern boundary of the Verlinden Avenue site. Verlinden Avenue runs north-south from Saginaw Street to Michigan Avenue. Major access to the site is located at the intersection of Saginaw Street and Stanley Road, the intersection of Saginaw Street and Verlinden Avenue, and the intersection of Clare Street and West Michigan Avenue. There are other access points to the site through the neighborhood, but they are not optimal because of the size or location of the roads. These roads include Jenison, Allegan, Ottawa, and Kalamazoo. Jenison is a north-south route; it runs from Saginaw Street to Saint Joseph Street and bisects the neighborhood. Allegan, Ottawa, and Kalamazoo Streets all provide access to downtown Lansing from the neighborhood by running directly from the center of the neighborhood into the capital area.

Figure 4.1: Major Thoroughfares and Access Points



Saginaw Street
Martin Luther King Jr. Boulevard
Michigan Avenue
Saint Joseph Street
Clare Street
Verlinden Anvenue
Jenison

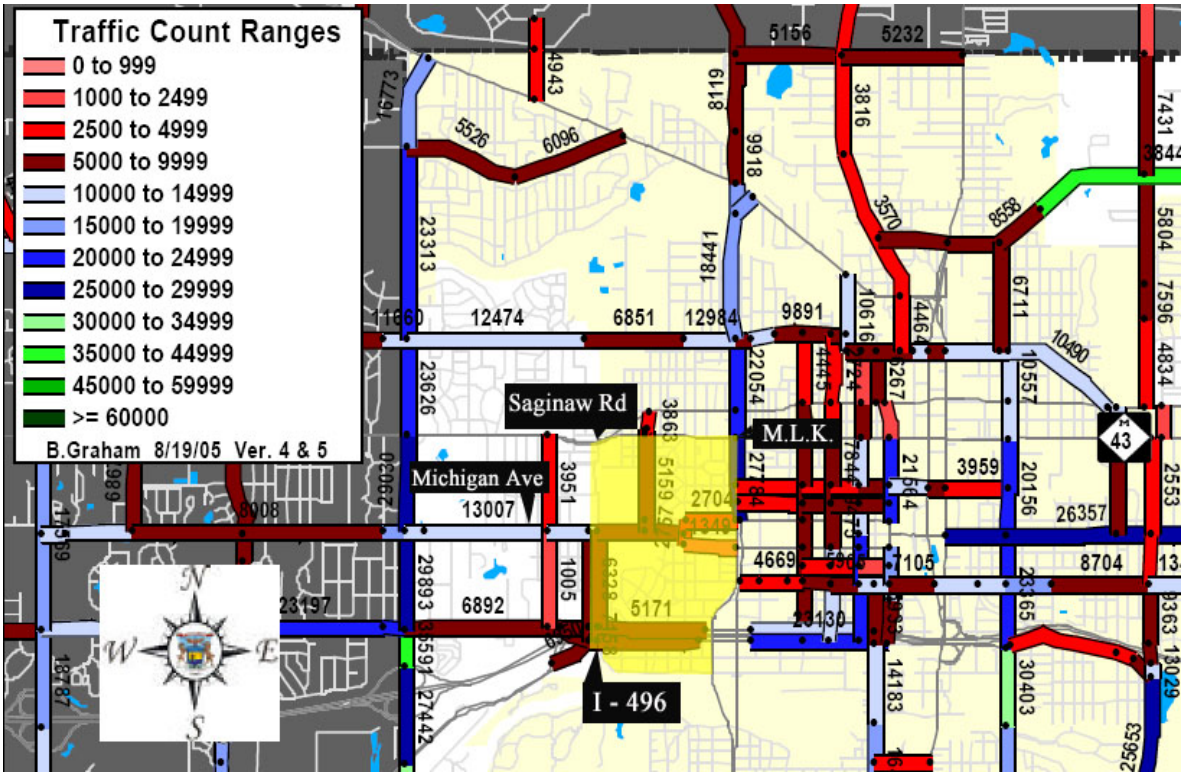
Access Points

4.2 Traffic Counts

In 2004, the larger roads located in and around the Westside Neighborhood experienced annual daily traffic counts in the 5,000 – 9,999 range. This indicates a moderate amount of traffic volume. The streets that fall into this range were Verlinden Avenue, West Michigan Avenue, Clare Street, and West Saint Joseph Street. Ottawa and Allegan both had traffic counts below 5,000. The section of Saginaw Street that is located immediately to the north of the Verlinden Avenue site experienced daily traffic counts that ranged from 15,500 to

17,000; however, as the thoroughfare continues west the traffic counts increased to around 30,000. Martin Luther King Jr. Boulevard was by far the busiest thoroughfare, with traffic volumes in the 20,000 to 24,999 range. [22]

Figure 4.2: Traffic Count Ranges



4.3 Public Transportation

There are multiple bus routes that connect the Westside Neighborhood with the rest of Lansing. Capital Area Transportation Authority (CATA) provides four routes in this neighborhood: Routes 11 and 12 operate during business hours on weekdays, and Routes 10A and 12A operate on weekdays, evenings, and weekends. Route 11 does not give riders direct access to the Verlinden Avenue site, but does run along Jenison, which is in the heart of the neighborhood. Route 12, however, does run directly to the Verlinden Avenue site with a stop at Sexton High School. Routes 10A and 12A run along Michigan Avenue on the southern border of the Verlinden Avenue Site.[23] The existence of multiple bus routes shows that there is good bus access to the site.

[22] City of Lansing AADT 2004 HPMS
[23] www.cata.org

Figure 4.3: CATA Route 11

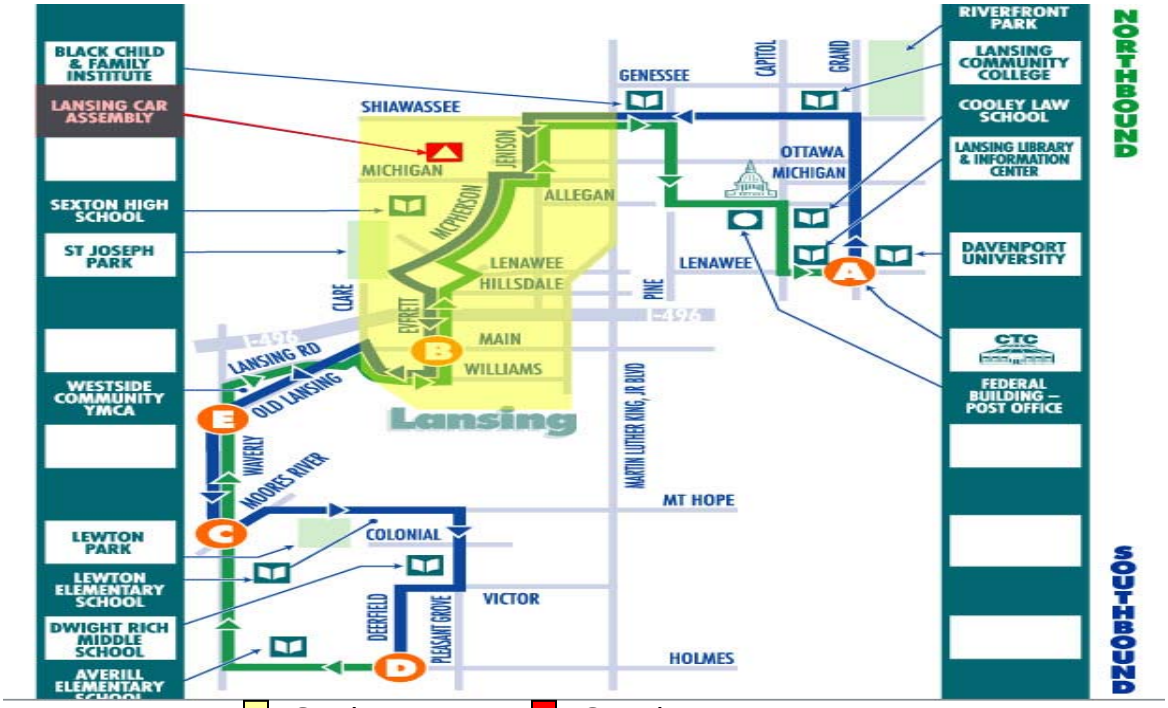


Figure 4.4: CATA Route 12

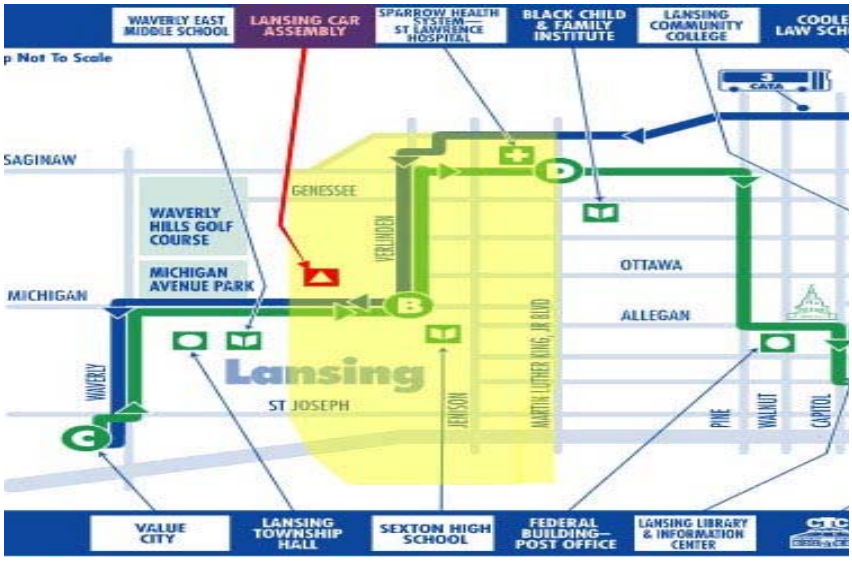
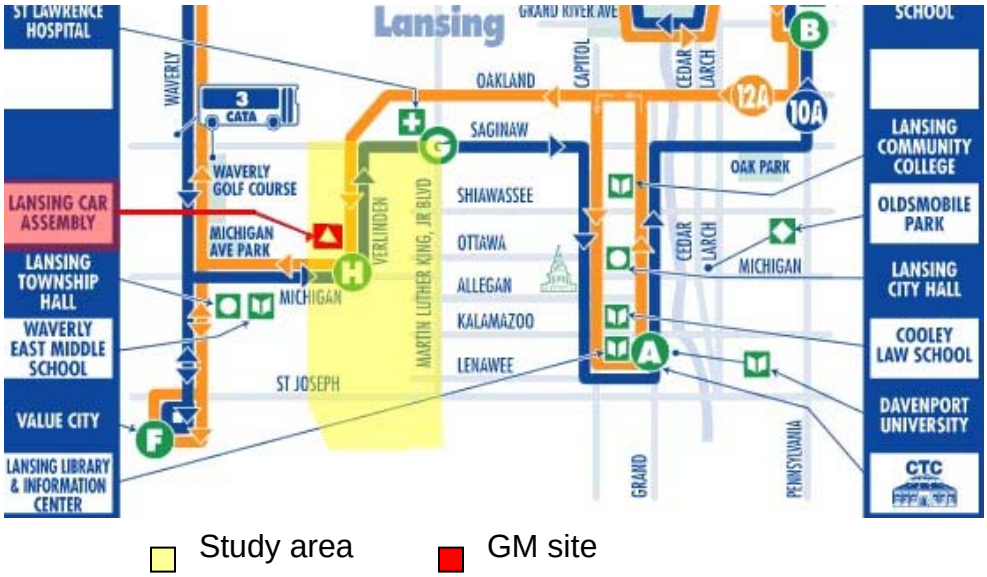


Figure 4.5: CATA Routes 10A and 12A



4.4 Railroad Spurs

The Verlinden Avenue site is bordered on the western edge by a railroad spur served by the Norfolk Southern (NS) Corporation. The railroad which runs from the northeast to the southwest through Lansing has a spur along the north side of the Grand River that connects with two lines that run along the western side of the Verlinden Avenue site. One of these lines runs northwest to Grand Rapids and southeast to Detroit, while the other runs southwest to Kalamazoo, northeast to Flint and contact with most inner land in United States. The railroad was built in the 1950s as a part of the Detroit-Chicago transportation corridor to transport automobiles to Chicago and Detroit. It has served the Verlinden Avenue site for more than 40 years.

4.5 Visibility

The site is difficult to see from Saginaw Street, which is the largest thoroughfare that directly passes by the Verlinden Avenue site (see Figure 5.6). This is because Saginaw Street travels underneath railroad tracks and the road is well below the ground level of the site. This makes it extremely difficult to see the Verlinden Avenue site. Furthermore, the site frontage facing Saginaw Street is the narrowest part of the property, which exacerbates the lack of visibility from the road. There is good visibility of the site from both Verlinden Avenue and Michigan Avenue; however, the traffic volume is much lower than on Saginaw Street. There is no visibility of the site from the other major thoroughfares.

Figure 4.6: View of the Verlinden Avenue Site from Saginaw Street

4.6 Transportation Summary

The transportation network surrounding the Verlinden Avenue site allows for easy travel downtown Lansing, East Lansing, or other areas in the region. The study site is accessible from several main thoroughfares. There are strong traffic counts to the North on Saginaw Street and to the south on Saint Joseph Street, the Interstate Highway 496 and Olds Avenue. The site is served by several bus routes. Furthermore, there are railroad spurs located on the western edge of the Verlinden Avenue site, which suggests the site is able to transport material into and out of the area. In contrast to the good accessibility to the site, the visibility from any of the major thoroughfares is low, which could be a strength or a weakness depending on the type of development.

Saginaw Highway Eastbound

Section Five: Market Analysis

To determine what type of redevelopment option is most viable for the Verlinden Avenue site, it is important to understand the market demand for different types of development in the Greater Lansing area. This study examined commercial, industrial, and residential market indicators to gain insight into what type of development Lansing would be able to support.

5.1 Commercial Market Analysis

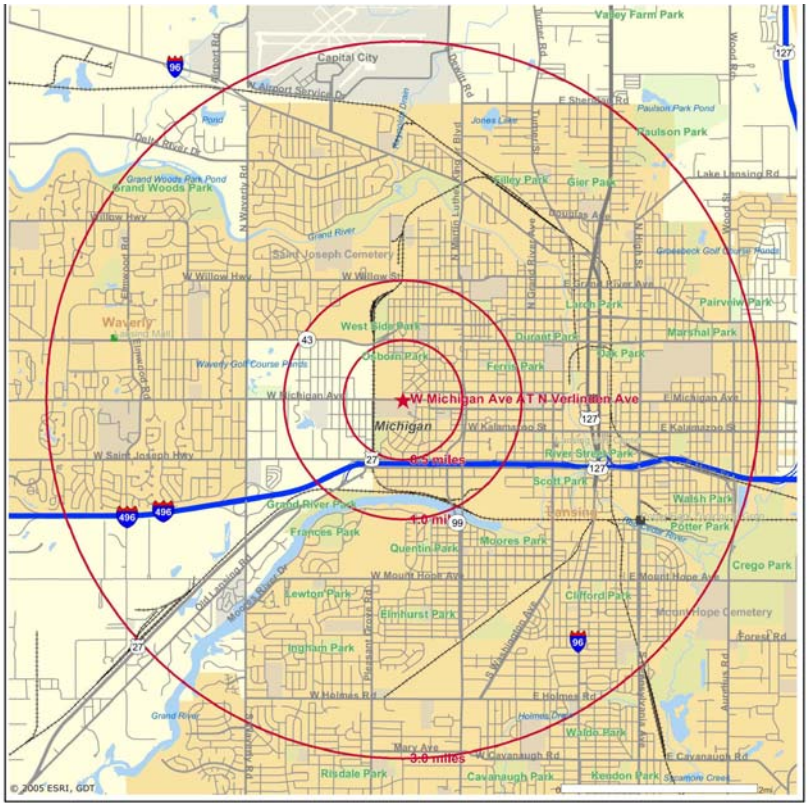
ESRI Spending Potential Index (SPI) and Market Surplus/Leakages data sets were used to estimate consumer demand and retail potential for the region surrounding the Verlinden Avenue site, as well as determine what types of businesses have potential to locate on the site.

Methodology

Commercial market potential data were analyzed for 3 separate radii: ½ mile, 1 mile, and 3 mile. The radii were centered at the intersection of West Michigan Avenue and Verlinden Avenue. These radii were selected for the following reasons:

- The ½ mile radius encompassed the area immediately surrounding the Verlinden Avenue site and captured businesses along the Saginaw Corridor from Martin Luther King Jr. Boulevard to North Waverly Road.
- The 1 mile radius encompassed of the shopping districts in Lansing Township.
- The 3 mile radius encompassed shopping districts in the greater metropolitan area.

Figure 5.1: Radii Encompassing the Areas for Market Analysis



For each of these three radii, SPI and Market Surplus/Leakages data were evaluated. Within the SPI and Market Surplus/Leakages data sets, categories were grouped into main business categories to gain insight into the broader scope of the market.

Spending Potential Index

The SPI is household-based and compares the expenditure made for a specific product or service in a trade area to the amount spent for that product or service nationally. The national average for each product or service is 100, although the SPI for any given category may not total 100 due to rounding of figures.[24] Therefore, SPI near 100 indicate consumer expenditures in that category are similar to the national trend. For example, under the House and Home industry category, home security system services within the 0.5 mile radius had a SPI of 97. This suggests that consumer expenditures on this type of industry within 0.5 miles of the study site are just slightly below the national

[24] http://www.bhimarketing.com/consumer_expenditure_spending_potential_index.html

average consumer expenditure on the same industry. The average for each business category was calculated for the SPI data set at each radius.

Table 5.1: The SPI at Three Radii Surrounding the Verlinden Avenue site

Industry Expenditures Group (In Bold)	**Radius (Miles)**		
	0.5	**1**	**3**
Medical **(Average)**	83	70	76
- Convalescent or Nursing Home Care	***89****	***79***	***96***
Automotive Aftermarket **(Average)**	84	72	78
- Auto Repair Service Policy	***91***	74	79
- Air Conditioning Repair	90	***75***	78
- Vehicle Audio Equipment	75	73	***85***
Financial **(Average)**	86	66	72
- U.S. Savings Bonds	***107***	***83***	***89***
Household Budget Total **(Average)**	84	71	76
- Education	***89***	***77***	***86***
- Smoking Products	84	***77***	83
Recreation **(Average)**	81	66	73
- Admission to Sporting Events	***90***	73	80
- Rental of Video Cassettes and DVDs	88	***78***	***83***
Retail Goods & Services **(Average)**	83	69	76
- Apparel Products and Services	***116***	***107***	***113***
House & Home **(Average)**	80	67	73
- Home Security System Services	***97***	71	75
- Rent Received as Pay	81	***104***	***102***
- Rental of Furniture	94	101	***102***

* Bolded and italicized numbers denote the highest SPI within their business expenditure group

According to the SPI, none of the retail industry expenditure groups have a significant competitive advantage. At the ½ mile radius data set, all of the groups had an average SPI in the low to mid 80s. At the 1 mile radius, the average SPI decreased to the high 60s to low 70s. At the 3 mile radius, there was a slight improvement in the SPI as the average increased to mid to high 70s. These results suggest that consumer preference for these types of businesses were lower at the local level than at the national level.

Although there were no specific retail business expenditure groups that were of interest, there were a number of business subcategories that had a higher SPI than the broad group under which it was classified. One of the most notable subcategories was the Apparel Products and Services subcategory, classified under the Retail Goods and Services group. In all 3 radii data sets, this subcategory scored significantly higher than the average for the main category and surpassed the National Average of 100. These results indicate that the consumers in the area are spending slightly more money on apparel products than the national average.

Within the financial business group, the U.S. Savings Bonds subcategory SPI exceeded the national average within the ½ mile radius and scored in the 80s within the other two radii. This showed that within the ½ mile radius, people are investing in U.S. Savings Bonds at a slightly greater rate than the national average. For each data set, this subcategory had a higher SPI than the financial group as a whole.

The Convalescent or Nursing Home Care subcategory within the Medical business group showed good market potential across all three radii in comparison to the main category. Within each radius, this subcategory had a higher SPI than the medical group as a whole. So, in the target area, people are spending more money on this type of medical service. Education, a subcategory within the Household Budget Expenditure group, also scored well. It had a slightly higher SPI than the group average for all 3 radii averages and had the highest SPI of all the subcategories for the 3 radii. This suggests that household expenditures for education-related materials (e.g., books, school supplies) are high.

Within the House and Home expenditure group, The Rental of Furniture subcategory had a high SPI at each of the three radii, and although the highest SPI occurred at the 3 mile radius, it was near or above the National Average in all 3 radii. These results show that furniture rental businesses are doing well in the House and Home group and that consumers are spending money on these products in Lansing.

An SPI near 100 for a business type suggests that consumer expenditure for that product or service is consistent with the national average, whereas an SPI that exceeded 100 for a business type suggests that consumer expenditure

for that product or service exceeded the national average. Within the three radii that sending potential was evaluated, there were few business categories in which consumer expenditures exceeded the national average. These included the Apparel Products and Services subcategory and the Rental of Furniture subcategory. Other business subcategories scored greater than 50, but were below the national average of 100 (e.g., video rental, auto repair, or medical service). This suggests that people are not spending as much money on these products and services.

Market Leakages & Surpluses

There are two ways to measure activity in a retail market: supply or demand. A Surplus/Leakage factor measures the difference between supply and demand to determine if a store's merchandise meets the demand of its residential consumers or if consumers are traveling outside the market area to shop. A Surplus/Leakage analysis helps retailers evaluate inventory or measure the potential of future sites.[25]

Surplus: The positive difference between actual and potential sales. If actual retail sales within a trade area are greater than the potential sales, then there is a sales surplus. A surplus implies either that people from outside the trade area shop there or that people living within the trade area consume more than the average person living within the region. This number may be expressed either in terms of dollars or as a percentage of potential sales.

Leakage: The negative difference between actual and potential sales. If actual retail sales within a trade area are less than the potential sales, then there is a sales leakage. A leakage implies either that people living within the trade area shop outside the trade area or that people living within the trade area consume less than the average person living within the region.

A leakage does not imply that businesses within this sector are failing; on the contrary, these businesses may be doing quite well. A leakage simply suggests that the total sales within the local area are not as much as they could be based on the local area's population and income. A trade area may have a large amount of actual sales within a certain sector, but still experience a leakage. The amount of actual sales of a particular sector may be small, but the trade area has a surplus of sales. This is because surpluses and leakages take into account the average consumption of shoppers within the region. As a result, if the average consumer buys a large amount and if the population within the

[25] http://www.esribis.com/data/retailmarketplace.html

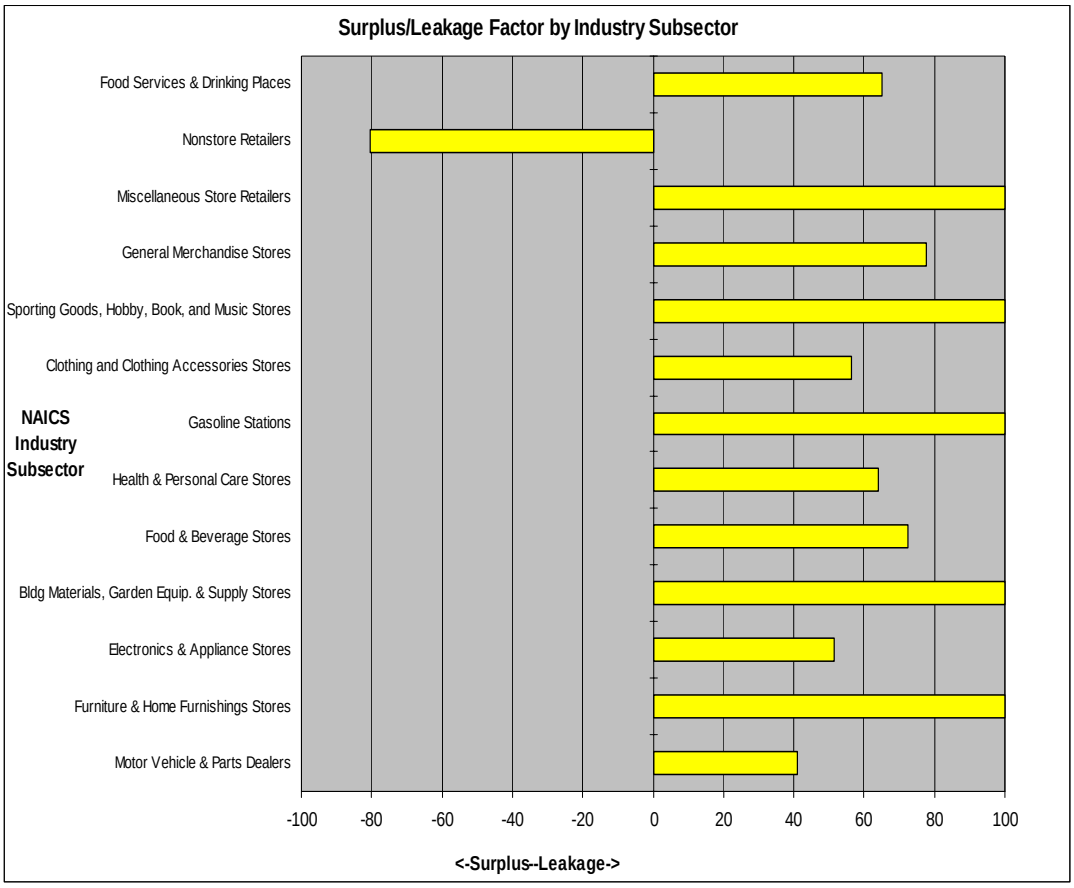
trade area is sufficiently large, then the potential sales within this sector will be high, and may be greater than the actual sales, even if actual sales are high.[26]

Radius: ½ Mile

Looking at the Market Surplus/Leakage Factor by industry subsector for the ½ mile radius, each subsector registers as a leakage except for the Nonstore Retailers subsector (Figure 5.2). Every industry subsector, with the exception of Nonstore Retailers, showed leakages ranging from 40% to 100%. Nonstore Retailers showed approximately an 80.5% surplus within the ½ mile radius. Industries in the Nonstore Retailers subsector sell merchandise using methods such as the broadcasting of infomercials, the broadcasting and publishing of direct-response advertising, the publishing of paper and electronic catalogs, door-to-door solicitation, in-home demonstration, selling from portable stalls and distribution through vending machines. Establishments in this subsector include mail-order houses, vending machine operators, home delivery sales, door-to-door sales, party plan sales, electronic shopping, and sales through portable stalls (e.g., street vendors). Establishments engaged in the direct sale (i.e., nonstore) of products, such as home heating oil dealers and newspaper delivery are included in this subsector.[27]

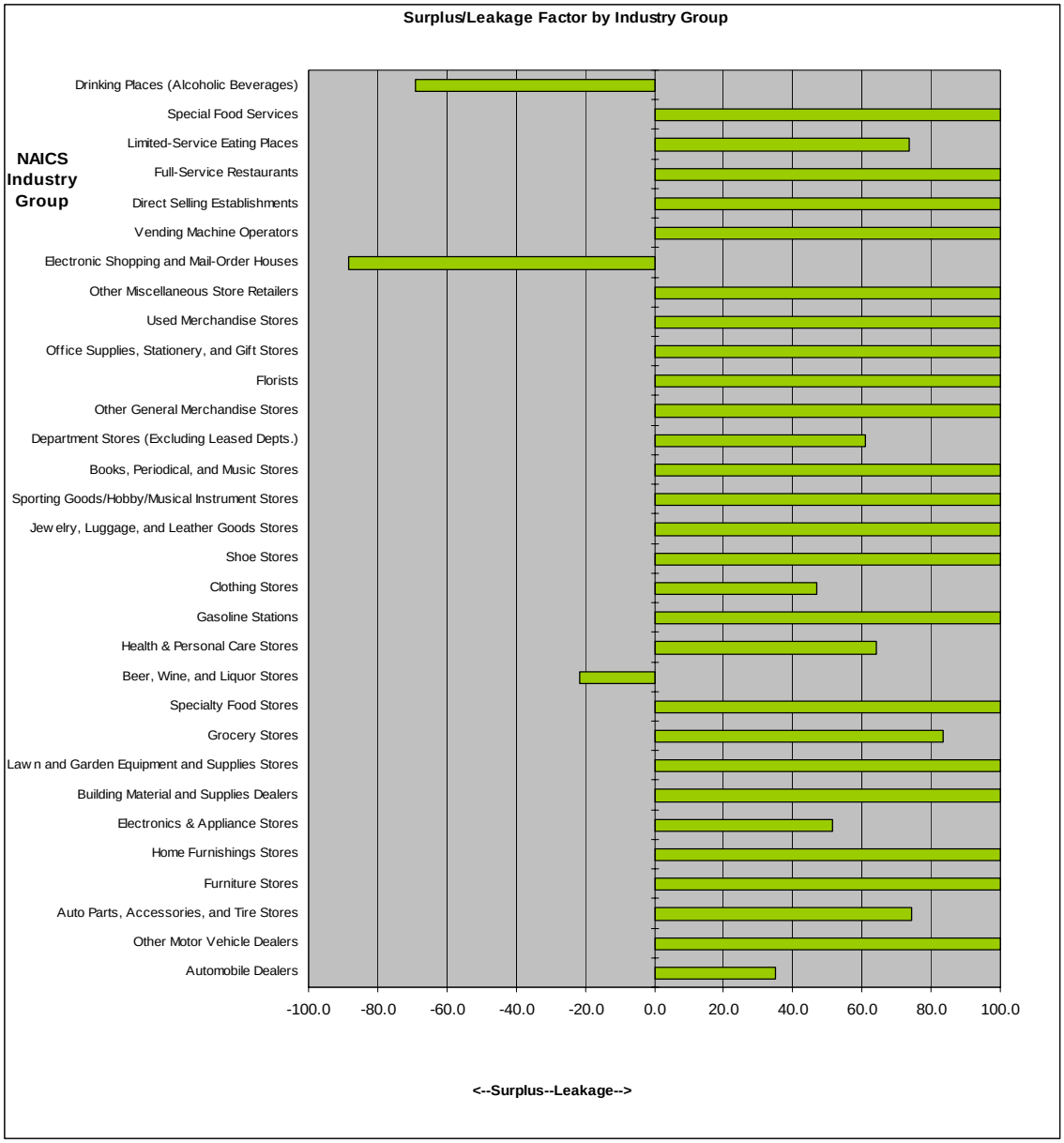
[26] http://www-agecon.ag.ohio-state.edu/programs/ComRegEcon/stparis%20text%20report.htm
[27] http://www.census.gov/epcd/naics02/def/NDEF454.HTM

Figure 5.2: Surplus/Leakage Factor by Industry Subsector for the ½ Mile Radius



The Market Surplus/Leakage Factor by Industry Group shows surpluses in Drinking Places (bars/pubs) (68.9%), Electronic Shopping and Mail-Order Houses (88.5%), and Beer, Wine, and Liquor Stores (21.7%) (Figure 5.3). Leakages were seen in all other 28 Industry Groups, most between 60% and 100%. This indicates that there are few businesses within the ½ mile radius of the Verlinden Avenue site and that consumers are traveling outside of this area to purchase products or services.

Figure 5.3: Surplus/Leakage Factor by Industry Group for the ½ Mile Radius

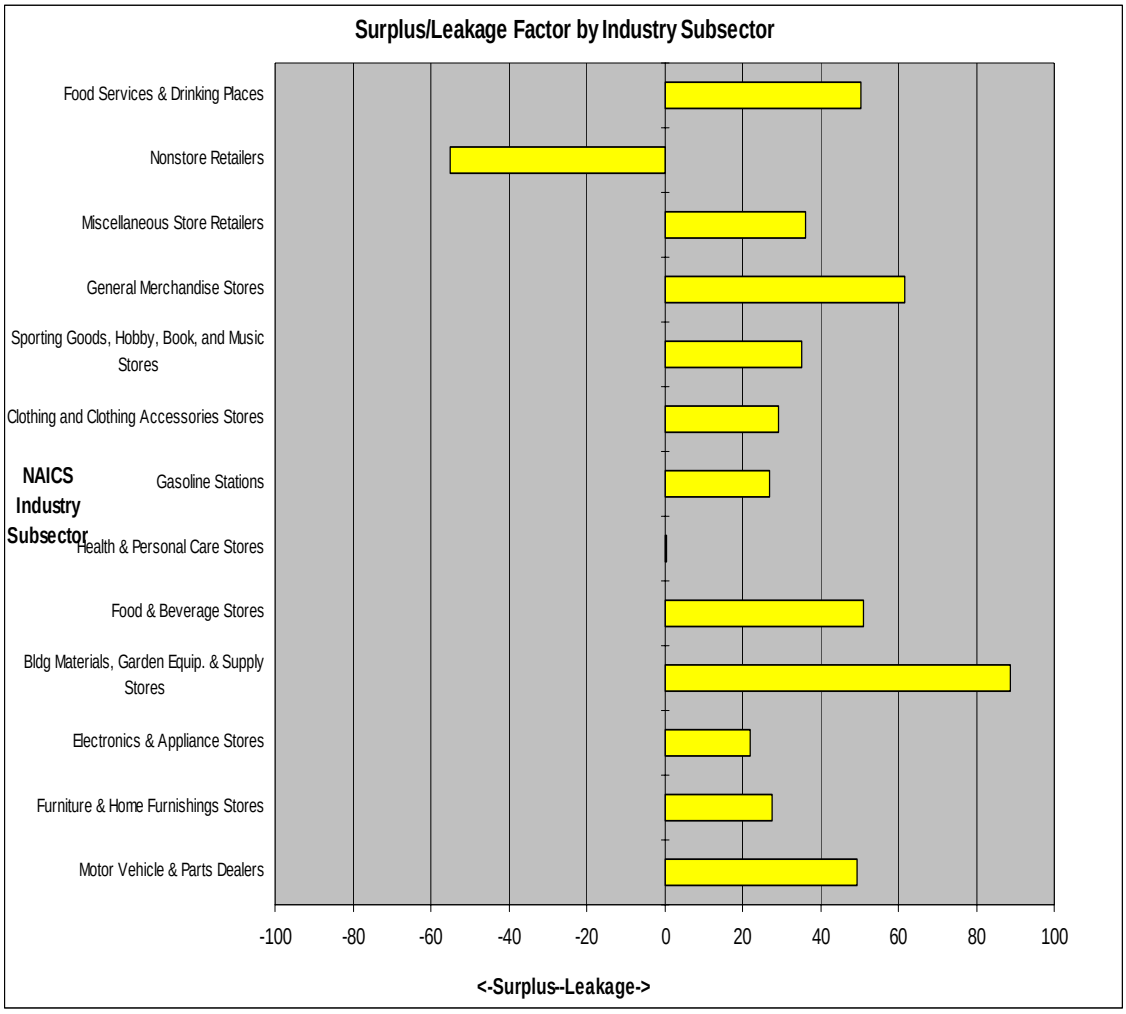


At the ½ mile radius data there is essentially no retail industry, other than automotive-related trade, that caters to the demand of neighborhood residents. This may indicate that there is a strong potential for future retail businesses to locate within the neighborhood to meet the needs of local residents.

Radius: 1 Mile

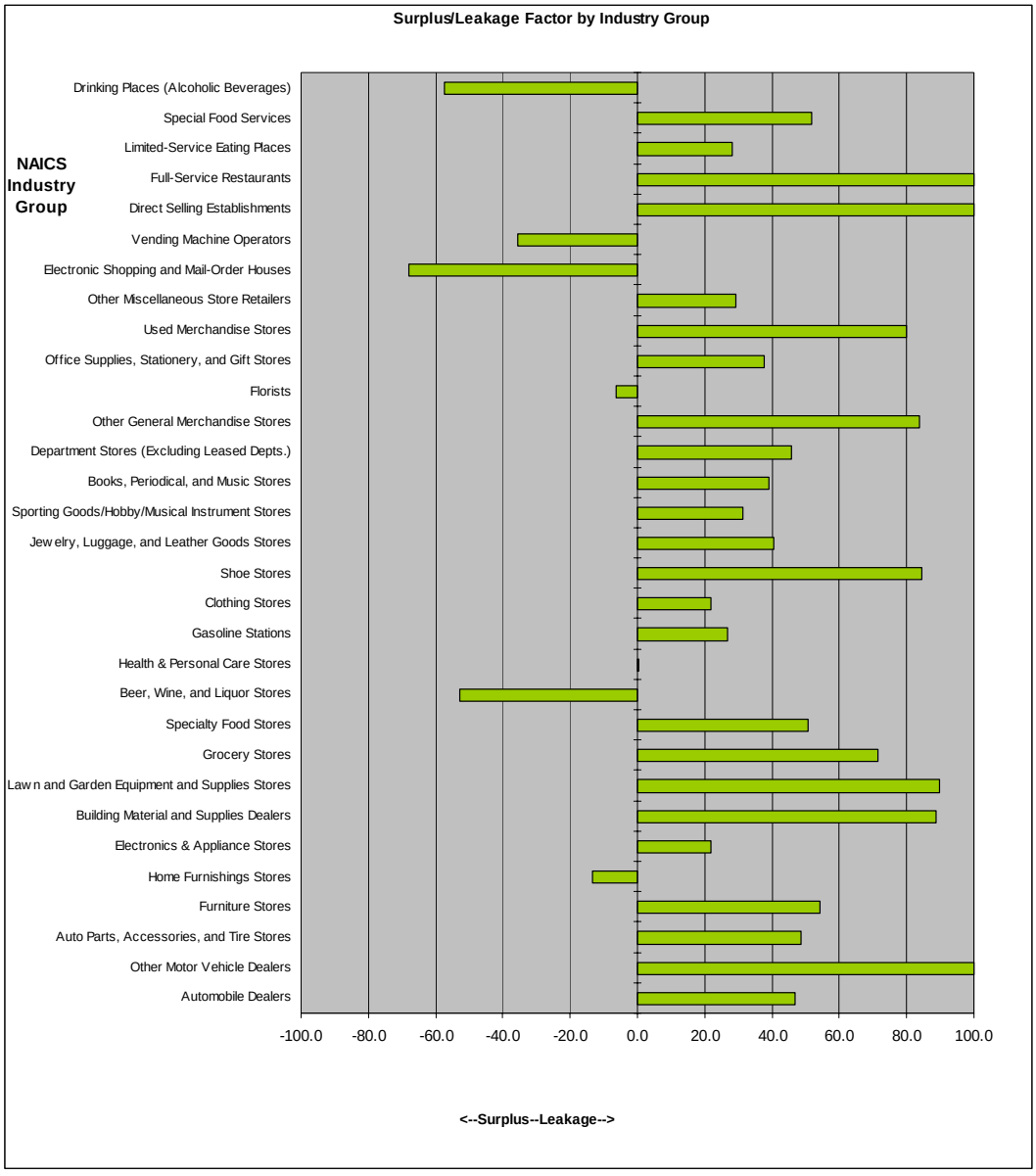
The Market Surplus/Leakage Factor by Industry Subsector at the 1 Mile radius was similar to the surplus/leakage factor at the ½ Mile radius (Figure 5.4). There were leakages in all industries except for the Nonstore Retailers subsector. Leakages ranged between 0.5 % for the Health and Personal Care Stores subcategory and 90% for the Building Materials subcategory, but most of the leakages were between 20% and 60%.

Figure 5.4: Surplus/Leakage Factor by Industry Subsector for the 1 Mile Radius



The Market Surplus/Leakage Factors by Industry Group for the 1 Mile radius showed more surpluses than at the ½ mile radius (Figure 5.5). There were surpluses in Drinking Places, Vending Machine Operators, Electronic Shopping and Mail-Order houses, Florists, Beer, Wine and Liquor Stores, and Homes Furnishing stores. Leakages were shown in the remaining Industry Groups. Health and Personal Care Stores had the smallest leakage with 0.5%. These results suggest that although there is more opportunity for people to purchase needed products and services within the 1 mile radius, people are still traveling outside of the 1 mile radius to meet many other needs.

Figure 5.5: Surplus/Leakage Factor by Industry Group for the 1 Mile Radius

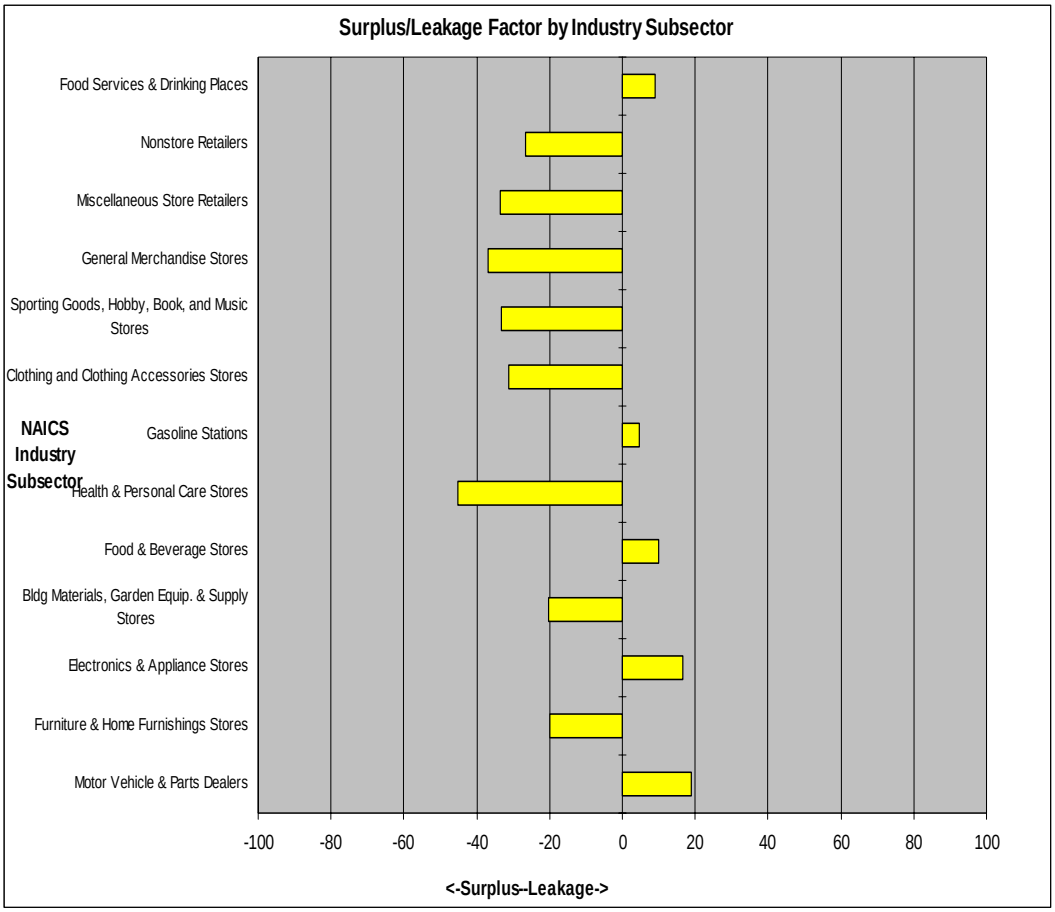


At the 1 mile radius, there is more retail industry servicing the neighborhood. Although there are more surpluses at this radius than at the ½ mile radius, there is a strong market potential for the retail industry as indicated by the high leakages in almost every subsector within the retail industry. These data show that people are traveling outside of the 1 mile radius to meet their retail needs. This suggests that there may be demand for more retail facilities located near the Verlinden Avenue site.

Radius: 3 Mile

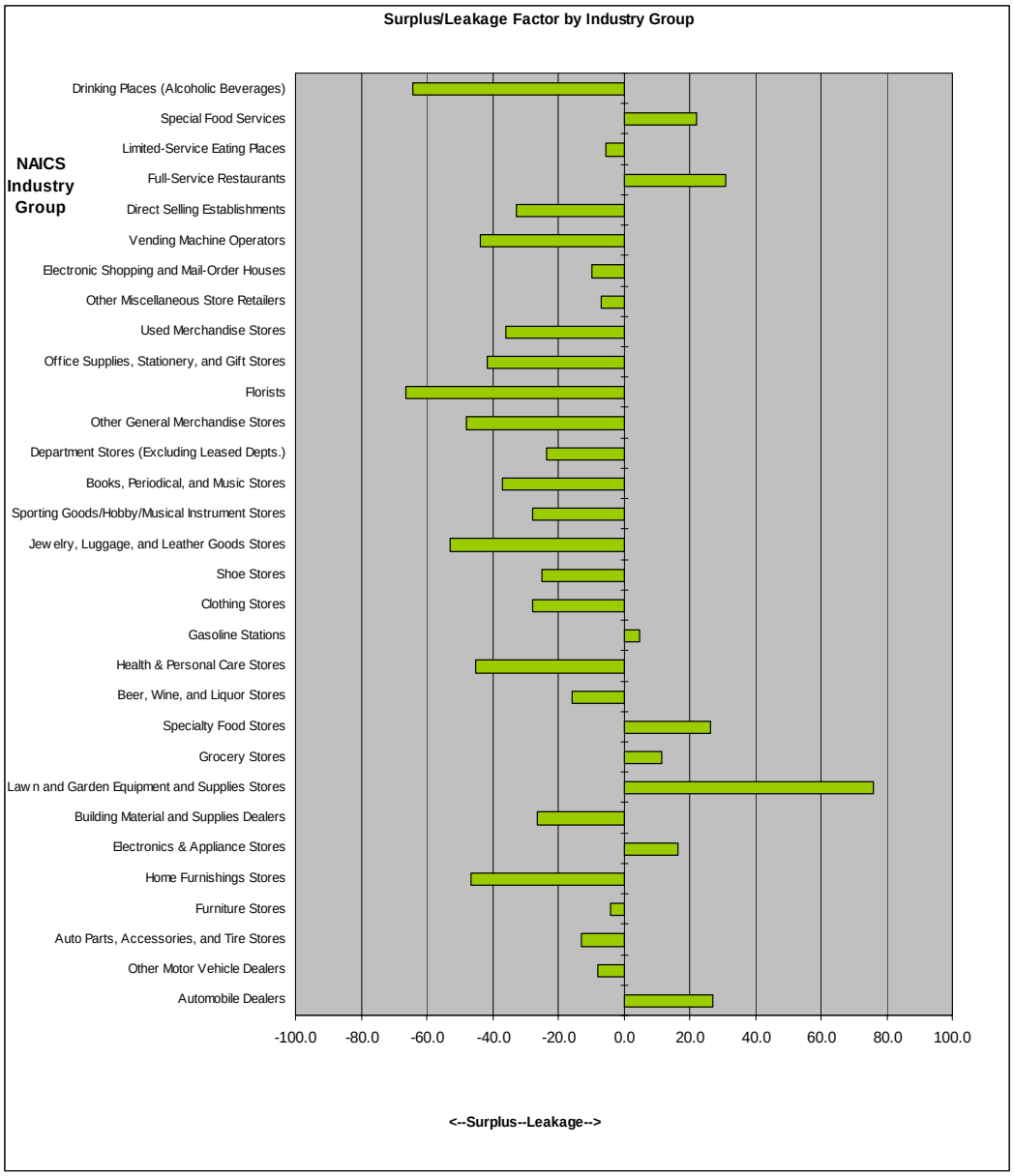
The Market Surplus/Leakage Factor by Industry Subsector for the 3 Mile radius showed a surplus between 20% and 40% for all subsectors except Food Services and Drinking Places, Gasoline Stations, Food and Beverage Stores, Electronics and Appliance Stores, and Motor Vehicle and Parts Dealers (Figure 5.6).

5.6: Surplus/Leakage Factor by Industry Subsector for the 3 Mile Radius



For the Surplus/Leakages Factor by Industry Group, there was a surplus in the majority of the groups (23 of 31) (Figure 5.7). Seven of the eight Industry Groups with leakages showed leakages below 40% and the majority of surpluses are below 50%. There are only a few groups with excessive leakages or surplus, compared to the majority of Industry groups at the ½ mile and 1 mile radius.

Figure 5.7: Surplus/Leakage Factor by Industry Group for the 3 Mile Radius



One possible reason for this shift in the surplus/leakages for this radius could be that at the 3 mile radius, many regional shopping districts and surrounding neighborhoods are encompassed in the market data, including the Lake Lansing corridor shopping district to the north, Frandor Shopping area to the east, and the Lansing Mall to the west. We can see at the 3 mile radius that there is very little market potential for new retail businesses to locate in this region due to the vast amount of retail surplus and saturation of retail markets.

Summary

When comparing the market surplus/leakages data for the three radii, there is almost a complete shift in the retail potential from the ½ mile to the 3 mile radius. At the ½ mile radius, there are leakages in almost every market sector due to the lack of businesses within the neighborhood catering to retail demand. Because there is essentially no retail industry, residents are traveling outside of their neighborhood for their retail needs. When examining data at the 1 mile radius, there is more surplus in the marketplace due to the inclusion of the more retail industry, such as the retail corridor along west Saginaw Street. Including businesses in the 3 mile radius, there is almost a complete shift from both the ½ mile and 1 mile data sets because the majority of the industries show a market surplus. This suggests little potential for future establishments to locate at the 3 mile radius because of competition with regional shopping districts to the north (Lake Lansing shopping corridor), east (Frandor Shopping Center), and west (Lansing Mall). Because many leakages exist within the ½ mile and 1 mile radii, however, there still may be strong potential for small retail establishments to locate at the GM Verlinden site and cater to the needs of the adjacent neighborhood residents without having to compete with businesses on a regional scale.

5.2 Industrial Market Analysis

Employment and business trends can indicate market demand. To examine this, industry employment and establishment trends from 1998-2003 were compiled to determine which industries have potential to be sustained in the Lansing region and, more specifically, which may be viable redevelopment options to locate on the Verlinden Avenue site.

Methodology

The North American Industrial Classification System (NAICS) provides a consistent system for economic analysis across North America. It can be used as a tool during market analysis as it provides an assortment of industry data, such as total number of jobs and establishments in various industrial groups. NAICS data were used to obtain Employment numbers and the number of establishments in three locales (Michigan, Ingham County, and City of

Lansing/East Lansing). These data were examined to compare business market trends and get a better grasp of how the Lansing regional market has been performing in contrast to the county and state business markets. Of the numerous industry categories available, only industries that could feasibly be considered as redevelopment options were considered. These industries include manufacturing, construction, retail trade, wholesale trade, transportation and warehousing and public utilities.

Results

Table 5.2: Total Number of Industry Establishments

	Year								
	1998	1999	2000	2001	2002	2003	**Total Change**	**% Change**	**% Change Per Year**
Michigan	235,403	236,456	236,912	236,711	237,616	237,122	**1,719**	**0.73%**	**0.15%**
Ingham County	7,170	7,168	7,129	7,098	7,311	7,306	**136**	**1.90%**	**0.38%**
Lansing/East Lansing	10,303	10,304	10,285	10,270	10,419	N/A	**116**	**1.13%**	**0.28%**

Table 5.3: Total Number of Manufacturing Establishments

	Year								
	1998	1999	2000	2001	2002	2003	**Total Change**	**% Change**	**% Change Per Year**
Michigan	16,064	15,790	15,550	15,431	14,947	14,780	**-1,284**	**-7.99%**	**-1.60%**
Ingham County	278	275	267	255	249	260	**-18**	**-6.47%**	**-1.29%**
Lansing/East Lansing	440	433	420	409	394	N/A	**-46**	**-10.45%**	**-2.61%**

Table 5.4: Total Number of Construction Establishments

	Year								
	1998	1999	2000	2001	2002	2003	**Total Change**	**% Change**	**% Change Per Year**
Michigan	26,482	26,710	27,149	26,493	26,303	26,403	**-79**	**-0.30%**	**-0.06%**
Ingham County	555	555	563	545	550	550	**-5**	**-0.90%**	**-0.18%**
Lansing/East Lansing	989	987	1,005	980	992	N/A	**3**	**0.30%**	**0.08%**

Table 5.5: Total Number of Retail Trade Establishments

	Year								
	1998	1999	2000	2001	2002	2003	**Total Change**	**% Change**	**% Change Per Year**
Michigan	39,330	39,262	38,862	39,097	38,829	38,620	**-710**	**-1.81%**	**-0.36%**
Ingham County	1,151	1,141	1,113	1,123	1,175	1,179	**28**	**2.43%**	**0.49%**
Lansing/East Lansing	1,711	1,678	1,646	1,650	1,691	N/A	**-20**	**-1.17%**	**-0.29%**

Table 5.6: Total Number of Wholesale Trade Establishments

	Year								
	1998	1999	2000	2001	2002	2003	**Total Change**	**% Change**	**% Change Per Year**
Michigan	13,689	13,689	13,576	13,226	13,055	12,507	**-1,182**	**-8.63%**	**-1.73%**
Ingham County	349	358	355	344	335	336	**-13**	**-3.72%**	**-0.74%**
Lansing/East Lansing	491	499	487	477	473	N/A	**-18**	**-3.67%**	**-0.92%**

Table 5.7: Total Number of Transportation & Warehousing Establishments

	Year								
	1998	1999	2000	2001	2002	2003	**Total Change**	**% Change**	**% Change Per Year**
Michigan	4,894	4,963	5,161	5,214	5,157	5,385	**491**	**10.03%**	**2.01%**
Ingham County	118	104	107	104	106	112	**-6**	**-5.08%**	**-1.02%**
Lansing/East Lansing	200	189	201	191	191	N/A	**-9**	**-4.50%**	**-1.13%**

Michigan

When looking at the total number of establishments in Michigan for years between 1998 and 2003, the number remained fairly stable; there was no overall growth. An examination of the number of establishments within each industry, however, showed that there was some change in the number of establishment in certain industries. Although the total number of construction and retail establishments remained stable during this time period, there were notable gains for transportation and warehousing establishments. These industries saw approximately 10% growth in the number of establishments between 1998 and 2003. A decrease in the number of establishments was seen in the manufacturing and wholesale trade industries with approximately an 8% loss in total number of establishments for each industry.

Ingham County

The trend in the total establishments for Ingham County was consistent with the state trends; the number of establishments remains fairly stable with a minimal gain of 1.9%. Similar to state trends, the manufacturing industry in Ingham County saw a loss of 6.47% of establishments. While the construction industry remained stable, there was a modest loss in wholesale trade (3.72%). These results were similar to the state-level trends. Contrary to state trends, however, the transportation and warehousing industry saw approximately a 5% loss in establishments.

City of Lansing/East Lansing

There were similarities between the industry trends in number of establishments for the State of Michigan, Ingham County, and the Lansing MSA. Once again, the total number of establishments for Lansing MSA was stable, with minimal growth (1.13%). Just like the state and county level, there was a manufacturing establishment loss of approximately 10%. Transportation and warehousing, retail, and wholesale trade also showed a modest loss in the total number of establishments.

Table 5.8: Total Employment Numbers

	Year								
	1998	1999	2000	2001	2002	2003	**Total Change**	**% Change**	**% Change Per Year**
Michigan	5,415,580	5,519,367	5,629,498	5,539,887	5,482,422	5,443,898	**28,318**	**0.52%**	**0.10%**
Ingham County	208,415	211,180	212,332	209,979	209,733	209,749	**1,334**	**0.64%**	**0.13%**
Lansing/East Lansing	273,689	278,037	280,286	280,612	281,186	282,097	**8,408**	**3.07%**	**0.61%**

Table 5.9: Total Manufacturing Employment

	Year								
	1998	1999	2000	2001	2002	2003	**Total Change**	**% Change**	**% Change Per Year**
Michigan	992,727	1,002,619	1,005,158	843,743	779,256	738,999	**-253,728**	**-25.56%**	**-5.11%**
Ingham County	23,188	22,539	22,058	19,972	18,849	18,615	**-4,573**	**-19.72%**	**-3.94%**
Lansing/East Lansing	30,087	29,761	29,392	26,313	24,826	24,568	**-5,519**	**-18.34%**	**-3.67%**

Table 5.10: Total Construction Employment

	Year								
	1998	1999	2000	2001	2002	2003	**Total Change**	**% Change**	**% Change Per Year**
Michigan	270,286	285,097	296,266	304,276	295,271	287,003	**16,717**	**6.18%**	**1.24%**
Ingham County	7,839	7,964	8,506	8,689	8,157	7,543	**-296**	**-3.78%**	**-0.76%**
Lansing/East Lansing	12,157	12,642	13,429	14,358	13,907	13,334	**1,177**	**9.68%**	**1.94%**

Table 5.11: Total Retail Trade Employment Part I

	Year					
	1998	1999	2000	**Total Change**	**% Change**	**% Change Per Year**
Michigan	931,011	951,240	964,405	**33,394**	**3.59%**	**1.79%**
Ingham County	35,132	35,806	35,786	**654**	**1.86%**	**0.93%**
Lansing/East Lansing	47,138	47,644	47,699	**561**	**1.19%**	**0.60%**

Table 5.12: Total Retail Trade Employment Part II

	Year					
	2001	2002	2003	**Total Change**	**% Change**	**% Change Per Year**
Michigan	654,619	640,533	628,557	**-26,062**	**-3.98%**	**-1.99%**
Ingham County	23,668	22,911	22,405	**-1,263**	**-5.34%**	**-2.67%**
Lansing/East Lansing	33,280	32,680	32,227	**-1,053**	**-3.16%**	**-1.58%**

Table 5.13: Total Wholesale Trade Employment

	Year								
	1998	1999	2000	2001	2002	2003	**Total Change**	**% Change**	**% Change Per Year**
Michigan	248,209	254,227	254,510	196,162	189,810	187,029	**-61,180**	**-24.65%**	**-4.93%**
Ingham County	5,811	5,890	5,867	N/A	N/A	N/A	**56**	**0.96%**	**0.48%**
Lansing/East Lansing	9,051	9,274	9,420	N/A	N/A	N/A	**369**	**4.08%**	**2.04%**

**note: total wholesale trade figures for Ingham County and Lansing/East Lansing not available (N/A) for years 2001,2002, or 2003*

Table 5.14: Total Transportation & Public Utilities

	Year					
	1998	1999	2000	**Total Change**	**% Change**	**% Change Per Year**
Michigan	204,121	204,715	209,221	**5,100**	**2.50%**	**1.25%**
Ingham County	6,277	6,456	6,847	**570**	**9.08%**	**4.54%**
Lansing/East Lansing	7,765	8,002	8,370	**605**	**7.79%**	**3.90%**

Table 5.15: Total Transportation & Warehousing

	Year					
	2001	2002	2003	**Total Change**	**% Change**	**% Change Per Year**
Michigan	134,666	132,736	130,131	**-4,535**	**-3.37%**	**-1.68%**
Ingham County	5,179	5,343	5,288	**109**	**2.10%**	**1.05%**
Lansing/East Lansing	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**

**total transportation and warehousing figures for Lansing/East Lansing not available (N/A) for years 2001,2002, or 2003*

Michigan

The industry employment trends are consistent with the total establishment trends for each industry. Like the establishment figures, the total number of jobs remained stable and showed no substantial growth for the years between 1998 and 2003. Also, consistent with the establishment trends were the manufacturing and wholesale industries, where there was a large loss of jobs during this time period (25.56% and 24.65% respectively). The only notable growth of employment came from the construction industry with about a 6% gain in jobs. Although there was modest growth for retail trade from 1998-2000, there was also a modest loss for the same industry during 2001-2003. The same was true for transportation, public utilities, and warehousing, which showed contrasting trends from the first 3 years to the next 3 years. When looking at both the number of establishments and employment trends from 1998-2003 for the state of Michigan there were large losses in the manufacturing and wholesale industries; however, the totals for the state remained stable. This suggests that

other types of industries have been growing, which may be compensating for losses in manufacturing.

Ingham County

The employment trends followed the trends in the number of establishments in Ingham County between 1998 and 2003. The total employment level remained stable. Consistent with state trends, there was a large job loss (19.72%) for the manufacturing industry and modest job growth for the construction industry (3.78%). Also consistent with state trends was the retail trade industry, which showed modest growth from 1998-2000, but a loss during 2001-2003. Transportation, public utilities, and warehousing showed solid growth at the county level, even though there was a total loss at the state level. Although the county trends mirror the state trends for many industries, there are a few promising growth trends, such as the construction industry as well as the transportation and public utilities and warehousing industry.

City of Lansing/East Lansing

The statistics for industry employment for the City of Lansing/East Lansing for 1998-2000 were very similar to the establishment trends for the same locale, but did differ slightly for certain industries. There was a 3% modest growth in total employment. This is a promising statistic because there was no job growth at the county or state level. Manufacturing employment levels did, however, follow the same negative trend with a loss of about 18%. Retail trade employment trends also followed the state and county trends, gaining jobs from 1998-2000, while losing jobs from 2000-2003. While there was no change in the total construction industry establishments, there was solid gain in the construction employment levels of about 9%. There was about a 4% increase in employment for wholesale trade and a 7.79% increase in employment for transportation and public utilities. The trend for transportation and public utilities mirrored the state and county levels and was a positive trend considering there was a modest loss in number of establishments for the City of Lansing/East Lansing during the same time period.

5.3 Residential Market Analysis

Methodology

To assess residential demand in Lansing, data were collected from three different sources. The first data source is the North American Industry Classification System (NAICS), which provided general employment information from years 1998-2003. Growth in employment is one indicator of housing demand. U.S. Census data was used for population and total number of housing unit change from 1990 to 2000, along with vacancy rates and breakdown of housing stock. These different data sets helped our group see the general fluctuation in total number of people and jobs in the region, along with housing market trends. We also looked at the same data for Ingham County and the State of Michigan to compare trends. Generally, an increase in either the number of people or jobs in a region is a positive economic indicator and most likely signifies an increase in housing demand to accommodate for the influx of people in the area. The third source of data came from DataPlace[28], which provided the total number of new housing building permits authorized from 1999-2004 in the City of Lansing.

Results

There was a 6.4% loss in population for the City of Lansing from 1990 to 2000. During the same time period, the Ingham County population level remained steady with just a slight population loss (-0.92%). In contrast, the State of Michigan saw a positive population growth of 6.9%. The 10-year period also saw a 1.3% decrease in total housing units in Lansing. There was, however, positive growth in the number of housing units at the county and state level, at 6% and 10% respectively.

Table 5.16: Total Population (U.S. Census Data)

	1990	2000	% Change
City of Lansing	127,321	119,128	-6.43%
Ingham County	281,912	279,320	-0.92%
State of Michigan	9,295,297	9,938,444	6.92%

[28] www.dataplace.org

Table 5.17: Total Number of Housing Units (U.S. Census Data)

	Year		
Location	1990	2000	% Change
City of Lansing	53,919	53,209	-1.32%
Ingham County	108,542	115,056	6.00%
State of Michigan	3,847,926	4,234,279	10.04%

Although these are both negative signs for housing demand, another housing demand indicator, NAICS employment data, showed contrasting employment trends. During the years 1998-2003, employment figures remained steady at all three geographical levels. There was modest employment growth in Lansing/East Lansing, with a total employment change of 3.07% or 0.61% per year during this time frame. That compares favorably to employment figures on the county and state level. There was only a 0.64% increase per year in number of jobs for Ingham County and a 0.52% per year increase for the state of Michigan during the same time period. Job growth in Lansing/East Lansing is a positive sign for housing demand in the region. Even though there is positive job growth in the Lansing region, the City of Lansing may be losing housing units and population due to suburban growth. People who hold jobs in the Lansing may be locating far from their place of employment in the region.

Table 5.18: Total Employment (Number of Jobs) (NAICS Data)

	Year					
Location	1998	1999	2000	2001	2002	2003
City of Lansing / East Lansing	273,689	278,037	280,286	280,612	281,186	282,097
Ingham County	208,415	211,180	212,332	209,979	209,733	209,749
State of Michigan	5,415,580	5,519,367	5,629,498	5,539,887	5,482,422	5,443,898

Table 5.19: Employment Change Summary (NAICS Data)

Location	Total Change	Change Per Year	% Total Change	% Change Per Year
City of Lansing / East Lansing	8,408	1,682	3.07%	0.61%
Ingham County	1,334	267	0.64%	0.13%
State of Michigan	28,318	5,664	0.52%	0.10%

Looking at the vacancy rates for Lansing, there was not a large increase in vacant housing units in the area. In Lansing, the percentage of vacant housing units was 6.8% in 2000, which was an increase of 0.7%. The percentage of vacant housing units in Ingham County was similar to Lansing. In 2000, Ingham County had 5.6% of housing units vacant, which was an increase of 0.2%. This contrasted with the State of Michigan vacancy trends during 1990 to 2000, which saw a decrease in the percentage of vacant housing units from 11.1% to 10.6%.

Table 5.20: Percentage of Vacancy Rates from 1990 to 2000.

	Year		
Location	**1990**	**2000**	**Change**
City of Lansing	6.1%	6.8%	0.7%
Ingham County	5.4%	5.6%	0.2%
State of Michigan	11.1%	10.6%	-0.5%

From the household type data, there was a decrease in the percentage of households with children under 18 years old in Lansing, Ingham County, and Michigan. This is not a promising statistic for state or regional housing demand because young families with young children tend to look for different types of housing as their households become more established and their family size and income begins to increase.

Table 5.21: Percentage of Households with Children Under 18 Years Old From 1990 to 2000.

	Year		
Location	**1990**	**2000**	**Change**
City of Lansing	33.8%	30.7%	-3.1%
Ingham County	33.8%	30.4%	-3.4%
State of Michigan	35.3%	33.2%	-2.1%

The new residential building permit data for Lansing showed that there was a decrease in total number of new housing permits from 1999-2004 (-33.49%). Although this is not a positive indicator for housing demand growth, there was an increase in single family residential permits in the city at a growth rate. This shows an upward trend in the regional housing market.

Table 5.22: New Privately-Owned Housing Permits Authorized in Lansing From 1999 to 2004.

			Year			
Type of Permit	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**
Total New Housing Permits	212	206	54	272	380	141
Single Family Residential Permits	38	36	48	71	66	65
Multifamily Housing Unit Permits	174	170	6	201	314	76

Summary

When analyzing all of the housing-related data sets, there are some trends which showed promise for the future housing market of Lansing. Having positive job growth in Lansing/East Lansing from 1998-2003, while the county and state level had virtually no job growth during the same time is a positive indicator of the housing trend. Having an increase in the number of single family housing permits from 1999-2004 is also an encouraging statistic for future housing market potential. Furthermore, even though the number of multi-family housing unit permits lagged in 2004, there are many owner-occupied condominium projects proposed in the Lansing region. In a report by the Anderson Group, 13 different multi-family developments were listed. This suggests that there is a market for multi-family residences in the Lansing area. [29]

5.4 Lifestyle Clusters

Household characteristics and level of income can be used to define the lifestyle of people in a community. This information is important because it can help guide development so that it fits with the lifestyle of residents in the community. Lifestyle is also an indication of the market potential in an area. A community that is predominately upscale will be able to sustain different businesses than a community that is predominately working-class. In 2004, the Anderson Group compiled a list of ACORN lifestyle clusters most prevalent in the Lansing region.

[29] Vokes, S.M. 2004. Market feasibility study: residential and retail: Charter Township of Lansing, downtown development district. East Lansing, MI: Anderson Group.

Table 5.23: ACORN Lifestyle Clusters in the Lansing MSA in 2004

Type of Lifestyle	Number in the Lansing MSA	Major Characteristics
Newly-Formed Households	26,161	Young parent, single-parent, and single or shared household. Low unemployment. Work in service and manufacturing. Live in older single-family homes or duplexes.
Semi-Rural	24,622	Married couples aged 35-45 without children. Employment is varied. Live in singe-family homes.
Middle-America	17,238	Live in non-farm, rural areas in single-family homes.
Urban Professional Couple	13,628	Singles or married couples with few or no children. Work in professional or managerial capacity. Well-educated. Live in dense urban areas
Twenty-Something	11,808	In transition between education and careers. Live in single or shared apartments. Most are employed part-time.
Total	**93,457**	

According to the Anderson Group, people who fall into the Middle-America, Semi-Rural, or Urban Professional Couple Lifestyle clusters are big spenders. While people who fall into the Newly-Formed Household and Twenty-Something Lifestyle clusters are only moderate spenders.

The predominant lifestyle characteristics in the Lansing region indicate that people in the area are relatively well-off, which suggests that there is high disposable income. This bodes well for commercial/retail businesses. People in the area live in a variety of residential developments. Even though many people live in single-family homes, the Urban Professional Couple, Newly-Formed Households, and Twenty-Something Clusters point to a market for denser, multi-unit residential developments. The population is also well-educated, which indicates that there is a pool of skilled workers in the area.

Section Six: Westside Neighborhood Questionnaire

6.1 Methodology

To gain a better sense of public opinion in the Westside Neighborhood community about the redevelopment of the Verlinden Avenue site, a brief questionnaire was created. The main purpose of the questionnaire was to determine the strengths of the neighborhood, find out residents' priorities for redevelopment, and gain insight into what selected residents would not desire in terms of redevelopment. To accomplish this, the questionnaire was disseminated to Westside Neighborhood residents attending a WNA meeting on January 27, 2006. The meeting was attended by approximately 30 people, although some of the attendees were from outside of the neighborhood. This resulted in 23 surveys being completed by meeting attendees, which included everyone from the neighborhood. The following section outlines the most important results; for complete questionnaire results see Appendix D.

6.2 Questionnaire Results

Neighborhood Strengths

Residents attending the WNA meeting were asked to rank the top three things they like about the Westside Neighborhood to gain insight into the strengths of the neighborhood. This question was an open-ended question in which survey respondents were asked to write in the three most important strengths of the neighborhood. All three responses were considered important; however, responses were prioritized with #1 considered the most important and #3 considered the least important. Responses were then classified into broad categories. For example, diverse responses such as "strong community," "community involvement," and "neighbors" were classified into the category "neighborhood strength and community." To determine the percentage of respondents in each category, the number of responses in each category was divided by the total number of respondents (n=23).

Results show that the #1 thing that most respondents liked about the Westside Neighborhood was the "neighborhood strength and community." In fact, 61% of respondents ranked this strength as the most important component of the neighborhood. Another strength that was ranked #1 was the "diversity of residents," although only 22% of respondents ranked this strength so highly. The #2 thing that most respondents liked about the neighborhood was the "housing." Almost half of the respondents (48%) ranked this strength as the second-most important component of the neighborhood. The #3 thing that respondents liked about the neighborhood was the "location." Approximately one-third of the respondents (33%) ranked the location of the neighborhood as the third-most important component of the neighborhood.

It is apparent from reviewing respondent answers that the overall greatest strength of the Westside Neighborhood is the sense of neighborhood strength and community. Other strengths included the diversity of residents, the housing quality, and the location of the neighborhood in relation to downtown Lansing. Minor strengths listed were the friendliness of residents in the neighborhood, the community center, the walkability of the neighborhood, the landscaping, and the presence of schools. These results suggest that Westside Neighborhood residents are invested in their community. Residents value the diversity of the neighborhood, but have the ability to unite for a community common good. In addition, residents value the unique physical design and amenities of the neighborhood. The combination of the social capital and physical strengths of the neighborhood suggests that this is a well-rounded community.

The results from this questionnaire pertaining to neighborhood strengths are comparable to results from a survey the NWLHCI conducted in 2003 (see Appendix D). The NWLHCI survey captured opinions of 56 Westside Neighborhood residents on what they considered strengths of the neighborhood. According to the NWLCHI survey, the greatest strengths of the neighborhood include neighborhood diversity, community pride, and housing. Because the results are similar, this suggests a stable neighborhood with unified interests.

Neighborhood Relationship to the GM Plant

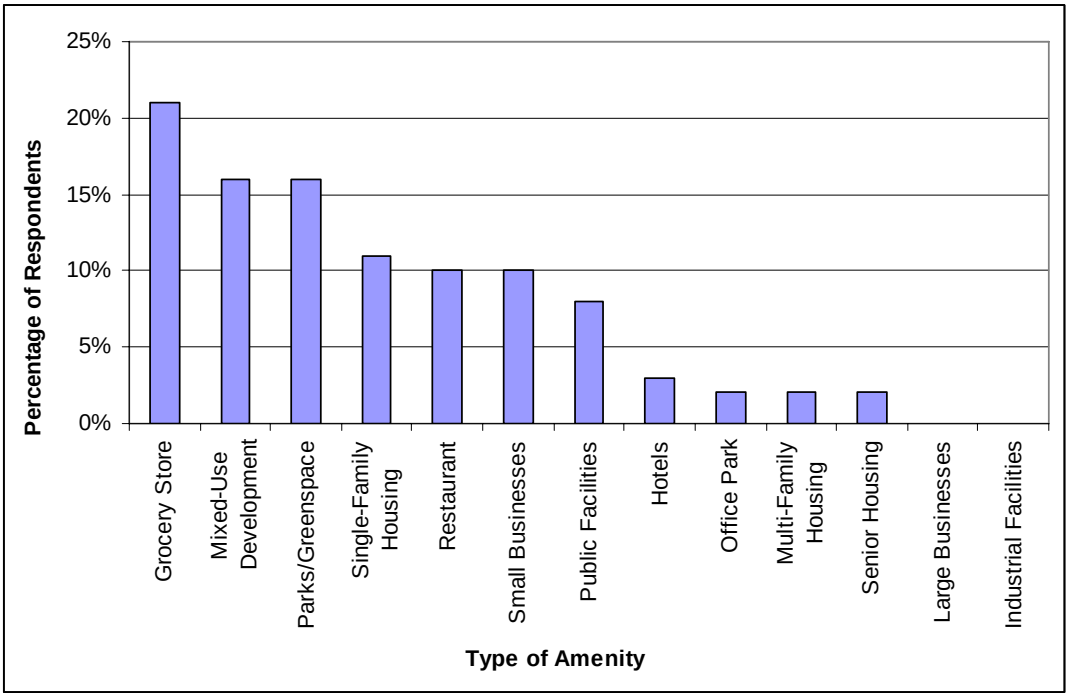
Interestingly, Westside Neighborhood survey respondents had little interaction with the Verlinden Avenue GM plant. Only 4% of the questionnaire respondents stated that either they or a family member were employed at the plant. According to neighborhood residents at the January 27, 2006 WNA meeting, few people who reside in the neighborhood worked in the Verlinden Avenue plant. Plant employees commuted to work from other areas in Lansing and surrounding municipalities. This shows a disconnect between neighborhood residents and the Verlinden Avenue plant. In fact, 48% of the respondents felt that the neighborhood was better off without the plant in operation. They sited lower levels of air and noise pollution, as well as the potential for redevelopment as reasons why the community was better off without the plant in operation. A few respondents (5%) did have concerns about the closing of the plant because of the loss of employment. These results show that the neighborhood is looking toward the future in terms of what the site redevelopment can do to improve the community.

Priorities for Redevelopment

Residents were asked to choose the types of amenities they thought would most benefit the neighborhood. This question was used to gauge what the residents of the Westside Neighborhood would be most amenable to in terms of redevelopment of the Verlinden Avenue site.

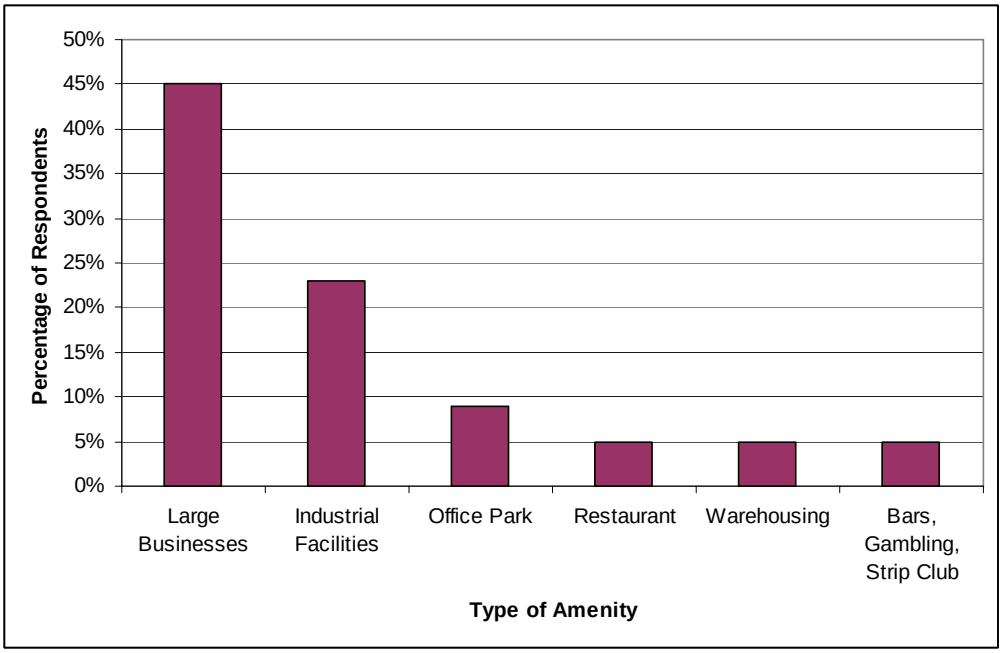
According to respondent answers, residents were most interested in seeing a grocery store, mixed-use development, or parks and greenspace be part of the redevelopment of the Verlinden Avenue site. These were the amenities that residents thought would most benefit the neighborhood. They did, however, feel that single-family housing, restaurants, small businesses (e.g., specialty shops), and public facilities (e.g., library) could also be beneficial. There was minor interest in seeing a hotel, office park, multi-family housing, or senior housing be part of the redevelopment.

Figure 6.1: The Breakdown of Respondent Answers Pertaining to the Types of Amenities from which their Neighborhood would Most Benefit



Residents were also asked what type of amenity they would least like to see as part of the redevelopment of the Verlinden Avenue site. This question was used to gain insight into what types of redevelopment the neighborhood least likely support. Residents had little interest in seeing large "big box" businesses or industrial facilities put on the site. When asked which one amenity they would least like to see be put on the Verlinden Avenue site, the answer was overwhelmingly either large "big box" businesses or industrial facilities. Clearly, if these two options were part of the redevelopment, there would most likely be some neighborhood resistance. These results suggest that the survey respondents want the redevelopment to reflect the character of the neighborhood while adding some local amenities.

Figure 6.2: The Breakdown of Respondent Answers Pertaining to the Types of Amenities they would Least Like to see in their Neighborhood



Section Seven: SWOT Analysis

A SWOT analysis was completed to determine the strengths, weaknesses, opportunities, and threats of the GM site and the surrounding neighborhood. A SWOT analysis allows for the examination of the resources that can be used as a basis for the development of a plan, the limitations of the site, the favorable situations that could enhance redevelopment, and potential obstacles to redevelopment. The SWOT analysis is based on site visits, discussions with Westside Neighborhood residents, information gathered about the Verlinden Avenue site and the neighborhood, and the expertise of the project team gained through their training and experiences in planning and development.

Strengths

- The size of the site is large enough to provide an opportunity for different redevelopment strategies.
- There is infrastructure in place on the site. The roads surrounding the Verlinden Avenue site were built to handle a relatively high volume of traffic to accommodate GM employees. Utilities, such as water, electric, and telephone are already in place.
- The site is accessible from Saginaw Street.
- The Verlinden Avenue site is located about one mile from downtown Lansing, making it centrally located in the Lansing metropolitan area.
- Michigan State University and Lansing Community College are within 5 miles of the site and provide an education workforce for the area.
- The Westside Neighborhood has strong community involvement with an active neighborhood association comprised of diverse group of members.
- There are many neighborhood amenities which enhance the quality of life.

Weaknesses

- The environmental status of the site is unknown, as no BEA has been completed. The environmental status may act to limit redevelopment options.
- The long-term plans of the GM plant adjacent to the site are unknown. The compatibility of the redevelopment with surrounding land uses may limit options.
- The size of the site limits site usage.
- The visibility of the site from major roads is poor. The visibility of the site for Saginaw Street is limited by an embankment and it is not visible from any of the major thoroughfares.
- Accessibility to the site from Martin Luther King Jr. Boulevard and Saint Joseph Street has vehicular traffic going down residential roads.

Opportunities

- Westside Neighborhood community involvement provides an outlet for citizen participation in the redevelopment process.
- Because GM has a standard decommission procedure, this will allow for transparency throughout the process.
- GM is intending to sell the site, which may open up redevelopment options.
- The GM site may be eligible for many economic development tools such as the Brownfield Redevelopment Initiative. This could provide technical and administrative assistance, as well as funding to execute a redevelopment strategy.
- The existing infrastructure allows the site to be developed with minimal costs to set up adequate connections for utilities and roads.
- The size of the site provides an opportunity for different types of redevelopment.
- Redevelopment of the site could provide employment opportunities to not just the surrounding neighborhood, but also throughout the Lansing metropolitan area. Furthermore, nearby educational institutions have the potential to provide an educated workforce.

Threats

- To date, GM still owns the site, which means that they have ultimate control over what takes place on the site. This could hinder the redevelopment process.
- The site is currently zoned industrial and would need to be rezoned for other types of development. This could be a lengthy political process that may hinder redevelopment.
- The unknown environmental status could have legal implications that may limit redevelopment options.
- The presence of multiple shopping districts near the site may limit what type of redevelopment on the site is marketable.
- The Westside Neighborhood Association may be extremely vocal as to what types of redevelopment they would like to see take place on the site. If they do not support a redevelopment option, it may be difficult to implement.
- The site sits on the border of the City of Lansing and Lansing Township. To date, there has been no coordination between the two jurisdictions. Conflict about redevelopment options could occur if the municipalities do have open communication.

Table 7.1: SWOT Analysis

STRENGTHS	**WEAKNESSES**
• Schools/recreation facilities • Diversity of Neighborhood • Close to downtown • Accessibility (from Saginaw St.) • Strong community involvement • Infrastructure- Transportation networks, utilities • Walkable neighborhood • Community Center • Neighborhood Association • Some greenspace/ parks • Size of site property • Close to MSU/LCC	• Environmental status unknown • Visibility of site from Saginaw St. • Accessibility (from St. Joseph Hwy) • Noise of traffic from Saginaw St. • Size of site property • Long-term plans for adjacent GM plant unknown
OPPORTUNITIES	**THREATS**
• GM standardized decommission procedure • GM is intending to sell the site • Economic development tools -Brownfield redevelopment initiatives • Existing infrastructure • High community involvement • Size of site property • Employment opportunities for Lansing • Near an educated potential workforce- located in proximity to MSU and LCC	• GM still owns the site • May have to rezone • Possible site limitations - legal - environmental • Nearby shopping districts • Westside Neighborhood Association • Costs of development • Coordination among interest groups • Potential Interjurisdictional conflicts between City of Lansing and Lansing Township

Section Eight: Regional Assessment

This section examines regional factors that may influence the viability of different redevelopment options on the Verlinden Avenue site. To accomplish this, regional demographics, transportation networks, financial incentives, construction costs, and quality of life factors were assessed. This analysis provides insight into broad regional trends that may influence commercial, residential, or industrial development. Understanding these regional factors puts the redevelopment of the Verlinden Avenue site in a regional context and gives insight into what types of development could be sustained.

8.1 Socio-Economic Profile

The total population has grown in Michigan from 1990 to 2000, whereas the total population in Ingham County has remained steady and the total population in Lansing has slightly decreased during the same time period. This indicates while there is not a lot of population growth in Lansing, the region as a whole is able to attract and retain people. The population per square mile in 2000, however, is highest in Lansing (3,322 people/mile^2), while it is much lower in Ingham County (500 people/mile^2) and Michigan (175 people/mile^2). This suggests that in the region, people are concentrated within Lansing. The percentage of the population that is 18 years old or younger is approximately 25% for each of the three geographic levels. The percentage of the population that is 65 years old or older has increased from 1990 to 2000, but in 2000 was approximately 25% for Lansing, Ingham County, and Michigan. This suggests that the majority of the population at each of the geographic levels falls within the age range of 19 to 64 years. Education levels of the population in Lansing, Ingham County, and Michigan have increased slightly from 1990 to 2000. The percentage of the population that has attained at least a college degree ranges from 21% in Lansing and Michigan to 33% in Ingham County. This suggests that there are many people in the region that have attained a high level of education and skilled workers are present.

The unemployment rate decreased in Lansing, Ingham County, and Michigan from 1990 to 2000. In Lansing, the unemployment rate decreased by 2%, while in Ingham County the unemployment rate decreased by almost 1% and in Michigan it decreased by almost 3%. Furthermore, the percentage of the population that is at least 16 years old and employed was greater in Lansing and Ingham County than in Michigan as a whole. This is an encouraging trend in that it indicates that there are more job opportunities in the region. Industry sectors that saw an increase in employment between 2004 and 2005 include construction, retail trade, professional services (e.g., health, education, and business), and government.[30] Industry sectors that saw a decrease in

[30] http://www.lansingchamber.org/econ_dev/econ_rp.php

employment between 2004 and 2005 include manufacturing, wholesale trade, and financial businesses. Ten percent or greater employment growth is projected by 2012 in the following occupational groups: management, business and financial operations, mathematics and computers, architecture and engineering, education, arts and entertainment, healthcare, food services, construction, personal care and services, sales, maintenance, and transportation.[31] These results suggest that employment in the region is shifting from traditional manufacturing jobs to more knowledge-based and professional jobs. Despite the shift in industry, there seems to be little demand for office space in Lansing; in 2002, approximately 30% of office space in the downtown area was vacant[32]. Currently, the top 5 employers in the region are the State of Michigan, Michigan State University, GM, Sparrow Health system, and Lansing Community College. Together, these institutions employ approximately 40,000 people.

Median household income has increased approximately $8,000 in Lansing, $10,000 in Ingham County, and $13,000 in Michigan from 1990 to 2000. This suggests that income levels are rising. Part of this increase is due to inflation, but it is also indicates that people are earning more money in the region. Moreover, the lifestyle of people in the Lansing area suggest that people in the area are relatively well-off economically, well-educated, and live in a variety of residence types.

8.2 Transportation Networks

Viable transportation networks are essential for development. The Lansing region is well-served by transportation networks. The combination of I-96, I-69, and U.S.-127 form a loop around the Lansing metropolitan area. From these highways, there is easy access to other regions in Michigan, as well as Detroit, Chicago, and Indianapolis. Furthermore, I-496 runs through the center of Lansing and provides direct access to downtown. Overall travel in the region is estimated to be 1.5 million person trips per day.[33] Public transportation is available through bus service provided by the Capital Area Transportation Authority (CATA). CATA provides 24 fixed routes in Lansing with additional rural demand service; annual ridership is approximately 6.5 million. The Capital City Airport is located in the northwest section of Lansing. The airport connects the Lansing region to national and world-wide destinations. In 2003, the airport served approximately 637, 502 air passengers and 542,434 commercial air carrier and commuter travelers; most passengers traveled on business.[34]

[31] http://www.lansingchamber.org/econ_dev/documents/MidMi-RegDems0805_1.doc.
[32] Vokes, S.M. 2004. Market feasibility study: residential and retail: Charter Township of Lansing, downtown development district. East Lansing, MI: Anderson Group.
[33] Michigan Department of Transportation Evaluation of the Temporary ITS for the Reconstruction of I-496 in Lansing, Michigan. 2002.
[34] http://www.flylansing.com/airport_info/property_dev/econ_study.html

Amtrak services the Lansing region with an East Lansing Station. This rail service has daily connections to Chicago and Grand Rapids, as well as less frequent connections to Kalamazoo and Flint. These results show that the Lansing region has a variety of transportation networks, making the region attractive for many different types of development.

8.3 Financial Incentives

Providing businesses with financial incentives is one way to attract development to an area. In Michigan, there are many economic development incentives for new businesses locating in the state, as well as businesses that are expanding. These incentives are used as tools to attract high-paying jobs and encourage a business-friendly environment.

Tools

The Michigan Economic Development Corporation (MEDC) outlines many different economic development incentives, ranging from financial assistance to job training.[35] One economic development incentive is the Michigan Economic Growth Authority (MEGA). This program gives tax credits to high-tech, manufacturing, R&D, wholesale trade, or office operation businesses that create jobs in the state. Retail facilities are not eligible for the MEGA tax credit. Businesses must meet certain criteria to qualify for the MEGA tax credit. Each credit may be awarded for up to 20 years and up to 100% of the amount of the project.

The Small Business Administration 504 Loan program is another economic development tool created for small- and medium-sized businesses with a net worth of less that $7 million and an average net profit of less than $2.5 million. This program provides businesses access to a long-term, fixed-rate loan where interest rates are comparable to favorable bond market rates. Loans may be used to make improvements, acquire land or equipment, or construct new facilities.

For businesses interested in locating on a brownfield, there are Brownfield Redevelopment Incentives. In 1996, Michigan enacted the Brownfield Redevelopment Financing Act to provide incentives to business to locate on brownfield parcels. This legislation authorized municipalities to create a brownfield redevelopment authority (BRA) to guide development on brownfield parcels. Michigan provides a single business tax credit on a case-by-case basis to assist with the expense of demolition and clean-up. Credits are available for up to 10% of eligible investments to a limit of $30 million. In addition, brownfield properties under the BRA may qualify for tax increment financing. Through

[35] http://www.michigan.org/medc/miadvantage/incentives/index.asp?m=11;4

which, property tax value from a redeveloped eligible property can be captured and used to reimburse those who incurred eligible expenses on that property. This tool is particularly pertinent to this study in that the Verlinden Avenue site is a former industrial site and may qualify for Brownfield money.

The Economic Development Corporation (EDC) of Lansing offers tax exempt revenue bonds as a source of financial assistance to manufacturing projects in Lansing. The bonds can be used to purchase real-estate, construct buildings, or install equipment. At least 75% of the bond proceeds must be used for core manufacturing facilities.

Another general incentive for development comes in the form of mixing uses. New developments incur a high risk; by allowing mixed uses (e.g., retail and residential or office), developers may have a better opportunity to earn back their investment money. This occurs because placing different uses on the same site allows for a range of economic value. The diversity of the development may compensate for the risk of investment.[36]

There are many other economic development tools available in Michigan; however, not all of them are pertinent to this study. For some tools, the site must be located in a certain location or zone. Renaissance Zones and Neighborhood Enterprise Zones allow for tax abatements or tax credits, but only if the development falls into the designated zone. Moreover, the EDC of Lansing assists with tax abatements, but only in specified districts, such as a Downtown Development District or an Industrial Development District. Overall, there are many tools to assist business in the region. This suggests that the Lansing region has a business-friendly atmosphere that may work to attract economic development projects and new businesses to the area.

Tax Climate

Competitive tax rates can provide another incentive for development. According to the Tax Foundation, a nonpartisan educational organization, in early 2006 Michigan ranked 26th out of 50 states in terms of state business tax climate.[37] One of the indices used to determine the state business tax climate was the business tax index, in which Michigan ranked 49th. The small business tax rate in Michigan is 1.9%. Furthermore, Michigan ranks 22nd on state-local tax burdens in 2005 with state/local taxes comprising 10.10% of per capita income.[38] These findings indicate that Michigan is somewhat disadvantaged when compared with other states in terms of the tax climate.

[36] J. van Ravensway, East Lansing Planning Department, Interviewed on March 16, 2006
[37] www.taxfoundation.org/files/ f28e646e21f1ad490e1f8d1d5204b5ec.pdf
[38] http://money.cnn.com/pf/features/lists/taxesbystate2005/index.html

8.4 Regional Costs

The costs associated with establishing a business can, in part, determine where development takes place. The Lansing region is centrally located in Michigan and has access to major markets in Detroit, Chicago, and Indianapolis. This suggests that businesses have the opportunity to exchange products or services with suppliers, distributors, and consumers. Moreover, because Lansing is centrally located and has good transportation networks, the cost of transporting materials would be less than in an isolated area.

The price and availability of land can also be a factor in where businesses locate. In the Lansing region, there are many vacant parcels for sale. A sample search on one real-estate website resulted in over 500 vacant land parcels in Michigan, approximately 90 vacant land parcels in Ingham County, and approximately 20 vacant land parcels in Lansing. These findings indicate that there is land available in the Lansing region. The cost of land in the region varied depending on the zoning for each vacant parcel. In Lansing, the cost per acre ranged from $9,000/acre for parcels zoned residential to $834,000/acre for parcels zoned commercial/retail. Parcels zoned industrial cost around $70,000/acre. The average cost/acre in Lansing was $162,214.[39] This was less expensive than vacant land located in the northwest or northeast U.S. The relatively low cost of land makes the Lansing region an attractive place for businesses to locate.

Businesses also consider construction costs when selecting locations.[40] Depending on the type of development, construction costs can vary widely. Industrial buildings incur the least cost, whereas residential buildings incur the most cost. The cost for buildings that will be used for commercial/retail facilities falls in between. In Lansing, the city average building cost per square foot was $75.46 in 2004.[41] This was less expensive than other major cities in the Midwest. Average building cost per square foot in Chicago was $86.24 and in Detroit was $82.01. The relatively low cost of construction in the Lansing region suggests that the area may attract businesses looking to build new facilities.

When compared with other regions in the U.S., as well as other regions in the Midwest, Lansing is competitive in terms of the costs to create and run a business. This bodes well for the Lansing region in that it may be more attractive to businesses and developers for economic development projects.

[39] http://www.loopnet.com/
[40] http://www.realestatejournal.com/toolkit/constructioncosts/
[41] illinoisbiz.biz/NR/rdonlyres/ 415711F4-6AF1-41BB-92DB-F18758DEABD6/0/Factbldg.pdf

8.5 Quality of Life

Quality of life factors can, in part, determine where development is located. Businesses want employees to be located where there are attractive amenities (e.g., good school system, health care, or entertainment). Alternatively, a place with a good quality of life is more likely to have productive workforce. The region was recently awarded the "Five Star Quality of Life Quotient" rating by Expansion Management magazine, and is the only area in Michigan receiving this top rating.[42] In the Lansing region, there are some amenities that add to a good quality of life. There are recreational and cultural opportunities in and around Lansing. Although downtown Lansing basically closes down on nights and weekends, there are many other opportunities to find fun things to do in the Lansing region. There are two community theaters and the Wharton Center on the campus of Michigan State University, which features touring Broadway shows and well-known musical acts. Throughout the year, there are festivals that take place in Lansing, including the Common Ground music festival, a diversity festival, and the chili cook-out. The City of East Lansing hosts an annual arts festival in the spring and folk music festival in the fall. College sporting events take place year-round and encourage community involvement. In addition to the numerous city and county parks in the Lansing region, Lake Lansing and Sleepy Hollow State Park offer residents an opportunity to enjoy the outdoors.

The Lansing region also has a strong education network. This network includes higher education institutions like Michigan State University and Lansing Community College, which boast a combined student body of almost 50,000. Cooley Law School is located in downtown Lansing and has approximately 2,800 students. Access to higher education is beneficial for both employers and employees. Furthermore, higher institutions provide a highly skilled workforce that generally has more disposable income. The Lansing public school district, however, is mediocre. Students performed on slightly below the national level on national reading and math tests in 2005, which indicates that the school district as whole is struggling a bit.[43]

The health facilities in the Lansing region are substantial. Sparrow Health System has a regional network based out of Lansing. Ingham Regional Medical Center is also located in Lansing. These facilities draw population in from surrounding areas for health care. The hospitals are state of the art and provide rehabilitation, surgery, and general practitioner facilities. Having access to

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42 http://www.expansionmanagement.com/smo/articleviewer/default.asp?cmd=articledetail&articleid=16395&st=5

43 http://www.schoolmatters.com/App/SES/SPSServlet/MenuLinksRequest?StateID=23&LocLevelID=111&StateLocLevelID=208&LocationID=23&CatID=-1&SecID=-1&CompID=-1&Site=

adequate health care facilities can help make an area attractive to businesses or to people looking to relocate.

Crime rates can influence where businesses locate and where people want to live. The crime rate in the Lansing region is much lower than the national average. In 2004, the number of violent crimes per 100,000 people at the national level was 465.5, while in Lansing, that number was 419.4. In Detroit, the crime rate was 992.1. This suggests that there is less violent crime in the Lansing region than in other locations in Michigan and in the U.S. as a whole. Therefore, the Lansing region may be more attractive to businesses and to people looking to relocate.

Median housing unit value has increased from 1990 to 2000. In Michigan, housing unit value increased by approximately $55,000, whereas it increased approximately $35,000 in Ingham County and $25,000 in Lansing. The increase is due, in part, to inflation, but an increase in housing cost suggests that there is demand to live in the region. There are also low vacancy rates for the region, which also indicates that there is a demand for housing in the area. Building permits for residential dwellings have fluctuated from 1999 to 2004, but overall there has been an increase in residential buildings. Furthermore, there are many owner-occupied condominium projects proposed for the Lansing area. This gives people housing choice. Having a variety of quality, relatively inexpensive housing stock is important to businesses so that they can attract quality workers.

8.6 Regional Summary

The Lansing region is well-situated to attract new businesses and residents. The area provides economic stability, affordable housing, a qualified workforce, advanced education systems, and a relatively low cost of living. The regional assessment shows that Lansing is able sustain many different types of development. There is not only a market for residential and commercial development, but there are also factors that contribute favorably to Lansing's position in Michigan. There is an educated, skilled workforce living in the area, which could attract business. The transportation networks, financial incentives, and relatively low costs could also act to bring in economic development projects to the area. Lansing could also attract new residents as unemployment decreases and quality of life factors increase.

Section Nine: Site Assessment

9.1 Methodology

To determine which redevelopment options were most feasible for the Verlinden Avenue site, criteria were developed to rank redevelopment options. To accomplish this, it was necessary to evaluate factors pertaining to the physical locational suitability of the site. There are many factors that can be used to examine the physical locational suitability of the site. These factors reflect the current status of the site in terms of land use and zoning, infrastructure, compatibility with surrounding land uses, access to the site, visibility of the site, and environmental conditions. At the time of this study, there was no Baseline Environmental Assessment completed, so it was not possible to include an evaluation of the environmental conditions of the site or examine the possible resulting legal restrictions. Also, at the time of this study, the site was undergoing demolition of the structures. Thus, there were no existing structures to evaluate as part of the existing site infrastructure. Any redevelopment would incur the costs of constructing new buildings. Not only did the demolition raze the existing structures, but it also removed the top layers of soil and smoothed the topography. So, the site was considered a clean slate with no natural features. Currently, the site is zoned for heavy industrial use and so any redevelopment option besides industrial use would not meet the zoning criterion. Therefore, only the following factors were examined:

- Existing Infrastructure (includes transportation and utilities)
- Access to the site
- Visibility of the site
- Current Land Use and Compatibility with the surrounding area

A three point scale for each factor was used to rank each of the following redevelopment options:

- Commercial Retail
- Industrial
- Office
- Residential

The feasibility of a redevelopment option was based on its total score. For any given factor, the highest score was three points and the lowest score was one point. Three points indicate that a specific criterion was met for a redevelopment option (good); two points indicate that a specific criterion was partially met for a redevelopment option (fair); one point indicates that a specific criterion was not met for a redevelopment option (poor). For each redevelopment option, the factor scores were summed. The option that received

the highest total score in terms of site factors was considered the priority for redevelopment. The maximum score was 12.

9.2 Assessment

Commercial Retail Development

Total: 8 Points

This assessment was used to determine whether the Verlinden Avenue site was suitable for commercial uses. These uses could include retail shops, restaurants, or small service business.

1. Infrastructure: Since the site had been previously developed, it contains access to electricity, water services, and telephone lines. There are major thoroughfares that exist near the site, which would make large-scale deliveries relatively easy (e.g., retail shipments). At this time, the rail spur located on the western edge of the property is slated to remain. This could impact certain types of commercial uses. (3)

2. Access: The best access to the site is from Saginaw Street, which is a large 6-lane thoroughfare. There is, however, only one point where vehicles can access the site coming from both the east and the west; at the intersection of Saginaw Street and Stanley Road. Vehicles traveling east-bound on Saginaw Street can also access the site from Verlinden Avenue. There is access to the site from Martin Luther King Jr. Boulevard, but vehicles would have to travel east through the Westside Neighborhood. From Saint Joseph Highway, vehicles can access the site by traveling northward on Clare Street. There is limited pedestrian access to the site. Only residents living in the Westside Neighborhood could easily walk or bike to the site. Public transportation routes near the site are also limited, making it difficult for people without vehicles to access the site. (2)

3. Visibility: The visibility of the site is poor. The only major thoroughfare that borders the site is Saginaw Street, but the visibility of the site from the road is limited because an embankment blocks a clear view of the site from the road. There is no visibility of the site from any of the other major thoroughfares. This suggests that there would be little opportunity for spontaneous “drive by” stops to use the commercial facilities. (1)

4. Compatibility: The Westside Neighborhood borders the site to the east, while the GM Lansing Craft Center borders the site to the west. There are commercial businesses located along the Saginaw Street corridor to the east and west of the site. The amount of commercial retail development that currently exists in the immediate area suggests that the Verlinden Avenue site may not be suited for purely commercial retail uses, but

residents of the Westside Neighborhood may benefit from having access to local neighborhood service businesses. Commercial uses are compatible with the surrounding neighborhood. (2)

Light Industrial Development

Total: 10 Points

This assessment was used to determine whether the Verlinden Avenue site was suitable for light industrial uses. These uses could include manufacturing, warehousing, or bio-technology facilities.

1. Infrastructure: Since the site has been previously developed, it contains access to electricity, water services, and telephone lines. There are major thoroughfares that exist near the site, which would make large-scale pick up and deliveries relatively easy. There are several nearby connections to a major interstate (I-96). The Capital City Airport in northern Lansing is approximately 3 miles from the site. At this time, the rail spur located on the western edge of the property is slated to remain. Access to road, air, and rail transport facilitates the movement of industrial goods to other parts of the state and country. (3)

2. Access: There has been a precedent of large trucks accessing the site for delivery purposes; however, there are few access points that are appropriate for the large vehicles associated with industrial facilities. The best access to the site is from Saint Joseph Highway; vehicles can access the site by traveling northward on Clare Street. There is also access from Saginaw Street. There is, however, only one point where vehicles can access the site coming from both the east and the west; at the intersection of Saginaw Street and Stanley Road. There is access to the site from Martin Luther King Jr. Boulevard, but vehicles would have to travel east through the Westside Neighborhood. The rail access is beneficial for industrial use; materials can easily be transported into and out of the facility without having to use the surrounding roads. (2)

3. Visibility: There is little visibility of the site from surrounding thoroughfares, except from the western edge of the Westside Neighborhood. The visibility of the site from Saginaw Street is limited because an embankment blocks a clear view of the site from the road. There is no visibility of the site from any of the other major thoroughfares. The low visibility of the site is appropriate for industrial purposes. (3)

4. Compatibility: The site is located in the heart of a metropolitan area and the Westside Neighborhood borders the site. These elements decrease the suitability of industrial uses on the site. But, at the time of this study,

there is a GM plant located immediately to the west and across Saginaw Street to north of the Verlinden Avenue site. Furthermore, the site has been used as an industrial facility since 1904. (2)

Office Development

Total: 11 Points

This assessment was used to determine whether the Verlinden Avenue site was suitable for office uses. These uses could include a corporate campus, a high-tech telecommunications center, or an office park.

1. Infrastructure: Since the site has been previously developed, it contains access to electricity, water services, and telephone lines. There are major thoroughfares that exist near the site. There are also several nearby connections to a major interstate (I-96). Public transportation via the bus system is adequate during weekday business hours. These transportation elements would allow employees to easily travel to work. The Capital City Airport in northern Lansing is approximately 3 miles from the site, which could accommodate business travelers. At this time, the rail spur located on the western edge of the property is slated to remain. The transportation networks that currently exist facilitate easy access to the site. (3)

2. Access: The best access to the site is from Saginaw Street. There is, however, only one point where vehicles can access the site coming from both the east and the west; at the intersection of Saginaw Street and Stanley Road. But traffic would only be heavy when employees are coming to and leaving from work. There is access to the site is from Saint Joseph Highway; vehicles can access the site by traveling northward on Clare Street. There is also access to the site from Martin Luther King Jr. Boulevard, but vehicles would have to travel east through the Westside Neighborhood. Public transportation routes near the site are adequate during weekday business hours, giving potential employees without personal vehicles access to the site. (3)

3. Visibility: There is little visibility of the site from surrounding thoroughfares, except from the western edge of the Westside Neighborhood. The visibility of the site from Saginaw Street is limited because an embankment blocks a clear view of the site from the road. There is no visibility of the site from any of the other major thoroughfares. The low visibility of the site is not ideal for office facilities. (2)

4. Compatibility: The site is located in the heart of a metropolitan area and the Westside Neighborhood borders the site. At the time of this study, there is a GM plant located immediately to the west and across Saginaw

Street to north of the Verlinden Avenue site. Office facilities are compatible with any of these land use types. (3)

Residential Development

Total: 10 Points

This assessment was used to determine whether the Verlinden Avenue site was suitable for residential uses. These uses could include single-family housing or multi-family housing.

1. Infrastructure: Since the site had been previously developed, it contains access to electricity, water services, and telephone lines. There are major thoroughfares that exist near the site that would allow residents to easily travel to shopping and workplaces throughout the Lansing Metropolitan Area. Public transportation routes near the site, however, are limited, making it difficult for residents without vehicles to travel throughout the city. At this time, the rail spur located on the western edge of the property is slated to remain. This could have a major impact on residential use. (2)

2. Access: The best access to the site is from Saginaw Street. There is, however, only one point where vehicles can access the site coming from both the east and the west; at the intersection of Saginaw Street and Stanley Road. Vehicles traveling east-bound on Saginaw Street can also access the site from Verlinden Avenue. There is access to the site from Martin Luther King Jr. Boulevard, but vehicles would have to travel east through the Westside Neighborhood. From Saint Joseph Highway, vehicles can access the site by traveling northward on Clare Street. Despite limitations, site access would be sufficient for residential use because it does not have to accommodate large amounts of vehicular traffic. (3)

3. Visibility: There is low visibility of the site. The only major thoroughfare that borders the site is Saginaw Street, but the visibility of the site from the road limited because an embankment blocks a clear view of the site from the road. There is no visibility of the site from any of the other major thoroughfares. This ensures a measure of privacy (3)

4. Compatibility: The site is bordered by the Westside Neighborhood to the east. Approximately ½ mile to the west there is also a residential neighborhood. This suggests that residential uses would be compatible with the immediate area. Also, the proximity of the site to amenities in the neighborhood, such as schools, parks, and the community center would enhance the quality of life for residents. At the time of this study, there is a GM plant located immediately to the west and across Saginaw Street to

north of the Verlinden Avenue site, so there is some question as to the compatibility of a residential development on the site without some sort of buffer. (2)

Table 9.1: Ranking of Redevelopment Options

	Commercial Retail	Office	Light Industrial	Residential
Infrastructure	3	3	3	2
Access	2	3	2	3
Visibility	1	2	3	3
Compatibility	2	3	2	2
Total	**8**	**11**	**10**	**10**

Based on examining only site-specific factors, the suitability of redevelopment options ranked in the following order:

1. Office
2. Residential
3. Light Industrial
4. Commercial Retail

The site factors indicate that the site is most suitable for office development. It is also highly suitable for residential and light industrial. The suitability of the site for industrial uses is no surprise because the site has been continuously used as an industrial facility since 1904. Although office and residential uses ranked the highest in terms of suitability based on site factors, there was no difference in the scores. Light industrial use scored within one point and commercial retail use scored within three points. Because the scores were similar, this suggests that the site could support many different types of redevelopment. In fact, these results suggest that consideration should be given to possible mixing uses. The similar scores show that the site may be suitable for redevelopment that includes a combination of residential, retail, office, or light industrial uses. It should be noted, however, that the environmental status of the site is currently unknown. If it comes to light that there is environmental contamination on the site, it could legally limit the types of redevelopment that are suitable for the site.

Section Ten: Recommendations

Recommendations have been developed based on the data presented throughout this report, the assessment of regional and site factors, and the expertise of team members. After considering these factors, it became apparent that this section should be structured into categories. These categories include: current actions, temporary uses, and permanent uses. Within each category, strategies for feasible redevelopment are discussed. Therefore, this section is structured to give the reader a full understanding of which type of redevelopment is most viable for the Verlinden Avenue site.

10.1 Current Actions

Environmental Assessment

A baseline environmental assessment needs to be completed before any redevelopment can occur on the Verlinden Avenue site. This assessment is required by law and is also part of the formal process that General Motors follows when decommissioning a site. Once this assessment has been done and any necessary clean up is completed, further action can be taken on redevelopment of the site.

Collaborate with Local Municipalities

The Verlinden Avenue site is located on the border of the City of Lansing and Lansing Township. The NWLHCI should create a connection with the City of Lansing and Lansing Township to ensure the best future use of the Verlinden Avenue site. To accomplish this, the NWLHCI should collaborate with residents of the Westside Neighborhood to formulate a plan of action outlining neighborhood needs that can be presented to government officials. This will allow for citizens to have input in the redevelopment process and increase the likelihood that the redevelopment of the site will be beneficial to adjacent neighborhoods. The redevelopment of the Verlinden Avenue site presents a great opportunity for a joint planning taskforce between these two municipalities. Better communication between municipalities will increase the likelihood that the redevelopment of the Verlinden Avenue site will benefit the entire region and not just the neighboring communities.

Partner with a Developer

The NWLCHI should create a connection with a developer interested in the redevelopment of this site. This will help create a working relationship in the redevelopment process, as well as increase the likelihood that all the involved parties get what they want to out of this project. The NWLHCI could act as a

liaison between the developer and General Motors. This would serve to further the cooperation between the people of the neighborhood and General Motors in meeting the needs of the people.

Continued Effort

Redevelopment is a process that takes time and effort to complete. The NWLHCI should take action as the facilitators of collaboration between local governments, people of the neighborhoods and General Motors Corporation. The redevelopment of this site will not be instantaneous; a sustained effort and continued work of being the voice of the people will be needed throughout the redevelopment process. The NWLHCI has connections with the people, local municipalities, and GM, which gives them the opportunity to be a prominent player in the redevelopment of this site.

10.2 Temporary Uses

Currently, the environmental status of the Verlinden Avenue site is unknown, which suggests that certain development options are questionable. Before any sort of redevelopment can proceed, however, there must be an environmental assessment and the any contamination on the site must be cleaned-up. Because redevelopment can be a lengthy process, temporary uses are suggested. These uses can benefit the adjacent neighborhood and the Lansing region. Moreover, temporary uses still allow for the eventual creation of permanent development and will allow for time to establish a more thorough market demand as to what types of specific facilities should be located on the site. The following are different forms of temporary uses that may be feasible for use on this site if there is no site contamination.

Green Space

Creating an open space in the site would be a simple low cost option for a transitional use on the site. Since there is some question as to the fate of the GM Craft Center, there is the possibility that the land use to the west of the Verlinden Avenue site will remain in an industrial capacity. Therefore, this option could act to create a buffer between residential areas and industrial uses adjacent to the site. If permanent uses, such as residential or commercial development are placed on the site in the future, a portion of the open space could be preserved to provide a buffer between these uses and the surrounding industrial land uses.

Warehousing

The site lends itself to light industrial uses such as a warehouse, a small distribution center, or storage lockers. This type of use could be set up and then converted to another more permanent use in the future. Because of the current infrastructure, lack of visibility from major thoroughfares, and accessibility to the site, the Verlinden Avenue site is well suited for warehousing. This type of development could provide some jobs and tax revenue for Lansing, but would not be as intrusive on the adjacent neighborhood as a heavy industrial use. Furthermore, a light industrial use such as warehousing could provide a buffer between the heavy industrial sites and the adjacent residential area.

10.3 Permanent Uses

In the event that the Verlinden Avenue site it determined to be environmentally sound, more permanent uses can be considered. After examining the regional factors, as well as the site-specific factors, recommendations for more permanent redevelopment options were developed.

Office Space

Office space scored very well in the site assessment. The site is well suited for an office development because of current infrastructure, access to the site, and compatibility with the adjacent neighborhood. The suitability of the site for an office development makes it an attractive option for redevelopment. This is furthered by the high quality of life in the area and existence of an educated workforce in the region. Having the ability to attract and retain a skilled workforce is necessary to attract professional businesses to expand or relocate in the region. Other factors that could attract an office development to the region include the low cost of land and construction and the availability of business-friendly incentives, such as the brownfield initiative or MEGA, offered through state government. Despite these positive indicators, there are some negative factors that do not bode well for office development in the Lansing region. First, the tax climate in Michigan is average when compared nationally. This acts as a disincentive to businesses looking to expand or relocate. Second, and most importantly, there is not a significant market demand for office space in Lansing. Currently, there is a 30% office vacancy rate in downtown Lansing. The absence of a market demand for office space suggests that there are not many businesses coming to Lansing to set up offices. An examination of industry trends show an increase in professional jobs, which may suggest that there will be a demand for office space in the future, but at this time it would not be prudent to redevelop the Verlinden Avenue site solely for office facilities.

Light Industry

Light industry scored well in the site assessment. The site is well suited for light industry because of current infrastructure, access to the site, and lack of visibility from surrounding major thoroughfares. This is not surprising in that the Verlinden Avenue site has been used for manufacturing since 1904. The compatibility of industrial uses with surrounding land uses is mixed. This type of use is compatible with the industrial uses located on the western edge of the Verlinden Avenue site, but may not be compatible with the adjacent Westside Neighborhood. The fact that the site is suitable for industrial uses seemingly makes it an attractive redevelopment option. But, an examination of industry trends shows a decrease in manufacturing employment and facilities. This indicates that there is not much demand for manufacturing facilities in the region. Moreover, it does not make sense to locate an industrial facility in the center of a metropolitan area because that type of land use is usually not particularly compatible surrounding land uses, which may cause unwanted conflict among stakeholders during and after the redevelopment process.

Although heavy industry is not particularly feasible as a redevelopment option, light industry may be a more viable alternative because the site is suitable, there is an increase in technology-based employment, and it would be less intrusive on the adjacent neighborhood. Furthermore, the high quality of life in the area and existence of an educated workforce in the region could help to attract light industrial businesses to Lansing. Having the ability to entice and retain a skilled workforce is necessary to attract technologically based businesses to expand or relocate in the region. Other factors that could attract light industrial, tech businesses to the region include the low cost of land and construction and the availability of business-friendly incentives, such as the brownfield initiative or MEGA, offered through state government. Even though light industry could be a viable redevelopment option based on site and regional factors, this type of land use could be objectionable to residents of the Westside Neighborhood, which could possibly stymie the redevelopment process. Therefore, any type of industrial facility may not be the most feasible redevelopment option.

Residential

Residential development scored well on the site assessment. The Verlinden Avenue site was well suited for residential development because of the current infrastructure, access to the site, privacy from major thoroughfares, and compatibility with the adjacent Westside Neighborhood. Furthermore, the regional market for residential development is good. There has been an increase in the number of single-family housing permits issued; condominium projects that have been developed recently have sold units quickly; and there are low housing vacancy rates in Lansing. This suggests that there is a demand for new housing in Lansing. Another indicator that there is a demand for residential development

in Lansing is employment trends. The Lansing region has experienced steady to upward growth in employment. People locate where they can obtain employment and since there are job opportunities in Lansing, this suggests that there is a demand for housing. The quality of life in the area also makes this site attractive for residential development because people locate where they have access to amenities. Other factors that could make this site attractive for residential redevelopment are the low cost of land and construction, which could help to keep housing affordable. The only drawback to placing residential development on the site is that the now-closed GM Craft Center located on the western edge of the Verlinden Avenue site is currently slated to remain in an industrial capacity; this may affect the compatibility of residential development on the GM Verlinden Site. Overall, residential development is a viable option for redevelopment on the Verlinden Avenue site.

Commercial

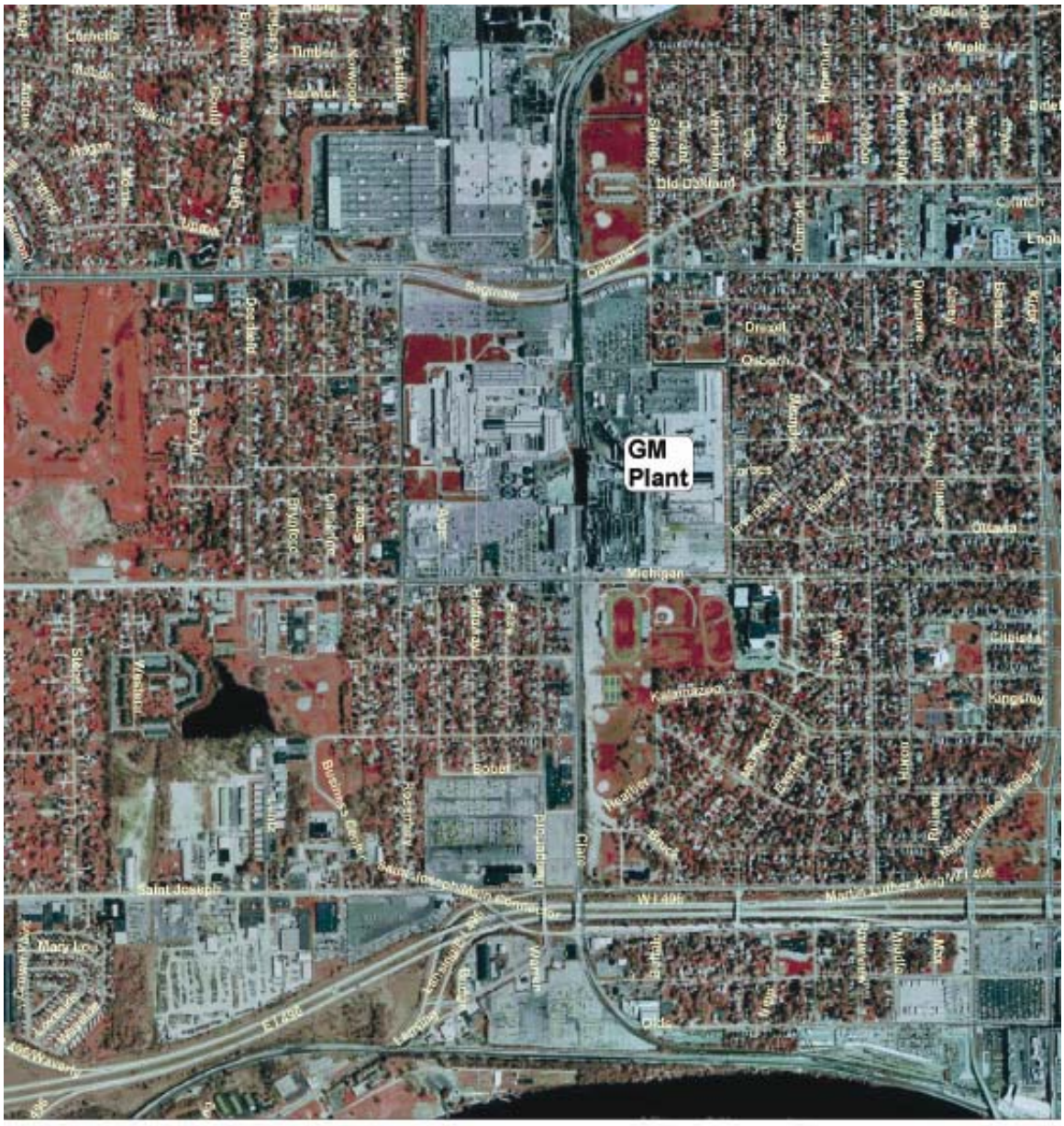
Commercial retail development had the lowest score on the site assessment; however, the score was similar to that of other redevelopment options. The Verlinden Avenue site was suitable for commercial development because of the current infrastructure, access to the site, and compatibility with surrounding land uses suggested that the site was suitable for commercial development, whereas it was not suitable because of the lack of visibility of the site from major thoroughfares. Regionally, the commercial retail market is saturated; however, in the immediate neighborhood there is a market leakage, signaling a lack of small local businesses. The socio-economic profile of the neighborhood shows that the residents are relatively well off, which implies that there is spending money available in the neighborhood. Similarly, the lifestyle clusters indicate the regional population has disposable income and spending potential. These market factors suggest that small neighborhood service businesses may be viable because commercial businesses want to locate in areas where there is little competition and residents have spending power. Another factor that may attract commercial businesses to the area is the existence of financial incentives available for small businesses, such as the Small Business Administration 504 Loan. Furthermore, the high quality of life in the region can act to entice businesses because they can attract employees and customers. The tax climate, however, is not particularly conducive to attracting new businesses; Michigan ranks poorly in the state business tax climate. The relatively low site assessment score and the existence of regional competition for commercial retail businesses indicate that this redevelopment option is not the most feasible. But, the lack of small neighborhood services, the spending potential of residents, and the quality of life suggests that perhaps small neighborhood commercial businesses could find a niche and potentially thrive in this area.

10.4 Conclusion

Because site and regional factors indicate that the Verlinden Avenue site is well suited for several different redevelopment options, this suggests that the most viable redevelopment option is a mix of uses. Because of the variety and flexibility mixed-use offers, considering a mix of residential and small commercial retail or office space may actually be most beneficial to the adjacent neighborhoods. These development types would be compatible with the adjacent neighborhood, as well as fit into the regional context. Furthermore, mixing uses creates a variety of amenities on a single site, which may increase the likelihood of success. This can serve as added incentive to developers and local government to pursue this type of development because the risks of redeveloping a site are reduced.

Appendix A

Map 1: Aerial Photograph of Study Site

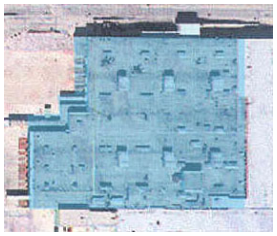


Appendix B

Description of structures located on the Verlinden Avenue site.

- Area 1: This area is located at the north end of the parcel and is primarily used for parking, but the southwest section of this area is used by the Lansing Board of Water and Light for their electrical substation. The Lansing Board of Water and Light will retain possession of the electrical substation and will have easement rights granting them access to it.

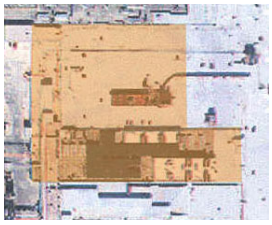
- Area 2: Receiving department. This area is located at the central north part of the parcel and includes receiving docks. The receiving department was where incoming shipments were received and handled.



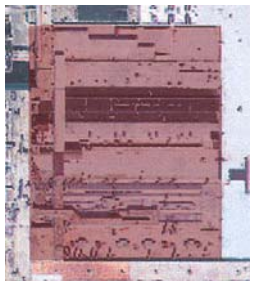
- Area 3: Trim Assembly. The trim assembly line is located on the eastern side of the parcel and is where workers attached parts onto the vehicles, such as the mirrors, wiring, seats, windows, and accessories.

- Area 4: Administration offices. The administration offices are located on the northeastern part of the parcel and are where the management team was based. They oversaw the operations of the plant.

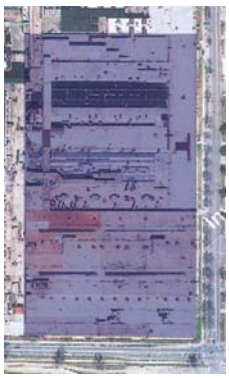
- Area 5: Holding area. Holding area is located at the north central part of the parcel and is used to store painted vehicles before they were loaded onto the trim assembly.



- Area 6: Trim Bank. Located in the northern half of the southeast quadrant of the parcel. Lower level includes the body shop. The upper level includes the trim bank. The trim bank was where finished vehicles coming off the trim assembly were stored before being moved out to shipping.

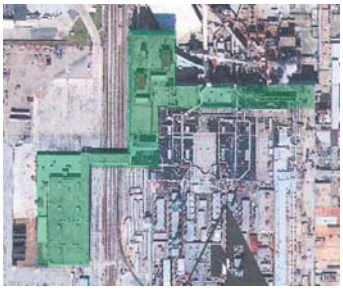


- Area 7: Body Shop. Located on the southeast quadrant of the parcel. The upper level contains the Trim Bank and part of the Trim Assembly. The lower level of this building includes the body shop.



- Area 8: Paint department. The paint department is located at the southwest quadrant of the parcel and is where the paint was applied and baked in large ovens.

- Area 9: Shipping department. The shipping department is located at the central west part of the parcel with a branch crossing over the railroad into Lansing Township to the west of the southwest quadrant of the parcel. The shipping department held vehicles being shipped and is where vehicles were loaded onto trains or trucks.



- Area 10: The power house. The power house is located on the central west part of the parcel and is where power supply is generated for the entire plant.

- Area 11: The Norfolk Southern Railroad owns and controls the railway line running along the western edge of the plant. The railway is runs north-south along the western edge of the parcel.

- Area 12: Important road corridors around the plant include Saginaw Street to the north, Stanley Street and Osborn Street to the northeast, Verlinden Avenue to the east, and Michigan Avenue to the south. Clare Street runs from Michigan Avenue south towards the I-496 freeway. The roads provide access to the parcel from the north, south, and east borders of the plant.

Appendix C

Socio-Economic Data Tables based on U.S. Census

Education	**(25 yrs and older)**					
No High School Diploma						
	1990	**2000**	**Change**	**% Change**	**1990%**	**2000%**
City of Lansing	16,756	12,958	-3,798	-22.67%		
Census Tract 4:	431	282	-149	-34.57%		
Block Group 2 (tract 4)	77	91	14	18.18%	9.38%	17.88%
Block Group 3 (tract 4)	186	73	-113	-60.75%	22.66%	14.34%
Block Group 4 (tract 4)	52	46	-6	-11.54%	6.33%	9.04%
Census Tract 15:	698	336	-362	-51.86%		
Block Group 2 (tract 15)	249	186	-63	-25.30%	30.33%	36.54%
Census Tract 16:	257	113	-144	-56.03%		
Block Group 1 (tract 16)	74	40	-34	-45.95%	9.01%	7.86%
Block Group 2 (tract 16)	183	73	-110	-60.11%	22.29%	14.34%
Total	821	509	-312		100.00%	100.00%
Average				-30.91%		

Only High School Diploma						
	1990	**2000**	**Change**	**% Change**	**1990%**	**2000%**
City of Lansing	19,998	19,777	-221	-1.11%		
Census Tract 4:	484	347	-137	-28.31%		
Block Group 2 (tract 4)	97	76	-21	-21.65%	21.27%	11.06%
Block Group 3 (tract 4)	109	96	-13	-11.93%	23.90%	13.97%
Block Group 4 (tract 4)	66	95	29	43.94%	14.47%	13.83%
Census Tract 15:	140	295	155	110.71%		
Block Group 2 (tract 15)	78	224	146	187.18%	17.11%	32.61%
Census Tract 16:	106	196	90	84.91%		
Block Group 1 (tract 16)	41	88	47	114.63%	8.99%	12.81%
Block Group 2 (tract 16)	65	108	43	66.15%	14.25%	15.72%
Total	456	687	231			
Average				63.06%	100.00%	100.00%

People With Income Under Poverty Level						
Under 18 years						
	1990	**2000**	**Change**	**% Change**	**1990%**	**2000%**
City of Lansing	9,864	7,329	-2,535	-25.70%		
Census Tract 4:	238	143	-95	-39.92%		
Block Group 2 (tract 4)	61	16	-45	-73.77%	15.33%	3.04%
Block Group 3 (tract 4)	116	109	-7	-6.03%	29.15%	20.72%
Block Group 4 (tract 4)	0	0	0	0.00%	0.00%	0.00%
Census Tract 15:	435	318	-117	-26.90%		
Block Group 2 (tract 15)	154	273	119	77.27%	38.69%	51.90%
Census Tract 16:	67	128	61	91.04%		
Block Group 1 (tract 16)	5	33	28	560.00%	1.26%	6.27%
Block Group 2 (tract 16)	62	95	33	53.23%	15.58%	18.06%
Total	398	526	128			
Neighborhood Average	66.33	87.67	21.33	101.78%	100.00%	100.00%

18 to 64 years						
	1990	**2000**	**Change**	**% Change**	**1990%**	**2000%**
City of Lansing	13,290	11,519	-1,771	-13.33%		
Census Tract 4:	255	176	-79	-30.98%		
Block Group 2 (tract 4)	28	36	8	28.57%	5.32%	9.07%
Block Group 3 (tract 4)	143	80	-63	-44.06%	27.19%	20.15%
Block Group 4 (tract 4)	41	26	-15	-36.59%	7.79%	6.55%
Census Tract 15:	729	376	-353	-48.42%		
Block Group 2 (tract 15)	245	177	-68	-27.76%	46.58%	44.58%
Census Tract 16:	69	78	9	13.04%		
Block Group 1 (tract 16)	11	12	1	9.09%	2.09%	3.02%
Block Group 2 (tract 16)	58	66	8	13.79%	11.03%	16.62%
Total	526	397	-129		100.00%	100.00%
Neighborhood Average	87.67	66.17	-21.50	-9.49%		

Unemployed				
	1990	**2000**	**Change**	**% Change**
City of Lansing	5,522	3,925	-1,597	-28.92%
Census Tract 4:	152	67	-85	-55.92%
Block Group 2 (tract 4)	5	11	6	120.00%
Block Group 3 (tract 4)	74	26	-48	-64.86%
Block Group 4 (tract 4)	38	0	-38	-100.00%
Census Tract 15:	205	90	-115	-56.10%
Block Group 2 (tract 15)	72	56	-16	-22.22%
Census Tract 16:	59	33	-26	-44.07%
Block Group 1 (tract 16)	20	0	-20	-100.00%
Block Group 2 (tract 16)	39	33	-6	-15.38%

Income (per family)				
	Median			
	1990	**2000**	**Change**	**% Change**
City of Lansing	$31,576	$41,283	$9,707	30.74%
Census Tract 4:	$38,839	$55,384	$16,545	42.60%
Block Group 2 (tract 4)	$44,911	$58,173	$13,262	29.53%
Block Group 3 (tract 4)	$26,645	$45,500	$18,855	70.76%
Block Group 4 (tract 4)	$47,143	$60,833	$13,690	29.04%
Census Tract 15:	$13,750	$22,083	$8,333	60.60%
Block Group 2 (tract 15)	$13,924	$19,261	$5,337	38.33%
Census Tract 16:	$38,854	$50,000	$11,146	28.69%
Block Group 1 (tract 16)	$57,389	$65,469	$8,080	14.08%
Block Group 2 (tract 16)	$20,893	$28,173	$7,280	34.84%
Neighborhood Average	$35,151	$46,235	$11,084	36.10%

Median Age	
	As of 2000
City of Lansing	1958
Census Tract 4:	1939
Block Group 2	1939
Block Group 3	1939
Block Group 4	1941
Census Tract 15:	1969
Block Group 2	1958
Census Tract 16:	1947
Block Group 1	1941
Block Group 2	1950
Average	1945

Appendix D

The Westside Neighborhood Questionnaire:

1. How long have you been living at your current address?

   54% - Less than 5 years
   17% - 5-10 years
   4% - 11-20 years
   25% - More than 20 years

2. Rate three things that you like about your community?

   #1: Most Important
   61% - Neighborhood Strength and Community
   22% - Diversity of Community Residents
   13 % - Quality of Housing/ Historic Housing
   4% - Location (close to downtown)

   #2: Second Highest Importance
   48% - Quality of Housing/ Historic Housing
   22% - Location (convenience; close to downtown)
   17% - Diversity of Community Residents
   4% - Friendly Residents
   4% - Community Center
   4% - Walkability

   #3: Third Highest Importance
   33% - Location (convenience; close to downtown)
   19% - Neighborhood Strength and Community
   14% - Quality of Housing/ Historic Housing
   10% - Diversity of Community Residents
   10% - Landscaping
   10% - Walkability
   5% - Schools

3. Were you or a family member employed at the Verlinden GM plant?

   Yes – 4 % No – 96%

4. Has your or a family member's employment been ___ impacted by the closing of the Verlinden GM plant?

   Positively – 4 % Negatively – 30%
   N/A – 17% Both – 4 %

5. Now that the Verlinden GM plant has closed, in your opinion do you think that your neighborhoods will be___ without the plant?

   Worse off – 5 % Better off – 48%
   The same – 14% Depends – 33%

6. Why? Please try to be specific

   Worse off:
   21% - Unemployment
   7 % - Less Investment
   3 % - Reduce the local economic development

   Better off:
   38% - Great Potential for Redevelopment
   21% - Less Air Pollution
   10% - Less Traffic and Noise Pollution

7. If amenities were added to your neighborhood, what types of amenities do you think your neighborhood would most benefit from?

   21%- Grocery store
   16% - Mixed use development (e.g., housing and retail)
   16% - Parks/greenspace
   11% - Single-family housing
   10% - Restaurant
   10% - Small businesses (e.g., specialty shops)
   8 % - Public facilities (e.g., library)
   3 % - Hotels
   2 % - Office park/Multiple office facilities
   2 % - Multi-family housing
   2 % - Senior Housing
   0 % - Large Business (e.g., Wal-Mart, Home Depot)
   0 % - Industrial Facilities

8. From the list above, which option would you least like to see implemented in the redevelopment of the Verlinden GM plant site. Please write one choice.

   45% - Large businesses (e.g., Wal-Mart, Home Depot)
   23% - Industrial Facilities
   9 % - Office park/Multiple office facilities
   5 % - Restaurants
   5 % - Warehousing
   5 % - Bars, gambling, strip club

9. Where do shop most frequently for groceries and household items? Please provide one store name and its location (e.g., Meijer on Saginaw St.)

33% - Meijer on Saginaw Street
29% - Horrocks on West Saginaw Street
19% - Kroger on West Saginaw Street
5 % - L&L in Colonial Village
5 % - Goodrich Shop Rite on Trowbridge Road
5 % - Foods for Living on Grand River Avenue
5% - Target on Saginaw Street
5% - Meijer on Lake Lansing Road

10. In the space below, please provide us with any additional comments you may have about the redevelopment of the Verlinden GM plant site.

    a. Fitness club
    b. Visitor destination
    c. Open space (based on the history in this area & the strong neighborhood
    d. Mixed use (single-family & senior housings)