Collins Road Corridor Study

Ingham County, Michigan

Urban and Regional Planning Program

UP 494 Planning Practicum

Spring 2020

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Table of Contents

Maps

Acknowledgements

For their gracious time, effort, and energy put into this project by offering invaluable advice, guidance, information, and assistance, we would like to personally thank and recognize the following individuals and organizations:

Zenia Kotval Ph.D., FAICP, Urban and Regional Planning, Michigan State University
Lori Mullins, EDFP, ASLA, Urban and Regional Planning Practicum Instructor
Kris Klein, EDFP, Economic Development Specialist, Lansing Economic Area Partnership
Rachel McIlvaine, Economic Development Specialist, Lansing Economic Area Partnership
Sam Quon, GIS Specialist, City of Lansing
Andy Kilpatrick, Public Services Director, City of Lansing
Andy Skelton, GIS/CityWorks Analyst, City of Lansing
Stephen Troost, Campus Planner, Michigan State University
Jeff Smith, Director, University Corporate Research Park
Lisa Pung, Economic Development Program Manager, Consumers Energy
Rhonda Jones, Manager, Business Development & Marketing, Lansing Board of Water & Light
Bryan Gehrcke, P.E., Electrical Engineer, Lansing Board of Water & Light
Derek Ambs, P.E., Water Planning Engineer, Lansing Board of Water & Light
Ronald Monroe, Electrical Utility Designer, Lansing Board of Water & Light

Acknowledgement of Funding Assistance

Practicum is supported by our community clients and through generous financial assistance from Michigan State University Extension and the Regional Economic Initiative grant received from the United States Department of Commerce, Economic Development Administration. Additional support was granted by the Michigan Economic Development Corporation (MEDC).

The statements, findings, conclusions and recommendations are solely those of the authors and do not necessarily reflect the views of Michigan State University, the MSU School of Planning, Design, & Construction, or any federal, state, or local agency.

Executive Summary

The Spring 2020 Urban and Regional Planning Practicum report examines the Collins Road Corridor, a 1.5-mile road south of MSU's campus within Ingham County, Michigan and provides recommendations for corridor improvements and economic stimulus. Part of the impetus for completing this study is the desire to have an analysis of the area's potential for future development activity which will be influenced by two current development projects. Those project include McLaren Health Care's new $601 million hospital at the intersection of Collins Road and Forest Road, and new apartments being constructed at the intersection of Collins Road and Dunckel Road.

To gain a better understanding of the demographics, economic characteristics, and needs of the Collins Road Corridor and its surrounding areas, data was collected from several sources including the U.S. Census Bureau's Decennial Census and American Community Survey and ESRI Business Analyst. This data was combined with primary data collected by the practicum team via site visits and stakeholder interviews.

Socio-economic data within this report was used to analyze current demographic and economic characteristics for the census tracts that the Collins Road Corridor is situated in. After analysis, it was found that the areas surrounding Collins Road are generally composed of white college-aged students (ages 18-24). Educational attainment for those residents older than 24 was higher than the state average, which was not surprising given the presence of both 2- and 4-year academic institutions within Ingham County. Unemployment rates within the area have been consistently low, at less than 5% within the subject area.

Zoning and Land Use information, provided by the City of Lansing, combined with multiple site visits found that the area's land use is largely professional office space and university-owned agricultural land. Infrastructure data, provided by the Lansing Board of Water & Light (BWL), and Consumers Energy, indicates that the corridor currently receives gas, water, sewer, and electric service and current development has not placed any strain on existing services. However, any future development is likely to necessitate expansion of the area's utility capacities.

The Retail MarketPlace Profile included in this study identifies industry sectors in demand in the areas around the Collins Road Corridor. The findings reveal that market leakages exist where the local population must leave the area to purchase certain goods or services. Within a 1-mile radius of Collins Road, Food Services & Drinking Places and Health & Personal Care Stores were two particular industry sectors which experienced market leakages that are commonly associated with high-tech research and medical corridors. This suggests that businesses specializing in these sectors would complement existing businesses within the corridor and their products & services would be in demand based on current consumer consumption rates.

This Parcel Inventory included in this study examines the detailed characteristics and quality of the individual parcels of land along the corridor. Also included is a Zoning Buildout Analysis which illustrates the hypothetical buildout of the corridor based on current zoning restrictions and maximum building size per the City of Lansing's zoning ordinance. This analysis revealed a future development potential in excess of 650,000sf.

Recommendations within this report are primarily based on socio-economic data, the practicum team's assessment of current conditions along the corridor, research on market demand, and case study research on noteworthy practices. Specifically, the recommendations are set forth in the following categorical focus areas: 1. Process Related Actions; 2. Marketing and Branding; 3. Corridor Design; 4. Land Use & Infrastructure. Focus Areas 1 & 2 cover procedural recommendations while Focus Areas 3 & 4 deal with physical improvement recommendations for Collins Road.

Process related action recommendations are based on analyses performed by the practicum team and the case studies examined within this report. These studies revealed that stakeholder involvement results in an effective, fair, and multipartite approach which is necessary for effective corridor planning. These recommendations include developing a cooperation agreement between the City of Lansing, Lansing Charter Township, City of East Lansing, and Delhi Charter Township, holding corridor design charrettes and visioning sessions amongst stakeholder groups, and exploring the establishment of a Corridor Improvement Authority.

Marketing and branding recommendations are based on case study research and the socio-economic analysis. It is clear that effectively marketing and branding an area to a targeted demographic can serve as an important means to attract customers and businesses, which can result in direct business investment. These recommendations include considering the creation of a marketing plan and exploring a unique brand image or logo.

Corridor design recommendations are based on the practicum team's analyses and case study research where it is apparent that good design and amenities play a critical role in attracting businesses and clientele to the corridor. Recommendations include providing amenities and relevant streetscaping along the Corridor, implementing storm water management practices, and establishing a series of wayfinding signs along Collins Road.

Land use & infrastructure recommendations based out of assessments performed by the practicum team and a Retail MarketPlace Profile include developing a dynamic property inventory, resurfacing and repairing Collins Road and surrounding roads rated "Poor" by PASER, considering a traffic study to be completed by Tri-County Regional Planning Commission (TCRPC), considering LEED construction milestones for new developments, continually evaluating the demand for gas, water, sewer, and electricity services, and considering business recommendations based on consumer demands.

The recommendations presented suggest that there are many opportunities for Collins Road to redevelop itself as a successful Med-Tech Corridor – an area tailored to the tenancy and development of medical and technology enterprises. The corridor itself has several positive attributes as it is located adjacent to a world-class academic institution in Michigan State University and has access to a large population of over 324,000 people within a 10-mile radius providing a potential customer base and workforce. Through a strong regional planning approach and a unified vision amongst stakeholders, the data and recommendations within this report can assist both the public and private sectors in making decisions that enable appropriate development along the Collins Road Corridor.

Chapter 1: Introduction

1.1 Practicum Structure

The purpose of Practicum is to allow students who are graduating from the Urban and Regional Planning (URP) program at Michigan State University (MSU) to apply the skills and knowledge gained through coursework to a real-world planning experience. Students are offered the opportunity to collaborate with professional partners to assist with their planning needs and provide an assessment that pertains to the proposed project. The practicum team is advised by the MSU faculty within the URP program and their professional partners to provide data-based recommendations addressing their client's particular planning need.

1.2 Client Information

The Lansing Economic Area Partnership (LEAP) was the primary client, serving as a regional liaison for the various municipalities and stakeholders in the development of the Collins Road Corridor. Kris Klein and Rachel McIlvaine were the LEAP representatives heading the project and worked with the student group in development of the project scope and review of project deliverables.

LEAP is a coalition of area leaders partnering to build a stronger community for all – working to grow, retain and attract business to the Lansing, Michigan region. LEAP is a 501(c)(6) not-for-profit organization funded by private and public investors and is governed by a board of directors composed of over 75 business and municipal leaders from across the tri-county region. LEAP's scope of work includes providing support for entrepreneurs, business startups and expansions, working to attract new businesses to the area and assisting with site selection inquiries. Within this scope, LEAP facilitates access to financing solutions and support such as tax increment financing (TIF) and brownfield redevelopment grants. Through LEAP's strong regional development efforts, in 2019 alone the organization assisted in the formation of 17 companies and in securing $497,744,121 million in private investment resulting in the creation of 1,636 private direct jobs within Clinton, Eaton and Ingham counties.

1.3 Role of Students

For the Collins Road Corridor Study, the student practicum team was tasked with evaluating current economic conditions and making recommendations to maximize future economic vitality of the Collins Road Corridor. Students conducted multiple assessments of the corridor, gathered

primary and secondary data, and provided a comprehensive corridor study that serves as a resource for partners to utilize when considering future development along Collins Road.

1.4 Scope of Services

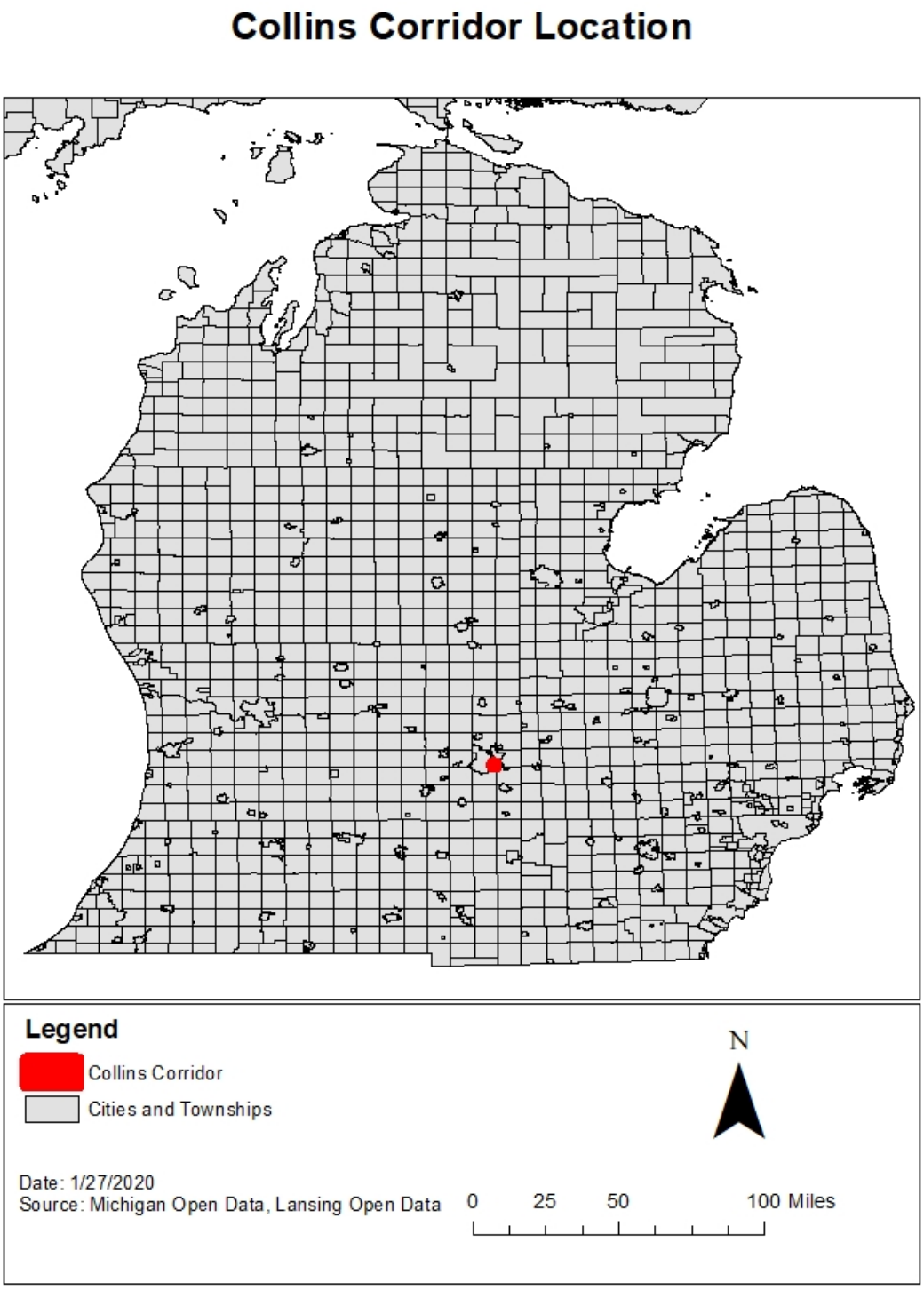
The scope of work agreed upon by the student group and the clients places an emphasis around the primary focus area of Collins Road, between Forest Road and Jolly Road located within Ingham County, Michigan. The intention of the project is to cooperate with the Lansing Economic Area Partnership (LEAP) in conducting a corridor study to assist in guiding relevant stakeholders and municipalities in the development of the area. Elements of the corridor study include a socioeconomic profile, infrastructure analysis, parcel inventory, zoning buildout analysis, market analysis, and case studies of similar corridors such as medical, university, and/or high-volume freeways entrance and exit ramps. Recommendations for future land use were also written based upon the findings and conclusions drawn from other areas of analysis. Aside from written tangible pieces, participation in meetings and communication with various sources and stakeholders were performed.

In order to accomplish the required deliverables for the client, both primary and secondary data were compiled to give a factual basis for analysis and facilitate the development of plausible recommendations. Primary data was collected from site visits to the corridor while secondary data was retrieved from the U.S. Census Bureau, American Community Survey, ESRI Business, and the Bureau of Labor Statistics (BLS).

1.5 Collins Road Corridor Location and Project Boundaries

1.5.1 Location of Collins Road Corridor, Ingham County, Michigan

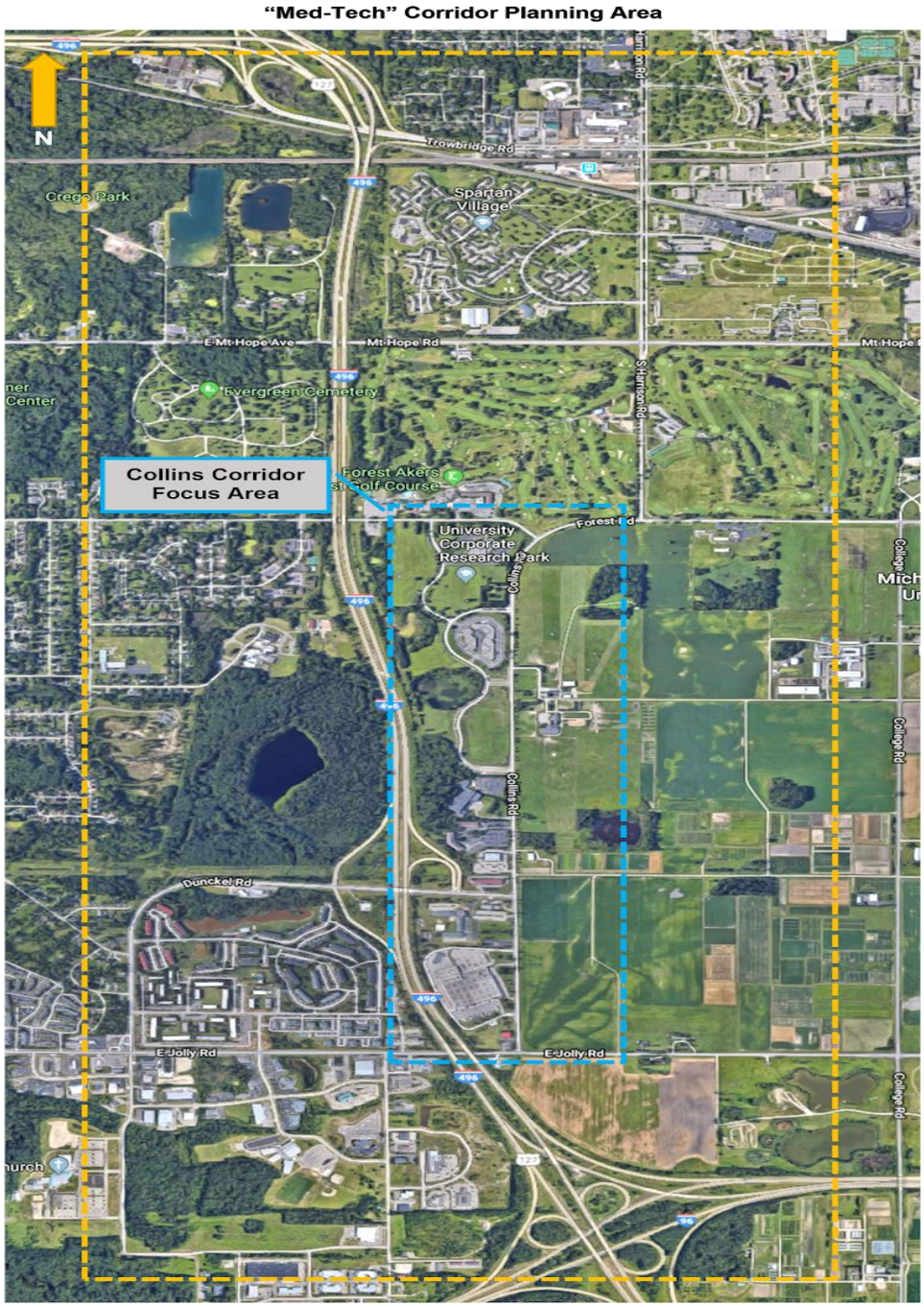
The map below shows the general location of the Collins Road Corridor from a state-wide scale. The corridor is located entirely within Ingham County, Michigan.



Map 1: The location of the Collins Road Corridor relative to city and township boundaries within Michigan

1.5.2 Location of Collins Road Corridor

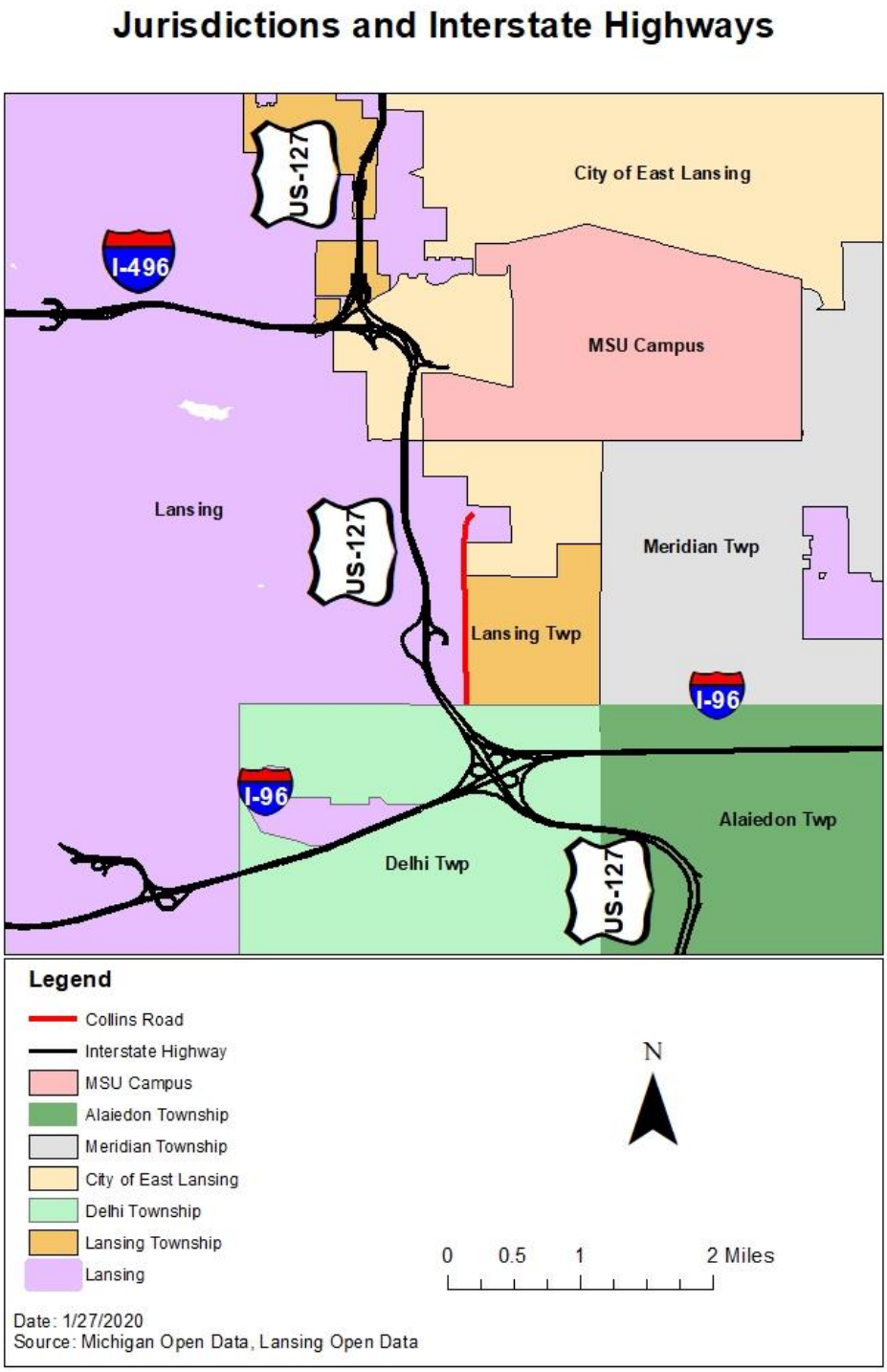
The map below shows the location of the focus area, Collins Road Corridor (blue dotted line) and the boundary of the Med-Tech Corridor (yellow dotted line), which includes the areas that are likely to be directly impacted by the possible development of the Collins Road Corridor.



Map 2: Client-provided map of the proposed Collins Corridor Focus Area within the larger "Med-Tech" Corridor Planning Area.

1.5.3 Location of Municipal Jurisdictions along Collins Road Corridor

Map 3, as shown below, displays the different jurisdiction involved in the Collins Road Corridor as well as the nearby highways.



Map 3: Jurisdictions and Interstate Highways surrounding the Collins Road Corridor.

1.6 Analysis of Strengths, Weaknesses, Opportunities, and Threats (SWOT)

During the first site visit, the student team and clients discussed the strengths, weaknesses, opportunities, and threats impacting the Corridor to identify the existing conditions and gain a better understanding of the current state of the area. Within this analysis, 'Strengths' are characteristics deemed to be assets to the overall area and make the site desirable for development. 'Weaknesses' are attributes of the area seen as impediments to the area's success and make the area less attractive to residents and developers. 'Opportunities' are potential actions or opportunities stakeholders could pursue which were deemed to help make the site more successful in its future development. Finally, 'Threats' are conditions within the area which may present themselves as barriers to achieving the goals set forth along the corridor.

Strengths:

- EXISTING MED-TECH ASSETS: The University Corporate Research Park (UCRP) is a 39.1 acre office and industrial research park owned by Michigan State University and operated by the MSU Foundation with a mission to provide space for the advancement of research, development, knowledge, and intellectual property. The UCRP provides a strong base for research and technology industries that bring in high incomes and talent, which will be further bolstered with the new $601 million McLaren Hospital and Cancer Center being developed.
- ACCESSIBILITY: The Corridor has good accessibility for businesses and residents, particularly due to its proximity to the following:
    - MSU's campus,
    - Interstate-496 and US 127,
    - existing commercial establishments,
    - numerous stops for CATA Route 20 which links apartments south of Collins Road to MSU and
    - the Capital Area Multimodal Gateway which is a regional transit hub served by Amtrak, Indian Trails and Greyhound.
- HOUSING: New apartments are being developed at the intersection of Dunckel Road and Collins Road as part of a brownfield redevelopment project on a former hotel site.
- NEW INFRASTRUCTURE: Investment in sidewalks and water mains have been added throughout the UCRP to encourage new tenants to locate there.

    - The developer for Dunckel Apartment complex has committed $500,000 for infrastructure improvements in the City of Lansing around the Dunckel/Collins freeway exit.
- LOW VACANCY RATES: The Corridor has benefited from consistently occupied buildings that have kept building vacancy rates low.
- SUPPORTING INDUSTRIES: The area has an existing Red Roof Inn motel, a financial institution in Lansing Area Financial Credit Union (LAFCU), and the Michigan Biotechnology Institute.

Weaknesses:

- RURAL CHARACTER/BARRIERS TO DEVELOPMENT: The east side of Collins Road is almost completely rural open space and is owned by the University and used for agricultural research.
- LACK OF MULTIMODAL INFRASTRUCTURE:
    - There is a lack of connectivity to existing bicycle lanes, and there are currently no bicycle lanes along Collins Road itself.
    - There are few sidewalks in the Corridor area, with most of them surrounding the UCRP and hospital site and terminating shortly south of that area.
    - Most buildings have large setbacks that put them far from the road, making them difficult to access via transit, walking, or biking, thus indicating demand for a car.
- OUTDATED FACILITIES:
    - Some buildings are in need of upgrades such as parking and facade improvements.
    - The USPS Post Office was formerly a major regional hub, but that role is transitioning to a facility located in Grand Rapids, leaving the future disposition or use of the building in doubt.

Opportunities

- MULTIMODAL TRANSPORTATION IMPROVEMENTS:
    - There is potential to explore a roundabout installation at Collins Road and Forest Road.
    - New frontage requirements for McLaren includes sidewalk requirements, which could be modeled for other properties that develop in the Corridor.

    - The City of Lansing and Ingham County are exploring pathway extension, which could include Collins Roads due to its jurisdictional position and would connect the Corridor to the existing paths on Forest Road.
    - There are existing plans for CATA services to extend to the new apartments and offices.
    - A traffic study was conducted recently, which gives more accurate estimates of travel and road conditions to support plans for repavement or infrastructure development.
- STAKEHOLDER ENGAGEMENT: An extensive group of stakeholders and area partners are engaged in support of development.
- FUNDS AVAILABLE:
    - The $500,000 infrastructure improvements from the Dunckel Apartment developer is supplemental but could be used as a local match for further improvements in the Dunckel Gateway Area.
    - One of the municipal governments or other organizations tied to the corridor can submit an application to the US Economic Development Administration for the Planning Program and Local Technical Assistance Program. The program can provide up to $300,000 to develop a regional economic plan, including developing Comprehensive Economic Development Strategies for the corridor. The Planning Program is oriented around job creation and retention, while the Local Technical Assistance Program bolsters local and state capacities for economic development.[1]
- DEVELOPMENT POTENTIAL:
    - The possible closure of the Post Office could be an opportunity for building reuse.
    - An abundance of undeveloped parcels presents the potential for new development sites, which are likely to see more demand due to the McLaren Hospital being built.
    - The land surrounding the UCRP is largely vacant, which provides ample room for new developments within the area.
- EMPLOYMENT OPPORTUNITIES: New job opportunities that come with the new McLaren Hospital development can induce economic growth for residents around the Corridor.

Threats:

- STAKEHOLDER COORDINATION CHALLENGES:
    - Stakeholder differentiation across multiple fields and interests can lead to difficulties in coordination.
    - Multiple municipalities and Ingham County are involved with this corridor, and all have different wants, needs, and capabilities to direct its future.
    - There are competing commercial nodes in the surrounding the various jurisdictions that may be a development priority for that stakeholder.
- Michigan State University owns large parcels on the east side of Collins Road that cannot currently be developed, and there are no known plans to sell off the land or develop it in the immediate future.
- ACCESSIBILITY CHALLENGES:
    - Narrow right of ways and drains leave little room to build sidewalks that are serviceable and compliant with local code and Americans with Disabilities Act (ADA) requirements.
    - CATA availability will need to be determined around Jolly/Collins Road apartments and service along Collins Road.
- POOR ROAD CONDITIONS: Much of the pavement along Collins Roads and within the Corridor area is in poor surface condition and needs remediation.

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[1] Economic Development Administration, EDA Chicago FY 2016–FY 2019 Planning Program and Local Technical Assistance Program, 2018.

Chapter 2: Socioeconomic Profile

2.1 Introduction

Collins Road is a 1.5-mile stretch of road that forms a border between Michigan State University in East Lansing, Lansing Charter Township, Delhi Charter Township, and the City of Lansing. The area is subject to a massive transformation in coming years and the future development of the area is highly anticipated, as McLaren Healthcare is in the process of constructing a new $601 million facility which will bring abundant employment opportunities and economic stimulus to the area. This significant investment is expected to attract additional development and investment along Collins Road and in the surrounding area. A strong multi-jurisdictional approach to the area's economic development will provide both local and regional benefit.

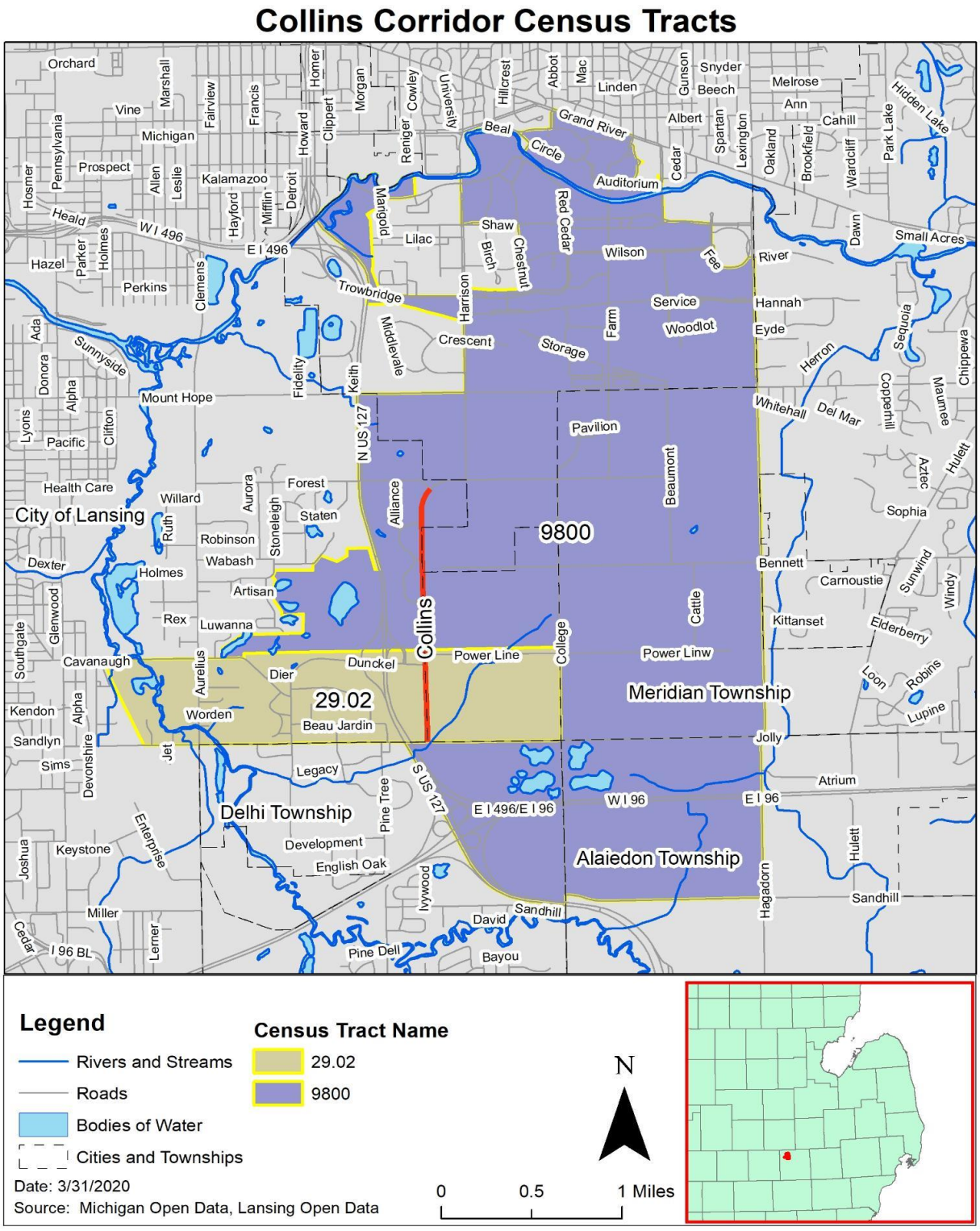
The Collins Road Corridor runs south of Michigan State's campus, from Forest Road to Jolly Road. Within the corridor area, there are multiple offices and commercial developments alongside the UCRP and the new McLaren campus, which are all accessible from the Dunckel Road freeway exit to the corridor off of I-496. The corridor is a jurisdictional puzzle: bordered on the North and East by Michigan State University and the City of East Lansing, to the West by the City of Lansing and Lansing Charter Township, and to the South by Delhi Township (see Map 3). Each of these jurisdictions offer services and residences that further support economic activity along the corridor, such as housing, offices, and University-owned facilities including Forest Akers Golf Course and the Horse Teaching & Research Center. The Collins Road Corridor also includes research and technology activities that are bolstered by the UCRP and will be further catalyzed by the development of McLaren's campus.

This socioeconomic profile includes demographic, housing, and economic data for Census Tracts 29.02 & 9800 (see Map 4), which directly border Collins Road. It also includes Ingham County as the larger reference area with data from the years 2010 and 2018. Where 2018 data was not available, 2017 data was supplemented. Census Tract 29.02 includes the area between College Road and Tranter Street, and includes a variety of residential, industrial, and commercial land uses west of the Dunckel freeway exit. Tract 9800 completely encompasses Michigan State University, including many University-owned farms and centers south of campus. An additional area, Census Tract 53.04, was also explored as it encompasses the area to the southwest of the Collins Road Corridor, south of Jolly Road, and extends into both Lansing and Delhi Township. Due to its large population and geographical size that lies in the periphery of the overall focus

area, this census tract it was omitted from this main section, but for comparative purposes, Demographic, Housing, and Economic data for this area can be found within the appendix section of this report. Additionally, because it encompasses the university, housing data for Tract 9800 was omitted, as it has too small and likely too fluid of a counted population to be analyzed with statistic accuracy and significance.

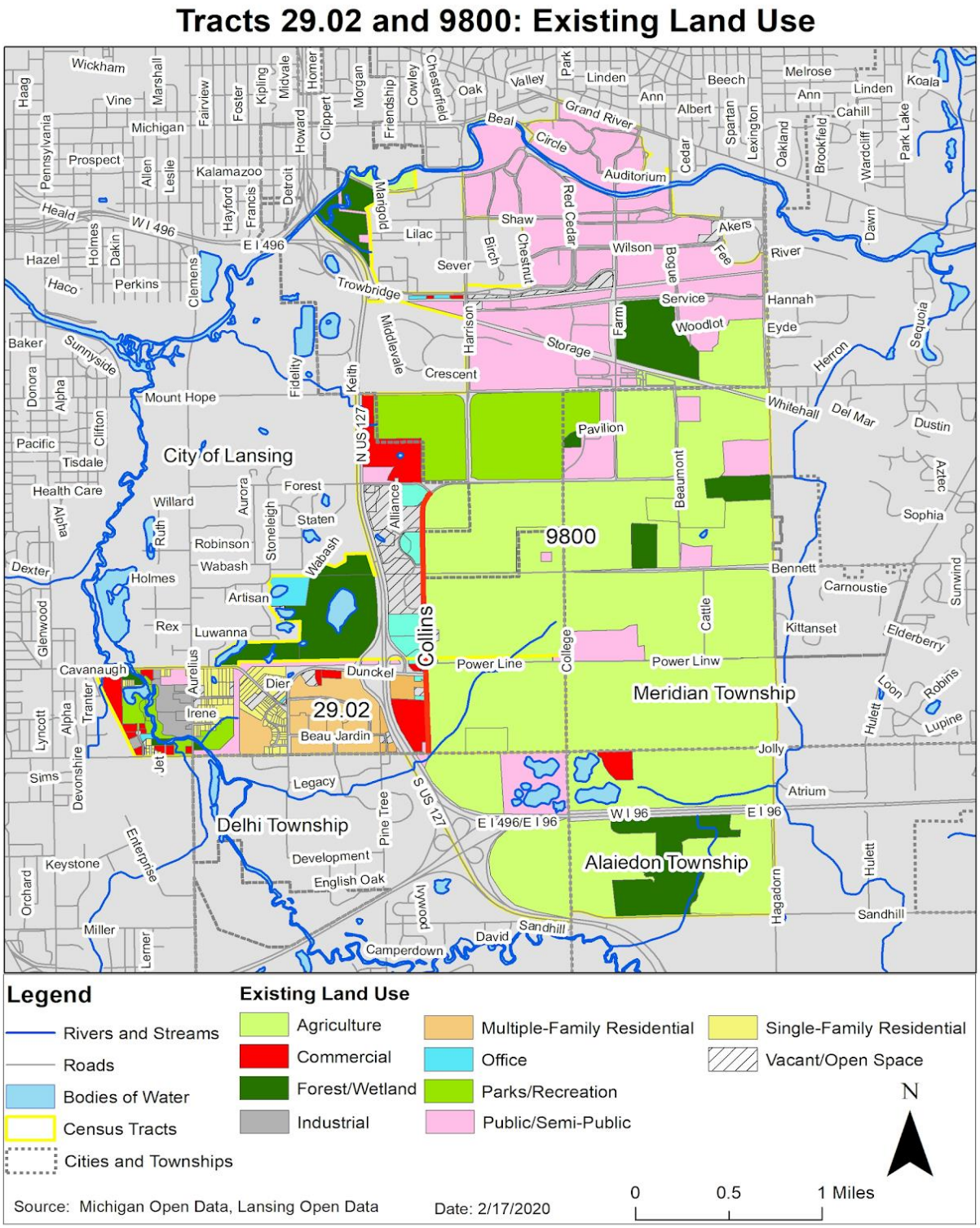
While the Collins Road Corridor has seen recent investment and has land available for future development and redevelopment, this profile ultimately aims to understand the current economic state of the area, including its general demographics, employment statistics, occupational and industry outlook, income levels and poverty levels, and commuting data, among others. All data collected came from the U.S. Census Bureau Decennial Census and 2014-2018 American Community Survey 5-Year Estimate, and ESRI ArcGIS Business Analyst Online (BAO).

Map 4 illustrates the location of Census Tract 29.02 and 9800, which directly borders the Collins Road Corridor displayed in red.



Map 4: Extent of Census Tracts 29.02 and 9800 within Ingham County.

Map 5 shows the existing land use within Census Tracts 29.02 and 9800. Both Census Tracts 29.02 and 9800 are included within the primary area for our analysis.



Map 5: Existing land use within Census Tracts 29.02 and 9800.

2.2 Demographic Analysis

2.2.1 Total Population

When analyzing population statistics around the Collins Road Corridor, the two Census Tracts which border the road to the east and west were selected as they provide a glimpse into the growth and change of the immediate area surrounding the Collins Road Focus Area over a period of time. Moreover, analyzing how quickly or slowly the nearby geographical areas are changing can help gauge the needs of the areas for future development of housing, schools, retail, and so forth.

Total Population Change (2010-2018)				
Census Year	Tract 29.02	Tract 9800 (MSU)	Both Tracts	Ingham County
2010	3,642	1,134	4,776	281,365
2018	4,334	884	5,218	289,564
Percentage Change	19%	-22%	9.3%	2.9%

Table 1: Population Change by Geographic Area; Source: 2014-2018 American Community Survey 5-Year Estimate

As shown in the table above, from 2010 to 2018, Census Tract 29.02 experienced a growth in population, growing by 19%. In that same period, Census Tract 9800 subsequently experienced a decline in population decreasing by 22%. At the regional level, Ingham County experienced a slight increase in overall population growing by 2.9% in the 9-year period. This analysis is important because it provides an insight into the amount of people who may be impacted by development along Collins Road and what future needs the area may require given the growth or shrinkage of the surrounding areas.

2.2.2 Age

Just as total population is important for understanding the future planning needs for a community, analyzing the age distribution for the following geographical areas is vital to understand the preferences and desires that different age groups may have with regards to future development.

Age Structure Breakdown (2018)						
	Tract 29.02		Tract 9800 (MSU)		Ingham County	
Age Group	Number	Percent	Number	Percent	Number	Percent
Under 5	204	4.7%	8	0.9%	16,346	5.7%
5-9	119	2.8%	7	0.8%	15,536	5.4%
10-14	73	1.7%	0	0.0%	16,243	5.6%
15-17	32	0.7%	0	0.0%	10,109	3.5%
18-24	2,069	47.7%	854	96.6%	56,869	19.6%
25-34	1,213	28.0%	5	0.6%	40,492	14.0%
35-44	332	7.7%	3	0.3%	31,864	11.0%
45-54	86	2.0%	0	0.0%	31,816	11.0%
55-64	142	3.3%	2	0.2%	33,428	11.5%
65-74	53	1.2%	0	0.0%	22,333	7.7%
75+	11	0.3%	5	0.6%	14,528	5.0%

Table 2: Age Distribution by Geographical Area; Source: American Community Survey 5-Year Estimate

Based upon the data displayed, Census Tract 29.02 and 9800's higher proportion of 18-to-24-year-olds strongly correlates with their proximity to the Michigan State University and Lansing Community College campuses where this population may attend. Even within Ingham County, the 18-to-24-year-old age category was the single-largest percentage of the population, however, the overall age distribution was more even compared to the two Census Tracts. Additionally, it was discovered that Census Tract 29.02 had a rather large percentage of the population belonging to the 25-34 age category. This could account for the graduate student population that may be attending Michigan State University but could also signify that the area is successfully retaining recent college graduates who continue living within nearby areas.

2.2.3 Race

The next area of data analyzed was the racial composition of the immediate areas to the east and west of Collins Road. Analyzing the racial backgrounds of an area is important when identifying racial diversity of a study area compared to racial diversity of the larger region and considering the attractiveness of the study area to various demographic groups.

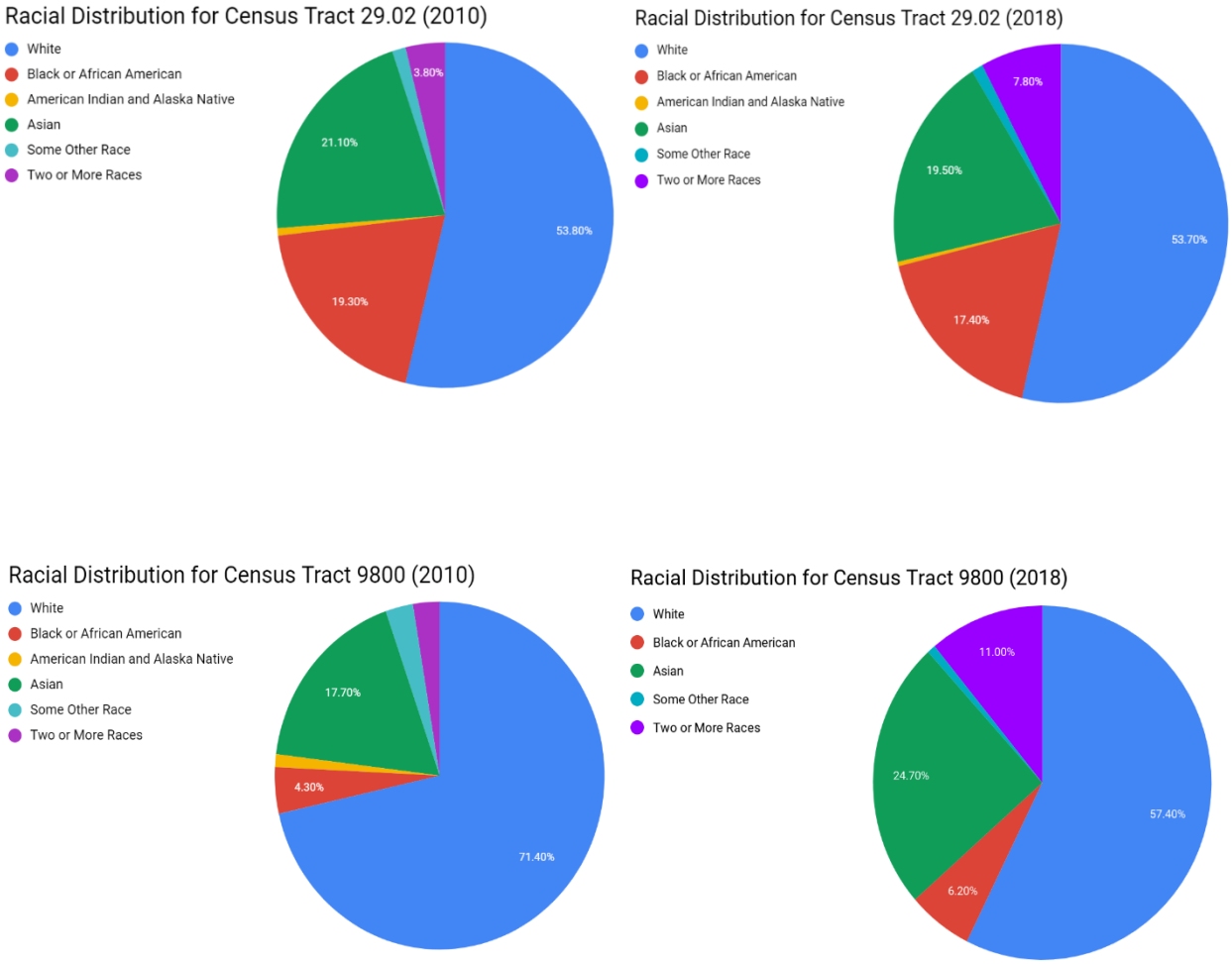


Figure 1: Racial Distribution for Census Tracts 29.02 and 9800; Source: 2014-2018 American Community Survey 5-Year Estimate

The overall racial makeup of the two Census Tracts is primarily white. Within Census Tract 29.02, the “White” population virtually remained unchanged over time whereas the “Black or African American” and “Asian” populations decreased slightly. “Two or More Races” was the only racial category which grew in Census Tract 29.02 over time.

Census Tract 9800 shows a slightly different trend of changes in racial composition from 2010 to 2018. Although the area still remains largely “White”, the “Black or African American” category increased and the “Asian” category also increased to around 25 percent. The “Two or More Races” category also grew during this period as well while the “Some Other Race” category decreased. In 2018, “American Indian and Alaska Native” populations became completely non-represented populations in this census tract.

2.2.4 Educational Attainment

The next area explored was Educational Attainment for the population 25 years of age or older. This analysis in particular is important when studying the composition of a geographical area, as a population which holds more advanced degrees usually results in higher income and per capita income levels.

Educational Attainment for Population 25 Years and Over: 2018			
2018 Education Attainment	Census Tract 29.02	Census Tract 9800 (MSU)	Ingham County
Less than High School	1.6%	20%	7.3%
High School Graduate (Incl. Equivalency)	16.5%	13.3%	21.7%
Some College	16.6%	13.3%	32.5%
Bachelor’s Degree	28.0%	53.3%	20.9%
Master’s Degree or Higher	37.4%	0.0%	17.7%

Table 3: Educational Attainment for Population 25 Years and Over; Source: American Community Survey 5-Year Estimate

Census Tracts 29.02 and 9800 as well as Ingham County all primarily contain large percentages of a college-educated population which is not surprising given the proximity to both 2- and 4-year academic institutions. Census Tract 29.02 was particularly notable, as more than half of the overall population holds a Bachelor’s Degree or higher with another large portion of the population

having some college completed. Census Tract 9800 also held a highly educated population as 53.3 percent of the overall population held a Bachelor's Degree. Although Ingham County's educational attainment was more evenly distributed across the different categories, it is noteworthy that substantial percentages of the population still held a Bachelor's Degree or higher. Again, this information is important to consider because it is usually telling of the area's income level and quality of life.

2.3 Housing Analysis

2.3.1 Housing Units

Analyzing housing units within a community can aid in categorizing how well it is performing economically and can provide a better understanding of its occupancy and vacancy rates. The table shows that the change in housing units from 2010 to 2018 have varied for Census Tract 29.02 and Ingham County experienced a slight increase during that time period. Census Tract 9800 was not included in the housing analysis because it is not a comparable census tract as the land is mostly vacant University-owned property and the population is indeterminate and possibly fluid. However, it is good to note that there are 16 housing units owned by the University in Census Tract 9800. By comparing the total number of housing units for each geographic area to the occupancy rate, shows that the county has a fairly stable housing sector. Census Tract 29.02 experienced a growth in housing units which may be attributed to the need for more housing near Michigan State University.

Number of Housing Units (2010-2018)		
Census Year	Census Tract 29.02	Ingham County
2010	2,142	121,318
2018	2,261	123,193
Percent Change (%)	5.5%	1.5%

Table 4: Changes in Housing Units between 2010 and 2018.

2.3.2 Age of Housing Stock

Analyzing the age of the area's housing stock is critical as it provides a glimpse into the area's housing portfolio and can provide a general estimate of the area's housing quality.

Age of Housing Stock (2018)				
	Census tract 29.02		Ingham County	
Year Built	Estimate	Percentage	Estimate	Percentage
Total:	2,089	100%	122,718	100%
Built 2014 or later	0	0%	665	0.54%
Built 2010 to 2013	78	3.7%	1,527	1.24%
Built 2000 to 2009	247	11.8%	10,020	8.17%
Built 1990 to 1999	419	20.1%	12,943	10.55%
Built 1980 to 1989	378	18.1%	13,721	11.18%
Built 1970 to 1979	645	30.9%	19,548	15.93%
Built 1960 to 1969	118	5.7%	17,184	14%
Built 1950 to 1959	128	6.1%	17,374	14.16%
Built 1940 to 1949	39	1.9%	8,796	7.17%
Built 1939 or earlier	37	1.8%	20,940	17.06%

Table 5: Year Structure Built; Source: American Fact Finder (2017)

Of the total number of housing units in Ingham County, 17.06 percent (20,940) were built before 1939 and 15.93 (19,548) percent were built between 1970-1979, which accommodates for a combined total of about 33 percent of the total housing stock. The decrease in new housing construction after 2009 may be attributed as an impact of the Great Recession, however, it may also signify that Ingham County's housing stock is meeting current growth and demand, thus new housing construction is not currently needed.

The two Census Tracts report a slightly different narrative, as Tract 9800 is only reported to have a total of 4 housing units, all of which were constructed between 1960 and 1969. It is unclear if these are dormatories or a different type of residences. As for Census Tract 29.02, 69.1 percent

(1,442) of housing units were constructed between 1970 and 1999, which points to the assumption that the majority of growth and development of this area occurred within that 30-year period. Since the year 2000, the construction of new housing units has slowed as only 15.5 percent (325) of housing units have been constructed between 2000 and 2013.

Within the focus area, there are currently no occupied housing units, as most land uses in the corridor are office or commercial. However, a new apartment complex at the intersection of Collins Road and Dunckel Road is currently under construction as part of a brownfield redevelopment project. This new project will bring residents to the largely non-residential corridor and increase its tax base. Given the impending development of the Collins Road Corridor, the potential remains for future developments along the vacant parcels for the addition of more residential developments.

2.3.3 Residential Vacancy Rate

Vacancy rates are important to analyze in order to help gauge the success or possible shortcomings of an area's housing and economic capacity. Vacancy rates ultimately provide a better understanding as to how well the community is doing from an economic perspective. Maintaining a low vacancy rate (ideally below 8%) is also important to any area as vacant or abandoned buildings can attract crime such as burglary or arson, lower surrounding housing values, and generally become aesthetically unappealing.

Figure 2 illustrates that the occupancy rate in Ingham County is relatively stable. With an occupancy rate of 91.2 percent and a vacancy rate of 8.8 percent this has been a successful turnaround from the vacancy rate of 10.4 percent 9 years prior. This decrease in household vacancies provides strong evidence that Ingham County has been strong enough to maintain an improving occupancy rate. In Census Tract 29.02, the trend has followed with household vacancies declining from 17.7 percent to 7.6 percent in 2018, suggesting another successful economic state within the area as well.

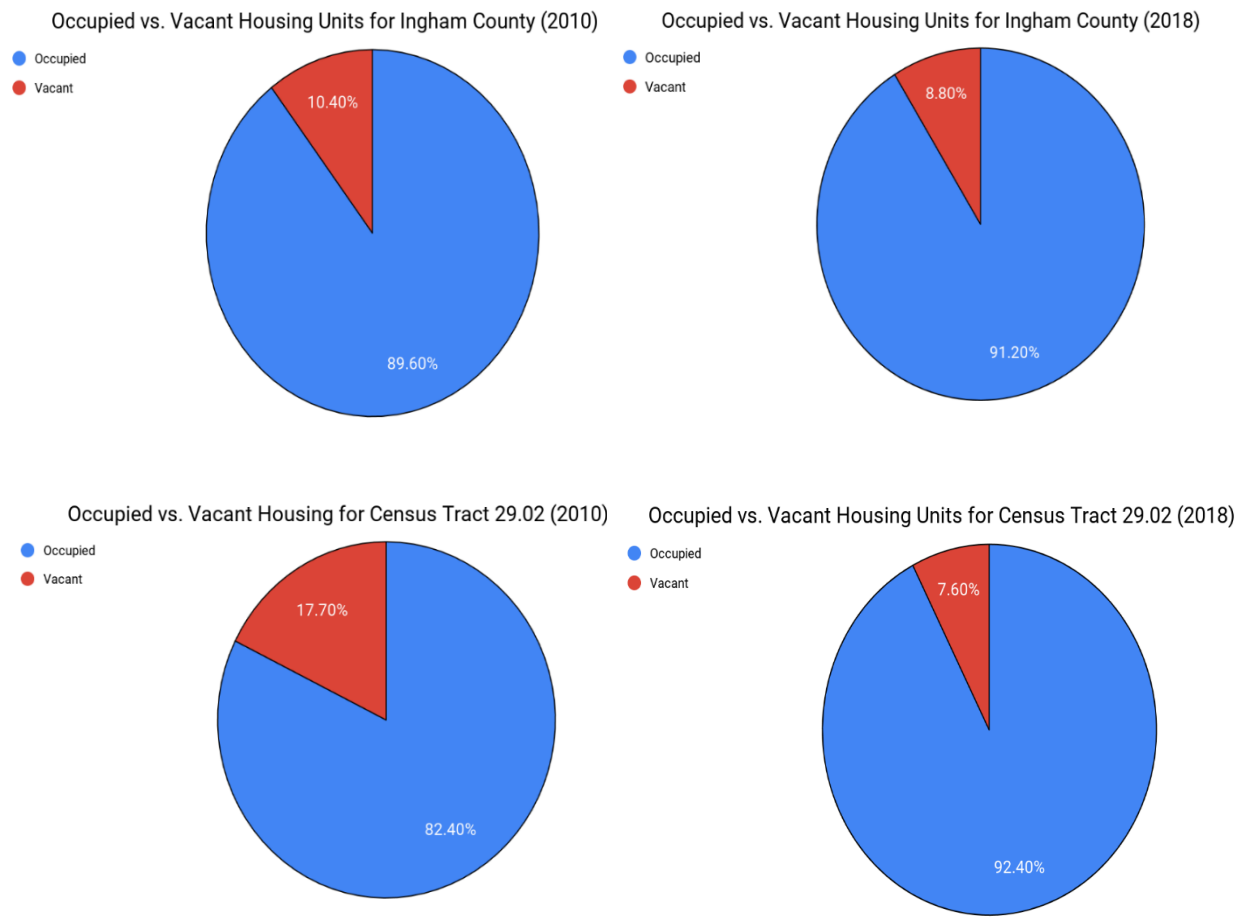


Figure 2: Occupied vs. Vacant Housing Units (2010-2018); Source: American Community Survey 5-year Estimate

2.3.4 Average Rent

Analyzing the average rent price for rental properties in an area can provide an insight into how affordable a place is to live and can provide an indication of surrounding property values and economic prosperity. Between 2010 and 2018, the average price for rental housing units increased for both Census Tract 29.02 and Ingham County. This change can be likely be correlated with increased property values following the 2008 crash in the housing market, a strengthening economy, or an increased demand for rental housing. Given that Census Tract 29.02 is located in proximity to the Michigan State University campus, it can be reasonably assumed that those properties demand a slightly higher average rent price which is indicated in the table below. Since Census Tract 9800 is the Michigan State University campus itself, rent prices are incorporated differently and not paid on a monthly basis. For that reason, Census Tract 9800's average rent price is not applicable to this specific topic.

Average Rent Price in Dollars ($) (2010-2018)		
Census Year	Census Tract 29.02	Ingham County
2010	$808	$754
2018	$902	$900

Table 6: Average Rent Price ($); Source: American Community Survey 5-Year Estimate

2.3.5 Median Household Value

Similar to average rent price, the median household value can indicate an area's economic prosperity, as household values correspond in response to economic activity. The table below reports a general decrease in median household values for both Census Tract 29.02 and Ingham County between 2010 and 2018. This phenomenon can likely be explained through the construction of new, affordable housing in these areas which fetch lower overall values as compared to larger, more expensive units. In the 9-year period, Census Tract 29.02's median household value decreased 28.2 percent while Ingham County experienced a decrease of 6.5 percent. Similar to the average rent price analysis, Census Tract 9800 contains university-owned housing units and are likely to be owned, operated, and valued differently, therefore Census Tract 9800's median household value is not applicable to this topic of analysis.

Median Household Value in Dollars ($) (2010-2018)		
Census Year	Census Tract 29.02	Ingham County
2010	$125,700	$137,900
2018	$90,200	$129,000

Table 7: Median Household Value ($); Source: 2014-2018 American Community Survey 5-Year Estimate

2.4 Economic Analysis

2.4.1 Employment

The data for employment within the Census Tracts and Ingham County are based on those employed being at least 16 years of age. Those listed as “Not in Labor Force” may indicate that residents are either, in the military, institutionalized, are retirees, or are unemployed and are not actively searching for work. In 2010, there were 372 employed civilians over the age of 16 in Census Tract 9800, and 2,377 in Census Tract 29.02. In 2018, these numbers increased to 418 and 3,141, respectively. It is assumed that the reasons for this type of growth may include recent graduates, economic development, and resident and employee influx. Communities supported by universities tend to be stable areas for employment, and this would make this area an attractive location for investment and occupation.

Overall, employment within the three areas has improved since 2010. In Census Tract 9800, the unemployment rate decreased from 4.4 percent to 3.8 percent, while in Census Tract 29.02, unemployment decreased from 5.6 percent to 4.6 percent. These decreases reflect the overall decline in unemployment for the county, which was 4.5 percent in 2018, down from 5.8 percent in 2010. As businesses begin to develop within the Focus Area, including new apartment developments, the McLaren Hospital, and the UCRP, employment statistics within the area will be expected to increase.

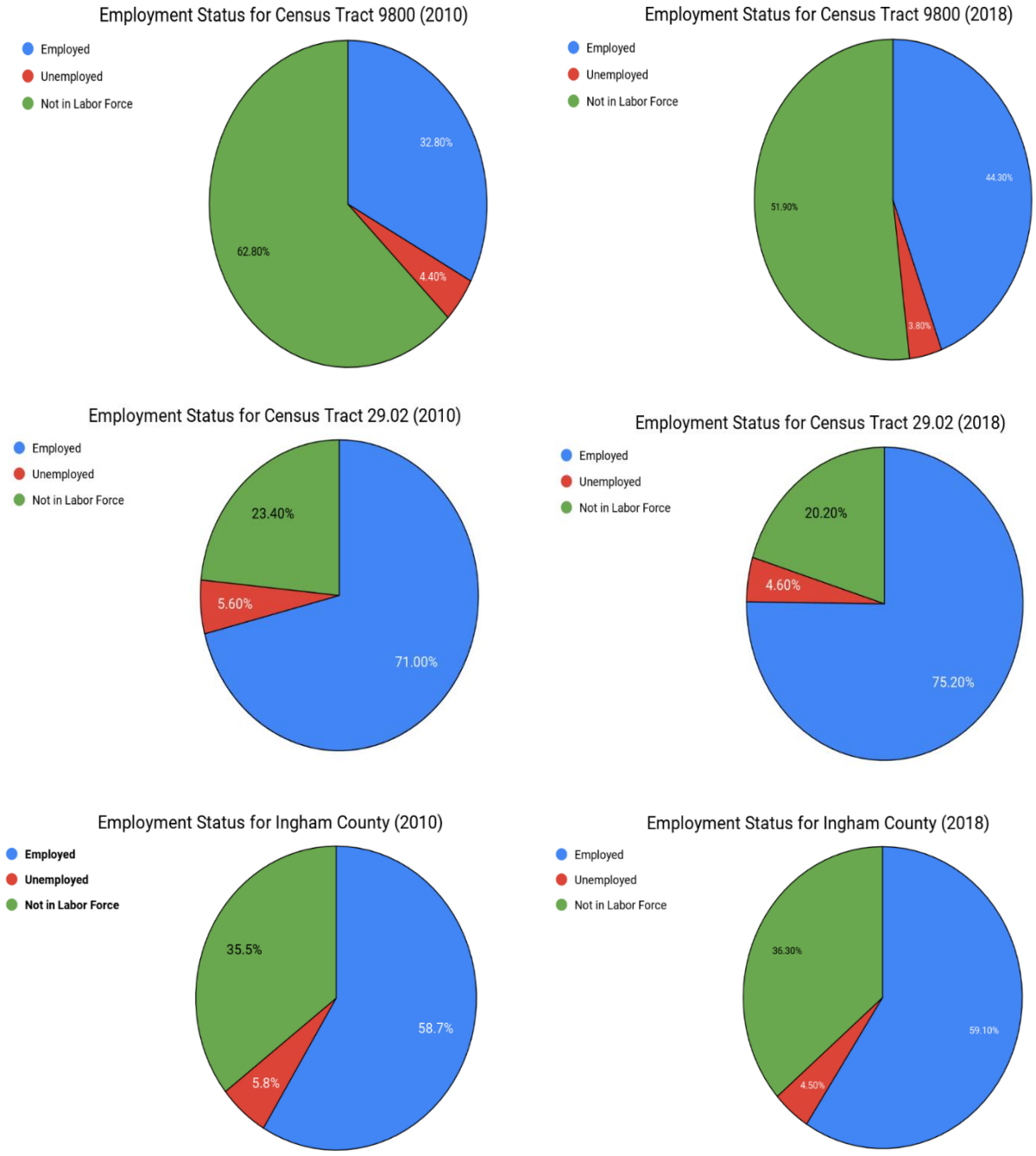


Figure 3: Employment and unemployment percentages; Source: 2014-2018 American Community Survey 5-Year Estimate.

2.4.2 Industry and Occupation

For the purpose of understanding the overall characteristics of the focus area and the surrounding area, data from the census tracts was analyzed from 2018 American Community Survey Estimates, and data for the corridor was analyzed using ESRI ArcGIS Business Analyst Online.

Industry by Occupation for Employed Citizens 16 Years and Over (2010)			
Industry Type	Census Tract 29.02	Census Tract 9800 (MSU)	Ingham County
Agriculture, Forestry, Hunting, Fishing, & Mining*	0%	0%	1.0%
Construction	2.1%	8.9%	3.6%
Manufacturing	5.6%	0%	8.9%
Wholesale Trade	2.0%	0%	1.9%
Retail Trade	11.7%	3.5%	11.2%
Transportation & Warehousing	1.1%	0%	3.2%
Information	1.3%	0%	2.1%
Finance, Insurance, Real Estate, Rental & Leasing	5.9%	0%	6.7%
Professional, Scientific, Management, and Waste Management Services	6.9%	3.5%	9.0%
Educational Services, Health Care & Social Assistance	42.0%	53.8%	29.7%
Arts, Entertainment, Recreation, Accommodation, and Food Services	14.5%	29.6%	10.1%
Other Services, Except Public Administration	1.9%	3.5%	4.9%
Public Administration	5.1%	0%	7.6%

Industry by Occupation for Employed Citizens 16 Years and Over (2018)			
Industry Type	Census Tract 29.02	Census Tract 9800 (MSU)	Ingham County
Agriculture, Forestry, Hunting, Fishing, and Mining*	0.4%	0.0%	0.6%
Construction	3.1%	0.0%	3.5%
Manufacturing	10.5%	1.8%	10.0%
Wholesale Trade	1.3%	0.0%	1.8%
Retail Trade	10.0%	5.5%	10.1%
Transportation and Warehousing	2.2%	0.0%	3.7%
Information	1.2%	0.0%	1.5%
Finance, Insurance, Real Estate & Leasing	4.3%	1.8%	6.8%
Professional, Scientific, Management & Waste Management Services	10.8%	9.1%	10.0%
Educational Services, Health Care & Social Assistance	35.4%	55.1%	28.9%
Arts, Entertainment, Recreation, Accommodation & Food Services	13.6%	26.8%	11.5%
Other Services, Except Public Administration	3.2%	0.0%	4.6%
Public Administration	4.1%	0.0%	6.8%

Tables 8 and 9: Percent of occupied industry for employees over the age of 16; Source: 2014-2018 American Community Survey 5-Year Estimate

*Although there is significant agriculture land use and agricultural research activity within the Collins Road Corridor Area, these are University-run enterprises and thus are considered Educational Services.

The Educational Services, Health Care, and Social Assistance sectors naturally dominate in terms of market share between the two census tracts, especially compared to Ingham County. This is most likely due to the fact that Census Tract 29.02 is adjacent to Michigan State University, while Tract 9800 is the University itself. Census Tract 9800 has a larger Arts, Entertainment, Recreation, Accommodation, and Food Services sector as well at 26.8 percent, which is likely because of major entertainment and cultural institutions on MSU's campus compared to the surrounding area.

Some of the differences within the data are identifiable. For example, Census Tract 29.02 includes the major Lansing Post Office that employs a large number of people, and thus holds that market

share over the University. Additionally, administrations that support Michigan State University, such as Infrastructure Planning and Facilities (IPF) or the MSU Police Department (MSUPD), may be listed under Educational Services even if they are more accurately described as providing essential services to an educational institution. It can also be expected that the completion of the McLaren Hospital and any medically-related firms around the hospital will increase Census Tract 9800's market share in that category due to it holding Health Care. In addition, a December 2017 press release from McLaren Health Care reports that the completion of the facility will be "home to more than 1,000 physicians, researchers, educators, and other members of the academic and medical team." This is an indicator that the education and health care sectors will expand greatly in the coming years.

Industry Data Within Collins Road Corridor for Employed Citizens Age 16 and Over (2019)				
Industry Type	# Businesses	% Businesses	# Employees	% Employees
Construction	0	0	71	1.9
Manufacturing	1	2.9	12	0.3
Retail Trade	2	5.7	116	3.1
Transportation & Warehousing	1	2.9	388	10.5
Information	1	2.9	64	1.7
Finance & Insurance	1	2.9	11	0.3
Real Estate, Rental & Leasing	1	2.9	15	0.4
Professional, Scientific & Tech Services	4	11.4	92	2.5
Educational Services	7	20	2,689	72.7
Health Care & Social Assistance	5	14.3	71	1.9
Arts, Entertainment & Recreation	2	5.7	59	1.6
Accommodation & Food Services	2	5.7	31	0.8
Other Services (except Public Administration	3	8.6	44	1.2
Public Administration	1	2.9	23	0.6
Unclassified Establishments	4	11.4	5	0.1
Total	35	100	3,697	100

Table 10: Occupation by industry within Collins Road Corridor; Source: Esri ArcGIS Business Analyst Online.

In terms of overall market share, Educational Services and Health Care & Social Assistance dominate in the corridor, which is reflective of overall industry statistics previously discussed. 72.7 percent of employees within the Focus Area work in Educational Services, which likely includes University operations and activities on University-owned land. Health Care & Social Assistance is likely to increase once the McLaren Hospital begins operations.

Further development of the Collins Road Corridor will possibly follow these industry trends, as many of the businesses and employment opportunities will build upon the health care and social assistance sector. Services that will support the hospital, such as hotels (which would be under Accommodation & Food Services) will possibly increase as well, while any future additions to the UCRP will lead to an uptick in the Professional, Scientific & Tech sector.

Top 10 Employers in Collins Road Corridor by Employment		
Rank	Company	Number of Employees
1	US Post Office	750
2	Michigan Biotechnology Institute	36
3	Diverse Computers Marketers	30
3	State Police Emergency Management	30
3	Forest Acres Golf Course	30
5	Lifetech Academy	27
6	James B Henry Center for Executive Development	25
7	Fire Marshal Office	20
8	Transaction Network Services	17
9	Information Health Network, Inc.	16

Table 11: Ranking of employers in the Collins Road Corridor in 2019 by number of employees (ties listed in order of 2019 sales).

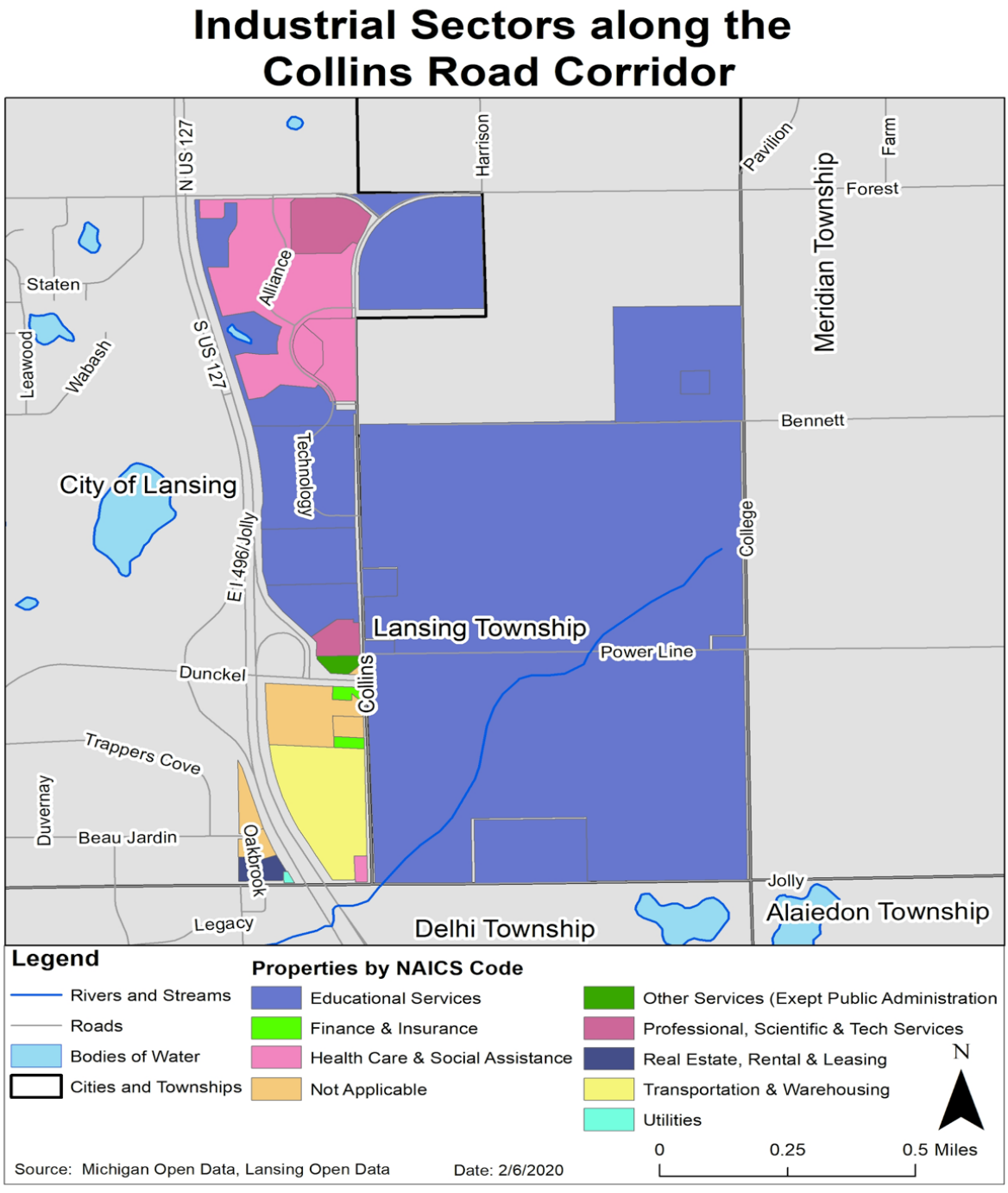
Top 10 Employers in Collins Road Corridor by Sales Generated		
Rank	Company	Sales (Thousands)
1	Diverse Computers Marketers	$6,987
2	Dale Carnegie Training	5,095
3	State of Michigan	5,017
4	Forest Akers Golf Course	3,850
5	LAFCU	2,602
6	James B. Henry Center for Executive Development	2,358
7	Red Roof Inn	2,051
8	Advanced Rheumatology	1,859
9	Lothamer Tax Resolution	1,774
10	General Mills, Inc.	975

Table 12: Ranking of employers in the Collins Road Corridor by sales generated in 2019.

The business share along the Collins Road Corridor poses a notable challenge in economic development, with the largest employers being primarily government administrations. For employee share, the number of workers in the corridor is dominated by the US Postal Service, with 750 employees according to Esri Business Analyst reports. Following this are various office and medical services, such as the Michigan Biotechnology Institute and Lifetech Academy. Other major employers include Forest Akers Golf Course and some public services such as the Fire Marshal Office and the State Police.

The largest revenue generators in the corridor fit the prevalence of office and medical businesses throughout. Diverse Computer Marketers--also tied third for employees at 30--predominates the area in revenue generation, with a 2019 record of nearly $7 million in sales. Generally, most of the large earners on the corridor would classify as Professional, Scientific, and Technical Services, with a handful of different businesses like Forest Akers Golf Course, Red Roof Inn, and General Mills. While there is some opportunity for traditional commercial development, the numbers for these employers indicate that the area would be open to receive an influx of employees for the medical, technology, and research sectors. With McLaren's plan to introduce

approximately 1,000 professionals from these fields into this area, it is possible that the higher earners and larger employers will come to this area to find work and establish future businesses. Map 6 indicates parcels within the Collins Road Corridor relative to their NAICS classifications. Much of the Educational Services sector can be attributed to MSU ownership of the land east of Collins Road.



Map 6: Properties along Collins Road Corridor relative to their North American Industry Classification System (NAICS) classifications.

2.4.3 Household Income

Due to incoming developments along Collins Road, a spur in regional economic growth is likely to occur, bringing along new employment and economic opportunities to Ingham County. However, it is first necessary to analyze the household income of the three geographic areas to properly gauge the current standard of living. This information can then be used as a tool to measure future economic growth and prosperity that may result from the future corridor developments.

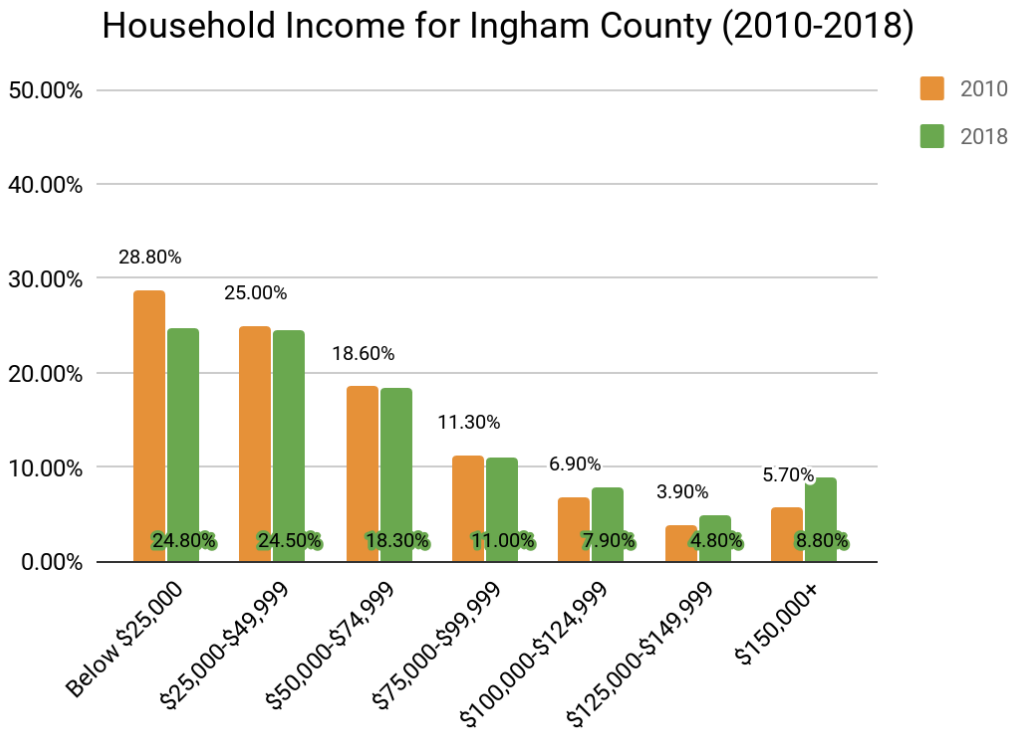


Figure 5: Household Income for Ingham County, Michigan; Source: 2014-2018 American Community Survey 5-Year Estimate

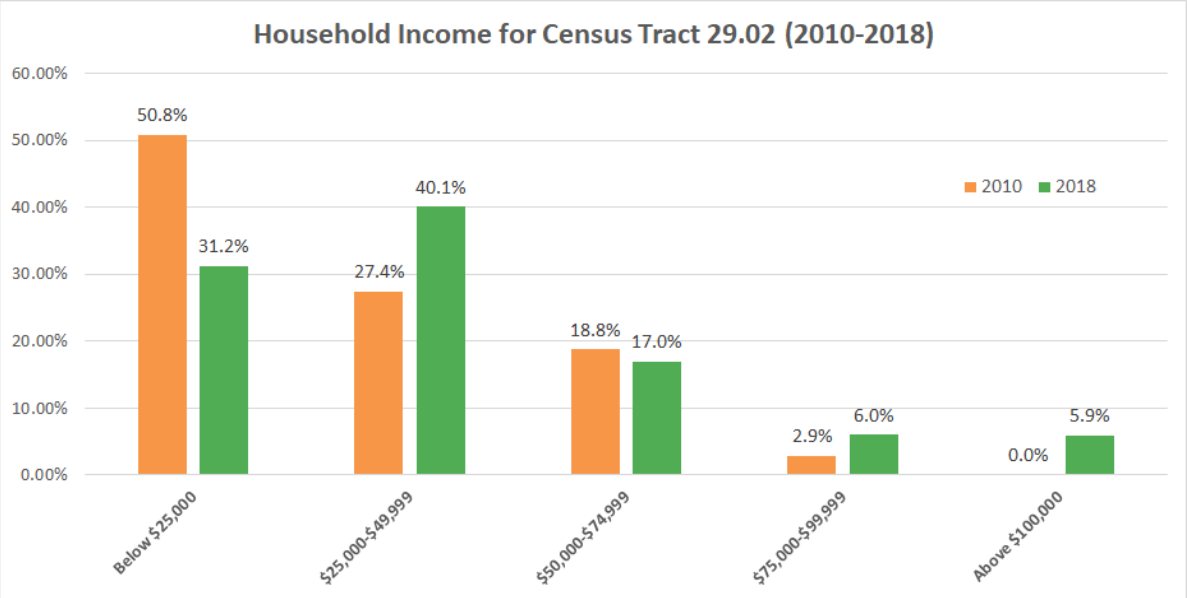


Figure 6: Household Income for Census Tract 29.02; Source: 2014-2018 American Community Survey 5-Year Estimate

As seen from the tables, household income varies widely across the county. Although 24.8 percent of all households earn below $25,000 per year, the large student population within Ingham County likely accounts for the lower household income measurements. 24.5 percent of households earn between $25,000 and $49,999 annually and 18.3 percent earn between $50,000 and $74,999 per year. Only 11 percent of households earn between $75,000 and $99,999 per year. Additionally, 21.5 percent of all households earn $100,000 or more annually.

Within Census Tract 29.02, most households earned less than $50,000 annually which again likely is a reflection of the large student population living within that area. Since 2010, it is interesting to note that those earning $100,000 or more annually increased by 5.9 percent while those earning below $25,000 per year decreased by 19.6 percent. This trend is telling that Census Tract 29.02 is attracting more high-income citizens to live in the area or new, high-wage economic opportunities have become present. Census Tract 9800 did not contain information regarding household income and for that reason has not been closely analyzed in this section.

At the median income level, Ingham County stood at $50,940 in 2018, an 11.2 percent increase from 2010, which was $45,808 where Census Tract 29.02 had a median household income of $35,750, an increase of 45.7 percent since 2010. This substantial growth could be attributed to many factors, including general recovery from the Great Recession or an influx of higher-paying employment influenced by the UCRP.

Median Household Income (2010-2018)			
Median Household Income	Census Tract 29.02	Census Tract 9800 (MSU)	Ingham County
2010	$24,540	N/A	$45,808
2018	$35,750	N/A	$50,940
Percent Change (%)	45.7%	N/A	11.2%

Table 13: Median Household Income for Ingham County, MI; Source: American Community Survey 5-Year Estimate

2.4.4 Per Capita Income

Given that Census Tracts 29.02 & 9800 are home to high levels of the student population, it is no surprise that in 2018, their respective per capita income levels were lower than that of Ingham County, because many students are not yet employed in high-wage professions. It is however encouraging to see that between 2010 and 2018, the per capita income rose across all three geographic areas by an average of 33.5 percent. Census Tract 29.02 experienced a growth in per capita income rising to $21,517 in 2018, increasing from $16,161 in 2010. Census Tract 9800 also experienced an increase in per capita income rising to $4,692 in 2018. Although this number is much lower than the two other geographical areas, the high proportion of student residents within Census Tract 9800 explains this income disparity. At the regional level, the trend continued with per capita income growing in Ingham County to $28,366 in 2018, a respectable growth from $23,883 in 2010.

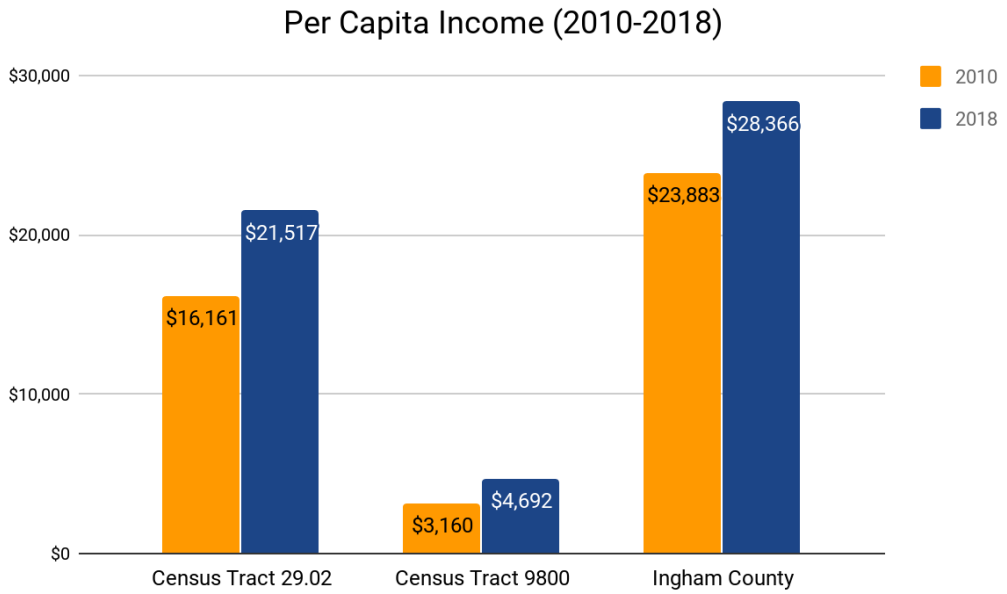


Figure 7: Per Capita Income; Source: 2014-2018 American Community Survey 5-Year Estimate

2.4.5 Poverty

In correlation to the previous analysis of Per Capita Income, poverty rate in 2017 for the population living in Census Tract 29.02, Census Tract 9800 and Ingham County was significantly high. Census Tract 29.02 had the highest poverty rate in the area when compared to Census Tract 9800 and Ingham County. However, when compared to the county, which experienced an increase from 2010 to 2017, the poverty rate in Census Tract 29.02 experienced a slight decrease over the same time period. Again, because a large portion of the population living in these areas were college-aged students (18-24), it can be reasonably assumed that this played a role in the percentage of the population who earned below the poverty rate as many students work only part-time jobs with relatively low wages. Although the poverty rate in the student dominated areas is high, this does not affect the spending habits the same way that high poverty rates do in some other areas, because students often have student loans/grants or money from family to supplement their income.

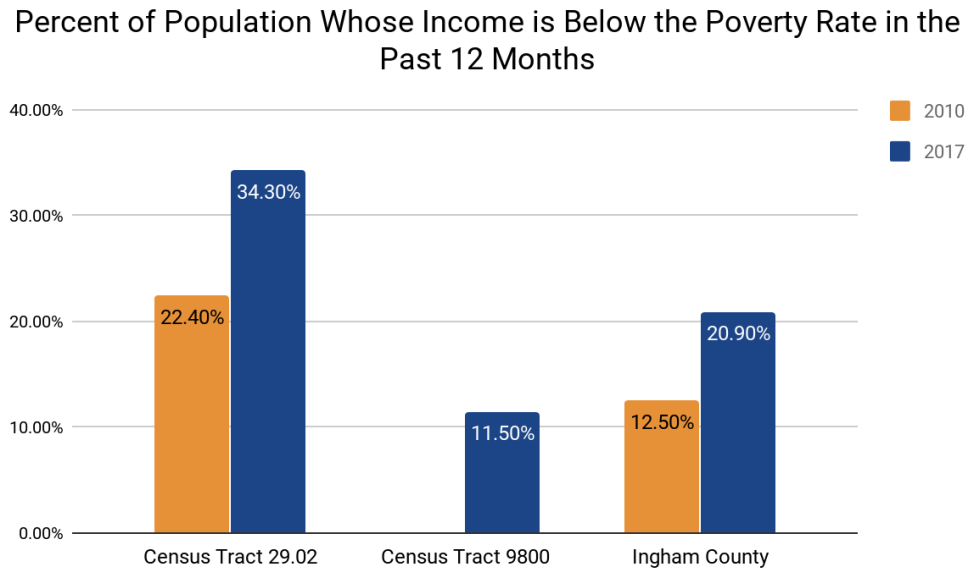


Figure 8: Percentage of Population Whose Income is Below the Poverty Rate in the Past 12 Months; Source: American Fact Finder

*Poverty rate data was not available for Census Tract 9800 in the year 2010.

2.4.6 Means of Commute to Employment

Analyzing how employees get to work each day is an important piece of data to analyze because it provides an insight into the existing transportation infrastructure for the areas and what future transportation planning may be necessary in the future. It should be noted that additional bus routes are being planned in conjunction with the new McLaren Hospital development which should

have an impact on the way workers travel along the corridor. Additionally, since a large labor pool and incoming economic development are coming to the Collins Road Corridor in the near future, seeing how workers currently commute is of vital importance.

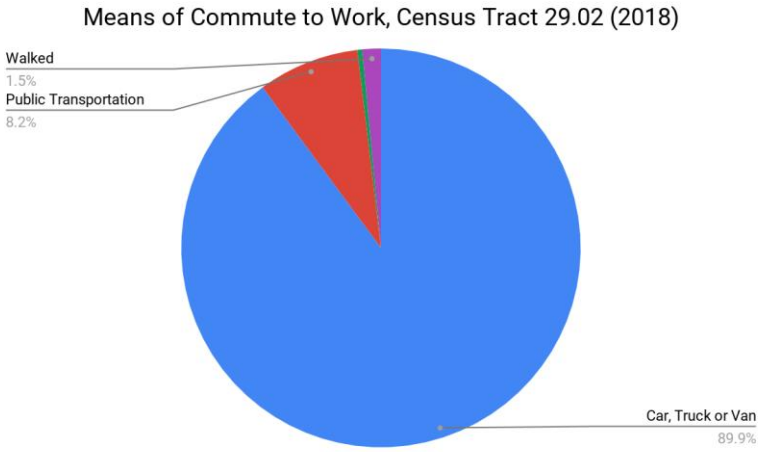


Figure 9: Means of Commute to Work, Census Tract 29.02; Source: 2014-2018 American Community Survey 5-Year Estimate

Given that the majority of Ingham County is planned around private automobile use, it is no surprise that within Census Tract 29.02, Cars, Trucks, or Vans are the primary means of transportation with 89 percent of people electing to take automobiles to work. Only 8.2 percent of workers took public transportation to work and 1.5 percent walked to their place of employment. It was noted within the Collins Road Corridor Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis that the road lacked any solid connection via bicycle lane and sidewalk to other major roads which is the likely explanation for transportation phenomena. Due to the rural nature of this area, the multimodal transportation options available on Michigan State University's campus do not extend as far south as the Collins Road corridor.

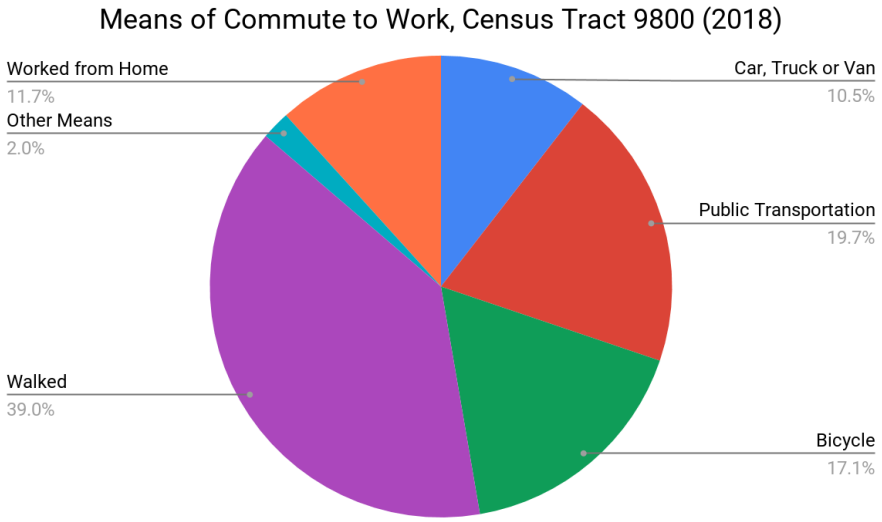


Figure 10: Means of Commute to Work, Census Tract 9800; Source: American Community Survey 5-Year Estimate

In a drastic contrast, Census Tract 9800, which covers Michigan State University, tells a different story with regards to how people get to work. Because Census Tract 9800 contains several amenities within a reasonable distance, it is allowed to have a much wider range of transportation options ranging from a robust public transit service as well as several miles of on-street bicycle lanes. It is no surprise that commuting via Car, Truck, or Van is not the dominant means of transportation. As seen in the chart above, 39 percent of workers walked to work, which was the single largest means of transportation used by workers to get to their place of employment. The second largest was public transportation at 19.7 percent, followed by bicycle transportation at 17.1 percent. Car, truck, and van transportation accounted for only 10.5 percent of how workers commuted while 2 percent of workers arriving to work through other means. 11.5 percent of workers worked from home meaning they did not have a means of commute.

2.5 Conclusion

The data collected for Census Tracts 29.02 and 9800 are important to analyze as they represent the two closest geographic areas in which the Collins Road Corridor redevelopment will encompass. Because of the inherent difference in these tracts, one being a typical community profile while the other is primarily University property, such examinations in some areas of analysis are skewed as noted in the analysis. From this analysis, one can learn a lot about the socioeconomic conditions of the areas surrounding Collins Road as well as the corridor's demographic, housing, and economic characteristics. This information is ultimately offered as an aid to regional planners and municipal administrators to provide them with insight into how citizens

in the immediate areas live and what changes may be made in preparation for or in response to the development of the corridor.

After analysis, the demographic data was indicative that the two census tracts generally are composed of white college-aged students (18-24). Educational attainment was quite high, which would be expected given the presence of both 2- and 4-year academic institutions within Ingham County. Housing data displayed positive results as the region's low vacancy rates can translate to higher property values and decreased rates of crime.

Economic data also yielded positive results and provided insights into the economic character of the area surrounding Collins Road. Unemployment in both Census Tracts as well as the county remained low, at less than 5% in all three geographic areas. In terms of industry, Educational Services obviously was the largest in the area given the proximity to the Michigan State University. Health Care & Social Assistance also made up a large portion of the corridor's industry presence due to the number of current biomedical offices. These industries are likely to take up a larger percentage of total industries in the Corridor with the opening of the new McLaren Medical Campus in 2021. Income levels were widely distributed however the high percentages of low-household incomes can likely be attributed to the dominant student population and may not be a true indicator of the economic prosperity of the geographic areas. The same inference can be made for the relatively high poverty rates within the three areas as well. Means of commuting to work was also a valid section of analysis because it provided a rough insight to the transportation character of the area. With Census Tract 9800 being an exemplary model for diverse transportation planning, perhaps the Collins Road Corridor could redevelop in a similar way to become more accommodating to the various types of transportation that residents and members of the Corridor workforce may wish to choose.

Chapter 3: Zoning, Land Use, and Infrastructure

3.1 Introduction

The purpose of this chapter is to assess the current conditions, capacities, and services within the Collins Road Corridor. Understanding the current status and characteristics of the area's infrastructure is an important first step in assessing the developability of the corridor. A more thorough analysis of what is capable of being built must first be based upon what the capacity and capability for services are. This includes a holistic overview of existing infrastructure services, as well as the condition of roads and paths across jurisdictions within this area. The maps included in this assessment discuss zoning, road conditions, traffic counts, sewer services, water services, gas services, and electric services.

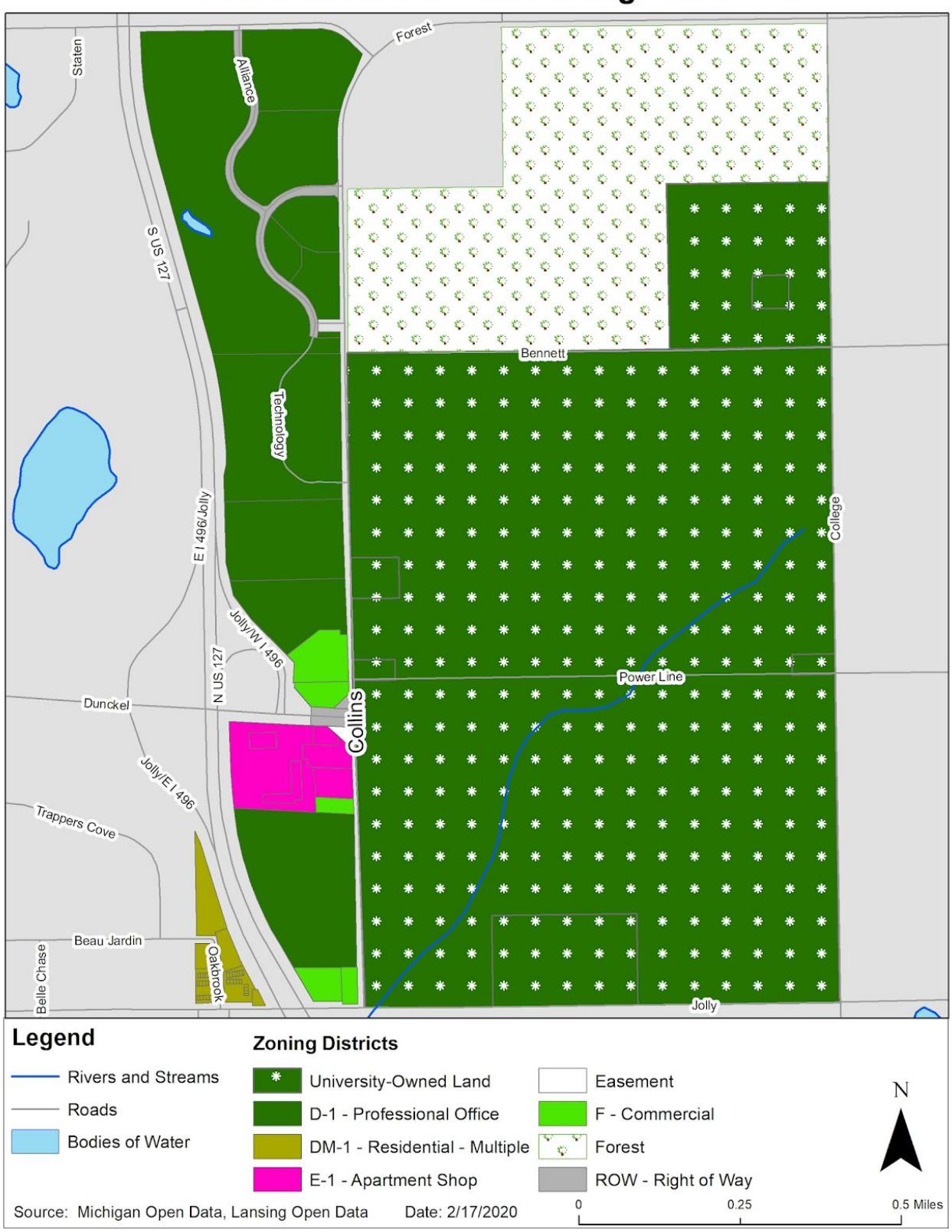
3.2 Zoning

There are currently four districts of note as ordained by the City of Lansing within the Collins Road Corridor Area: D-1 Professional Office, DM-1 Residential-Multiple, E-1 Apartment Shop, and F Commercial. Alongside this is land designated as forest, right-of-way, or easements. University-zoned land in the corridor includes the Natural Area District, Agriculture District, and South Mixed Use District.

Map 7 showcases the current zoning districts within the Collins Road Corridor area, based on the City of Lansing's Zoning Ordinance, while Map 8 shows the University zoning for parcels owned by MSU, as provided in MSU's Campus Master Plan.

3.3 Land Use and Infrastructure

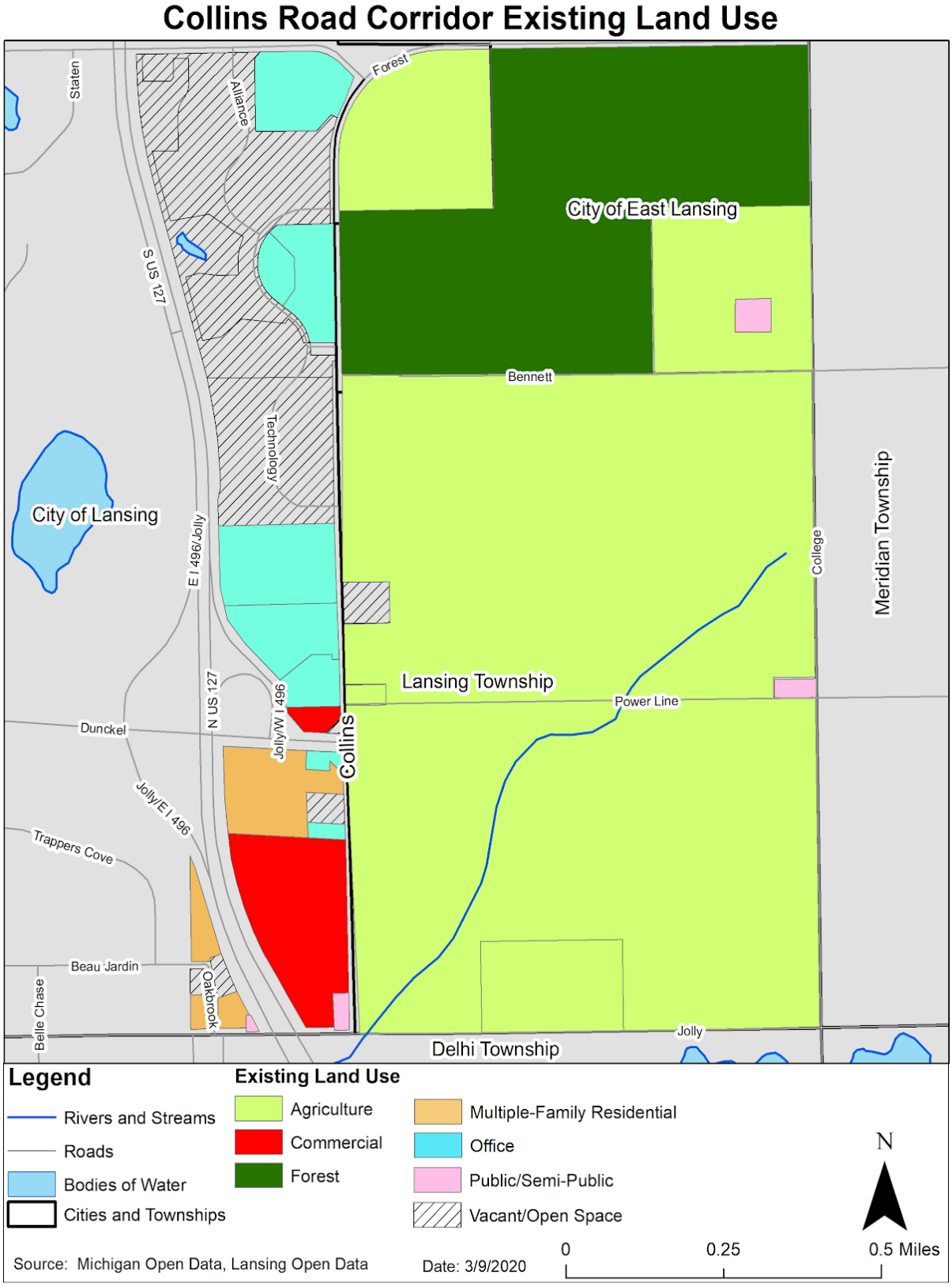
The following maps visualize both the current land uses along the Collins Road Corridor, as well as existing transportation, sewer, water, electric, and gas infrastructure within the focus area. Existing land uses were determined through analysis of Google Maps satellite and StreetView imagery, windshield assessment, and information from the Lansing Assessor's Office. Infrastructure data was obtained from the City of Lansing, Esri ArcGIS Business Analyst Online, Consumers Energy, and the Lansing Board of Water and Light. Map 9 depicts the existing land use of the Collins Road Corridor, based on existing zoning, in-person visualization, and Google Maps satellite imagery of the area.



Map 7: Zoning district classifications for parcels in the Collins Road Corridor.

Michigan State University Zoning Districts

Map 8: Zoning of Michigan State University-owned property as provided by the Michigan State University Campus Master Plan.



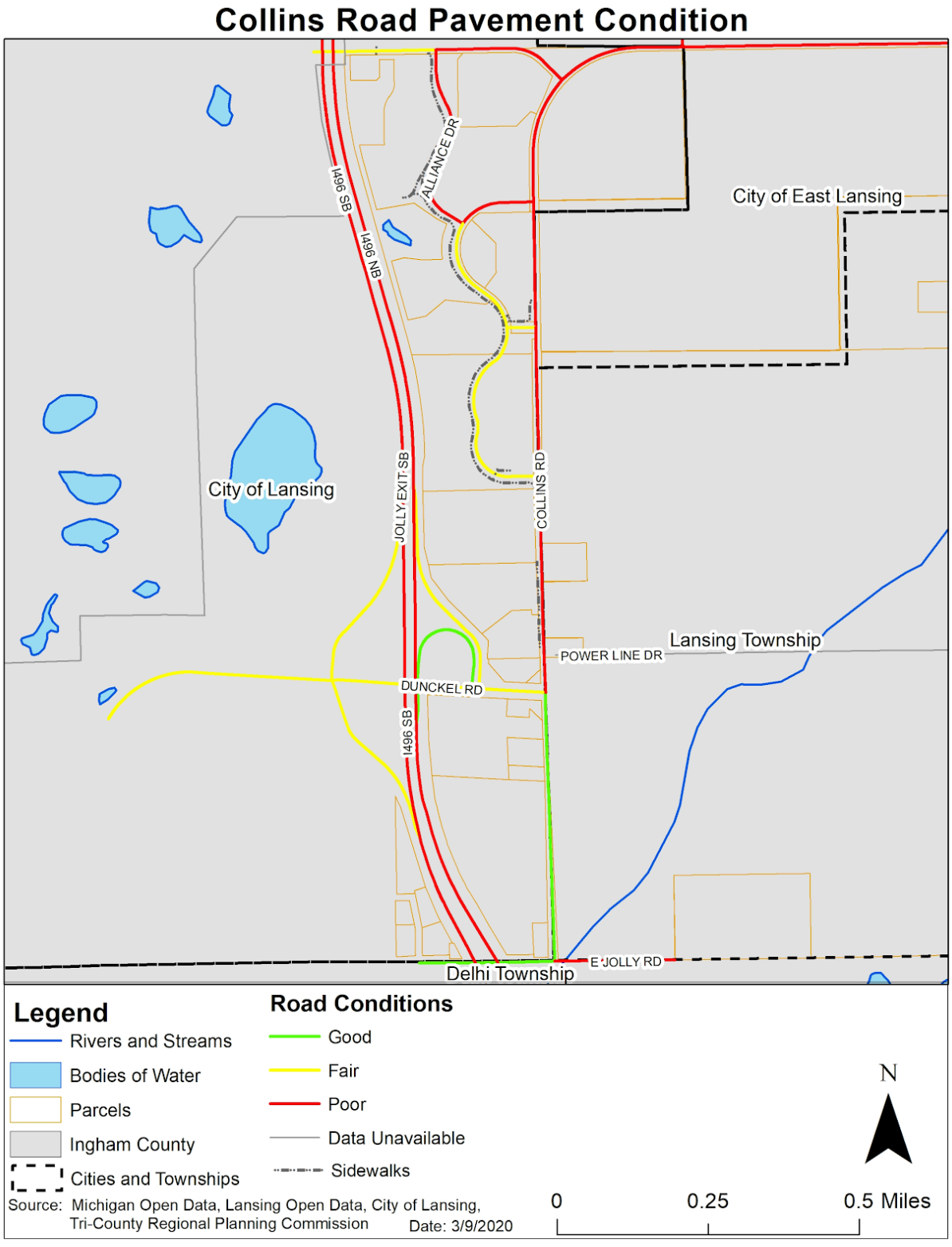
Map 9: Existing land uses within the Collins Road Corridor area.

3.3.1 Road and Pathway Analysis

The conditions of the roads and pathways within the corridor are generally poor. Data from the Pavement Surface Evaluation and Rating (PASER) system was used for this analysis, which is based on visual assessment of roads conducted by the Michigan Department of Transportation (MDOT) and state Metropolitan Transportation Organizations (MPO). According to the corridor's PASER ratings, 53 percent of roads in the corridor are classified as "Poor," 30 percent are classified as "Fair," and 15 percent are classified as "Good," with one section of road, Power Line Drive, not counted as it is part of a transmission line easement and is not accessible to the public. In particular, only the section of Collins Road south of Dunckel and westbound Jolly are rated "Good," as well as the northbound off-ramp of I-496. Dunckel itself, the northbound and southbound on-ramps from I-496, the southbound off-ramp from I-496, most of Technology Drive, and Forest Road west of Alliance Drive are rated "Fair." The remainder of roads--particularly all of I-496 and most of Collins Road--are rated as poor.

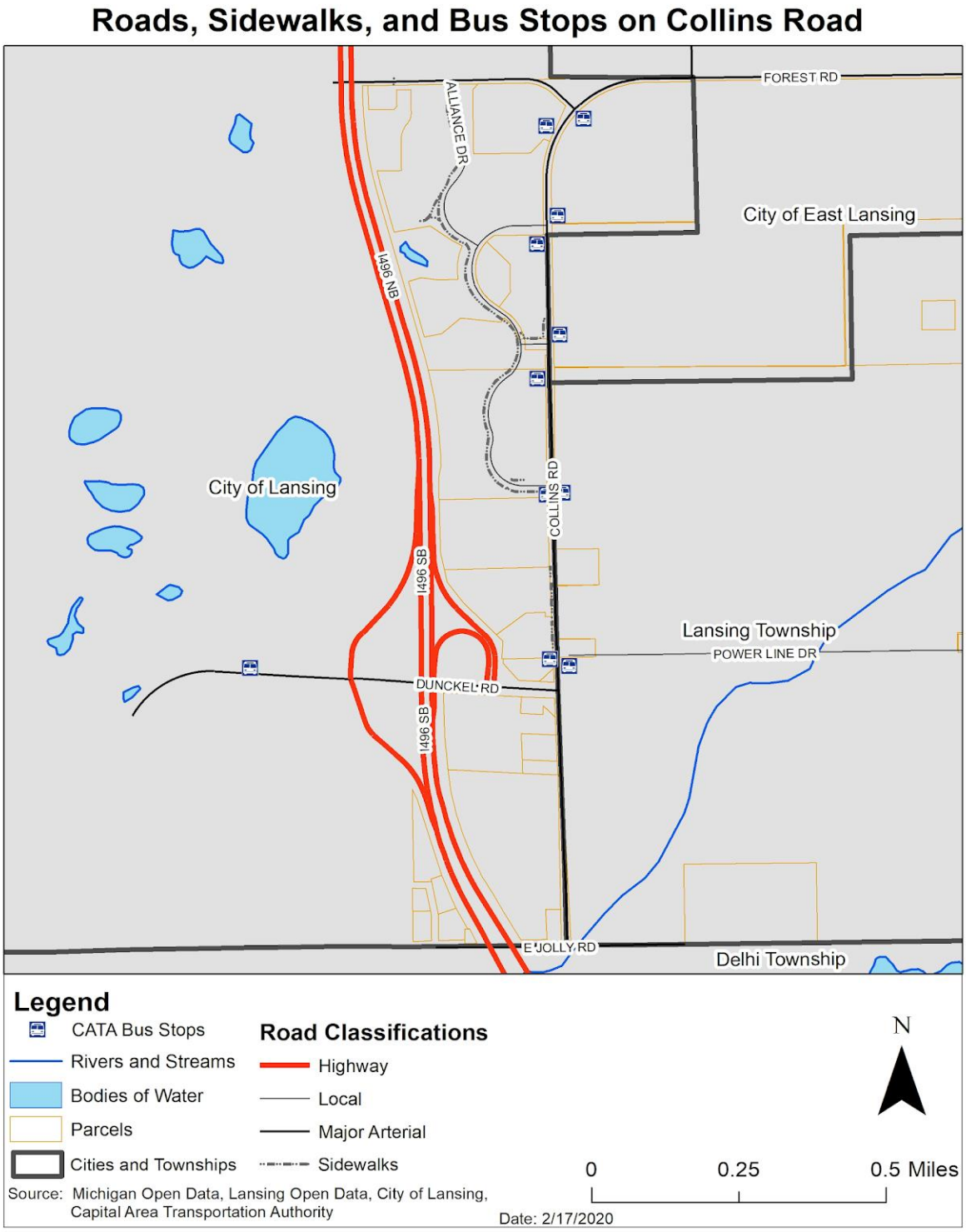
In addition to under-maintained roads, there is a lack of walking paths along the corridor. Sidewalks primarily follow Technology Drive, providing pedestrian facilities to the UCRP and the McLaren campus. The sidewalk continues south along Collins Road but ends just north of the Red Roof Inn, north of Dunckel. There are no other sidewalks along the corridor, and this can become challenging if connectivity is not improved by the time the hospital and the Dunckel Apartments are completed. Both have the potential of introducing significant pedestrian volume, and a lack of proper facilities for safely walking away from the road can potentially lead to risky behavior such as walking on road shoulders or on the road itself. The 40 mile per hour speed limit along Collins Road can pose significant hazard to pedestrians who must walk in the right-of-way of the road.

Map 10 displays the road conditions surrounding Collins Road based on Pavement Surface Evaluation and Rating (PASER) rating obtained by Tri-County Regional Planning Commission.



Map 10: PASER ratings for the roads within the Collins Road Corridor, including Collins itself and I-496.

Map 11 shows the transportation infrastructure along Collins Road, including roads, sidewalks, and bus stops.



Map 11: Current transportation infrastructure within the Collins Road Corridor area, including roads, sidewalks and CATA stops.

Most of the roads within the focus area are within the City of Lansing; most notably I-496/US-127, and Collins Road, which it shares with Lansing Township and East Lansing. However, it should be noted that I-496 and US-127, as part of the Michigan Trunkline, are federal-aid highways and receive most of their funding, planning, and repair under the authority of the Michigan Department of Transportation (MDOT) and the Federal Highway Administration (FHWA). Jolly Road and Forest Road are also shared between jurisdictions.

This is an important consideration, as road maintenance and upgrades are efforts that must be cohesively managed and will likely involve Tri-County Regional Planning Commission (TCRPC) in facilitating the planning and funding process for this area prioritizing state and federal road funds. TCRPC is the Metropolitan Planning Organization (MPO) that supports Clinton, Ingham, and Eaton Counties, and uses research and evaluative instruments to develop a 25-year Metropolitan Transportation Plan with a consistently-updated, four-year Transportation Improvement Program that outlines priorities for transportation improvements and their costs.[1] MTPs, meanwhile, are long-range plans that provide recommendations and projections based on existing data, from information such as PASER.[2]

Discussions between stakeholders, municipalities, the Ingham County Road Commission, and TCRPC can give the needed basis for analysis and planning that can coordinate improvements within the corridor, which can help begin the planning process for improving roads under the auspices of the City of Lansing, Ingham County, and the State Trunkline.

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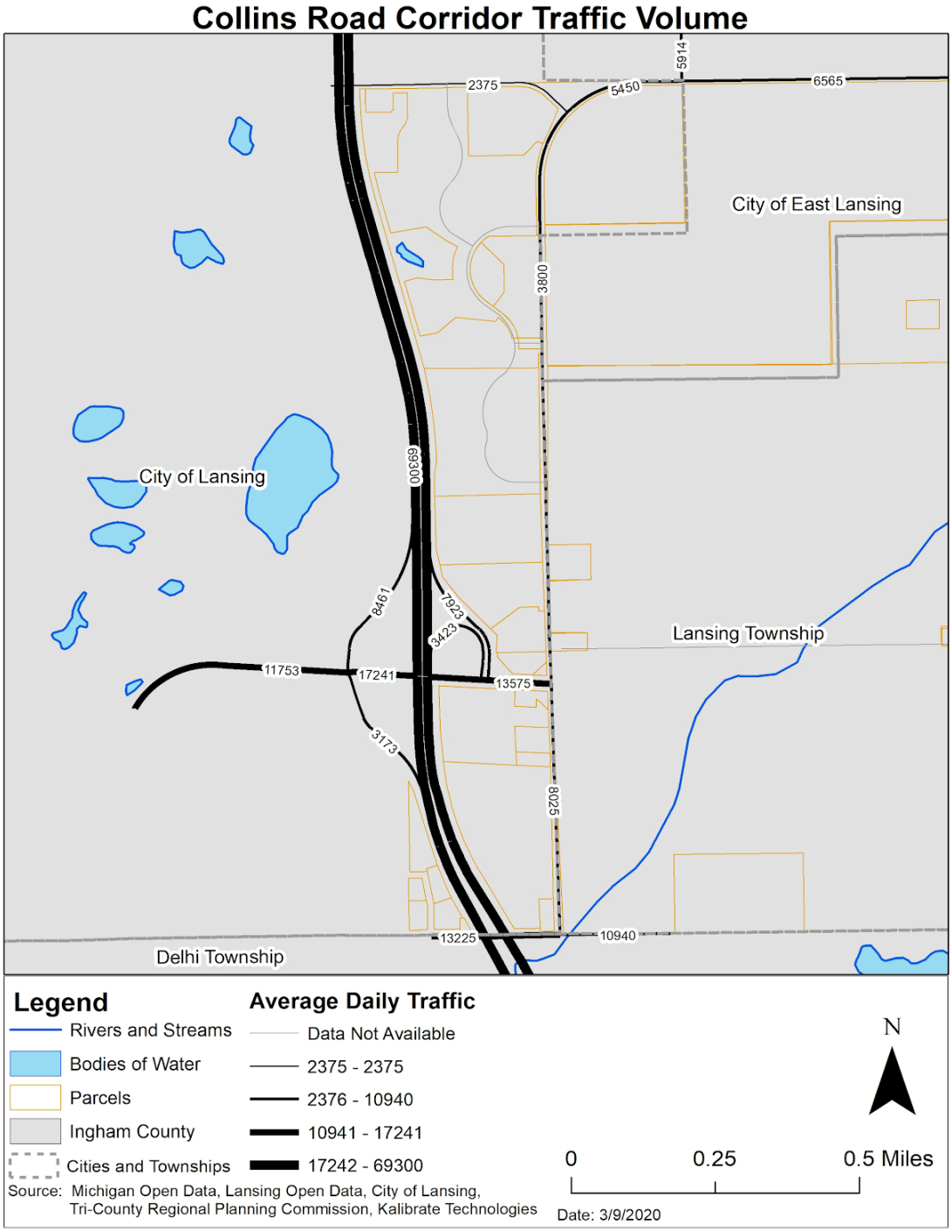
[1] Tri-County Regional Planning Commission, Transportation Improvement Program, 2019.

[2] Tri-County Regional Planning Commission, Moving Mid-Michigan, 2020.

Map 12 portrays the average daily traffic volumes along roads surrounding the Collins Road area, obtained both through ArcGIS Business Analyst Online and Tri-County Regional Planning Commission's traffic data.



Map 12: Traffic counts for each road within the Collins Road Corridor, with data collected primarily in BAO and supplemented with data from Tri-County Regional Planning Commission*.

*All traffic count data except for Harrison Road was collected from BAO. Harrison Road's data was collected from Tri-County Regional Planning Commission's Traffic Count Map

3.3.2 Sewer and Water Analysis

The corridor is served by a separated sanitary and storm sewer system. This is better for the environmental health of the area compared to a combined system, as the amount of pollution generated by agricultural, research, and medical activities on Collins Road will not overload the sewer during heavy rainfall or snowmelt. Given the presence of real estate developments along the west side of Collins Road, most of the properties there are served by Lansing's sewer systems, while the agricultural land and uses east of Collins Road rely on private septic systems. Data regarding the actual capacity of the sewer system is unavailable, due to respect of both City and landowner discretion with regards to sewage output and line capacity.

Site inspection of the area does not reveal many present above-ground runoff controls, such as bioswales, rain gardens, or water retention systems outside of existing right-of-way ditches. This presents a possible environmental hazard, due to the fact that hardscape runoff (such as motor oil and construction debris) to the west and agricultural runoff (such as fertilizers and animal waste) to the east can wash into the road and storm sewer system, which can potentially carry and contribute to pollution.

Most occupied parcels in the Collins Road Corridor receive treated drinking water from the Lansing Board of Water & Light (BWL). The parcels that receive these services were analyzed based on their connection to the BWL-owned water main that runs through Collins Road. The land uses along the corridor receiving these services include most of the parcels north of Dunckel Road. South of Dunckel, the only parcels receiving BWL water services are the new Dunckel Apartments and the northernmost block of apartments by I-496. Other parcels in this area may be receiving water from a different utility or a private well.

BWL has reported that the estimated main capacity for the north portion of Collins Road is approximately 350 residential equivalent units, (REU's), while the southern portion of Collins Road is approximately 150 REUs. REU varies between locations, but in Michigan the range is typically between 153.7 gallons per day, according to the Michigan Water Environment Association.[1]

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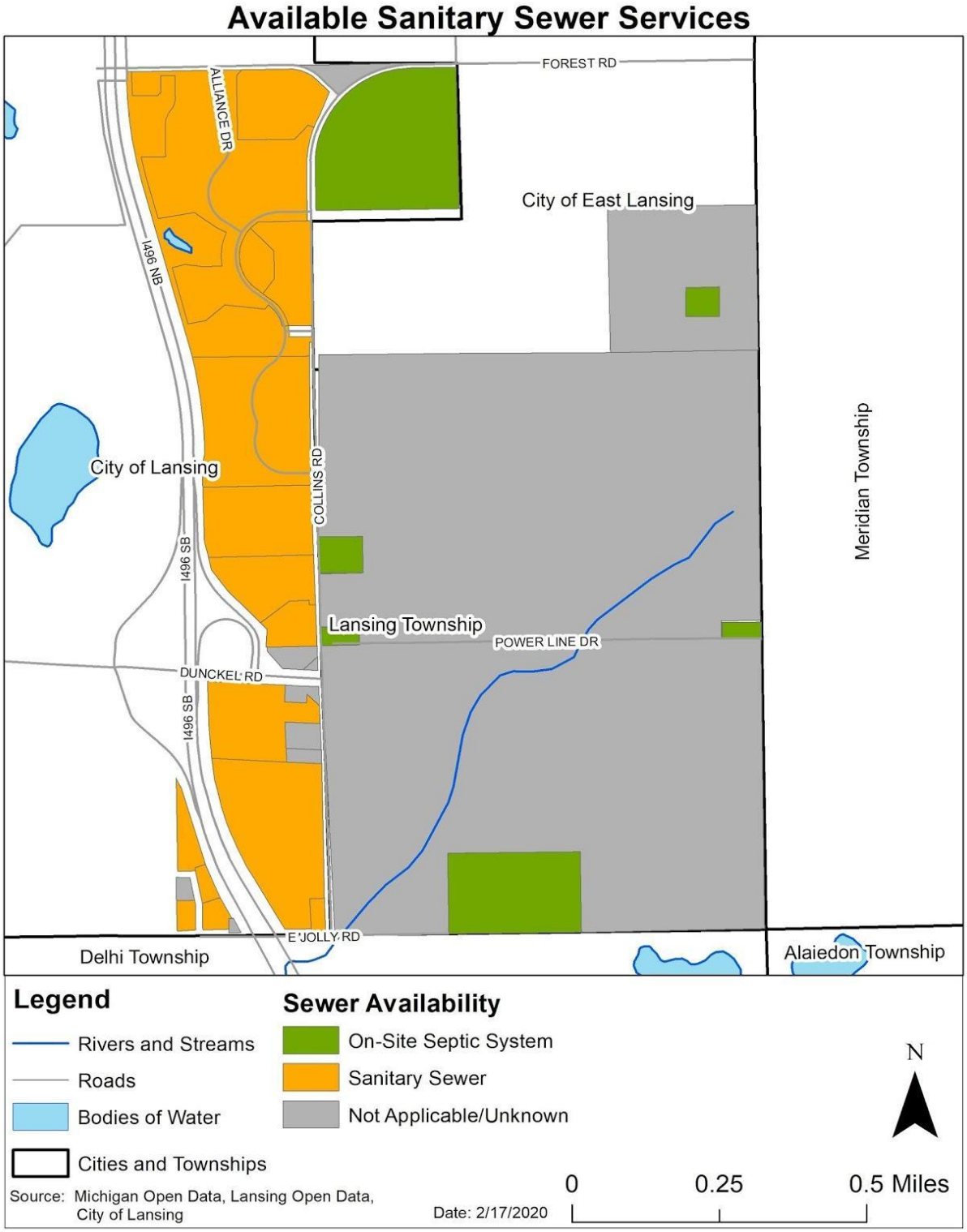
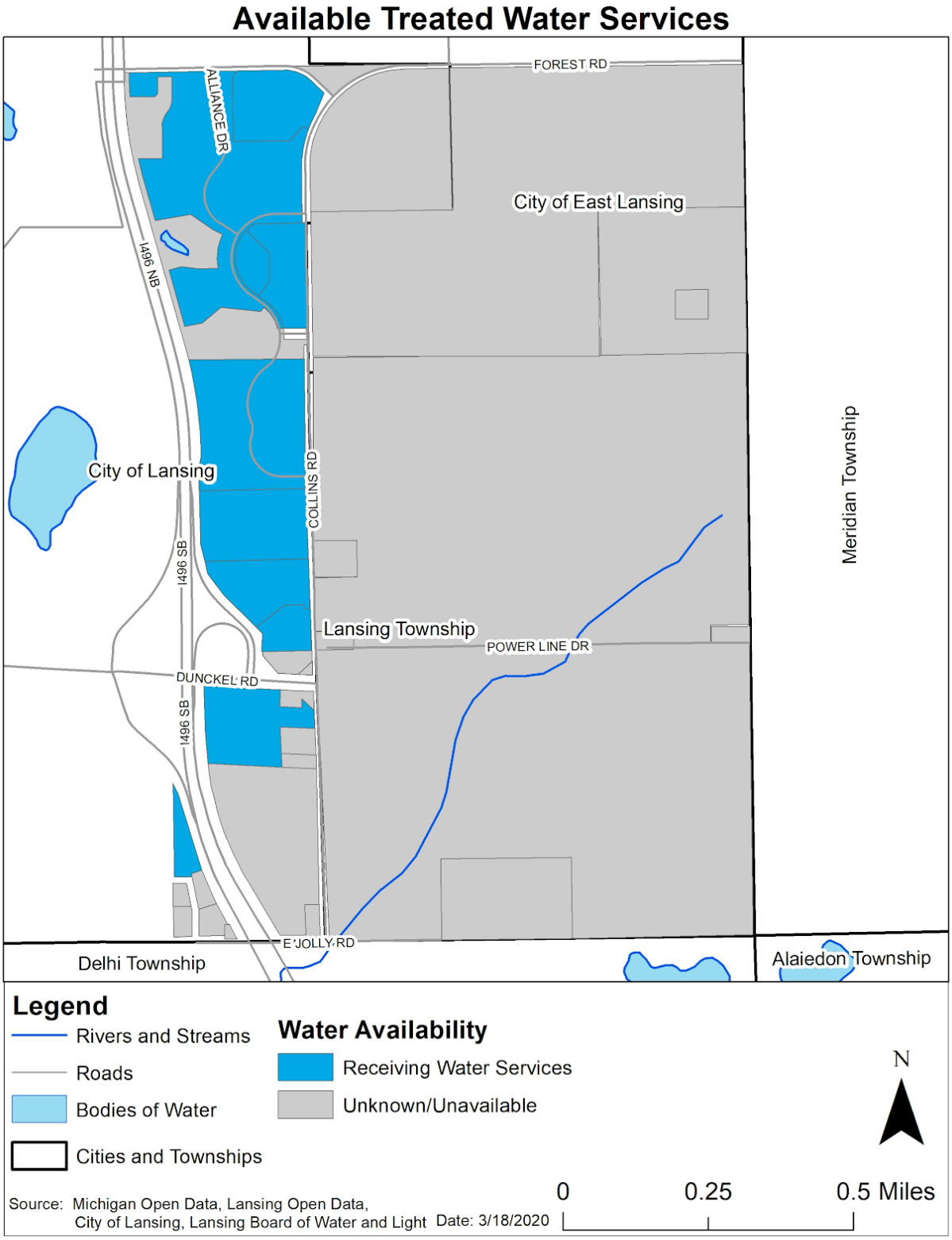
[1] Michigan Water Environment Association, Unit Factor Rate Assignment Study, Phase I-II, 2016.

Map 13 portrays the availability of both public sewer and on-site septic services.



Map 13: Parcel-level map indicating which properties are receiving sewer services, are on on-site septic system, or have neither/have unknown status

Map 14 shows the availability of drinking water services within the Collins Road Corridor.



Map 14: Parcel-level map indicating which properties are receiving water services from BWL. Those who are not may either be on a private well or are receiving water from a different utility.

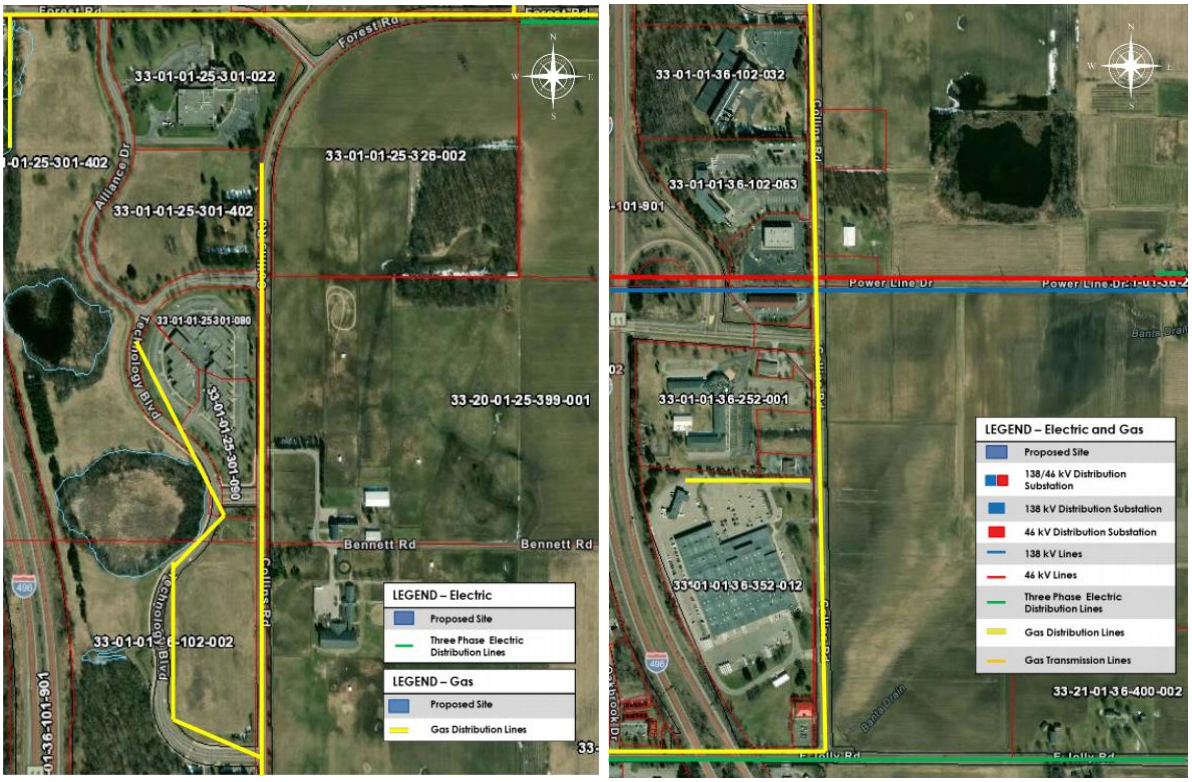
3.3.3 Gas and Electricity Analysis

The Collins Road Corridor receives gas services from Consumers Energy and electrical services from a combination of Consumers and the Lansing Board of Water and Light (BWL). According to an assessment of the corridor provided by Consumers Energy, the current flow of gas travels through a bundled main at 10psig which meets existing demand and will be able to meet future demand put on by the hospital and future developments. Consumers Energy also provides 1 megawatt (MW) of electricity into the corridor, while BWL provides 12MW.

Reliability of these lines is determined to be very high, exceeding 99 percent. This is fortunate in that the likelihood of a brownout or blackout due to emergencies or supply disruptions is low.

According to both of these utility companies, the provision of gas and electricity services in the corridor is more than sufficient for current and future needs. However, while this is the case, consideration for sustainable development through means such as energy conservation programs and building to meet LEED targets can help mitigate future stresses on energy services.

Map 16 shows the approximate location of gas and electricity distribution lines owned by Consumers Energy.



Map 15: Gas distribution lines in the Collins Road Corridor, divided by north (left) and south (right) sections of the corridor. Source: Consumers Energy

Chapter 4: Parcel Inventory

4.1 Introduction

This chapter is an inventory and overview of the parcels of land within the corridor. Based on geographic analysis of the area, there are 32 individual parcels of land within the Focus Area between Jolly and Forest Roads. A 33rd mapped parcel is a right-of-way easement straddling Dunckel Road and was not analyzed. Parcels will also be considered between the areas of Collins Road and Oakbrook Drive, and between Collins Road and College Road.

All of the land on the west side of the focus area is within the jurisdiction of the City of Lansing. To the east, the land falls within Lansing Township but is owned by Michigan State University (See Map 2). Land use along the corridor is primarily agricultural and institutional in the east, with University-owned farms and the Horse Teaching & Research Center forming the predominant uses. On the west side of the corridor, there are a variety of uses, including office and commercial space, as well as some multi-family residential both developed and currently under development. The area is in the process of a transformation due to the Dunckel Apartments brownfield redevelopment and the construction of the new McLaren Hospital. As such, an examination of the conditions of the parcels along Collins Road is critical for identifying assets and challenges within the focus area.

4.2. The Parcel Inventory

Parcel identifiers and descriptive information on each parcel was gathered using public records. The physical condition of each parcel was assessed using a set of assessment criteria created by the practicum team. The purpose of the assessment was to provide an evaluation of the site and property (where applicable) using the "walking survey" technique. A walking survey is commonly used to observe and record physical characteristics, that can be noted from the street level, for any particular property. A set of defined elements were then scored based on their observable condition. A composite score of all the defined elements was then used to assess the condition of the parcel. The following section outlines the information gathered for each parcel, the defined set of physical elements that were considered, the scoring criteria used for the assessment and the criteria to determine the overall condition assessment for each parcel. The full parcel inventory including images can be found in Appendix C.

4.2.1. Descriptive Information Collected for Each Parcels

Parcel Identification Number: The Tax Assessor Parcel ID that is used to identify the property.

Property Picture from Frontage: An image of the building as taken from the right-of-way along Collins Road.

Current Land Use: What the current use of the land entails as described within zoning ordinance(s).

Property Zoning: What zoning district the parcel is classified as. Some parcels' land uses may not necessarily match the use permitted by the municipality's zoning districts, however development commenced via variances, planned unit developments (PUDs), and so on. Definitions of each land use & zoning district as it pertains to zoning ordinance definitions can be found in the appendix section.

Parcel Size: The area of the parcel in acres.

Property Land Value: The assessed value of the parcel in United States Dollars ($) as of the most recent appraisal, as collected through the City of Lansing's Office of the City Assessor.

Infrastructure and Services: An indication of the current infrastructural services provided to the parcel including sewer, water, electricity, sidewalks, and road access.

4.2.2 Defined Elements Evaluated and Scoring Criteria

Physical Element	Score	Scoring Criteria
Windows/ Window Frames	0	Windows and frames are significantly cracked or broken. Damage is indicative or a symptom of blight and repair should be an imminent priority.
	1	Windows and frames show moderate to severe damage but are still functional. Replacement should be a priority.
	2	Windows and frames are in good condition but show noticeable wear. Replacement or rehabilitation should be considered.
	3	Windows and frames are in optimal condition. Alternatively, no windows are present as noticeable on building facades.
Doors/ Entryways	0	Doors or entryways are either missing or damaged to an extent that they are both visually intrusive and pose a potential safety hazard. Rehabilitation or repair should be an imminent priority.
	1	Doors or entryways are moderately to severely damaged, visually intrusive, and may be a possible safety hazard, but are otherwise functional. Replacement or rehabilitation should be a priority.

	2	Doors or entryways have noticeable wear or damage but are functional and safe. Rehabilitation should be considered where necessary.
	3	Doors or entryways are in optimal condition. No damage is visible.
Facades	0	Facades are severely damaged or deteriorating. Blight or urban decay is evident, posing a visual obstruction and amplifies hazardous conditions. Rehabilitation of building facades should be an imminent priority.
	1	Facades show a noticeable state of damage or deterioration. Risk of becoming blighted is high. Rehabilitation should be considered a high priority.
	2	Facades show signs of wear but do not significantly detract from the overall appearance of the building. Rehabilitation should be considered where necessary.
	3	Facades are in optimal condition. No damage is visible.
Roof	0	Roof is in a serious state of disrepair, and shows risk or evidence of shingle loss, cave-ins, or other forms of decay. The roof is visually obstructive and poses risk to occupants and passersby. Replacement or rehabilitation should be of imminent priority.
	1	Roof is in state of disrepair, with shingle loss or other indicators of damage or potential for such. Replacement of damaged features or other rehabilitation should be considered a high priority.
	2	Roof may show signs of slight damage and repairs should be considered, but they do not advance blight or pose a hazard to occupants and passersby. Repair or rehabilitation should be considered where necessary.
	3	Roof is in optimal condition. Tiling and shingles are orderly and complete, and the structure of the roof is intact.
Paint	0	Paint is severely chipped or worn on signs or facades, causing the building to be unidentifiable and appear blighted. Repainting should be considered an imminent priority.
	1	Paint on signs or facades is chipped or worn, making the building appear unappealing and limit advertising potential of signs. Repainting should be considered a high priority.
	2	Paint on signs and facades may be chipped or faded, but all walls and accessory structures have full coats. Repainting should be considered where necessary.

	3	Paint is new, and clean on the walls and accessory structures.
Yard/ Frontage	0	Yard of property is littered with debris, divots, sinkholes, and dead vegetation. The property is visually obstructive and poses safety risks. Additionally, this includes a complete lack of vegetation where it should be.
	1	Yard has excess or dead vegetation but does not affect character or physical property in a way that poses an immediate safety risk. However, there is still either no green space or existing green space is unmanaged.
	2	Yard is treated and managed, but excessive growth or lack of green space is still clear. Vegetation is either not present enough or has similar issues like rot and decay.
	3	Yard is in great condition. Green space is well-managed, and vegetation is managed in an environmentally sensible manner.
Sidewalks/Paths and General Access	0	Buildings on property lack adequate pedestrian access. Entrances are heavily damaged and are hazardous to both vehicles and pedestrians. Rehabilitation and repair should be an imminent priority.
	1	Accessibility for both sidewalks and driveways are serviceable, but still is difficult to access safely and efficiently. Rehabilitation should be a high priority.
	2	Accessibility for both sidewalks and driveways are adequate. Pedestrians are able to access buildings safely and cars can access easily without much difficulty. However, connectivity and general conditions can benefit from repair and rehabilitation.
	3	Accessibility for both sidewalks and driveways are optimal. Both road access and pedestrian pathways are efficient and safe. Continuity should still be considered to maintain pathways and driveways.
Parking	0	Parking facilities are inadequate for the demand of occupants and patrons of the subject parcel. In serious situations, the property is not in compliance with parking requirements in the respective jurisdiction’s zoning ordinance.
	1	Parking facilities are adequate for demand, but are damaged, difficult to access, are hazardous for both pedestrians and vehicles to use. Rehabilitation and necessary expansion should be a high priority.
	2	Parking facilities are adequate for demand and are generally in good condition. However, some damage is evident, and vehicles may have difficulty accessing parking lots without obstructing

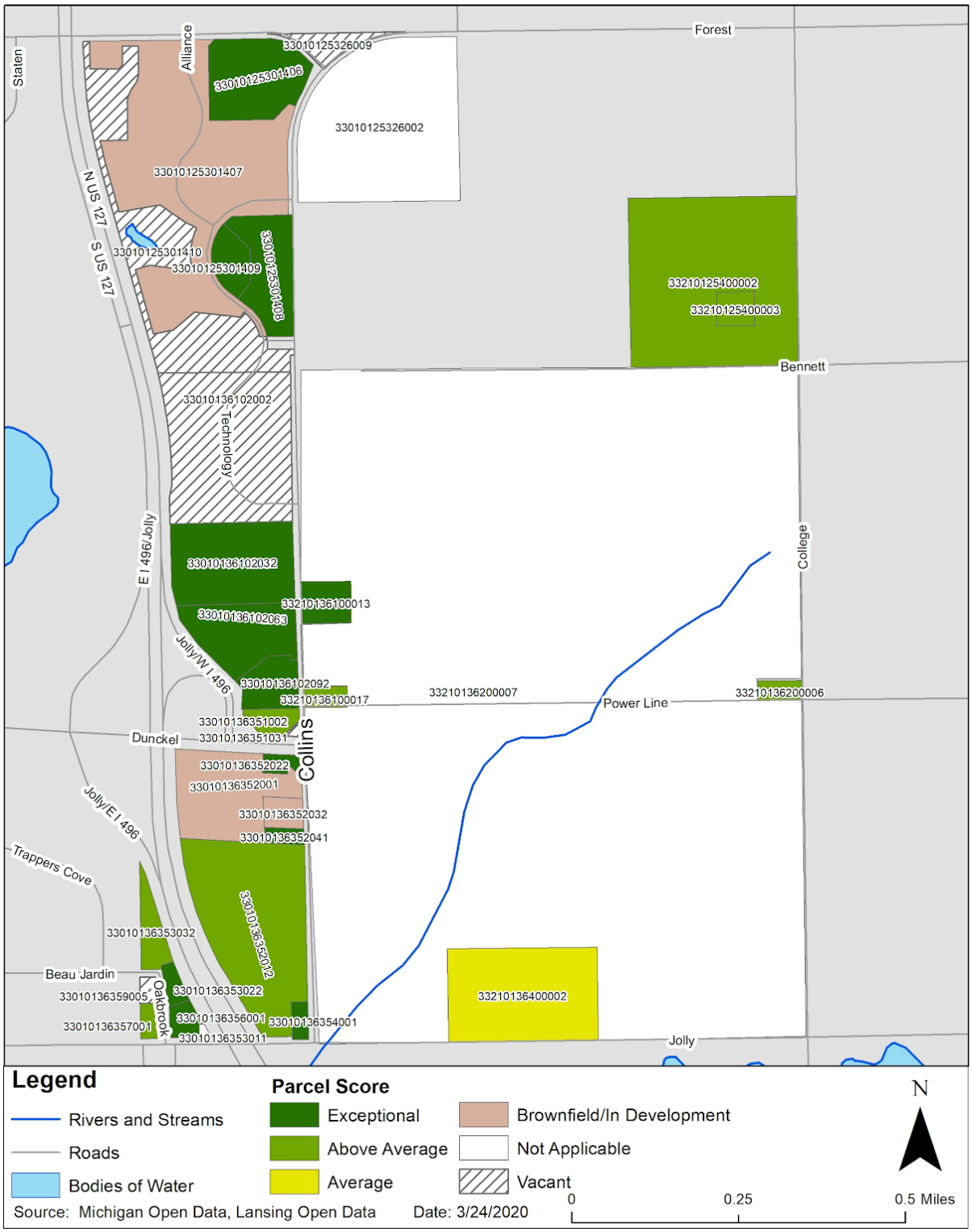
		other spaces or pedestrian access. Rehabilitation should be considered.
	3	Parking facilities on the parcel are in an optimal condition. Vehicles are provided easy access to lots and facilities without posing a danger to pedestrians and other vehicles.
Signage	0	Signage for commercial and office properties is either nonexistent, difficult to see, or alternatively are ostensible and distracting for drivers and pedestrians. Signs may also be in serious disrepair and may need extensive rehabilitation or replacement. The signage on the property may not comply with the respective jurisdiction's sign ordinance.
	1	Signage may be difficult to read either due to poor visibility or poor physical condition. Repair or replacement should be a high priority.
	2	Signage is in a functional condition, is easily visible from roads and pathways, and is visually appealing. However, signs of wear or poor placement shows evidence that the sign could be designed or located in a way that is more congruent with the character of the Collins Road Corridor.
	3	Signage on the parcel is in good condition, in good placement, and advertises the use associated with the property in a noticeable, but unobtrusive, manner.
Safety	0	The parcel has debris or conditions that make the property dangerous for pedestrians, vehicles, and occupants around the property. The parcel poses a clear risk to the health, safety, and welfare of surrounding individuals and buildings and should be addressed immediately.
	1	The parcel exhibits significant amounts of damage, debris, and conditions that may pose safety risks to occupants and passersby. If left unattended, the parcel has the potential to be a risk to the health, safety, and welfare of the community.
	2	The parcel is in need of repair and cleanup but does not pose any safety concerns nearby. However, efforts should be made to manage safety and conditions of the property.
	3	The parcel and any structures do not present any observable safety risks.

Scoring Criteria Adapted from Alpena Township: US-23 South Corridor Revitalization Assessment (2016)

4.2.3. Composite Parcel Condition Classification and Criteria:

Classification	Score	Description
Exceptional	24-30	The land and any structures built on it are in excellent condition. There is little sign of physical wear and the potential for blight on and around the parcel is low.
Above Average	18-23	The land and any structures built on it are in good condition. There is possibly some wear or damage but in a way that does not heavily detract from the condition, character, or safety within the Focus Area.
Average	12-17	The land and any structures built on it are in average condition. There is some wear, damage, or obstructiveness that is noticeable, but not in a way that harms the character of the parcel and does not pose any safety concern.
Fair	6-11	The land and any structures built on it are in serviceable condition. Wear, damage, and obstructiveness are noticeable, but the land and its structures can still function nonetheless. However, consideration for rehabilitation or redevelopment should be a priority
Poor	0-5	The land and any structures built on it are in poor condition. Wear, damage, and obstructiveness are obvious. The land and any structures are in clear and present need for rehabilitation and repair, and risks becoming detrimental to the character of the Focus Area and poses possible safety risk to occupants and passersby.
Brownfield/In Development	BF/ID	The land is either part of a brownfield redevelopment project or is otherwise being developed for future use. While the present condition of the land and any structures may pose possible risk of harm or detriment, development is actively occurring and the parcel will likely not be a focus for redevelopment.
Vacant	V	The land is currently vacant, with no or abandoned structures on the property. They are addressed separately if they prove hazardous or blighted within the area.
Not Applicable	N/A	Scoring criteria do not apply to parcels. Justification given on each parcel with this classification. Generally reserved for agricultural land that has no structures but is still being used.

Collins Road Corridor Parcel Scores



Map 16: The parcels in the Collins Road Corridor with their assessed scores from the above criteria

4.3 Analysis and Summary of Parcel Inventory

4.3.1 General Summary

Overall, the conditions of the corridor are favorable, and there is no significant risk of blight both on Collins Road itself and the surrounding area. Of the 32 parcels inventoried, twelve parcels scored “Exceptional,” eight scored “Above Average,” and one scored “Average,” with none scoring “Fair” or “Poor.” Additionally, the corridor has six vacant parcels, three that are currently being built or are part of a brownfield redevelopment project, and three classified as “Not Applicable” due to them either being agricultural land or as a utility easement.

4.3.2 Exceptional Parcels

Parcels designated as “Exceptional” have very few challenges and are in optimal condition and operation. The parcels and the structures built on them are actively maintained, capable of being accessed efficiently, and have no identifiable safety concerns. Within the “Exceptional” category, notable parcels include those holding the University Corporate Research Park, Michigan Biotechnology Institute, Lansing Area Federal Credit Union (LAFCU), Michigan Association of Retired School Professionals, a group of apartments west of I-496, and the MSU Horse Teaching & Research Center.

These parcels and their land uses are generally associated with the strong presence of office, research, and institutional activities on the corridor. They are maintained actively and host a variety of different business operations, including those related to biomedical and research uses that could increase with the completion of McLaren Hospital. Well-kept apartments, including the apartments on Dunckel Road under development, could provide quality housing that may be convenient to those working in these uses.

4.3.3 Above Average Parcels

Parcels designated as “Above Average” reach an above-the-norm target for building and property maintenance, accessibility, and safe pedestrian activity. Most of the factors leading to a lower score are cosmetic. Examples include small or disconnected sidewalks, buildings with chipped or worn paint, and driveways with damaged or mismatched asphalt.

Parcels that fit the description of “Above Average” include the apartment complexes west of I-496. These buildings are still maintained with high standards but score lower due to primarily visual factors as well as the safety and smell concerns from unscreened dumpsters. As the City

of Lansing's current Property Maintenance Code does not explicitly require that large rubbish storage facilities be screened or hidden from view, it is a potential item of consideration for the improvement of appearance and safety of properties that use them.

One area along Collins Road in this category is the Red Roof Inn property. The building has aging facades, and has various concerns in its parking lot such as numerous shipping containers and a large open dumpster that absorbs potential parking space, poses hazards to pedestrian crossing, and can come off as visually jarring from the character of the corridor. While the City of Lansing does not have shipping container regulations in place, their appearance can create a potential nuisance concern.

Many of the University-owned agricultural research facilities also fit this classification. Most of these buildings are not directly on Collins Road, but are within the area, and are functionally in good condition but generally have issues with the aesthetics. This mainly comes in the form of minor-but-noticeable paint chipping and discolored siding. Additionally, these parcels are typically not served with sidewalks, and parking lots are unmarked and in disrepair. This is not uncommon for the rural nature of the area east of Collins Road, but the properties could be maintained to higher standards that will align with the increased investment along the Corridor, which additionally can apply to Michigan State University should they decide to lease or sell University-owned land.

4.3.4 Average Parcels

The "Average" classification only applies to one parcel, which is a group of University-owned barns on Jolly Road, east of Collins Road. The main barn and building to the west have noticeable chipped paint on the facade. The parcel lacks parking and sidewalk access.

4.4 Conclusion

The parcels along the corridor appear to be in good condition. As the infrastructure map shows, primary issues include pedestrian connectivity and availability of sewer services. There are a variety of externalities that will factor into future development of the corridor, most notably the McLaren campus, proposed Spartan Village redevelopment, and the Dunckel Apartments currently under construction.

The corridor could benefit further from infrastructure upgrades. In particular, the corridor lacks strong pedestrian connectivity outside of the sidewalks located in the McLaren-UCRP area. There are few sidewalks extending from this area, and there are no bicycle lanes on Collins Road. Future development of the road can include extension of existing sidewalks, as well as bike lanes to connect to existing bicycle facilities on Forest to better connect Collins Road to MSU's campus. Roads are also mostly in an unfavorable condition and could see better car usage in areas currently with poor ratings, such as Collins Road north of Dunckel Road, and I-496. Sewers services are present and storm and sanitary sewers are separate. The corridor is well-drained, and well-connected for sewer management. Electricity services into Collins Road are improving due to the McLaren hospital's construction. In particular, the Lansing Board of Water and Light is projecting a maximum capacity of 12MW in face of the increased demand from the hospital, and Consumers Energy has 1MW with highly reliable transmission lines to provide consistent energy in the area. As the main providers of natural gas, Consumers Energy also states that the main gas distribution line along Collins Road is sufficient for existing demand. Meeting and maintaining energy demand will also be critical in order to provide electricity brownouts or blackouts during peak periods and emergencies. Additionally, sewer, drinking water, and stormwater infrastructure upgrades will help provide quality service and mitigate runoff pollution from both sides of the road.

With the significant presence of office and research uses alongside future residential developments, it will be paramount to develop adequate infrastructure to allow for greater pedestrian access and safety from cars on this relatively high-speed road.

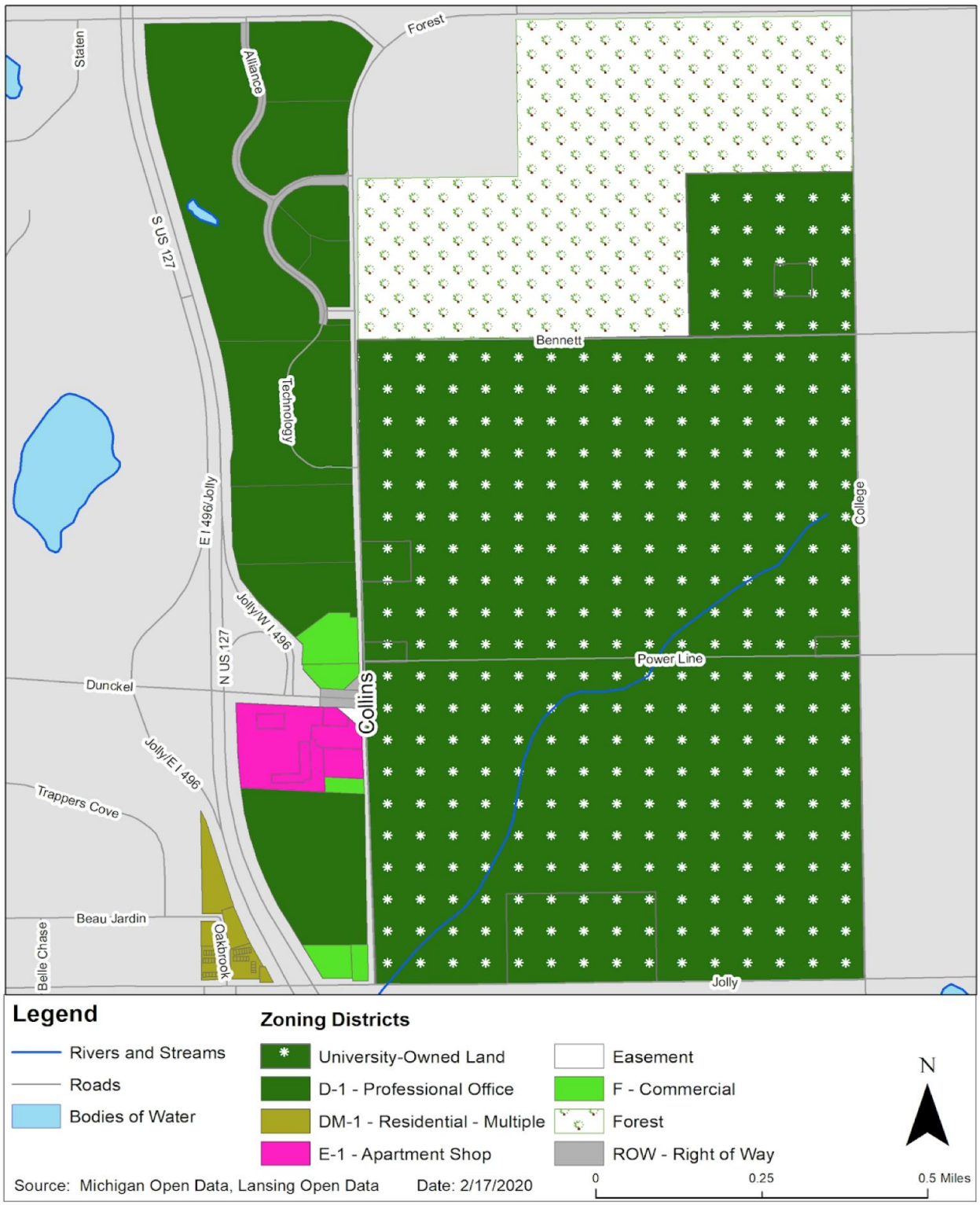
Chapter 5: Future Development Potential

5.1 Introduction

This chapter provides information on the zoning ordinances for the jurisdictions surrounding Collins Road and the limits stipulated within each ordinance. This analysis provides a comprehensive overview of the development potential and restrictions within the Collins Road Corridor. This information can provide developers—new and current—information on what land uses are permitted, including those in the medical and technology industries. For the purpose of this analysis, the City of Lansing's zoning ordinance was referenced as it contains a detailed schedule of regulations for each district. The analysis provides a hypothetical buildout showing what is permitted within each zoning ordinance should the corridor ever be constructed to an allowable maximum when considering development restrictions such as setbacks and parking minimums. Environmental restrictions such as wetlands and protected areas are not applicable to the Collins Road Corridor as none are known to be present within or near the analyzed parcels.

5.2 Zoning Districts and District Restrictions

The west side of the Collins Road Corridor is within the City of Lansing and is mostly zoned D-1: Professional Office, with smaller portions zoned F: Commercial and E-1: Apartment Shop (mixed use). The east side of the corridor is zoned AG: MSU Agriculture and Natural Resources District. Medical and technology research companies would likely fall under the D-1 District, and possibly F. Map 17 revisits the zoning district classifications within the Collins Road Corridor.



Map 17: Map of the Collins Road Corridor's zoning districts based on information provided by the City of Lansing.

5.2.1 D-1: Professional Office

The D-1 District's stated intent is to "permit the construction or conversion of structures for office uses and multiple dwelling uses." The use types permitted in this district include:

- Offices for civic, professional, religious, and charity organizations
- Professional offices
- Accessory structures in the D-1 District
- Insurance agencies and Real estate offices
- Trade association and union offices
- Public parks
- Business management offices
- Banks, credit unions, loan associations

Other uses that can be built pursuant to special conditions include funeral homes; clinics; planned unit developments (PUDs); and residential uses that meet dimensional requirements for the DM-1: Residential - Multiple district. Special land uses in this district include churches on collector or arterial roads; government-owned structures and utilities; private clubs, fraternal organizations, or lodge halls; experimental, research, or development laboratories with manufacturing capabilities; beauty salons and barber shops; family dwellings; and planned neighborhood convenience retail centers.

Within the D-1 District, the setbacks must be at least 20 feet in the front and rear, and must be between 10 and 25 feet for side yards as the actual minimum is assessed individually by the City of Lansing Planning Office. Additionally, the maximum building height for this district is 45 feet.

Parking minimums in this district are assessed based on the type of use. For banks, one parking space is required for every 150 square feet of usable floor area. For business and professional offices, it is one space for every 200 feet of usable floor area. For professional medical or dental offices, one space is required for every 150 square feet of usable floor area.

5.2.2 E-1: Apartment Shop

The E-1 District is for mixed uses with the intent to "permit a structure to be utilized in a combination of commercial, office and residential uses, although single usage of structures is also permitted. Density ranges for residential uses in an E-1 Apartment Shop District range from 31.1 to 87.1 dwelling units per acre." The types of uses permitted in this district include:

- Uses permitted on principal in the D-1: Professional Office District
- Multiple-family dwellings
- Accessory structures in the E-1 District
- Hotels and motels
- Public parks and playgrounds
- Convenience retail stores, restaurants, bars, and taverns
- Off-street parking facilities

Other uses that can be built pursuant to special conditions include funeral homes; clinics; PUDs; Churches on collector or arterial roads; and family dwellings. Special land uses permitted in the E-1 District include private clubs, fraternal organizations, and lodge halls; government-owned structures and utilities; planned residential developments; and experimental, research, or development laboratories.

With regards to multiple-family dwelling units in the E-1 District, the following area requirements apply: efficiency dwelling units must have 500 square feet of lot area per unit, one-bedroom units must have 700 square feet of area per unit, two-bedroom units must have 950 square feet of area per unit, and three-bedroom or more units must have 1,400 square feet of area per unit.

The E-1 District also has stratified front setback requirements based on height. Structures less than 45 feet in height must have a front yard setback of at least 20 feet. Structures 45 to 75 feet in height must have a front yard setback of at least 35 feet. Structures more than 75 feet in height must have a front yard setback of at least 50 feet. Parking lots are also permitted in the front yard except for the first 20 feet of a structure's front setback. Side yard setbacks vary based on certain caveats and specifications of the structure but must be at least 25 feet. Finally, rear yard setbacks must be at least 25 feet. No structure in the E-1 District can have a height more than 100 feet. Finally, the maximum lot coverage in the E-1 District is 75 percent of the total lot area.

5.2.3 F: Commercial

The F District's stated intent is to "allow general retail commercial uses." The types of uses permitted in this district include:

- Any uses permitted on in the E-2 Local Shopping and D-1 Professional Office Districts
- Comparison retail stores
- Private clubs, fraternal organizations, and lodge halls
- Restaurants, bars, and taverns

- Fully-enclosed theaters, assembly halls, and concert halls
- Hotels and motels
- Off-street parking facilities
- Public parks and playgrounds
- Accessory structures incidental to uses within the F District
- Medical marihuana establishments

Other uses that can be built pursuant to special conditions include hospitals; clinics; animal hospitals; kennels; lots used to sell automobiles and related mechanical equipment, playground and lawn supplies, and garden supplies; residential uses that meet DM-3 Residential District requirements; child-care facilities; PUDs; public libraries or museums; freestanding non-accessory signs; and family dwellings. Special land uses permitted in the F District include churches on collector and arterial streets; government-owned structures and utilities; automotive drive-in theaters; trailer camps; and experimental, research, or development laboratories.

Front yard setbacks in the F District must be at least 20 feet, and canopies on buildings cannot extend any closer than 12 feet from the frontage line. Side yard setbacks in this district must range from 0 to 25 feet. All commercial lots must have at least one side yard. Rear yard setbacks must be at least 25 feet. The maximum height for a building in the F District is 40 feet.

The F: Commercial District's parking minimums are assessed based on the current land use for the area. For hotels and motels, the zoning ordinance requires one for each occupancy unit and one for each employee during the busiest shift. For banks, one parking space is required for every 150 square feet of usable floor area. For institutional uses such as private clubs, lodge halls, trade organizations, or union halls, the zoning ordinance requires one parking space for every three people per the maximum occupancy of the building.

5.2.4 AG: MSU Agriculture and Natural Resources District

Parcels located on the east side of the Collins Road Corridor are all currently utilized as agricultural land as described within the Michigan State University and Lansing Township zoning ordinance. Since MSU is the sole owner and primary operator of these parcels, its zoning ordinance regulations regarding these parcels were primarily used.

- The Agriculture and Natural Resources (AG) District is stated to allow the following principle land uses and buildings:
- Program-related single-family housing

- Agricultural and natural resources research, teaching, and outreach facilities for plants and animals
- Farm areas for experimentation, teaching, outreach, and cultivation or production of plants and animals for institutional use
- Associated agricultural facilities not operated by the institution

Other accessory land uses and buildings that are necessary to the operation of the principle land uses and buildings such as silos, water wells, and pumping stations are permitted. Potable water treatment and storage facilities as well as solar and wind generation is also permitted within this zoning district. Surface parking is also permitted as an accessory land use however the minimum number of parking spots allocated per parcel is not stipulated.

Building heights shall be limited to two stories, or 20 feet, with the exception of agricultural silos or similar structures which may be taller in height. Additionally, all structures must be setback a minimum distance of 100 feet on all sides from the center of the nearest roadway.

Allowable Building Footprint by Zone

Zone	Max lot coverage	Min Setbacks Front / Rear	Min. Setbacks Side	Height	Parking
Professional Office (D-1)	Undefined	20ft	10-25ft	45ft	1 per 200sft
Commercial (F)	Undefined	20ft/25ft	0-25ft	40ft	1 per 150sft
Mixed Use (E-1)	75%	20ft/25ft	25ft	100ft	Variable
MSU Agriculture (AG)	Undefined	100ft	100ft	20ft	Variable

Table 14: List of zoning districts in the Collins Road Corridor Area and their dimensional restrictions.

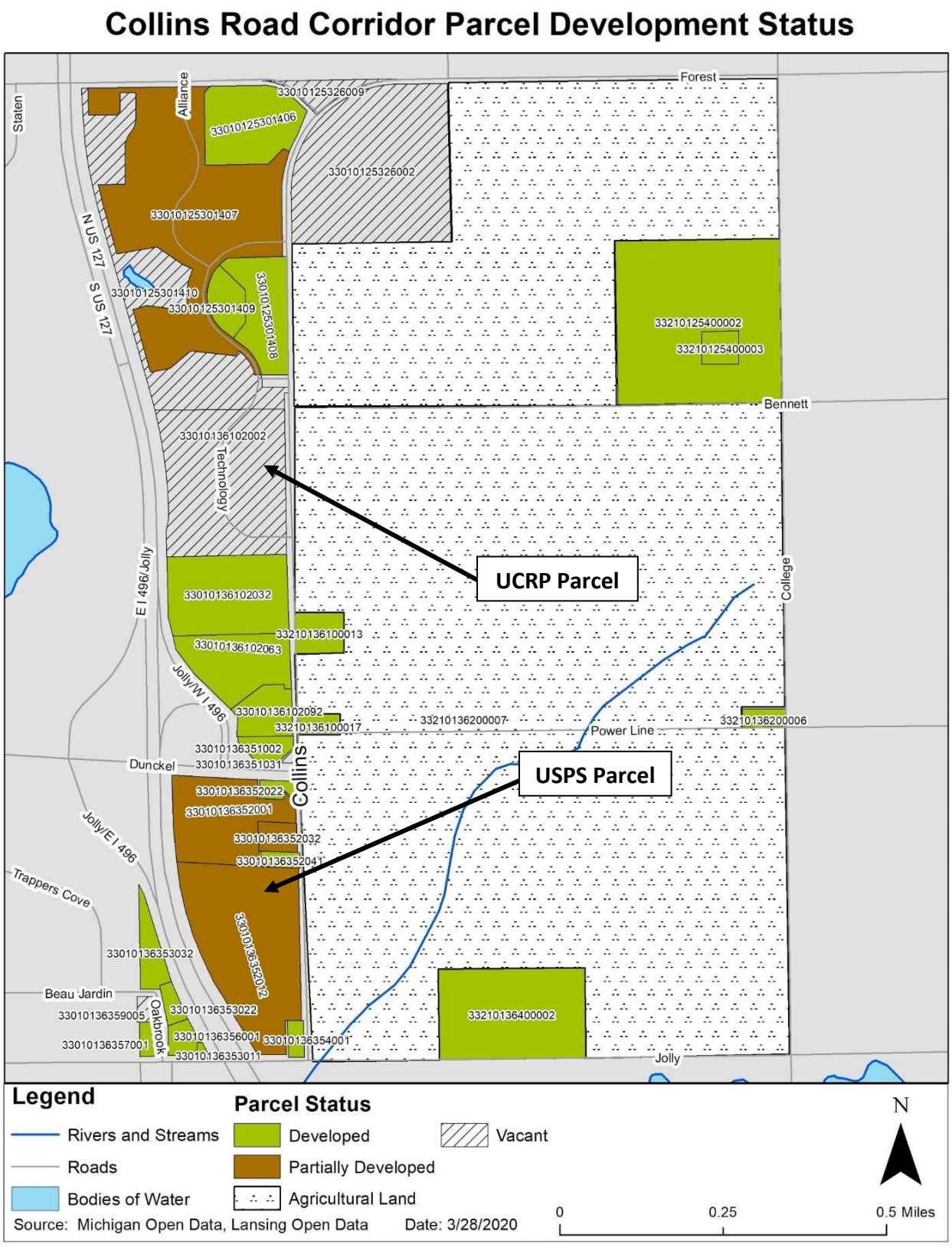
5.3 Build Out Assessment

5.3.1 Introduction

A buildout assessment typically identifies the maximum amount of building volume or floor space that can be accommodated in an area. This is often referred to as the Floor-to-Area Ratio, or FAR. The FAR depends on a multitude of factors that relate to both the Zoning and the site conditions. With regards to zoning, the typical factors to consider are the allowable density, the setback requirements and the parking requirements. For the site, one looks at development constraints such as wetlands and slope, shape of the lot, configuration of the site plan for circulation requirements etc.

Buildouts can be done for both vacant and developed or partially built land or, in this case, parcels. Most commonly, buildouts are created for vacant lands or parcels with significant additional building capacity. For this assessment, active developments along the corridor such as the McLaren hospital and parcels owned by the University and the MSU Foundation, an affiliate of the University, are not considered. As such, there are two parcels along Collins Roads that meet the criteria for developable, partially-built out land: the vacant lower half of the UCRP (Parcel ID 2210136102002) and the US Post Office Building (Parcel ID 33010136352012) site as seen in Map 19. Both parcels are in the D-1 Professional Office zone.

As there is no maximum lot coverage or FAR defined in the zoning bylaws for the D-1 Professional Office District, the allowable density and building footprint industry standards specified in section 5.3.2 are used to determine the hypothetical buildout for the parcels. This calculated FAR can then be applied to other sites within the Professional Office zone to calculate the estimated buildout within that zone.



Map 18: A record of all of the parcels within the Collins Road Corridor based on their current development status. Developed (green) parcels have their footprints completed, while Partially Developed (brown) parcels are either under construction or possible redevelopment.

5.3.2. Considerations for the Buildout

The buildout assessment factors in the following Industry Standard[1] criteria.

a. 30% of the property for circulation. Circulation is typical access roads, internal setbacks between buildings, open spaces and pervious drainage areas etc. Circulation space for a office park is typically between 25 to 40 percent by industry standards.
b. Useable space is calculated at 80% of total buildable floor area.
c. 300sft per parking space. Parking spaces range between 250sft to 350sft depending on circulation and landscaping requirements.
d. Parking is allowed within setbacks and circulation area.
e. Floor height 12 - 14ft

5.3.2.1. Vacant Parcel ID: 33-01-01-36-102-002

Parcel Detail

Acreage: 28.3 acres

Zone: D-1 Professional Office

Setbacks: 20ft

Height: 40ft

Parking: 1 space per 200sft of usable floor area

Calculations

Total Area:	1,232,448sf
Subtract 30% for circulation and setbacks	369,824sf
Buildable area	863,624sf
Building Footprint is estimated as approximately one third of buildable area	
Building Footprint	287,874sf
Zoning can accommodate a two story building	575,748sf
Parking spaces required = total sf of building/200	2,879 spaces
Parking area required = 2879*300sf	863,700sf
Calculated Land Coverage	**27%**
Calculated FAR	**0.54**

Based on the above, the site can accommodate a 2-story building totaling 575,748 sf

5.3.2.2. US Post Office Building Parcel ID: 33-01-01-36-352-012

Parcel Detail

Acreage: 25.26 acres

Zone: D-1 Professional Office

Setbacks: 20ft

Height: 40ft

Applying the FAR and land coverage calculated for the Professional Office zone using the vacant parcel example, one can estimate the total buildout as follows:

Total Area	1,100,326sft
Multiplied by Allowable Land Coverage	27%
Building Footprint	**297,088sft**

Total Area	1,100,326sft
Multiplied by FAR	0.54
Total Buildable Area	**594,176sft**

The current post office occupies 297,088 floor space, allowing for an additional 297,088 at full buildout.

5.4 Conclusion

As can be noted from the buildout assessment for the vacant parcel along Collins Road, there is significant future development potential in excess of 650,000sft. While the rest of the parcels along the corridor already have existing development, there could be potential infill development at the Post Office site. As the zoning ordinance permits uses such as professional medical offices and research-oriented development, there is real potential for Collins Road to become the new med-tech corridor within the Lansing area.

The completion of the McLaren Health Center will potentially spur increased tenancy with the adjacent UCRP, as well as neighboring parcels. Development along the east side of the Corridor remains uncertain as MSU owns the land and development is contingent upon the University's decisions on how to manage, lease, or sell the land.

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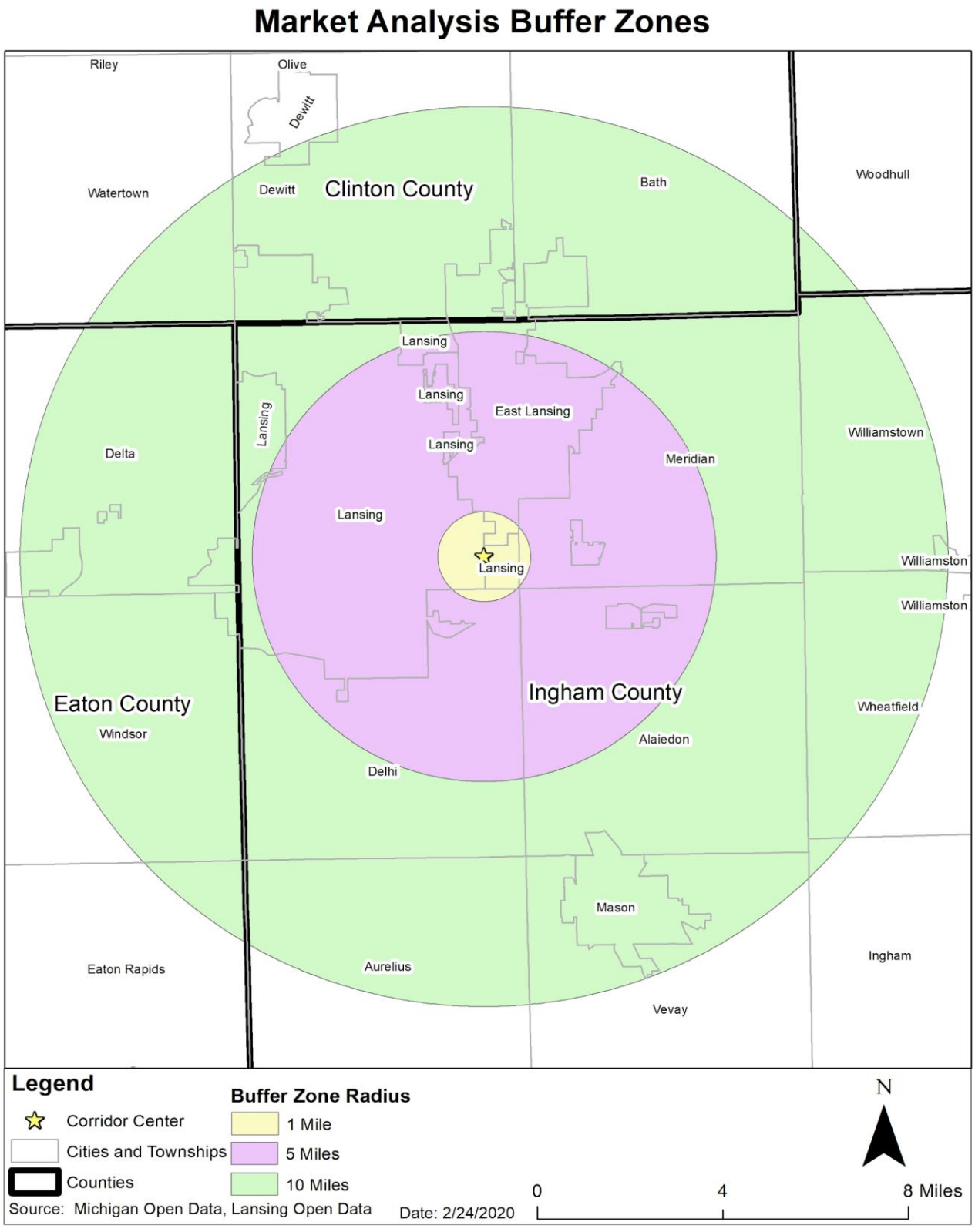
[1] Urban Land Institute, Business and Industrial Park Development Handbook, 2001.

Chapter 6: Market Analysis

6.1 Introduction

For analysis of business and market data outside of the Collins Road Corridor, ESRI's ArcGIS Business Analyst Online (BAO) was used. This program offers the ability to gain unique insights into the market characteristics of an area including current business conditions as well as projections as to how business patterns may shift in the future. The following market analysis not only utilized BAO, but also data from the Bureau of Labor Statistics (BLS), Martin Commercial Properties, and primary data to gauge which industry sectors are dominant in the selected areas as well as where there may be shortcomings. This is done to determine which business types are or are not performing well and help guide future developers as to which types of businesses may be suitable for the area. Rent prices and vacancy rates within the Collins Road Corridor itself were also evaluated to better understand current business market conditions and to determine if there are any barriers to market entry.

This analysis covers the area surrounding the Collins Road Corridor. The center of the corridor was determined by finding the most equidistant location along Collins Road, being approximately 0.75 miles north of Jolly Road and 0.75 miles south of Forest Road. Radii of 1-, 5-, and 10 mile-buffer zones were selected as they provide an insight into current business conditions for a wide array of municipalities and counties. Each buffer is of compelling interest as each distance covers several different municipalities while the longer buffers extend into multiple counties. More specifically, the 1-mile buffer includes East Lansing, Lansing Township, the City of Lansing, and Delhi Township. The 5-mile buffer will encompass the City of Lansing, Lansing Township, East Lansing, Delhi Township, Alaiedon Township, and Meridian Township, all within Ingham County. Finally, the 10-mile buffer will include the previous jurisdictions as well as Bath Township and Dewitt Township in Clinton County; Woodhull in Shiawassee County; Delta and Windsor Townships in Eaton County; Aurelius, Meridian, Wheatfield, and Williamstown Township, as well as the City of Mason, in Ingham County. The map displays the three buffer areas used within this market analysis.



Map 19: The three buffer radii (1, 5, and 10 miles) used to determine and visualize locations analyzed for this report.

6.2 Business Summary

6.2.1 Overview

A summary of businesses and employers within the analysis zones indicates the economic conditions of the area surrounding Collins Road. An analysis of the existing conditions leads to predictions and models for what the future economic conditions may become. Ultimately, this assessment may be used to develop recommendations for economic development along the Collins Road Corridor, as well as the surroundings stretching as far as the entire Tri-County Area.

The summary of industries below is separated by the radii they are within. The data were extracted and compiled using Infogroup information based on ESRI's 2019 population forecasts as obtained from BAO.

6.2.2 One Mile Radius of Collins Road Corridor

The one-mile radius from the center of Collins Road has far fewer employees and businesses than the five- and ten-mile buffer areas which is obviously related to the magnitude of land area but can also partially be attributed to the larger quantities of vacant land within the one mile radius. Within this area, dominant industries include Educational Services (11.3 percent), Health Care & Social Assistance (14.2 percent), Professional, Scientific, and Tech Services (10.4 percent), Other Services (10.4 percent), and Unclassified Establishments (10.4 percent). The dominant industries are not a surprise given the presence of both 2- and 4- year academic institutions located nearby and the heavy presence of Health Care and Social Assistance firms in and around Collins Road itself. The University Corporate Research Park is also likely the source for the larger proportion of Professional, Scientific, and Tech Services within this area.

After those industry types, the next largest sectors are Accommodations and Food Services (5.7 percent) and Retail Trade (8.5 percent). Accommodations and Food Services can be tied to the Red Roof Inn along Collins Road while Retail Trade includes big box stores as well as traditional shops and convenience stores which are located nearby.

Industries by NAICS Code	1 Mile Radius				5 Mile Radius				10 Mile Radius			
	Businesses		Employees		Businesses		Employees		Businesses		Employees	
	#	%	#	%	#	%	#	%	#	%	#	%
Agriculture, Forestry, Fishing & Hunting	0	0.0%	7	0.1%	13	0.2%	115	0.1%	17	0.4%	80	0.1%
Mining	0	0.0%	0	0.0%	5	0.1%	32	0.0%	7	0.2%	116	0.2%
Utilities	0	0.0%	2	0.0%	9	0.1%	827	0.5%	3	0.1%	31	0.0%
Construction	3	2.8%	123	1.9%	281	3.7%	3,130	1.8%	308	7.5%	2,445	3.9%
Manufacturing	3	2.8%	85	1.3%	158	2.1%	4,615	2.7%	131	3.2%	4,884	7.8%
Wholesale Trade	2	1.9%	21	0.3%	148	1.9%	1,498	0.9%	138	3.4%	3,674	5.9%
Retail Trade	9	8.5%	254	4.0%	920	12.1%	15,587	9.0%	554	13.5%	9,978	15.9%
Transportation & Warehousing	2	1.9%	776	12.3%	96	1.3%	2,030	1.2%	83	2.0%	928	1.5%
Information	3	2.8%	123	1.9%	193	2.5%	4,029	2.3%	69	1.7%	941	1.5%
Finance & Insurance	3	2.8%	34	0.5%	413	5.4%	7,361	4.2%	216	5.3%	9,978	15.9%
Real Estate, Rental & Leasing	4	3.8%	50	0.8%	357	4.7%	2,384	1.4%	257	6.2%	1,648	2.6%
Professional, Scientific & Tech Services	11	10.4%	248	3.9%	809	10.7%	14,400	8.3%	384	9.3%	4,032	6.4%
Management of Companies & Enterprises	0	0.0%	0	0.0%	9	0.1%	28	0.0%	3	0.1%	14	0.0%
Administrative & Support & Waste Management & Remediation Services	2	1.9%	18	0.3%	219	2.9%	2,167	1.2%	174	4.2%	1,323	2.1%
Educational Services	12	11.3%	3,926	62.0%	334	4.4%	42,434	24.5%	120	2.9%	3,729	5.9%
Health Care & Social Assistance	15	14.2%	316	5.0%	884	11.6%	26,711	15.4%	339	8.2%	5,118	8.2%
Arts, Entertainment & Recreation	4	3.8%	88	1.4%	169	2.2%	2,811	1.6%	78	1.9%	946	1.5%
Accommodation & Food Services	6	5.7%	87	1.4%	540	7.1%	10,690	6.2%	271	6.6%	5,647	9.0%
Other Services (except Public Administration)	11	10.4%	98	1.5%	1,082	14.2%	8,798	5.1%	582	14.2%	3,484	5.6%
Public Administration	3	2.8%	66	1.0%	457	6.0%	23,563	13.6%	164	4.0%	3,600	5.7%
Unclassified Establishments	11	10.4%	9	0.1%	499	6.6%	445	0.3%	215	5.2%	143	0.2%
Total	**106**	**100%**	**6,331**	**100%**	**7,596**	**100%**	**173,533**	**100%**	**4,113**	**100%**	**62,739**	**100%**

Table 15: A list of each industry group within the 1, 5, and 10-mile rings within the study area.

Outside of these industry sectors, all remaining industry sectors hold smaller industry shares of less than four percent. Arts, Entertainment, and Recreation and Real Estate, Rental, and Leasing comprise 3.8 percent of businesses respectfully. Firms specializing in agriculture, mining, utilities, and management of companies and enterprises are not present within this area.

Employment share is dominated by Educational Services with 3,926 employees (62.0 percent), followed only next by Transportation and Warehousing with 776 employed (12.3 percent). Despite having a larger share of businesses in the area, Health Care & Social Assistance has only 316 employees (5.0 percent) while Retail Trade and Professional, Scientific, and Tech Services have 254 (4.0 percent) and 248 employees (3.0 percent) respectfully.

Again, the large portion of employees working in Educational Services can be directly tied to the presence of higher-educational institutions nearby while the Transportation and Warehousing employee share could be attributed to the Post Office along Collins Road. Health Care & Social Assistance as well as Professional, Scientific, and Tech Services likely evident with the presence of the University Corporate Research Park. Retail Trade occupies a smaller share of employment but offers a stable base of employment while providing economic influx to the area through the presence of shops, firms, and other establishments around Collins Road.

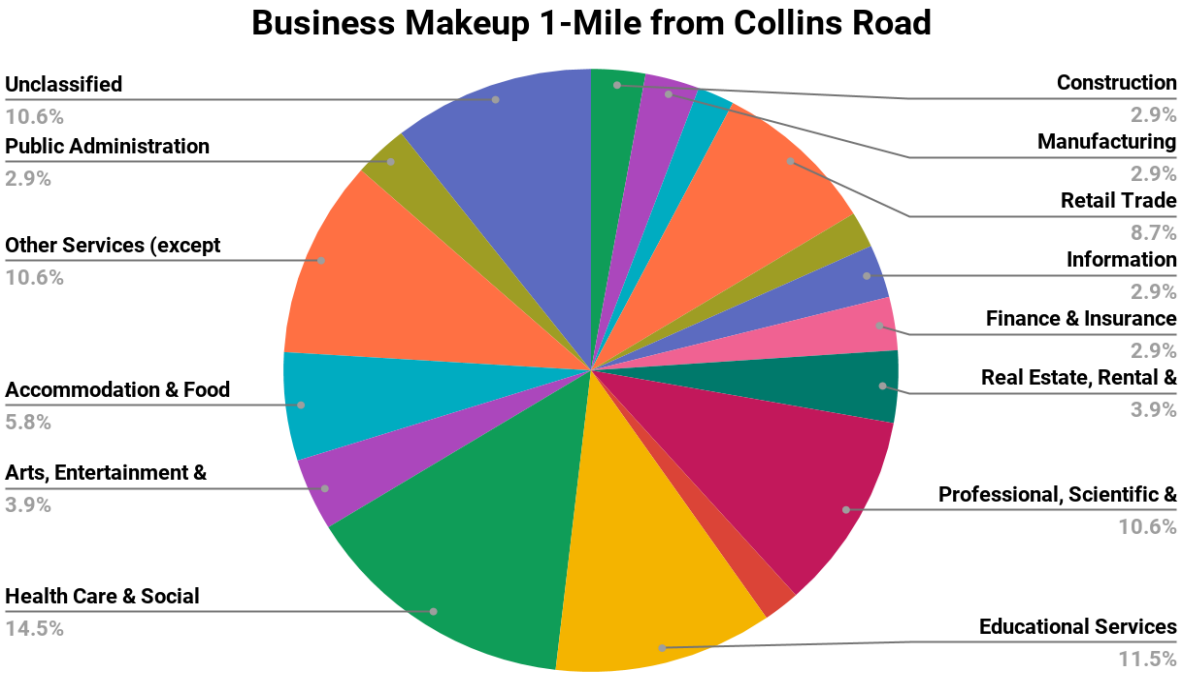


Figure 11: Makeup of the businesses within a 1-mile radius of Collins Road; Source: ESRI

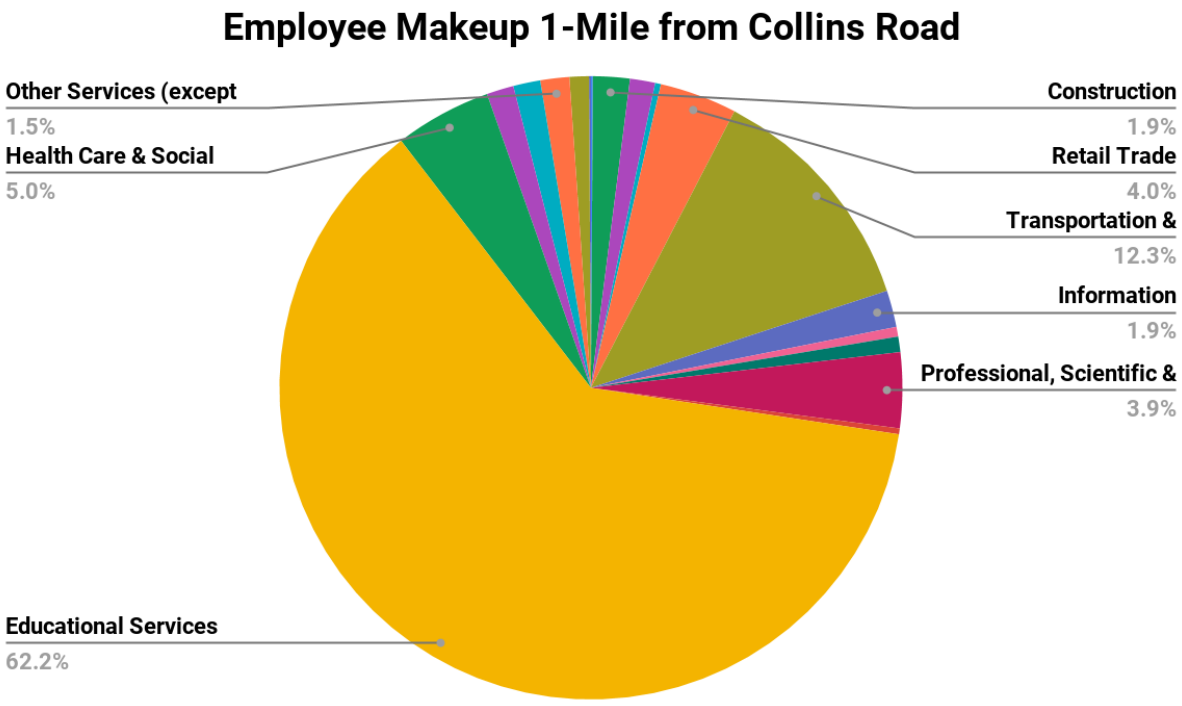


Figure 12: Makeup of the businesses within a 1-mile radius of Collins Road; Source: ESRI

6.2.3 Five Mile Radius of Collins Road Corridor

Within a five-mile radius of the center of Collins Road, the industry presence is very characteristic both of the nature of college towns and a state capital. Business share within this circle is primarily classified by Other Services (14.2 percent), Retail Trade (12.1 percent), Health Care & Social Assistance (11.6 percent), and Professional, Scientific & Tech Services (10.7 percent). While it is difficult to quantify what other services may include, the other sectors are fitting for the area. Retail Trade is typically a major industrial sector that in this case encompasses the Lansing Area, which includes a variety of retail establishments as well as the Lansing and Meridian Malls.

Health Care & Social Assistance includes major medical institutions, including McLaren and Sparrow Health Centers, and will continue to grow with the completion of the new McLaren campus on Collins Road. Additionally, MSU's large human and veterinary medicine colleges instigate demand for suppliers and contracting companies to support both medical and medical research operations. Due to the healthcare sector being a major industrial mainstay in the United States, it can be expected to maintain a significant share of businesses and employees within the area.

Professional, Scientific & Tech Services similarly dovetails the fact that the Lansing Area is both the seat of a major research university and the state government. Entrepreneurialism from the University and the demand for talent and research-oriented business in this part of the state will maintain this industry sector as an important facet of the economy.

When considering employment share, Educational Services is the predominant employment sector within the area, with 42,434 employees (24.5 percent) as of 2019. Following this are Health Care & Social Assistance with 26,711 (15.4 percent) employees, Public Administration with 23,563 (13.6 percent) employees, Retail Trade with 15,587 (9.0 percent) employees, and Professional, Scientific & Tech Services with 14,400 (8.3 percent) employees.

As discussed before, the 50 percent share of employees in the former two sectors can be drawn to major institutions such as Michigan State University, the State of Michigan, the City of Lansing, and the City of East Lansing for Public Administration, and McLaren, Sparrow, and other nearby health centers for Health Care & Social Assistance. The amount of labor demanded by these three, alongside other employers in the Public Administration Sector, will still require many employees in the near future. Likewise, hospitals are vast and complex operations, and the new McLaren campus will similarly require more workers in this sector. As a result, stability and growth will likely center in this area, as these services have stayed and are developing around the Lansing-East Lansing area.

Similarly, the Retail Trade and Professional, Scientific & Tech Services sectors will likely maintain their share due to employment and talent coming from the University. These services may face some internal shifts due to the transition to online retail and provision of services through the internet, but still have the potential to be substantial employers within the area.

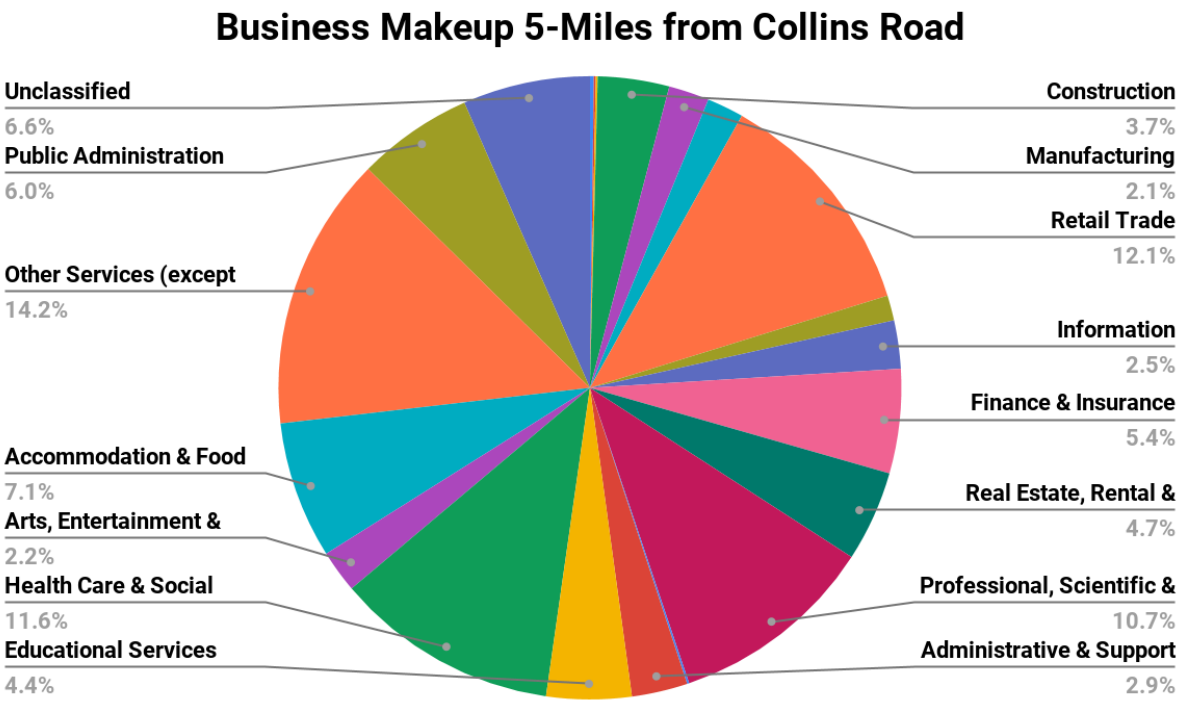


Figure 13: Makeup of the businesses within a 0-5 mile radius of Collins Road.

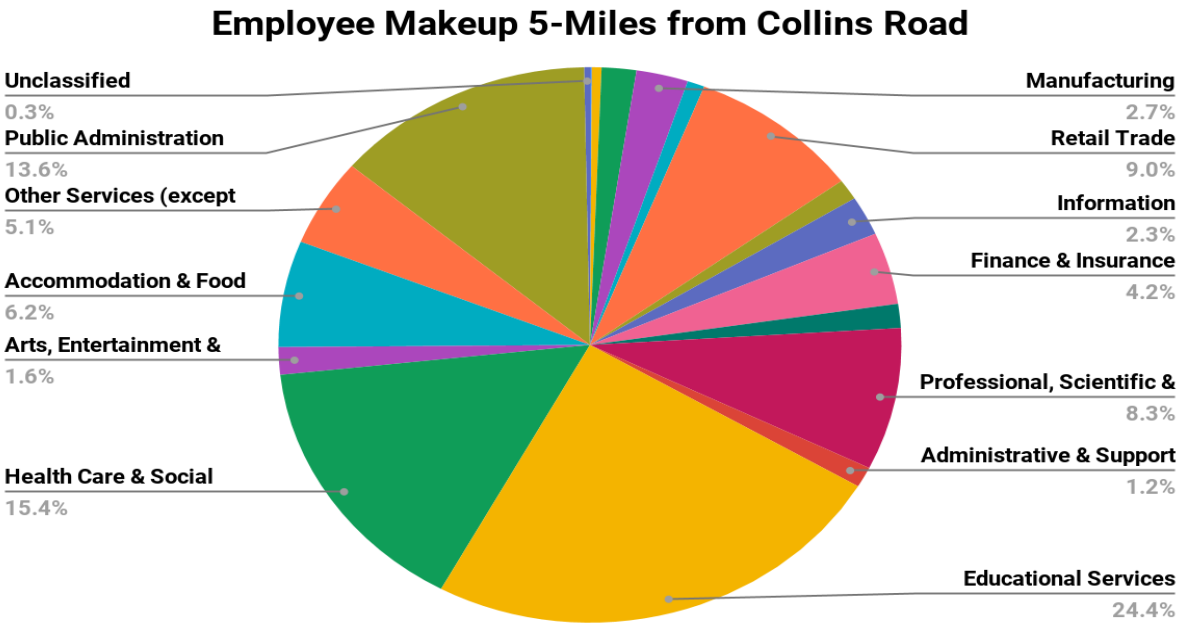


Figure 14: Makeup of the number of employees within a 5 mile radius of Collins Road.

6.2.4 Ten Mile Radius of Collins Road Corridor

Within a ten-mile radius, the industry share is more evenly dispersed. The majority of businesses still fall into the Other Services category at 14.2 percent. Following this is Retail Trade at 13.5 percent, Professional, Scientific & Tech Services at 9.3 percent, Health Care & Social Assistance at 8.2 percent, and Construction at 7.5 percent.

Retail Trade's prevalence is notable and may be attributed to shopping centers including malls and big box stores located in the suburbs of the Lansing Area. These retail establishments address needs of residents of outlying communities such as Mason, Dewitt Township, and Bath Township as well as some of the retail demand within smaller study area radius.

Professional, Scientific & Tech Services may include companies dedicated to the same research and professional service activities but may find office rental space and locational demand more convenient compared to office space in Lansing.

Health Care & Social Assistance businesses are likely more dispersed in the area. Additionally, there may be medical offices tied to medical networks within the Lansing Area, with individual providers extended outward in order to provide services throughout the region.

Construction, the fifth largest sector in the area, may be indicative of an increasingly healthy economy. The amount of construction companies and their share of the market in this area shows that building demand is stable. Construction can be a sensitive industry, however, and in the wake of the Great Recession is one that should be closely monitored to ensure market stability.

The number of employees relative to businesses in this area shows some deviations from the one-mile radius and the five mile radius. In this area, Retail Trade and Finance & Insurance are tied, with 9,978 employees each to occupy nearly 32 percent of employment in the area. Other high-employee sectors include Accommodation & Food Services with 5,647 employees (9.0 percent), Health Care & Social Assistance with 5,118 employees (8.2 percent), and Manufacturing (7.8 percent).

Employment share in this area fits characteristics related to more suburban environments. Stores and institutions such as banks, retail establishments, restaurants, grocery stores, and medical offices can be found in this ring. The marked presence of manufacturing can be attributed to the general convention of factories located in less dense areas in order to accommodate space and inexpensive land. Another reason for Manufacturing's employee share can be attributed to Dart Container Corporation, which has headquarters and manufacturing operations within Mason.

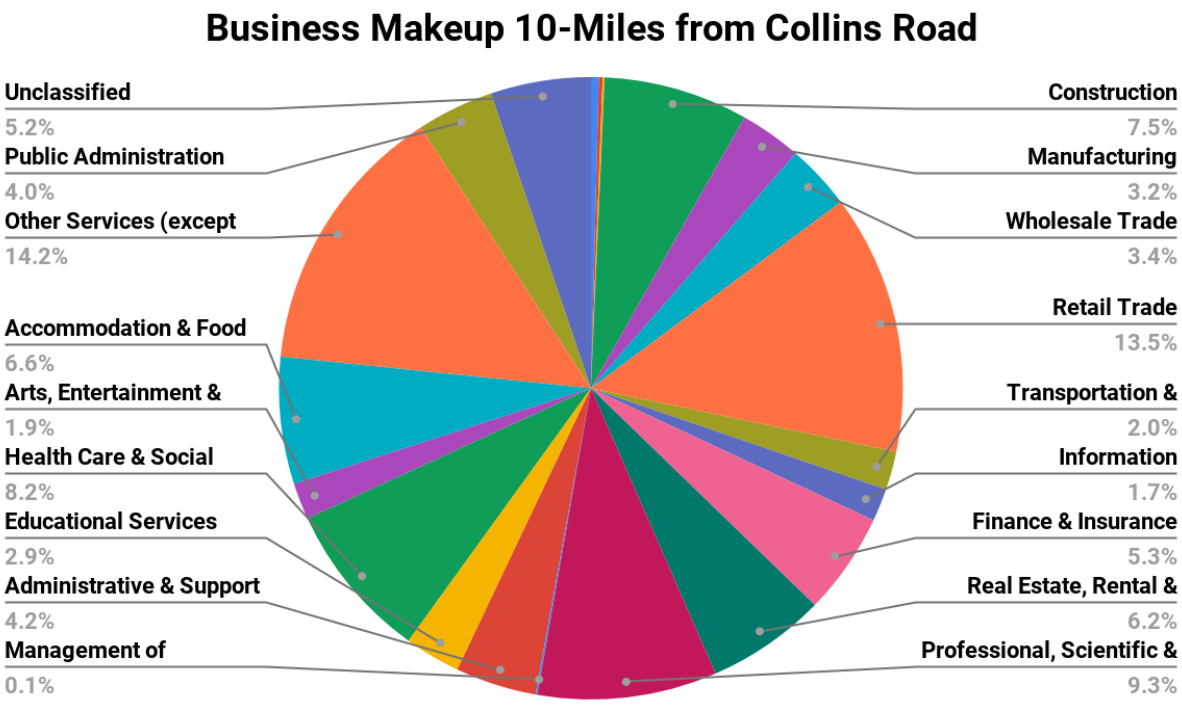


Figure 15: Makeup of the businesses within a 5-10 mile radius of Collins Road.

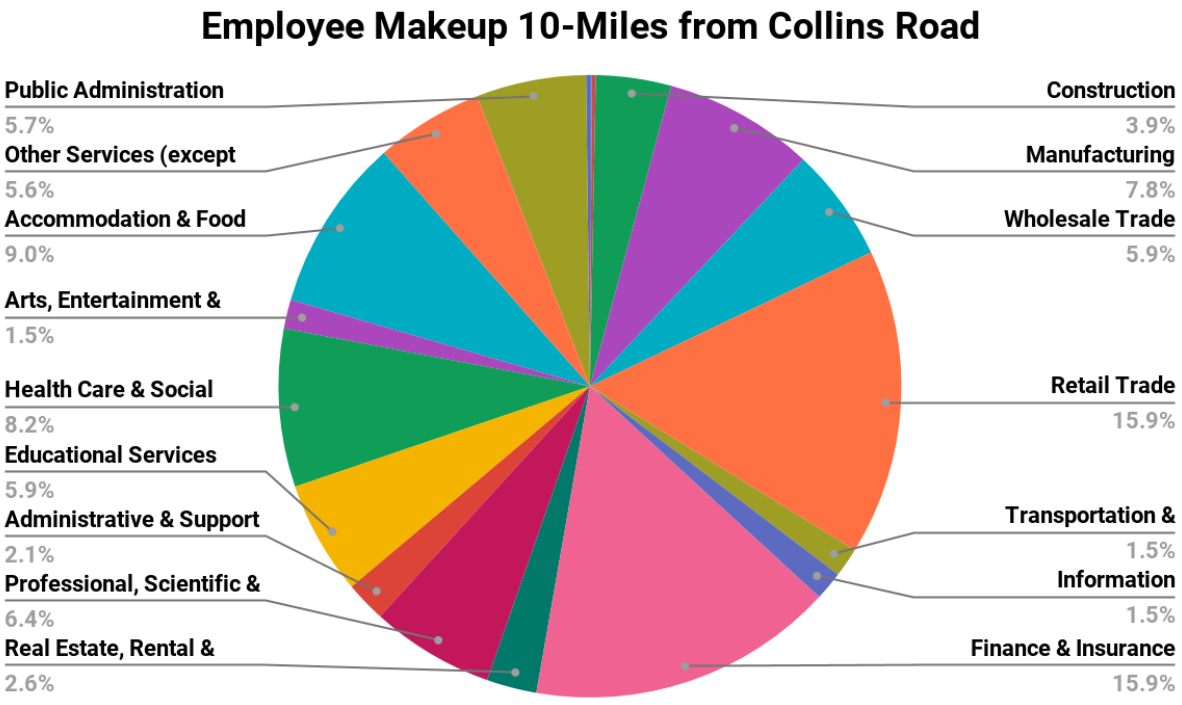


Figure 16: Makeup of the number of employees within a 5-10 radius of Collins Road.

6.3 Retail Market Potential and Expenditures

Retail market potential and expenditures were analyzed using data gathered from the 2019 Retail Goods and Services Report housed in ESRI Business Analyst. Data was collected for a 1-mile, 5-mile, and 10-mile radius to provide a comprehensive review of the current and potential market of the focus area. This section gives an overview of the goods and services utilized by consumers within the defined radius buffers, which will allow for consumption habits and retail market potential to be identified.

Local consumption levels have been compared to the national average using the Spending Potential Index (SPI) also derived from ESRI Business Analyst. Using this comparison will show the local amount spent on a good or service compared to the national average of 100. An SPI below 100 would indicate that locally, average spending is below or near the national average. An SPI above 100 would indicate that local spending on a particular good or service is higher than the national average and would suggest that the good or service is selling well in the area.

Goods & Services with Highest SPI Score (1-mile radius)	
Type	SPI Score
Video Game Software	99
Video Game Hardware/Accessories	97
Dating Services	86
Rental & Repair of TV/Radio/Sound Equipment	84
Computer Software	78

Table 16: Goods/Services with Highest SPI Score; Source ESRI

The above table includes the five sub-categories with the highest SPI score within the 1-mile radius buffer. Results of the analysis showed in this area, no retail types were considered to have a high SPI score, either 100 or above. Local consumers are spending the most money on Video Game Software, Video Game Hardware/Accessories, Dating Services, Rental and Repair of TV/Radio/Sound Equipment, and Computer Software, however spending on all of these

goods/services does not exceed national spending averages. This likely can be inferred as the result of an overall shortage of retail businesses in and around the Collins Road Corridor.

Goods & Services with Highest SPI Score (5-mile radius)	
Type	SPI Score
Dating Services	100
Video Game Hardware/Accessories	99
Video Game Software	98
Rental & Repair of TV/Radio/Sound Equipment	96
Smoking Products	90

Table 17: Goods/Services with Highest SPI Score; Source: ESRI

The previous table includes five sub-categories with the highest SPI score within the 5-mile radius buffer. Local consumers clearly are spending a significant amount of money on Dating Services, Rental and Repair of TV/Radio/Sound Equipment, Smoking Products, Video Game Hardware/Accessories, and Video Game Software given their SPI scores at or close to the national average. Despite high SPI scores, there were no goods or services that local consumers were spending more than the national average on within the 5-mile radius.

The table below includes five sub-categories with the highest SPI score within the 10-mile radius buffer. One can see that Dating Services, Video Game Software, Rental & Repair of TV/Radio/Sound Equipment and Video Game Hardware/Accessories all exceed the national average where only Smoking Products are level with the national average.

Goods & Services with Highest SPI Score (10-mile radius)	
Type	SPI Score
Dating Services	107
Video Game Hardware/Accessories	102
Rental & Repair of TV/Radio/Sound Equipment	102
Video Game Software	101
Smoking Products	100

Table 18: Goods/Services with Highest SPI Score; Source: ESRI

6.4 Leakages/Surplus by Industry Group

When analyzing the supply and demand relationship for industrial sectors within the Collins Road Corridor and the surrounding buffer areas, ESRI Business Analyst was used to determine leakage and surplus factors. To define these terms, a market leakage occurs when the demand for a good or service in an area exceeds the supply that same area is able to produce, thus forcing the consumer to purchase it in another area, resulting in lost expenditure. On the other hand, a market surplus occurs when the supply for a good or service within an area exceeds its demand, thus allowing industries to export their goods or services to other areas or draw customers from outside locales.

For this portion of the analysis, the same 1-, 5-, and 10-mile buffer areas were compared to determine leakage and surplus factors at both the local and regional levels. Ultimately, this information is vital in determining which industrial sectors are most successful in the area, ultimately selling products to a larger market area and which business types could be added to meet the demand for products or services in the area. To understand these numbers, leakage and surplus factors are measured on a scale from -100 to 100, with the largest value of leakages being 100, and the largest value for a surplus being -100. A complete leakage (100) indicates that there is an absence of retailers in the local market while a complete surplus (-100) signifies the absence of local consumers demanding specific products/services.

The charts within this report will display the main industry groups reported within the most recent Retail MarketPlace Profile from ESRI BAO and show their leakage/surplus status. The full report including retail supply, demand, retail gaps, and the number of businesses within each industry group can be found in the appendix.

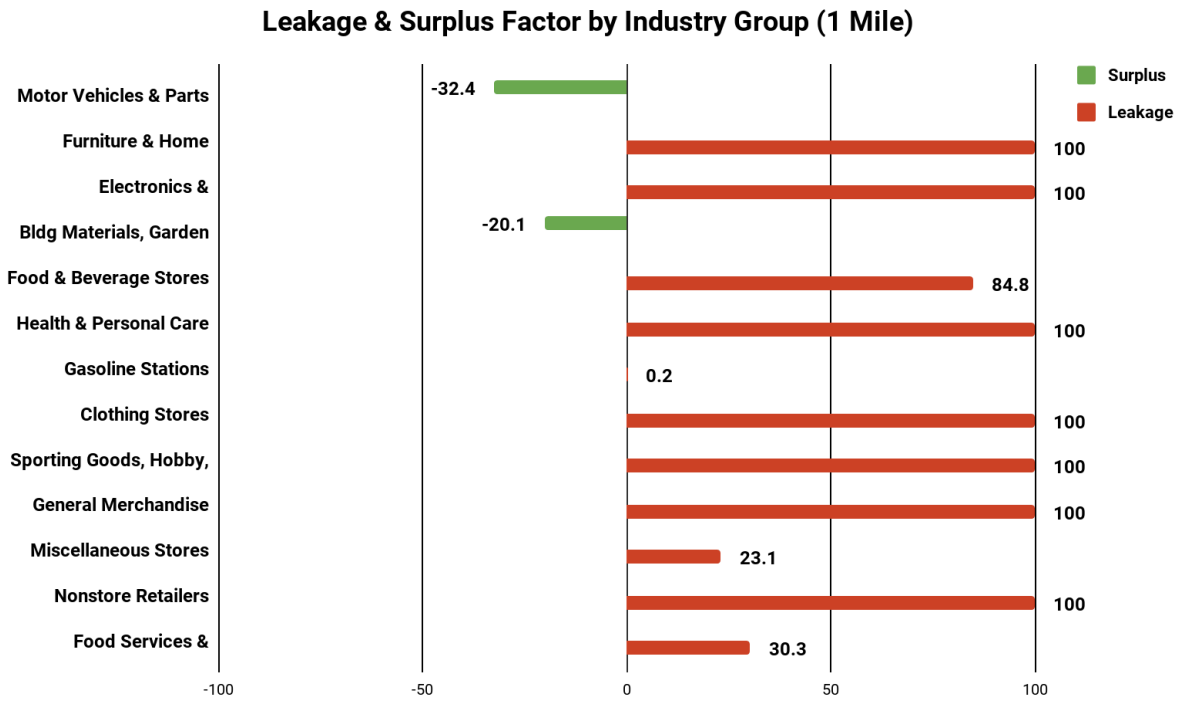


Figure 17: Leakage & Surplus Factor by Industry Group for 1-mile buffer; Source: ESRI

The 1-mile buffer reveals an overall absence of multiple industry groups. Only Motor Vehicle & Parts Dealers and Building Materials, Garden Equipment, and Supply Stores held a surplus of -32.4 and -20.1 respectively. Furniture & Home Furnishings Stores, Electronics & Appliances Stores, Health & Personal Care Stores, Clothing Stores, Sporting Goods, Hobby, Book, and Music Stores, General Merchandise, and Nonstore Retailers all had leakages of 100 indicating that there are no industry types present within the specified area despite the existence of local demand. This means that consumers looking to buy those products must go to another location to satisfy demand. Food & Beverage Stores, Miscellaneous Stores, and Food Services & Drinking Places also had relatively high leakages that were larger than 20.0. Gasoline Stations had a small leakage of 0.2 meaning that it is close to meeting local demand, but customers still need to leave the area in order to fully satisfy retail demand. Again, these numbers can be attributed to the overall lack of business types and large quantities of underdeveloped land along Collins Road and its surrounding areas.

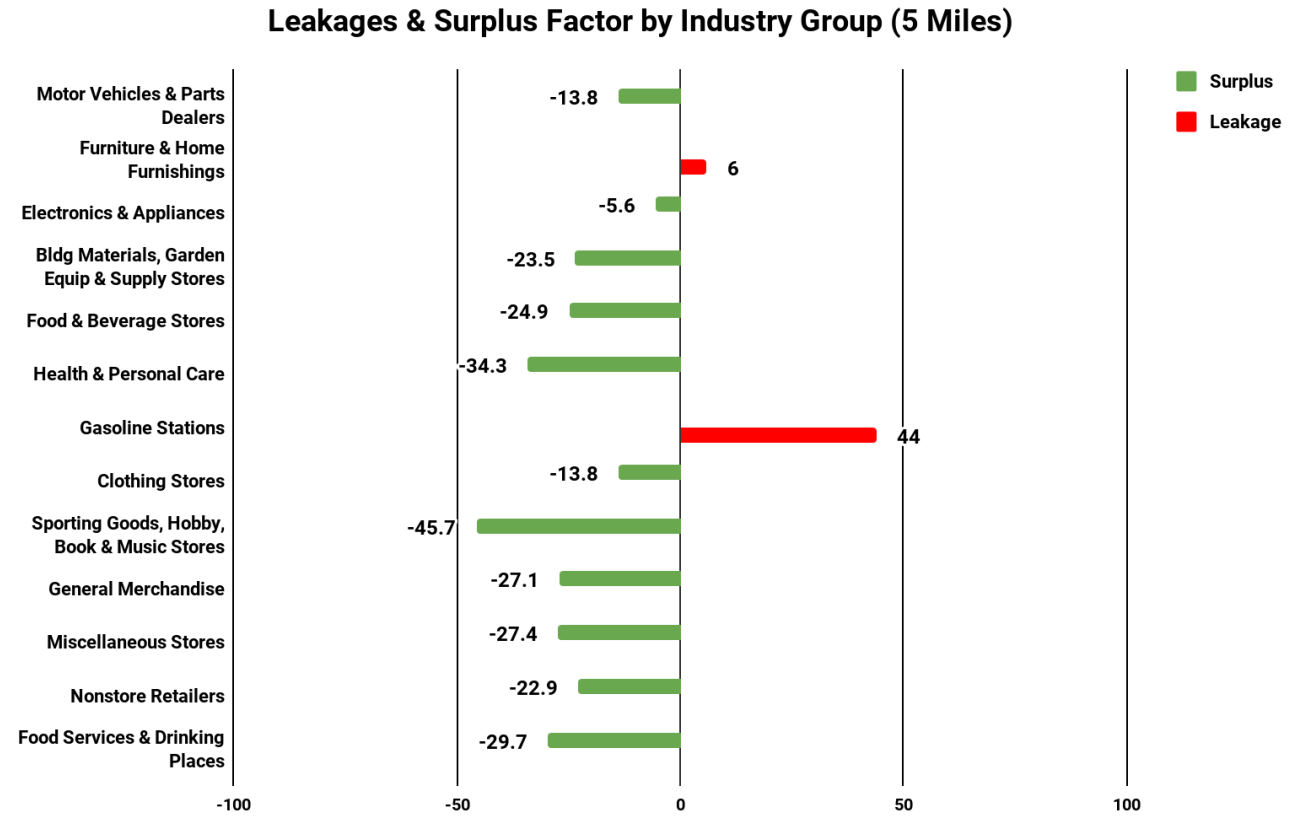


Figure 18: Leakage and Surplus Factors by Industry Group for 5-mile buffer; Source: ESRI

The 5-mile buffer displays a relatively positive report, with only 2 industry groups experiencing leakages while the rest are in a surplus. The only two industry groups with a leakage factor are Furniture and Home Furnishings Stores and Gasoline Stations. With a leakage factor of only 6.0, Furniture and Home Furnishings Stores are relatively close to meeting market demand, however Gasoline Stations have a leakage of 44.0 signifying that within the 5-mile buffer around the Collins Road Corridor, there is a relatively large need for that type of business. Specifically, the industry group, Sporting Goods, Hobby, Book & Music Stores had the largest surplus at -45.7 meaning that it was most successful at meeting market demand and is able to draw consumers in from outside areas to purchase their products.

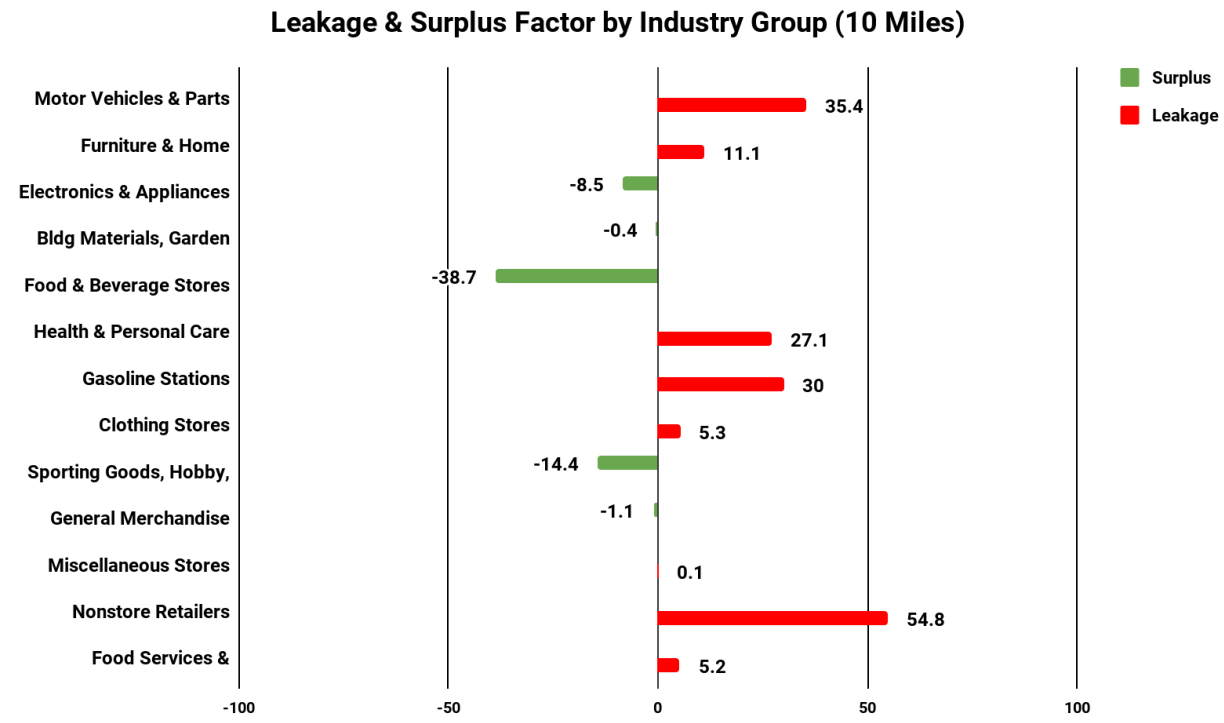


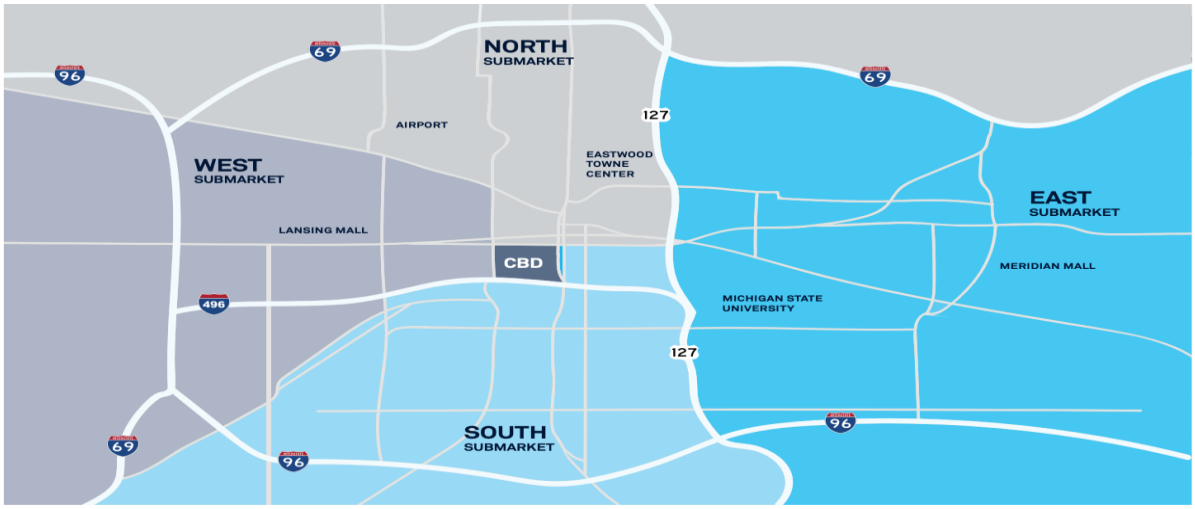
Figure 19: Industry & Surplus Factor by Industry Group for 10-mile buffer; Source: ESRI

Within the 10-mile radius, there are significantly more industries experiencing leakages with the single largest being Non-store Retailers, such as direct vendors, vending machines, and online retailers, with a leakage of 54.8. Motor Vehicle & Parts Dealers, Gasoline Stations, and Health & Personal Care stores also had relatively large market leakages of 35.4, 30, and 27.1 respectively. With market disparities that large, it is apparent that an unmet demand for those products exists within this area, therefore, firms specializing in those industry sectors may be successful if they were to locate within the study area. Other industry groups experiencing market leakages include Furniture & Home Furnishing Stores, Clothing Stores, Food Services & Drinking Places, and Miscellaneous Stores, however all leakages within those groups were less than 11.5. As for market surpluses, Food & Beverage Stores was the largest at -38.7, followed by Sporting Goods, Hobby, Book & Music Stores at -14.4. Other industry groups experiencing a market surplus included Electronics & Appliance Stores, Building Materials, Garden Equipment. & Supply Stores, and General Merchandise, but those three groups were all at or below -8.5.

6.5 Rent Prices and Vacancy Rates Comparison

Rent prices and commercial vacancy rates inform businesses who are considering locations within the study area of the comparative expense and demand associated with commercial space throughout the region. ESRI BAO did not contain this specific type of information and thus the Martin Commercial Properties 2019 Market Report for the Greater Lansing Area was analyzed to find this data. Primary data collected by the student group was the source for the following data pertaining to the Collins Road Corridor. Data for the Greater Lansing Area and the Collins Road Corridor was then compared to analyze any discrepancies or similarities in commercial vacancies and rent prices. Additionally, the commercial vacancy rate refers to existing commercial buildings currently without a tenant, not land that is vacant.

For clarification, the Greater Lansing Area as described in the Martin Commercial Properties 2019 Market Report encompasses the City of Lansing, East Lansing, Meridian Township, Lansing Township, Delta Township, Delhi Township, DeWitt Township, and Bath Township. Within that, there are five sub-areas of the Greater Lansing Area, the North, South, East, West, and Central Business District. The North Submarket lies west of US-127 and north of downtown Lansing. The South Submarket also lies west of US-127 and south of I-496 and downtown Lansing. The East Submarket is east of US-127 and encompasses Michigan State University, Meridian Mall, and Collins Road itself. The West Submarket lies west of downtown Lansing and contains Lansing Mall. The Central Business District primarily comprises the area near the State capitol building.



Map 20: Greater Lansing Areas and its surrounding submarkets; Source: Martin commercial Properties

6.5.1 Commercial Vacancy Rate

Commercial Vacancy Rate (2019)	
Greater Lansing Area	Collins Road Corridor
9.2%*	0.0%

Table 19: Commercial Office Vacancy Rate; Source: Martin Commercial Properties Market Index Brief & Primary Data

* Commercial Vacancy Rate for the Greater Lansing Area and its submarkets is an average of its commercial, retail, and industrial sites

According to the table above, the Greater Lansing Area has an average commercial vacancy rate of 9.2 percent which may be attributed to a variety of factors such as a decreasing demand for commercial space or low employment growth or could signify a slowing economy. Additional factors can may even be attributed to the fact that there could be a surplus of commercial spaces and a lack of firms to fill them. Contrarily, the Collins Road Corridor currently has a commercial vacancy rate of 0 percent. However, much of Collins Road currently remains largely undeveloped and the existing commercial properties are largely supported by Michigan State University and the University Corporate Research Park (UCRP) to fill vacancies. Since the Corridor isn't fully built out, the site has very attractive qualities which make it a desirable place to conduct business.

6.5.2 Commercial Rent Prices by Type

Since commercial properties encompass retail, office, and industrial space, each type will be individually examined and analyzed. It should be noted however that not every submarket contains all three types of commercial space. For instance, the Collins Road Corridor lacks both Industrial and Retail space but contains several Office properties. In those scenarios, N/A will be listed.

Commercial Rent Prices Per Square Foot (2019)			
Area	Office Space	Retail Space	Industrial Space
Collins Road Corridor	$14-$22	N/A	N/A
Greater Lansing Area	$8-$29	$7-$40	$3-$7
North Submarket	$13-$18	$8-$40	$3-$6

South Submarket	$8-$25	$7-$18	$4-$7
East Submarket	$12-$28	$10-$45	N/A
West Submarket	$11-$20	$9-$35	$5-$7
Central Business District	$8-$29	N/A	N/A

Table 20: Commercial Rent Prices Per Square Foot, by Type; Source: Martin Commercial Properties Market Index Brief & Primary Data & UCRP Director

Collins Road, being located near Michigan State University and the I-496 Freeway possess several attributes which make it an attractive place for business operations. With that said, it is clear that office spaces along the corridor would command higher rent prices at $14-$22 per square foot. This ultimately falls within the rent price range for the Greater Lansing Area, but is higher than most submarkets. The North submarket had the lowest rent price for office space at $13-$18 per square foot which can be attributed to its lack of premium Class A office spaces. The South submarket reported an office rent of $8-$25 per square foot, which offered a lower starting price as compared to other submarkets but could also be more expensive as one approached the higher end of the price range. The East and West submarkets offered similar rent prices at the lower end, however in the East, rent prices could become more expensive, given the fact it offers higher quantities of Class A & B office spaces. The Central Business District predictably had the highest office rent price due to higher property values, larger commercial activity, the heavy presence of premium office spaces, and its proximity to prominent buildings such as the state capitol.

Since the Greater Lansing Area encompasses multiple municipalities and covers a large geographic area, the rent price range for various retail business sites is relatively wide at $7-$40 per square foot. This large price range can likely be down to the fact that retail business spaces can vary in size from small convenience stores to large “big-box” stores and location can also greatly influence the rent price as well. Because Collins Road does not contain any retail spaces, there is no rent price range to report. As for the submarket areas of the Greater Lansing Area, the North Submarket ranges from $8-$40 per square foot. This range may likely be widened by the presence of the Eastwood Town Center which may command higher rent prices as compared to surrounding areas. The South submarket reported the lowest rent price per square foot which may be a reflection of lower property values in the area and/or is a result of higher vacancy rates.

The East Submarket reported to have the highest retail rent prices which is predictable as this area covers Michigan State University, Meridian Mall, and Downtown East Lansing where retail property demand and access to consumers is high. The West submarket reported a $9-$35 per square foot range which may be reflected upon by the presence of the Lansing Mall. Again, these price ranges may be influenced by property location, proximity to the customer base, and size of the space itself among others.

While the industrial rent price per square foot may be cheaper than retail and office space, it is largely dependent upon the size of the building needed. For small industrial spaces below 20,000 square feet, rent prices can be obtained for as low as $3 per square foot. At the opposite end of the spectrum, rent prices per square foot can reach as high as $7 per square foot for more premium industrial spaces exceeding 20,000 square feet. Industrial rent prices per square foot generally are cheaper as compared to office and retail spaces due to the fact that they may be situated further away from heavily populated areas and are often located on more affordable parcels. In any case, knowing these price ranges ultimately aids potential firms in calculating a vital operating expense that will be incurred. Similar to retail spaces, Collins Road does not contain any industrial sites and thus has no rent price to report.

Chapter 7: Case Studies

7.1 Introduction

This chapter provides examples of established corridors similar to Collins Road that have exhibited traits of successful development. These examples will aid in directing the Collins Road Corridor in the best methods to become a node for healthcare, education, and technological research. In turn, these case studies offer stakeholders, developers, and administrators options that can be implemented based on what others have done in similar scenarios. The following are brief analysis of five corridors evaluated. The first three look at established corridors and examine their experiences while the other two examine corridor planning and processes for corridors which are currently under development.

7.2 Criteria for Selection

In order to find and assess corridors that are most similar to the Collins Road Corridor, the following criteria were applied. This is important for developing a modular approach to how case study research can be implemented into the plan, as some differentiation can be guaranteed with factors such as geography, varying economies and demographics, and industries in the area.

Case Study Selection Criteria	
Criteria	**Description**
City/County/State Location	Different municipalities, counties, and states have programs and regulations for how they can influence, or discourage, growth in certain economic sectors. Analyzing case studies, not just limited to Michigan, will offer examples of economic development programs and suggestions that can be utilized for Collins Road.
Size of Corridor	The length of each stated corridor can impact its growth and development due to the amount of commercial space it can offer and its accessibility to the consumer and workforce base. Corridors which are between 1-5 miles in length are of beneficial analysis.
Multiple Stakeholders Present	Apart from having multiple jurisdictions present along the Collins Road Corridor, the presence of different stakeholders including prominent businesses, private and public organizations, and institutions may have a direct impact on the type of development performed. Analyzing how development commenced in respect to the needs of stakeholders is of importance and is relevant to the future growth of Collins Road.

Proximity to a Medical Facility	A corridor located near a medical facility can have a direct impact on the amount and type of development that can be expected. Discovering how other corridors adapt/change to fit the needs of a medical facility can guide and direct new developmental strategies for the Collins Road Corridor.
Proximity to a Higher Education Academic Institution	Michigan State University has a strong influence on the Collins Road Corridor as a driver in the medical and research sectors. An observation of how major research universities affect the development of these corridors will help Collins Road navigate its relationship with MSU.
Transportation and Connectivity	The Collins Road Corridor has a strong asset with regards to its connection to I-496 and offers a public transit service via CATA bus routes, however the area clearly lacks pedestrian and bicycling infrastructure. Other corridors' response to connectivity challenges will help in developing transportation-related recommendations for Collins Road.

Established Corridor Case Studies

7.3 Michigan Street Corridor, Grand Rapids, Michigan

7.3.1 Background

The Michigan Street Corridor, also known as the "Medical Mile," in Grand Rapids, Michigan is a 4-mile stretch consisting of prominent health and educational institutions, providing employment and educational opportunities to over 50,000 people. Aside from offering education and employment, the corridor also attracts over 1.25 million employees, hospital patients, students, and visitors annually. The corridor and its adjacent areas also offer housing to more than 20,000 residents. Recognizing its potential as a prominent economic and educational engine, the corridor received nearly $1 billion in investment between 2005 and 2015, to attract and retain high-quality workers and residents to the area. Initial guidance and development principles were born out of the 2002 Grand Rapids Master Plan which helped the corridor become what it is today. [1]

7.3.2 Basis for Selection

Michigan Street Corridor, Grand Rapids, Michigan	
Criteria	**Description**
City/County/State Location	Grand Rapids, Kent County, Michigan
Size of Corridor	Approximately 4-Miles in entirety
Multiple Stakeholders Present	Various medical and educational institutions as well as various smaller commercial and residential areas
Proximity to a Medical Facility	Van Andel Institute and Spectrum Health Institute buildings
Proximity to a Higher Academic Institution	Ferris State College of Pharmacy, Grand Rapids Community College, Grand Valley State University Cook-DeVos Center for Health Sciences, and Michigan State University College for Human Medicine
Transportation and Connectivity	I-196 & I-96 Freeways and US-131 Highway, Public Transit Service via busses, existing pedestrian and bicycle infrastructure

7.3.3 Businesses and Land Use

Development of the corridor initially began in 1996 with the opening of the Van Andel Institute, a medical research facility specializing in studying cancer and other health ailments. Since then, the area has developed notoriety in healthcare and education housing Spectrum Health System's various medical facilities including the Butterworth Hospital, Meijer Heart Center, DeVos Children's Hospital, and the Lemmen-Holten Cancer Pavilion, all opening or receiving direct investment in years following. In addition to direct medical providers, educational institutions centered around the medical research and science are located within the corridor including the Michigan State University College of Human Medicine being built in 2007, the Grand Rapids Community College Calkins Science Center, opening in 2000, the Grand Valley State University Cook-DeVos Center for Health Sciences, opening in 2003, and the Ferris State University College of Pharmacy. Aside from medical businesses and educational facilities dominating the corridor, other businesses such as pharmacies, restaurants and eateries, as well as overnight accommodations are also prevalent along the corridor to accommodate the large number of visitors coming into the area for employment, education, or to receive medical care. National

retailers such as Walgreens, Ace Hardware, and Family Dollar have also established themselves along the corridor as they are attracted to the high levels of customer traffic that moves throughout the area.

When considering the corridor's current land use and buildout, it is apparent that vacant parcels are relatively scarce, signaling the "built-out" status for the area. In the immediate area, both sides of the street are largely dominated by medical and institutional land uses but large portions of Low Density and Medium-Low Density Residential uses are common along the corridor as well as approximately 20,000 residents reside along the corridor and surrounding areas. Adjacent to the corridor itself, residential uses are, again, quite common as well as commercial and light industrial areas. Parks and green space can also be found which are utilized as natural assets in an effort to increase the quality of life for people residing in the area. [1]

Map 21: Zoning districts in the Michigan Street Corridor area; Source: City of Grand Rapids

7.3.4 Corridor Amenities

Amenities offered along the Michigan Street Corridor are not limited to a single stakeholder group or area, but offer an improved experience to pedestrians, transit riders, and residents alike. Some amenities offered attempt to make the corridor more walkable whereas others try to improve the overall quality and aesthetics of the corridor itself. For non-motorized transportation, amenities include widened sidewalks, benches, covered bus-stop shelters, bicycle storage facilities, and bicycle racks attached to busses. These actions have been implemented to make movement easier and more pleasant for people who choose alternative methods of transportation. Aesthetic

[1] Michigan Street Corridor Improvement Authority, City of Grand Rapids; Retrieved 17 March 2020

amenities along the corridor include public art such as paintings and sculptures, streetscaping initiatives such as street trees and planted road medians. In order to keep pedestrians and citizens safe along the corridor, other safety amenities have been implemented which include street lighting, audible pedestrian signals at intersections, and curb ramps for handicapped people. These amenities not only make the corridor more welcoming to pedestrians and cyclists but improve the aesthetics and beautify the area as well.

Images above display examples of corridor amenities such as street trees, bicycle racks on busses, bicycle parking, and vegetated streetscapes; Source: City of Grand Rapids

7.3.5 Partnerships and Funding Opportunities

With multiple prominent institutions and stakeholders present in and along the corridor, maintaining partnerships between public and private stakeholders is vital. In order to facilitate these partnerships, the Michigan Street Corridor Improvement Authority was established to act as a forum for stakeholder discussion on investment and development projects. Other methods taken to build partnerships with stakeholders include community forums, an urban design charrette, and continuous stakeholder meetings. In all these initiatives to establish community partners, the goals, “To plan, fund, design, construct, maintain, and operate efficient systems,” were stated.

Since development and implementing actions require funds for them to be fully realized, several financing mechanisms and tools have been utilized. Transportation improvements and initial studies came from the City of Grand Rapids itself, the Michigan Department of Transportation (MDOT), and the Federal Highway Administration (FHA). Improvements to public transit were provided by RAPID, the interurban transit partnership providing service to Grand Rapids. Economic development funding aid was administered by the Grand Rapids Economic Development Department, Michigan Economic Development Corporation (MEDC), and the local Corridor Improvement Authority by means of grants and Tax-Increment Financing (TIF). In total, the cost of investments to the corridor in projects and capital improvements was $5,316,900.[2]

7.3.6 Application to the Collins Road Corridor

Although the Collins Road Corridor lacks the robust collection of universities and medical institutions that the Michigan Street Corridor contains, many of the planning and development concepts utilized could be similarly adopted. With the McLaren Hospital arrival, the addition of accompanying land uses such as pharmacies, restaurants, or more overnight accommodations in or around the corridor as done in the Michigan Street Corridor’s medical buildings could attract more visitors to the area. Including amenities such as streetscaping, sidewalks, streetlights, landscaping, among others could also be considered as the Collins Road Corridor currently lacks any meaningful amenities which make it aesthetically pleasing or comfortable to pedestrians or bicyclists. Establishing partnerships with key stakeholders within the corridor by means of a

[2] Michigan Street Corridor Improvement Authority, City of Grand Rapids; Retrieved 17 March 2020

Corridor Improvement Authority could also be considered as it can facilitate discussions and planning visions between a diverse group of stakeholders and jurisdictions.

7.4 Saginaw Street Corridor, Lansing, Michigan

7.4.1 Background

In the early 20th century, rapid population growth as a result of successful automobile manufacturing in the Lansing area led to the development of both residential neighborhoods as well as newly-constructed commercial buildings. Saginaw Street, or the "Saginaw Commercial Corridor" was largely developed to serve as a nexus between downtown Lansing and its outlying neighborhoods. The area remained vibrant until the 1960s and 1970s when economic disinvestment and redlining practices began degrading neighborhoods. When coupled with the decline in automobile manufacturing, the corridor lost its customer base. Despite economic hardships, the subsequent demolition of several former manufacturing plants has resulted in several parcels being cleaned up and resold for future development leading to newfound opportunities for the development of new economic opportunities and businesses. Today, the Saginaw Street Corridor is a 1.5-mile roadway, with an estimated population of around 5,880 people and prominent medical and educational institutions located directly within the corridor: Lansing Community College and the Sparrow Hospital St. Lawrence Campus.[3]

7.4.2 Basis for Selection

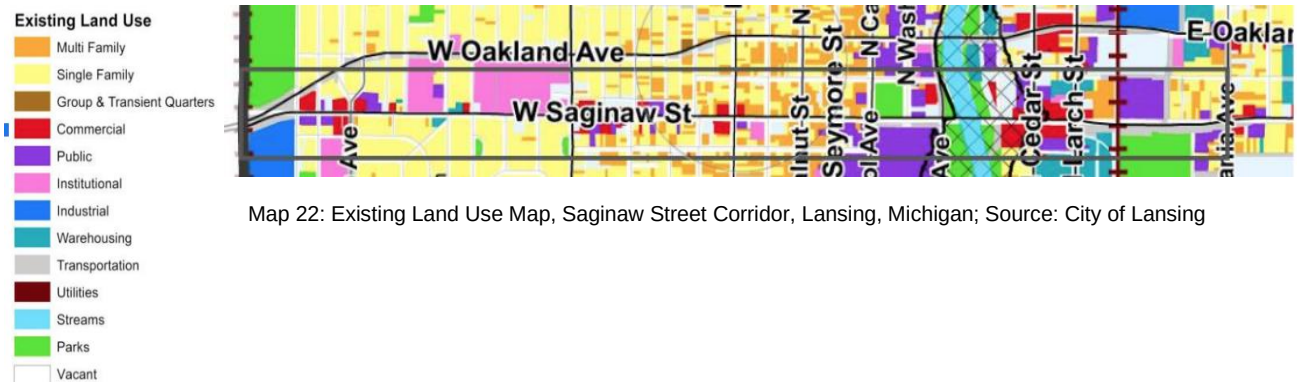
Saginaw Street Corridor, Lansing, Michigan	
Criteria	**Description**
City/County/State Location	City of Lansing, Ingham County, Michigan
Size of Corridor	1.5 miles
Multiple Stakeholders Present	Sparrow Health System, Lansing Community College, corridor residents, and various smaller commercial stakeholders
Proximity to a Medical Facility	Sparrow Health System St. Lawrence Campus
Proximity to a Higher Academic Institution	Lansing Community College
Transportation and Connectivity	I-496 & I-69 Freeways and US-127 Highway, Public Transit Service via busses, pedestrian and bicycling infrastructure present

[3] Saginaw Street Corridor Improvement Authority, City of Lansing; Retrieved 18 March 2020

7.4.3 Businesses and Land Use

Starting in 2004, community stakeholders began work to revitalize the Saginaw Street Corridor. More than 400 local residents took part in the initial planning process to provide their goals and aspirations as to what the corridor could become. The collected vision in addition to other goals and objectives were compiled into Saginaw Revitalization Plan and by 2012, the majority of the goals and objectives within the plan were accomplished. Today, the corridor is primarily a residential area but also contains key institutions such as a Sparrow Hospital Complex, employing 2,615 people, and Lansing Community College, employing 532 people. The Sparrow Hospital Emergency Room and Laboratory Complex as well as Michigan State University are other institutions located within the vicinity of the corridor as well. Smaller parcels for commercial use are present and come in the form of restaurants, convenience stores, gasoline stations, and a few retail stores and office buildings.

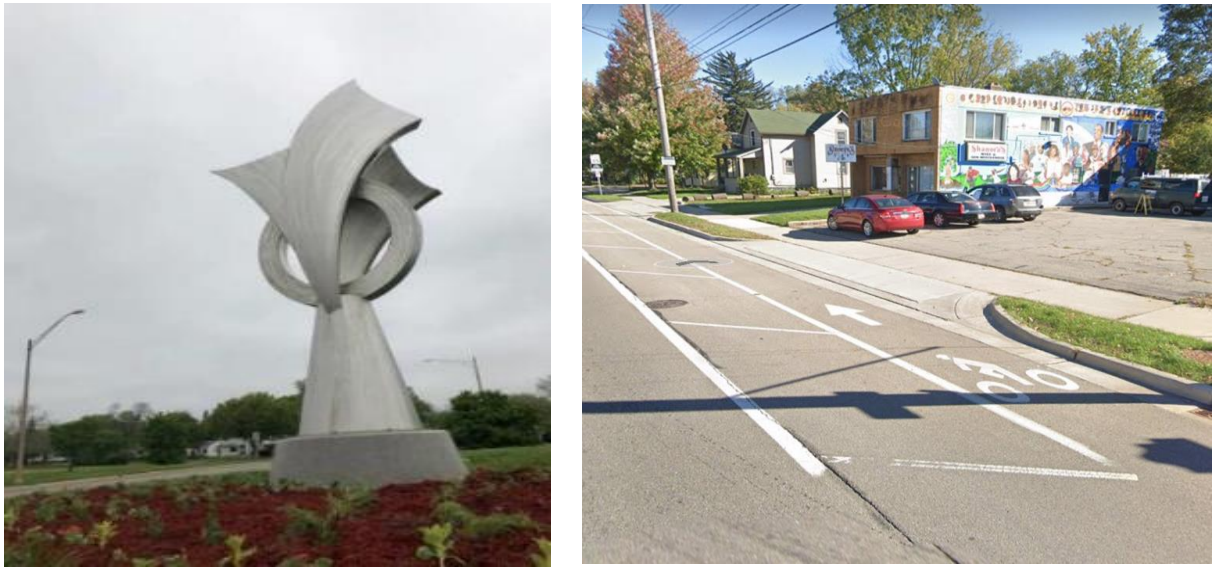
According to the corridor's existing land use plan, it is clear that the area is dominated by residential land uses, with both single- and multiple-family residences being represented. Larger parcels such as Sparrow Hospital and a few Churches are present as institutional land uses while Lansing Community College and commuter parking lots are represented as public land. Additionally, the corridor lacks a significant number of vacant parcels signaling a "built-out" status. A business report obtained from ESRI BAO reveals that most businesses along the corridor are in the Service Sector, which is unsurprising given the fact that major medical and educational institutions are located directly within and employ large quantities of people. Other businesses include eating and drinking establishments, food stores, a home furnishings store, a bank and an insurance office, all of which can be expected to be found near a primarily residential area.



Map 22: Existing Land Use Map, Saginaw Street Corridor, Lansing, Michigan; Source: City of Lansing

7.4.4 Corridor Amenities

Amenities currently provided within Saginaw Street Corridor offer residents and visitors both aesthetic and transportation enhancements. Public art and other visual enhancements such as street trees and planted boulevards make the area more enticing for pedestrians while also beautifying the corridor. The addition of trash and recycling receptacles also helps to limit litter and pollution from degrading the environmental quality of the area. Other amenities primarily center around transportation as the corridor currently contains continuous bicycle lanes and bicycle racks which provide more transportation choices. Crosswalks between street blocks are also painted throughout the corridor which is a simple, yet important consideration given to the safety of pedestrians in an attempt to make a more walkable environment. These low-cost yet important amenities provided along the Saginaw Street Corridor offer an updated look and feel to the corridor and make it a more welcoming area. The Corridor also offers electric car charging ports at public lots as well as CATA bus stops which further offer more sustainable methods of transportation.



The images above offer examples of public art installations and separated bicycle lanes along the Saginaw Street Corridor

7.4.5 Partnerships and Funding Opportunities

With a large and dedicated population combined with prominent medical and educational institutions, the successes realized in creating a more walkable and aesthetically-pleasing corridor

came through private-public partnerships to create a unified vision during community outreach meetings. Work with residential volunteer groups such as the Westside Neighborhood Association and members of the Saginaw Oakland Commercial Organization was also conducted to help with project funding mechanisms and help connect with a wider range of partners to increase the "buy-in" of projects and other initiatives. By working directly with community members and stakeholders, the chance of seeing the collected vision become a reality is all the more likely.

In order to finance the initiatives and corridor improvements, several methods were employed by the Saginaw Street Corridor Improvement Authority (SSCIA) as well as by individual businesses. Most funding will come from Tax Increment Financing (TIF), which makes it possible for the area to capture tax revenues that are generated from the increase in value of underutilized or obsolete parcels. Community Development Block Grants (CDBGs) were also obtained from the City of Lansing to finance revitalization efforts and to engage businesses in building improvements. Neighborhood groups also held crowdfunding opportunities, raising $13,000 while individual businesses took advantage of City-administered programs to secure funding or price-matching programs for building and facade upgrades worth $20,000. Total investment within the corridor was calculated to be $520,000. In all, it is apparent that partnerships and funding opportunities hinge on the commitment of residents and local businesses to seeing their collective vision become a reality.[4]

7.4.6 Application to the Collins Road Corridor

The characteristics of the Saginaw Street Corridor establish it as a higher-density analogue to Collins Road. Saginaw Street is a major thoroughfare that not only traverses central Lansing, but is significantly influenced by the medical and educational sectors through the Sparrow Health System and Lansing Community College's main campus. This influence has given the Saginaw Street Corridor a diverse mix of institutional, public, and commercial uses that service both the residents along Saginaw Street and those involved with LCC and Sparrow.

Saginaw Street's strongest linkages to Collins Road are its proximity, matching jurisdiction, and involvement of similar partnerships. As a result of this, there is a strong applicability in terms of introducing a similar planning process, financing plan, and understanding involved stakeholders and municipalities.

[4] Saginaw Street Corridor Improvement Authority, City of Lansing; Retrieved 18 March 2020

Following the initial challenges in starting up the Saginaw Street Corridor Improvement Authority (SSCIA), LEAP became involved to organize and develop the plan for the corridor. LEAP's involvement with the Collins Road Corridor combines the organization's foremost expertise in economic development with their recent experience working on Saginaw Street. The two most significant approaches, from an organizational and financial perspective, were the establishment of an authority to manage economic development and a tax increment finance (TIF) plan, respectively.

The SSCIA is Saginaw Street's primary administrative nexus for implementing the TIF, which it does through providing the development schedule and promotes the area as a destination for developers looking to expand Saginaw Street's portfolio of mixed use, commercial activities, and public space. The TIF serves as a 15-year schedule of improvements to the area, with costs gradually increasing depending on them being short-, medium-, or long-term priorities. Authorities such as SSCIA are beneficial as they relieve some of the organizational and financial burdens that would come from allocating resources within the city and allow dedicated staffers to address the problem.

The area does have its differences from Collins, the primary one being density and general geography of the area. Namely, the Saginaw Street Corridor is located chiefly within Lansing's city limits and is not parceled out into different jurisdictions like the Collins Road Corridor. Additionally, Saginaw Street runs through downtown Lansing and has a much higher density, along with a more spread mix of residential, commercial, industrial, public, and institutional activities, whereas Collins Road is mostly institutional, office, agricultural, and a small amount of residential. While this seems disadvantageous, the amount of developable land puts the Collins Road Corridor into a unique position of viewing the successes of the Saginaw Street Corridor and factoring them into developing new land uses for both residents and employees as new construction and tenants shift south of MSU's campus.

7.5 Cass Corridor, Detroit, Michigan

7.5.1 Background

Cass Avenue located in Detroit is a 1.3-mile corridor located on Detroit's west side. Throughout the second half of the 20th Century, the corridor was characterized by crime and substance abuse and was subject to the urban blight and disinvestment which plagued Detroit and other urban areas during the time. Property abandonment and vacancies soon characterized the area however starting in the early 2000s, redevelopers began renovating obsolete properties and redeveloping vacant parcels. As both Collins Road and the Cass Corridor have large areas of undeveloped and vacant parcels, considering how the City of Detroit dealt with development of the corridor is of worthwhile analysis. Cass Corridor is also in proximity to major medical and academic institutions including the Detroit Medical Center and Wayne State University.

7.5.2 Basis for Selection

Cass Corridor, Detroit, Michigan	
Criteria	**Description**
City/County/State Location	Detroit, Wayne County, Michigan
Size of Corridor	1.3 Miles
Multiple Stakeholders Present	Detroit Medical Center, Wayne State University, smaller commercial businesses, residents along the corridor
Proximity to a Medical Facility	Detroit Medical Center, Wayne State Medical Center
Proximity to a Higher Academic Institution	Wayne State University
Transportation and Connectivity	Located near I-94, I-75, and I-375 Freeways and M-10 Highway; Public transit service via bus; bicycle and pedestrian infrastructure; bicycle and scooter sharing programs

7.5.3 Businesses and Land Use

Since this area was subject to intense development over a short period of time, analyzing the types of businesses located within are of compelling interest given the presence of prominent academic institutions and medical complexes. According to a business summary provided by ESRI BAO, the types of businesses located here are largely characteristic of an area located near

a university with several eating and drinking establishments, food stores and entertainment and amusement businesses present within the corridor. Educational institutions, legal offices, and healthcare services and offices are also prevalent and are large employers within the corridor. Real estate offices as well as banks and other financial institutions are also present. Several national brands such as Tim Hortons, Starbucks, and Walgreen are some of the businesses present.

According to the ESRI BAO Housing Profile, the corridor is primarily multiple-family and renter-occupied. Given the proximity to Wayne State University, this is not a surprise as student housing is in continuous demand. Some prominent institutional land uses aside from Wayne State University buildings include the University of Michigan Detroit Center, the Ilitch School of Business and several Churches. Large quantities of land have also been allocated for automobile parking.

7.5.4 Corridor Amenities

The Cass Corridor provides an enjoyable experience for residents and visitors of Detroit. Cultural and educational institutions such as Wayne State University, the Detroit Institute of Arts (DIA), and the Charles H. Wright Museum are all present within the corridor.[5] One of the corridor's largest attractions is the recently built Little Caesars Arena, attracting thousands of people for sporting and entertainment events.[6] The corridor provides a variety of eateries for breakfast, lunch, and dinner; from street food to cocktail lounges; while also hosting a variety of nightlife activities.[7] In addition, the corridor is very pedestrian friendly and provides access to painted and protected bike lanes. A bicycle and dockless scooter sharing program are both present. Along the corridor there are also dedicated bus stops for public transit and painted crosswalks to encourage safe navigation throughout the corridor. Aesthetics and environmental elements play a role within the corridor as street trees and trash receptacles are present as well.

[5] Cass Corridor Neighborhood Development Corporation; Retrieved 18 March 2020

[6] Houck, B. (2019, September 11). Eat Your Way Through 24 Hours in Cass Corridor. In Eater Detroit. Retrieved March 19, 2020

[7] Houck, B. (2019, September 11). Eat Your Way Through 24 Hours in Cass Corridor. In Eater Detroit. Retrieved March 19, 2020

The images above offer examples of planted street trees, painted crosswalks, and protected bicycle lanes

7.5.5 Partnerships and Funding Opportunities

Current partnerships between the City of Detroit and the residents of Cass Corridor is primarily conducted through the non-profit organization, the Cass Corridor Neighborhood Development Corporation. Their goal is to work within the community to ensure the rehabilitation and

construction of safe and affordable housing, a promotion of economic opportunities, and to foster a sense of pride within the neighborhood. In addition, a partnership with Wayne State University and individual investments, totaling to more that $40 million, from Ilitch Holdings Inc. directly within the area has helped see the corridor experience revitalization. Other private entities such as the Cass Avenue Redevelopment construction firm was the first party to take action for initial revitalization and rehabilitation of blighted and abandoned properties. The City of Detroit and the State have also offered development resources and grants while the Detroit Land Bank Authority has managed and resold vacant or obsolete parcels of property. Through these initiatives, the Cass Corridor has managed to shed its old reputation to become a model of the innovative adaptive reuse of land. [8,9]

7.5.6 Application to the Collins Road Corridor

This case study is relevant to Collins Road as it once contained large portions of underutilized properties. The presence of the Detroit Medical Center and Wayne State University also offer an insight as to how development commenced. It is apparent that development of Cass Corridor largely relied on large individual investments from internal stakeholders such as Wayne State and Ilitch Holdings Inc. in collaboration with the City of Detroit to revitalize the area. With that said, it is imperative to create a collective vision amongst stakeholders in order for funding and other investment initiatives to help contribute to meeting established goals.

As for the businesses located within the corridor, Collins Road does not currently have the same quantity or diverse collection of businesses located within Cass Corridor. While Collins Road may not be considered a large retail area, the presence of office buildings and the types of businesses located within such as legal and healthcare offices, banks, and real estate offices, may be more practical and suitable than entertainment and eating and drinking establishments.

In terms of amenities, it has been previously established that Collins Road is in need of streetscaping and aesthetic improvements. Planting street trees, street lighting, and trash receptacles could all be considered necessary additions to the corridor. Offering street designs which welcome bicyclists and pedestrians as done through protected bicycle lanes and the addition of sidewalks and painted crosswalks could help create a more environmentally-friendly and walkable corridor. The presence of Little Caesars Arena has been utilized by businesses along the Cass Corridor to attract customers to generate foot traffic. While Collins Road directly

[8] Cass Corridor Neighborhood Development Corporation; Retrieved 18 March 2020

[9] Wayne State University, Retrieved 18 March 2020

lacks a stadium, its proximity to Spartan Stadium and the Breslin Center could also be utilized in the same manner should that route of development be chosen.

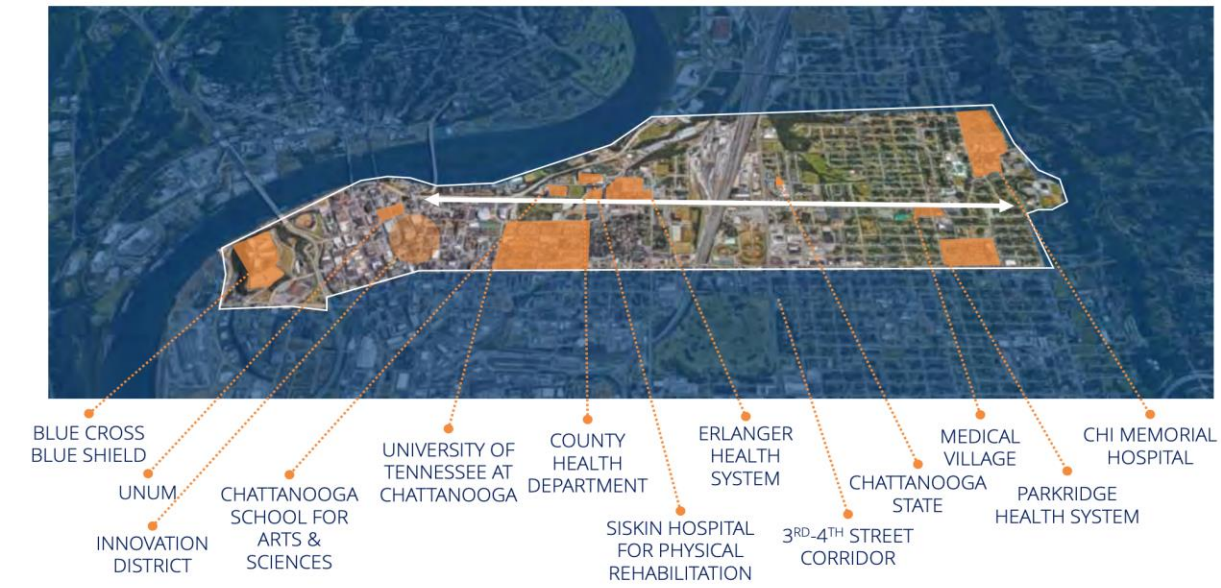
Corridor Plans Case Studies

The following two case studies shift focus from developed corridors and instead examine plans for economic development in areas that are in development or are planned for it. The purpose of these case studies is to more closely examine their planning practices and see how their methodologies could be applied to future plans that are developed off of the Collins Road Corridor Plan.

7.6 3rd & 4th Street Corridor, Chattanooga, Tennessee

7.6.1 Background

The 3rd & 4th Street Corridor in Chattanooga, Tennessee offers an out-of-state example of a corridor which contains prominent Healthcare Service providers with higher academic institutions well-established within the community. This 3-mile stretch aims to serve as a center of medical and academic innovation to help bolster the local economy and create new employment and economic opportunities. Similar to Collins Road, the 3rd & 4th Street Corridor contains multiple stakeholders (15 in total; 13 directly along the corridor) including the University of Tennessee at Chattanooga, Chi Memorial Hospital, the Hamilton County Health Department, the Chattanooga Innovation District, among others. While this corridor is home to an already strong economic engine, there are several challenges and shortcomings which are to be addressed with future developments including limited parking capacity, lack of shared space for collaboration, inadequate or inaccessible workforce housing, insufficient transit system or transit options, narrow talent development opportunities, and constricted ability to finance large projects. To help foster a successful future that can ensure positive community vitality, several steps were taken within the planning process which will be subject to close examination.



Map 23: Map of 3rd & 4th Street Corridor in Chattanooga, Tennessee; Source: HR&A Advisors and Urban Design Associates

7.6.2 Basis for Selection

3rd & 4th Street Corridor, Chattanooga, Tennessee	
Criteria	**Description**
City/County/State Location	Chattanooga, Hamilton County, Tennessee
Size of Corridor	3-Miles
Multiple Stakeholders Present	15 Stakeholders noted within the Corridor Area
Proximity to a Medical Facility	Erlanger Health System, Chi Memorial Hospital, & Parkridge Medical Center
Proximity to a Higher Academic Institution	University of Tennessee at Chattanooga, University of Tennessee Health Science Center, & Chattanooga State Community College
Transportation and Connectivity	Proximity to I-24 Freeway and US-27 Highway, Public Transit Service via Busses, & Bicycle Sharing Service offered

7.6.3 Planning Goals and Guiding Principles

Similar to Collins Road, health care and education represent critical elements to the 3rd & 4th Street Corridor, offering a wide range of employment opportunities and contributing over $100

million to the local economy. Additionally, stakeholders are planned to contribute more than $750 million in new development projects which will help leverage the local economy and spur new developments, contributing to the overall vitality of the area. To help properly facilitate future developments and growth over the following years, a corridor development plan was created over the course of a year, utilizing a collective vision set forth by relevant stakeholders that set the following vision and goals:

- The creation of a first-class healthcare and educational destination
- Create model neighborhoods for wellness and healthy living
- Create an innovation hub that fuels job growth

In addition to setting visioning and outcome goals, the corridor plan also established four guiding principles to ensure that development of the corridor is done in a way that is socially equitable and just. They follow as:

1. Catalyze economic growth and job creation, while supporting economic mobility.
2. Create a vibrant inclusive environment where employees, patients, students, faculty, visitors, and residents want to spend time
3. Foster collaboration across institutions and to promote innovation and new partnerships.
4. Promote healthy, active living by providing a safe, restorative environment.[10]

7.6.4 Plan Priorities

Within the Corridor Development Plan, two types of priorities were described which correlate with the plan's goals and guiding principles. First, Physical Priorities were listed which describe land use patterns, development projects, and transit improvements planned for the future and the outcomes they are expected to have on the area. Ultimately, these priorities involve a direct physical investment in the area and development is facilitated between community stakeholders and city administrators. The principles follow as:

- Maintain state-of-the-art medical and educational facilities to provide world-class services
- Addition of 150,000 square feet of retail and dining space to serve workers, students, residents, and visitors
- Addition of 900 new residential units, including market-rate and affordable units

[10] *Chattanooga Health and Wellness District,* HR&A Advisors and Urban Design Associates and River City Company; City of Chattanooga; Retrieved 3 March 2020

- Addition of 300,000 square feet of office space to attract and facilitate a new generation of business creation
- Addition of a 1,600-space corridor parking facility to support growth and provide convenient access to the district
- Improvements to traffic and transit to better connect the district to neighboring communities

The second category of priorities listed are Programmatic Priorities and while these concerns do not address physical investment and development of the area, they aim to promote inclusive development and social justice, increase collaboration between stakeholders and assist in placemaking. Since this corridor includes a large number of stakeholders who may possess different opinions regarding development of the area, having these priorities in place can increase cooperation and support the "buy-in" of the planning initiatives set-forth. The Programmatic Priorities established within the 3rd & 4th Street Corridor Plan are listed below:

- Use inclusive zoning to create opportunities for holistic neighborhood development and complete communities, including affordable and mixed-income housing, neighborhood-service retail, and a variety of employment options.
- Establish a workforce center to create a direct pipeline to jobs in the district, expand certificate and other pathway programs, and establish incentives to create affordable workforce housing.
- Provide research and development and innovation support through business incubator and accelerator programs that provide companies with the resources, networks, and capital needed to grow in place
- Prioritize planning for and investing in public improvements, including expanded transit service, new open spaces, and other public-serving investments, that improve public health and the pedestrian experience.
- Develop a cohesive district brand identity that can be used in marketing campaigns to attract additional development and resources.[11]

Since multiple stakeholders exist within the corridor area, developing these priorities which seek collective cooperation is vital in ensuring that one vision can be met and agreed upon. Having a

[11] *Chattanooga Health and Wellness District,* HR&A Advisors and Urban Design Associates and River City Company; City of Chattanooga; Retrieved 3 March 2020

diversified local economy that takes a collective approach to district development allows for economic incentives and resources to be combined and used for larger objectives. Additionally, developing a unique branding and placemaking strategy is another important action a district can take as it can be utilized in marketing campaigns and as a means of place-recognition. Based on the priorities listed, it is clear that developing a collective vision and goals between relevant stakeholders, practice inclusive planning and zoning practices, developing a sense of placemaking, and utilizing developable land to attract workers and residents alike are all important items to consider when planning and developing a corridor which has the capacity to bring significant economic stimulation to an area.

7.6.5 Implementing Action Projects

In order to see established goals and visions met, implementing actions are necessary to guide and foster the growth and development of the district. Within the corridor plan, there are eight projects that are to be completed within the next decade which seek to increase the vitality of the area and include several benefits to the public at large. Each project also aims to meet at least one of the plan's goals as a result of its desired outcome. What is important to realize is that despite several organizations and stakeholders being catalysts behind these projects, the expected outcomes all will benefit the corridor collectively.

3rd & 4th Street Corridor Implementing Actions			
Project	Overview	Program Outcome	Estimated Completion
District Parking Facility	Construction of 4-level parking garage; Potential Use as Multi-Modal Transportation Hub	+1,600 Parking Spaces	2022
Erlanger Neuroscience Institute	Expansion of building	+135,000 Sq. Ft. of medical space	2022
UTC Health Science Building Phase 1	Construction of building to accommodate classrooms, labs, and allow expansion of university program	+200,000 Sq. Ft. of education, lab, and program space	2025

District-Wide Mixed Use Development	Addition of housing units and ground-floor retail space	+900 Residential Units +63,000 Sq. Ft. of retail space	2020-2030
District-Wide Commercial and Research Development	Accommodations for office, research, and hotel development	+210,000 Sq. Ft. of Office and Research space +120 Hotel Rooms	2020-2030
East-End Development	Addition of mixed-use office, retail, and research space to create a node of economic activity	+122,000 Sq. Ft. of Commercial Space	2020-2030
Erlanger Future Development	Replacement of the current county health department building with modern medical centers	+560,000 Sq. Ft. of Medical Space	2030
UTC Health Science Building Phase 2	Potential expansion of research space	+100,000 Sq. Ft. of Research or Medical Space	2030

Source: HR&A Advisors and Urban Design Associates

7.6.6 Application to the Collins Road Corridor

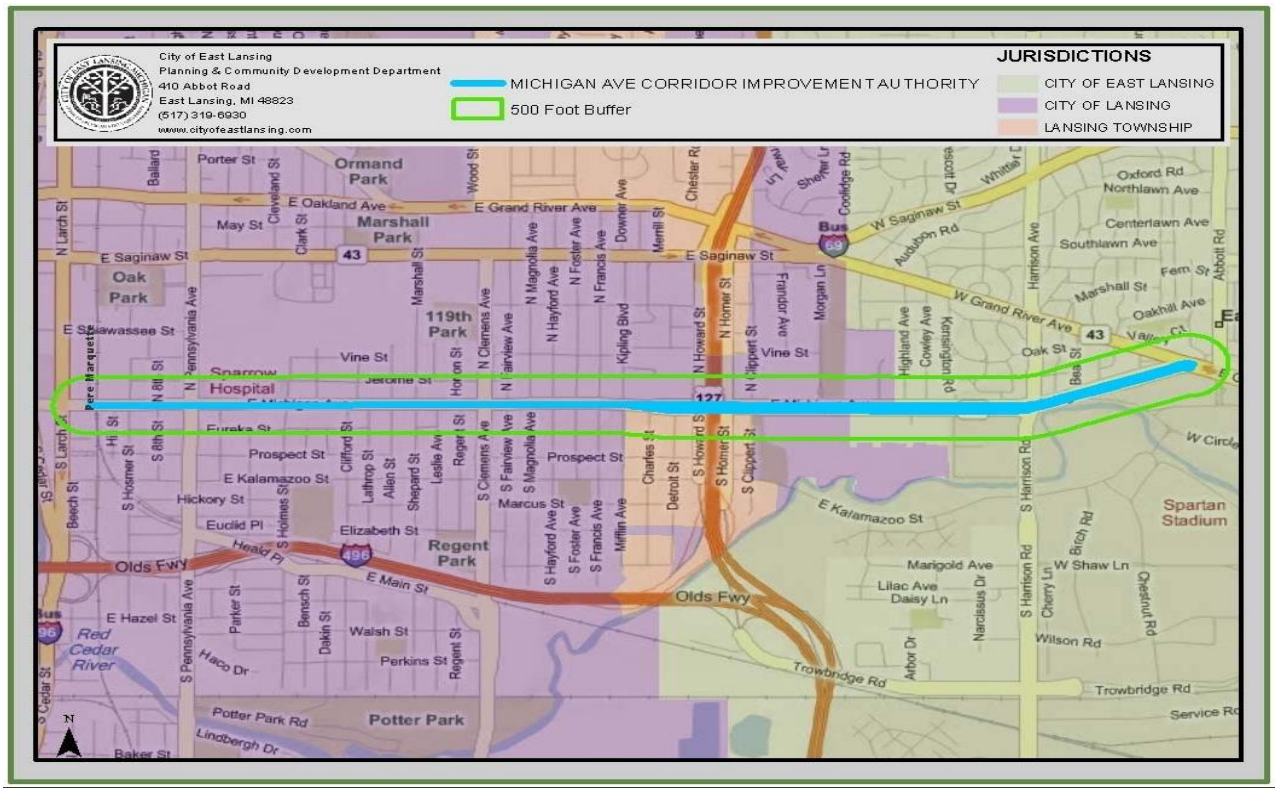
When analyzing the 3rd & 4th Street Corridor, it is evident that a strong multijurisdictional/stakeholder approach is imperative in creating a meaningful corridor plan. The presence of fifteen major stakeholders along the corridor and its surrounding areas may create initial challenges in determining which direction development could move. However, through long-term strategic planning and communication, several goals and guiding principles were established. Additionally, constructing the corridor's goals around future projects that stakeholders may galvanize the local economy in the area and create a more vibrant and attractive place for residents to work, live, and spend time in. This is evident in Chattanooga as aligning mixed-use and commercial development projects with expansion of the various medical complexes could bring the prospect of both increased job demand and economic influx to the corridor by means of increased commerce and growth of the local tax base. While not a major point of emphasis within the plan, having programmatic planning principles centered around social justice, equity, and increased collaboration between residents and stakeholders is vital in ensuring that disenfranchised members of the local population are not excluded from the plan's outcomes.

7.7 Michigan Avenue Corridor, Ingham County, Michigan

7.7.1 Background

The Michigan Avenue Corridor within Ingham County, Michigan provides an in-state example of a corridor which displayed a strong multi-jurisdictional approach which sought to refine the corridor through collaboration by means of a corridor improvement authority. This corridor improvement authority known as the Michigan Avenue Corridor Improvement Authority (MACIA) was formed in 2009 with the goal to prevent economic deterioration, revitalize the corridor, and promote local economic stimulation. In coalition with said goals, the Corridor Improvement Authority (CIA) envisioned that, “By 2030, the Michigan Avenue Corridor will be a premier, regional destination for work, leisure, education and recreation for local residents and visitors.” Ultimately, this particular case study was of compelling interest for analysis as it provides an example of an area which houses a large medical campus operated by Sparrow Health System and is near a major academic institution in Michigan State University while also housing multiple types of commercial space. It is possible that the planning principles and approaches taken in the development of the Michigan Avenue Corridor could assist in the development of Collins Road.

The subject area of the Michigan Avenue Corridor extends nearly 3.5 miles and passes through multiple municipalities including the City of Lansing, Lansing Township, and the City of East Lansing. The corridor also contains prominent stakeholders including Sparrow Health System, Michigan State University and the central business district of Lansing near the Michigan State Capitol. Similar to the Collins Road Corridor, Michigan Avenue is also in proximity to two of the same highways, I-496 and US-127, and it also has public transit service provided through CATA. Examining a local corridor with similar attributes to Collins Road can provide a model for development and inform administrators and developers a direction on how to properly prime the corridor for future improvements.



Map 24: Map of the Michigan Avenue Corridor as provided in the City of East Lansing Conceptual Development Plan

Existing Land Use

- Multi Family
- Single Family
- Group & Transient Quarters
- Commercial
- Public
- Institutional
- Industrial
- Warehousing
- Transportation
- Utilities
- Streams
- Parks
- Vacant

Map 25: Existing Land Use Map for Michigan Avenue Corridor; Source: Lansing Comprehensive Plan

7.7.2 Basis for Selection

Michigan Avenue Corridor, Ingham County, Michigan	
Criteria	**Description**
City/County/State Location	City of Lansing, Lansing Township, and East Lansing, Ingham County, Michigan
Size of Corridor	About 3.5 Miles
Multiple Stakeholders Present	Sparrow Health System, Michigan State University, and various smaller commercial and residential areas
Proximity to a Medical Facility	Sparrow Health System
Proximity to a Higher Academic Institution	Michigan State University
Transportation and Connectivity	I-69 & I-496 Freeways and US-127 Highway, Public Transit Service via Busses from CATA

7.7.3 Planning Goals and Guiding Principles

Michigan Avenue has long served as an important hub for economic activity, housing several local businesses. The corridor is also an important connection between Michigan State University and the State Capitol. To ensure that Michigan Avenue remains a stronghold of local commerce, business and municipal leaders from the City of Lansing, Lansing Township, and the City of East Lansing formed an exploratory committee to revitalize the Michigan Avenue Corridor from the Pere Marquette railroad crossing in Lansing down to Michigan's intersection with Grand River Avenue in East Lansing. With the significant support from the planning staff of all three municipalities, the committee was able to emphasize that an ideal plan would be driven by a bold vision, formed by open processes, possessing an integrated perspective, and all while maintaining a sensitivity to scale at various nodes and sections of the corridor.

Within the plan, six main goals were set with the idea that future planning initiatives should be reflected upon in order to see the vision for the corridor become a reality. These goals were put forth by the Corridor Improvement Authority (CIA) and were influenced by visions developed during public outreach meetings. They follow as:

- Support cooperation and collaboration between government entities, private businesses, local organizations, and residents.
- Use environmentally sustainable development practices to protect wildlife habitat, preserve green space, reduce resource consumption, conserve energy, and improve the water quality of local watersheds.
- Develop a safe and efficient “multi-modal” transportation network that balances the needs of all user groups and emphasizes non-motorized options along the corridor.
- Improve streetscape and landscape features in order to strengthen the image of the corridor as a destination, encourage pedestrian circulation, and support a vibrant urban experience.
- Support the growth of existing businesses along the corridor and create opportunities for new, homegrown enterprises
- Promote the development of higher-density residential and mixed-use residential/commercial buildings in strategic locations to complement and strengthen the desirable characteristics of existing neighborhoods.

In addition to these set goals, the following guiding principles and actions were developed to guide future actions in developing the Michigan Avenue Corridor. They follow as:

1. Improve streetscapes of Michigan Avenue, preserve historically or architecturally significant buildings and support the creation of streetscapes which welcome visitors and ensure a vibrant experience for pedestrians.
2. Nurture existing local businesses along the corridor and create opportunities for local entrepreneurs who want to invest in the future of the corridor and surrounding communities.
3. Pursue objectives through collaboration between governmental entities, private enterprises, local organizations, and citizens in order to become a leading example of power of regionalism and inter-jurisdictional cooperation.
4. Conduct activities in a way that protects natural resources and improves environmental quality.
5. Support efforts to build a transportation system that serves the needs of bicyclists, pedestrians, public transit users, and motorists.
6. Recognize that strong neighborhoods make for strong local commerce and a vibrant streetscape. [12]

[12] Michigan Avenue Corridor Improvement Authority, City of Lansing; Retrieved 3 March 2020

7.7.4 Plan Priorities

In addition to the plan's goals and guiding principles, three planning priorities were developed based on the vision for which the corridor. The three priorities are:

- Improvements to Public Infrastructure
- Correction and Prevention of Deterioration
- Promotion of Neighborhood Aligned Economic Growth[11]

7.7.5 Implementing Action Projects

Anticipated projects and action plans were identified for each of the plan's priorities and included outlined costs and expected completion timelines. Each project or action plan is specific to one of the priorities and serves to aid in implementing and fulfilling the corresponding priority. All projects and action plans are related to the overall improvement of the corridor and aim to enhance multiple aspects of the corridor including its streetscape, infrastructure, and economic vitality; while placing a focus on placemaking and overall interaction with the community. The following charts highlight the outlined projects and action plans along with the associated costs, timeframes, and expected completion timelines.

Improvements to Public Infrastructure			
Action	**Timeframe**	**Total Cost**	**Expected Completion**
Develop and install wayfinding	Short	$30,000	1-2 years

signage with a focus on guiding residents and visitors to transit stations such as bus stops			
Install bicycle racks and related equipment, especially near transit stations such as bus stops	Short	$33,000	1-2 years
Plan, develop, and install banners	Short	$50,000	2-5 years
Install pedestrian infrastructure (benches, trash, can, etc.) to increase and facilitate use of public transit stations such as bus stops	Medium	$75,000	5-10 years
Install and increase pedestrian oriented lighting, especially near transit stations such as bus stops	Medium - Long	$200,000	8-15 years
Install public art (sculptures, murals, etc.)	Medium - Long	$80,000	8-15 years
Install and maintain public flowerbeds and landscaping	Medium - Long	$100,000	8-15 years
Placemaking projects (e.g. community-initiated initiatives, events and improvements)	Short, Medium, or Long	$50,000	Ongoing

Source: Michigan Avenue Corridor Improvement Authority

Correction and Prevention of Deterioration			
Action	**Timeframe**	**Total Cost**	**Expected Completion**
Organize efforts to clean and beautify corridor	Short	$15,000	Ongoing
Create property inventory, prioritize redevelopment and marketing properties	Short	$45,000	5-10 years
Organize community events that highlight positive corridor news	Short - Medium	$20,000	Ongoing
Award program to encourage good business behavior	Short - Medium	$15,000	Ongoing
Facade grant program (Matching Grant)	Medium - Long	$300,000	10-15 years

Source: Michigan Avenue Corridor Improvement Authority

Promotion of Neighborhood Aligned Economic Growth			
Action	**Timeframe**	**Total Cost**	**Expected Completion**
Host community input sessions around development projects	Medium	$30,000	5-10 years
Create a marketing and branding plan for corridor	Short - Medium	$50,000	2-5 years
Sponsorship of corridor-focused projects and non-profit activities	Long	$100,000	10-15 years

Source: Michigan Avenue Corridor Improvement Authority

7.7.6 Application to the Collins Road Corridor

The Michigan Avenue Corridor again provides evidence that a strong multi-jurisdictional approach is necessary to ensure the success of a corridor which includes several municipalities and major institutions. In contrast to the 3rd & 4th Street Corridor, Michigan Avenue relies on a Corridor Improvement Authority (CIA) to facilitate and direct growth and development that may commence. In addition to multi-jurisdictional collaborations, maintaining strong cooperation between private businesses, residents, and local organizations is also vital to the success of the corridor as they may comprise the populations most impacted by development projects. Improving the streetscape and general design of the corridor is another important aspect, not only making the corridor attractive but in making it more accessible to larger portions of the population. In its current state, Collins Road is mainly accessible only by means of private automobile, however improved streetscaping and accommodations for bicyclists and pedestrians could be an approach to take in order to increase the accessibility of the area to those who may not own an automobile. Facilitating private investment projects with civic improvement such as improved road conditions and streetscape designs could be viewed as an important endeavor which Collins Road could take to make itself a strong regional corridor which is attractive for commercial, residential, and private investment.

7.8 Comparative Matrix of Case Studies

To visually see the characteristics, similarities, and difference of each case study corridor, a comparative matrix was prepared. This tool organizes the different concepts and experiences that each corridor experienced throughout the development process and beyond[13]

[13] *Chattanooga Health and Wellness District,* HR&A Advisors and Urban Design Associates and River City Company; City of Chattanooga; Retrieved 3 March 2020

Case Study Comparative Matrix					
	Michigan Street Corridor	Saginaw Street Corridor	Cass Corridor	3rd & 4th Street Corridor	Michigan Avenue Corridor
Location	Grand Rapids, MI	Lansing, MI	Detroit, MI	Chattanooga, TN	Ingham County, MI
Length	4-miles	1.5-miles	1.3-miles	3-miles	3.5-miles
Proximity to Medical Center	Van Andel Institute and Spectrum Health Institute	Sparrow Hospital	Detroit Medical Center and Wayne State Medical Center	Erlanger Health System, Chi Memorial Hospital, & Parkridge Medical Center	Sparrow Hospital
Proximity to a Higher Education Academic Institution	Multiple	Michigan State University & Lansing Community College	Wayne State University	Multiple	Michigan State University & Lansing Community College
Transportation & Connectivity	Freeway and Highway Access; Bicycle & pedestrian infrastructure	Freeway and Highway Access; pedestrian infrastructure and Public transit	Freeway and Highway Access; Public Transit Access; Bicycle and pedestrian infrastructure	Freeway and Highway Access; Public Transit Access; Bicycle Sharing Service	Freeway and Highway Access; Bicycle and pedestrian infrastructure and Public transit
Businesses & Land Use	Primarily medical business and educational facilities with portions of residential areas	Primarily retail businesses with large portions of residential areas, public land and medical facilities	Primarily retail, businesses, medical and educational facilities, with some financial institutions	Primarily medical centers and educational institutions with commercial and retail presence	Primarily retail businesses and medical facilities with large portions of residential areas
Amenities	Bicycle lanes, bus shelters, audible pedestrian signals, streetscape, curb ramps, wide sidewalks	Restaurants, grocery stores, financial institutions, bus stops, public art, bicycle lanes, painted crosswalks	Museums, Sports arena, Restaurants/Entertainment, Bus stops, Bike lanes, Streetscaping, bicycle and scooter sharing	Bike sharing, Parking Ramps, & Bus Stops	Restaurants, Bus stops, bicycle lanes, Entertainment, streetscaping, street lights, wayfinding signs
Partnerships & Funding	MI Street Corridor Improvement Authority through Tax Increment Financing; Other funding from the City of Grand Rapids, State of Michigan, FHA, and MEDC	Sparrow Health System, Lansing Community College, corridor residents, and various smaller commercial stakeholders	Cass Corridor Neighborhood Development Corp., Ilitch Holdings Inc., & others; See full list on p.	Combination of public and private investments	Michigan Avenue Corridor Improvement Authority & individual private and public investments
Application to Collins Road	Highlights the need for streetscaping and a corridor improvement authority to facilitate discussions between a diverse group of stakeholders.	Offers ideas of corridor amenities and potential land uses along the corridor as well as cover the importance of stakeholders in the initial planning process.	Provided examples of the adaptive reuse of vacant parcels and displayed which types of businesses may be appropriate to include along the corridor.	Highlights the need for long-term vision with stakeholders and to construct goals around future projects.	A regional planning approach is necessary for corridor success as it limits the competition for funding and resources.

Chapter 8: Recommendations

8.1 Introduction

The following set of recommendations are based on socioeconomic data, the practicum team's assessment of current conditions along the corridor, research on market demand, and case study research on noteworthy practices. These recommendations ultimately aim to assist stakeholders with process, policy and development options. The recommendations are set forth in the following categorical focus areas: 1. Process related actions; 2. Marketing and Branding; 3. Corridor Design; 4. Land Use & Infrastructure. Focus Areas 1 & 2 cover procedural recommendations while Focus Areas 3 & 4 deal with physical improvement recommendations for Collins Road. Each of the four focus areas contain their own set of individual recommendations. While these recommendations can be utilized as an action plan, their timeframe for implementation and their categorical type should be viewed as flexible based on funding and the determined priorities.

8.2 Procedural Recommendation

8.2.1. Process Related Actions

This recommendation focus area looks to address necessary actions stakeholders could take for suitable planning procedures for the corridor. These recommendations are based on analyses performed by the practicum team and the case studies examined within this report where it is clear that stakeholder involvement results in an effective, fair, and sometimes multifaceted approach. In order to see Collins Road develop a strong relationship with stakeholders and different municipalities, the following strategic actions are encouraged:

Develop a cooperation agreement between the City of Lansing, Lansing Charter Township, City of East Lansing, and Delhi Charter Township

Early in the project, it was noted within the SWOT analysis that one of Collins Road Corridor's most prominent challenges is its location within multiple different jurisdictions. Due to this situation, every municipality and township has differing degrees of administrative control, financial instruments, and zoning restrictions that make planning for these types of areas challenging without clear communication and a shared commitment. By drafting and publishing a cooperation agreement between the major bordering communities of Lansing, Lansing Township, East Lansing, and Delhi Township, a commitment from each of these municipalities to communicate their decisions regarding the land use and zoning patterns along each of their respective areas along the corridor is recorded.

The Michigan Avenue Corridor case study demonstrates strong multi-jurisdictional cooperation as the corridor crosses Lansing, Lansing Township, and East Lansing; yet development is continuous and cohesive. With this example, it is evident that a cooperative, multi-jurisdictional planning approach is necessary for Collins Road when multiple stakeholders and municipal borders are situated along the corridor. Therefore, the practicum team recommends that a cooperative agreement between the bordering communities be established to develop unified goals and ensure congruent communication amongst stakeholders.

Hold corridor design charrettes and visioning sessions amongst stakeholder groups

A critical component of developing a successful corridor is creating a shared vision amongst the various stakeholders. By hosting community design charrettes and visioning sessions, stakeholders, such as area residents, municipal officials, developers and landowners, can share ideas and design proposals to create mutually agreeable development scenarios for the Collins Road Corridor.

The need for Corridor design charrettes and visioning sessions is based on the Saginaw Street Corridor case study where it was shown that a vital step in the planning process was holding meetings with local stakeholders to learn of their goals and aspirations for what the corridor could become. Their goals were then compiled into an action plan which was then used as a tool to guide action plans for future reference. With that said, it is clear that holding corridor design charrettes and visioning sessions with local stakeholders is a necessary step in order to learn the needs of the public and to foster collaboration amongst stakeholders.

Explore establishing a Corridor Improvement Authority

Within the SWOT Analysis, it was noted that a threat to corridor development is ensuring stakeholder coordination due to stakeholder differentiation across multiple fields and interests. To handle this threat, a common tool for developing economic corridors is to establish an authority that facilitates planning decisions and provides a framework for financing future improvements to the corridor. The corridor improvement authority could serve as a staffed body to allocate and manage resources provided by public and private partners to help manage corridor activities and to explore a tax increment financing option to guide project priorities in a way that is fiscally feasible and shows positive effects on the greater community. The Saginaw Street Corridor, Michigan Avenue Corridor, and the Michigan Street Corridor case studies all established a

Corridor Improvements Authority to guide and monitor development. Specifically, the Michigan Street Corridor Improvement Authority in Grand Rapids acts as a forum for stakeholder discussions, facilitate tax-increment financing (TIF) plans, and establish community partnerships. In a similar manner, a Corridor Improvement Authority on Collins Road could create multi-jurisdictional partnerships and administer funding mechanisms such as a TIF program if needed.

8.2.2. Marketing and Branding

This focus area of recommendations centers around the marketing and branding of the Collins Road Corridor. Based on case study research and the socio-economic profile analysis, it is clear that effective marketing and branding for an area, to a targeted demographic group, can serve as an important means to attract customers and businesses, which can result in direct business investment. For that reason, the following recommendations were determined:

Consider creating a marketing plan

It has been established by the client group that their vision for Collins Road is a "Med-Tech Corridor," however in its current state, Collins Road lacks any meaningful marketing or branding measures to make the corridor more appealing to businesses and customers. Based on the socio-economic profile, Collins Road has the opportunity to reach a relatively large population of over 8,600 people who comprise the three census tract areas surrounding the corridor as a customer and highly educated workforce pool. With that said, a successful marketing campaign through local promotions may entice the local population base to visit the area and help create a new perception of the corridor as an appealing place to work and visit.

Case study research has highlighted that a marketing plan is vital in creating unique branding for the corridor. For example, the Michigan Street Corridor in Grand Rapids, Michigan has successfully branded itself as the "Medical Mile" while the 3rd & 4th Street Corridor in Chattanooga is referred to as the "Chattanooga Health and Wellness District." This unique type of marketing and placemaking has been a working part of their respected development plans and has been used to attract businesses which associate themselves with that type of brand image. When successfully applied, proper marketing and branding can attract business investment and make it more recognizable to the general public.

A successful marketing plan for Collins road should portray the area as inviting to employees and as a good place to conduct business in the high-tech research and medical fields. The market

research provided in Chapter 6 can be utilized or expanded upon in a more detailed manner to determine which consumer market sectors or business types should be targeted. The marketing plan should also include strategies for networking between the corridor and surrounding communities and stakeholders to allow for business-to-business, or business-to-customer studies to address market gaps while also building linkages between the corridor and the surrounding areas.

Explore developing a unique brand image or logo.

Development of an image or logo, unique to the Collins Road Corridor, is a cost-effective tool which can be directly tied to the local businesses and capture the identity of the corridor. Many cities and counties, including the City of Lansing and Ingham County, have developed unique logos which are recognizable to the public and help display the values of the community. For Collins Road, it will be important to establish a brand image that helps market the corridor and incorporate the vision and goals of the corridor's stakeholders. This will aid in establishing the corridor's identity and attracting those interested in the services/amenities provided within the corridor. The logo could be incorporated into street light banners throughout the district as a quick way to bring visibility to the branding effort.

8.3. Physical Recommendations

8.3.1 Corridor Design

The following section of recommendations looks to incorporate new design and placemaking practices along the Collins Road Corridor. Successful corridor design can be transformative to the area as it can increase its aesthetic quality and create an environment for people to live, work, and enjoy. Based on the practicum team's analysis and case study research, good design and amenities play a critical role in attracting businesses and clientele to the corridor. With this in mind, the practicum team encourages exploring the following strategic actions.

Design and include amenities and relevant streetscaping along the Corridor

The assessment of existing conditions along the corridor indicate the lack of amenities to support a safe and active pedestrian environment. In its current state, the corridor is primarily automotive-served and currently does not have many features to improve pedestrian comfort or safety, such as places to sit or safe places to cross the road. In order to increase pedestrian accessibility and promote the corridor as a safe walkable, bikeable, and transit-served area, it is recommended to add amenities such as street furniture, plantings, bicycle lanes, and crosswalk improvements to

both the existing and proposed sidewalks along the Corridor. Not only does improved streetscaping make the corridor more attractive, it also makes the corridor more accessible to alternative forms of transportation. This provides an attractive environment for companies that may seek to locate their offices in an area with amenities for employees to walk and bike to work.

Each of the case studies researched indicate the need for amenities and streetscaping to improve the safety and aesthetics of the area. Several examples of streetscaping design and amenities such as public art, protected bicycle lanes, street trees, painted crosswalks, and bicycle parking racks were considered necessary and successful additions to each corridor as articulated in the case studies. For that reason, the practicum team recommends that improved corridor design and streetscaping amenities could be added to Collins Road to fill the current void.

Design and implement storm water management practices

It was noted in the Sewer & Water Analysis that Collins Road currently lacks storm water runoff controls. Due to this, potentially toxic fluids from vehicles, road salt applied during the winter, and fertilizer applied to surrounding agricultural lands can freely flow into the corridor's storm drains thus polluting nearby waterways. To help manage runoff from hardscapes, agricultural uses, and vacant lands on either side of Collins Road, the practicum team recommends building stormwater management systems such as bioswales, rain gardens, and permeable pavement to create both effective runoff pollution controls and beautify the Collins Road Corridor with native vegetation between streets, sidewalks, and buildings. From case study research, the Michigan Street Corridor utilized planted road medians, planted sidewalks, and street trees to help absorb surface runoff from sidewalks and the street to alleviate the issue while also creating a more attractive pedestrian environment. For Collins Road to reduce its environmental impact and create a more attractive streetscape design, storm water management designs, such as the ones mentioned above, could be implemented as part of a corridor design initiative.

Establish a series of wayfinding signs along Collins Road.

Based on the practicum team's assessment of existing corridor conditions, signage is present and in good condition, but is small, and mostly reflects individual businesses or the general signage found on MSU's campus. As it stands, the Collins Road Corridor does not have any signage that points to destinations or communicates an identity of the area.

Wayfinding signs not only provide assistance to drivers, pedestrians and cyclists to navigate the corridor, but also serve as signs to establish and communicate the identity of the Collins Road Corridor. A series of wayfinding signs will help point visitors in the direction of different destinations and provide additional aesthetic benefits to the corridor.

Examples of Wayfinding Signage; Source: Cornell University Campus Master Plan (2016)

8.3.2. Land Use & Infrastructure

This focus area of recommendations centers around land use and infrastructure planning within the Collins Road Corridor. With limited quantities of developable land and resources, properly tracking parcels of property and existing infrastructure can help ensure that the Corridor can remain a prime destination to live and operate a business. Based on assessments by the practicum team and a Retail MarketPlace Profile provided from ESRI Business Analyst, the following recommendations are encouraged.

Explore developing dynamic property inventory.

An actively maintained record of existing properties, with attributes such as building footprint, property value, zoning, and any legally binding changes such as variances or special use permits, can help keep developers, planners, and stakeholders up to date on the current physical character of properties in the corridor. The design of the parcel inventory provided in Chapter 4 can be used as a template for this property inventory and the information provided in the parcel inventory can be built upon using a web map application like ArcGIS Online (AGO), which can in turn be tied to

more specific websites such as municipal websites or BS&A Online, a municipal land and finances websites.

Consider requesting a traffic study to be completed by Tri-County Regional Planning Commission (TCRPC)

TCRPC is one of the more effective organizations in the local area with regards to traffic and travel data, especially when multiple municipalities are involved. Traffic counts are done every few years, and while most roads have been updated recently, others have not been since as early as 2005. A traffic study from TCRPC can give the most accurate and up-to-date information on the condition of roads and traffic in a detailed fashion. This can inform future developments both for vehicular traffic, and to accommodate for on-street nonmotorized facilities such as bicycle lanes. Furthermore, the traffic study could be valuable in applying for grants and additional funding for road improvements and infrastructure to promote walkability and safety.

Resurface and repair Collins Road and surrounding roads rated "Poor" by PASER.

As the roads and pathways analyses in the Infrastructure Analysis chapter shows, 53 percent of roads in the Collins Road Corridor area have a "Poor" rating as assessed by PASER. Much of that is concentrated among arterial roads, including Collins Road north of Dunckel Road and all of I-496. Emphasizing the resurfacing and repair of these roads will not only improve their appearance and safety with current traffic conditions but help to withstand increased demand that may follow new developments within the corridor such as the new McLaren hospital. Tri-County Regional Planning Commission (TCRPC) can help in developing priorities for road repairs on Trunkline roads within the Transportation Improvement Program (TIP), while the Ingham County Road Commission can plan for repairs along Collins Road, Jolly Road, and Dunckel Road. While funding could be the main issue for resurfacing and repairing Collins Road, there are a variety of possible funding sources that could be obtained:

- The Michigan Transportation Fund (MTF), which is primarily funded from gas taxes and vehicle registration fees.
- The State Infrastructure Bank (SIB), which complements urgent project financing demands.
- The Transportation Alternatives Program (TAP), which is a grant program that funds projects for bike paths and streetscapes.
- The Transportation Economic Development Fund (TEDF), which funds for transportation improvements to promote economic growth and improve the quality of life in Michigan.

Consider promoting LEED construction milestones for new developments.

It was noted within the Gas & Electricity Analysis, in order to create a more sustainable corridor and mitigate potential stresses on energy services, energy efficiency initiatives could be implemented. Sustainable construction can be guided by recommending developers to follow LEED milestones such as installing halogen light fixtures, utilizing rainwater collection and reuse devices, and installing green walls or green roofs. These green building practices will help provide high-quality construction that reduces energy costs for the property owner and their tenants while also easing the demand on utility infrastructure and provides beautification for buildings within the corridor. Additionally, promoting LEED milestones can aid in making Collins Road more sustainable and reduce its environmental footprint. Encouraging low-cost LEED upgrades such as more efficient lighting could be encouraged in existing larger buildings in the UCRP as a starting point. Additionally, the design milestones have the potential to benefit the Collins Road Corridor's image and marketability as an attractive, environmentally sustainable location for businesses.

Continually evaluate the demand for gas, water, sewer, and electricity services.

Based upon service analysis, current infrastructure services, both available and under-construction, are more than sufficient for the buildings along Collins Road. However, as more development occurs this may change. Periodically evaluating this information from service providers will keep an active awareness on when services need to be upgraded or more sustainable building practices need to be implemented. Additional efforts can be made to coordinate with municipal plans to systematically upgrade infrastructure in conjunction with development along the Collins Road Corridor when it is possible.

Consider business recommendations based on consumer demands

Based on the Market Analysis conducted within Chapter 6, it is apparent that the Collins Road Corridor and the surrounding areas are experiencing market leakages of certain products and services which could be beneficial additions to a high-tech research and medical corridor. Specifically, health & personal care stores and food services & drinking places were two industry sectors within a 1-mile buffer of Collins Road which were experiencing market leakages as customer demands were higher than the market supply. As a result, the corridor is unable to meet customer demands and is losing out on potential customers.

Case study research indicates that corridors which are characteristically similar to Collins Road, often contained health and personal care stores such as medical equipment suppliers and pharmacies to serve nearby hospitals and patients. Furthermore, restaurants and eateries were also commonly found as associated industry sectors in high-tech medical and research corridors. Since Collins Road currently has an unmet demand for these two industry sectors, attracting these business types to the corridor is recommended.

8.4 Conclusion

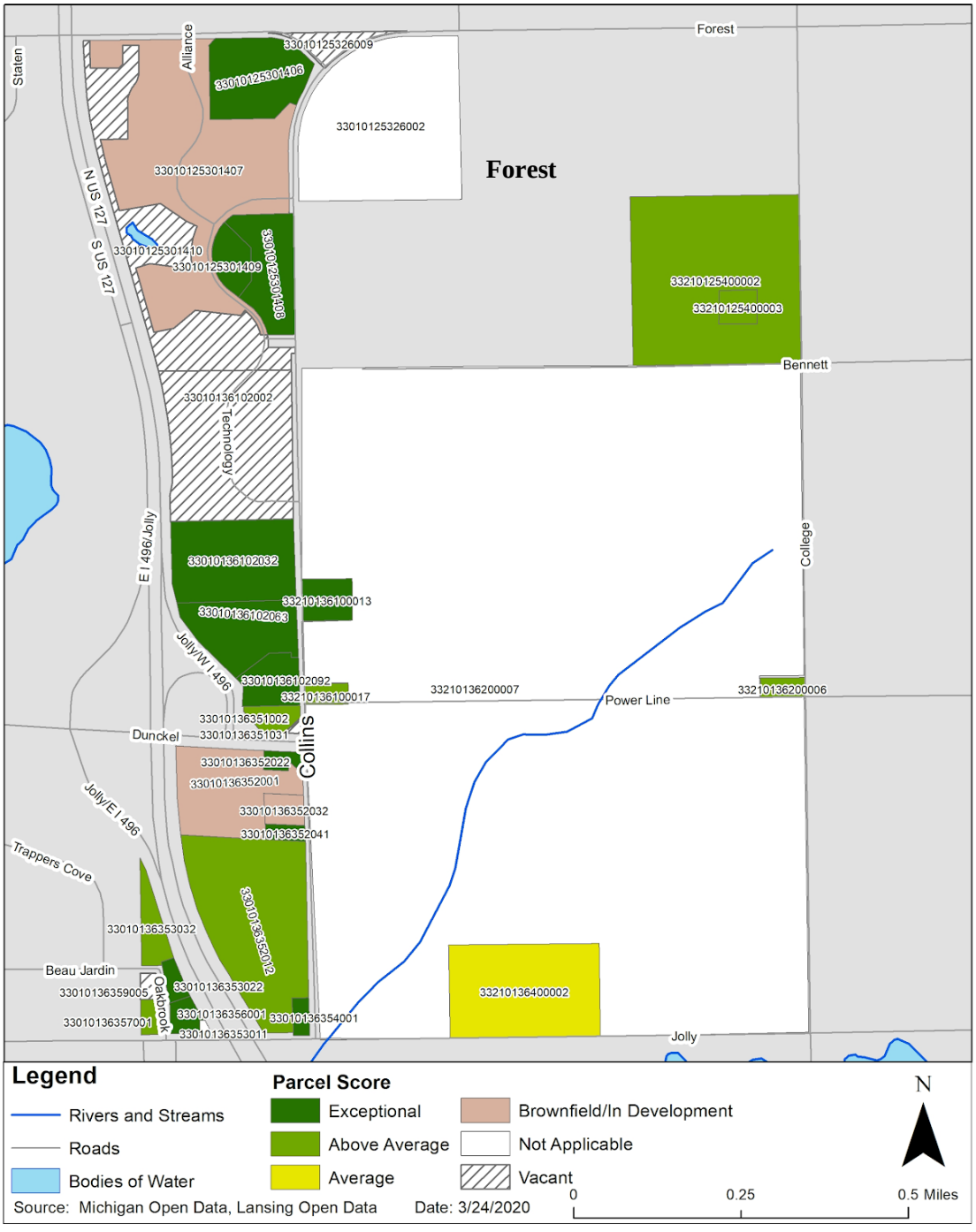
These recommendations provide a holistic approach to improving the Collins Road Corridor that addresses the core priority of economic development, and also identifies organization, design, land use, and infrastructure as components that help support economic activity within the corridor. Procedural recommendations provide means to overcome multijurisdictional challenges and other organizational hurdles to facilitate an effective and involved planning process, while developing a marketing plan and brand identity to attract new business into the area. Physical recommendations are oriented around improving the built and natural environment of the Collins Road Corridor through equitable design and infrastructure improvements to keep an active involvement in maintaining the corridor.

A focus on bolstering both the economic fabric and physical character of the corridor creates an interconnected system that is socially, economically, and environmentally equitable to facilitate future involvement and planning. Future plans for the area are anticipated to consider these recommendations and further identify and schedule their implementation based on cost, availability of resources, and timeframe. With this in mind, the Collins Road Corridor is expected to develop into a new hub for medical and technology industries within the Lansing Area. As these economic sectors continue to change and evolve, this corridor will have the capability to change and evolve with it, to create a new center for economic stimulus in the Mid-Michigan Area.

Appendix

Appendix A: Individual Parcel Analysis

Collins Road Corridor Parcel Scores



Map A1: The parcels in the Collins Road Corridor with their assessed scores from the above criteria*

*Because of University ownership and non-conduciveness to this plan, Parcels 332101363400002, 33210125400002, and 33210125400003 were not given a full and comprehensive analysis as seen below.

Parcel: 33-01-01-25-301-406

Property Current Land Use Zoning: Office

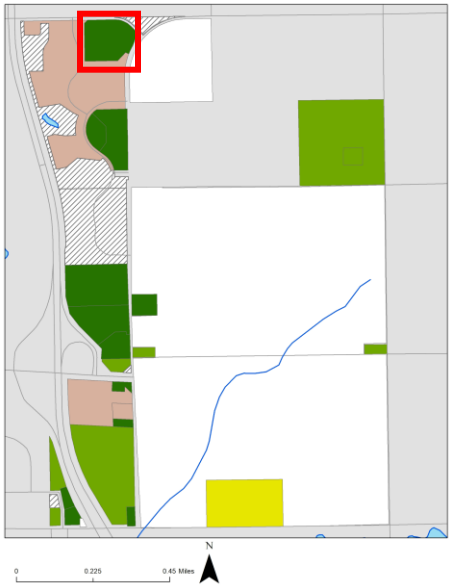
Property Zoning: D-1 Professional Office

Parcel Size: 11.4 Acres

Property Land Value: $893,900

Infrastructure and Services: No Sidewalks, Sanitary Sewer - ☑, Poor Road Condition

Building Condition Classification: Exceptional



Parcel: 33-01-01-25-301-408

Property Current Land Use: Commercial

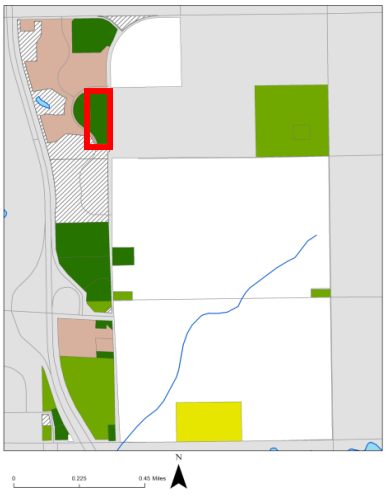
Property Zoning: D-1 Professional Office

Parcel Size: 7.9 Acres

Property Land Value: $1,318,900

Infrastructure and Services: Sidewalks - ☑, Sanitary Sewer - ☑, Fair to Poor Road Condition

Building Condition Classification: Exceptional



Parcel: 33-01-01-25-301-409

Property Current Land Use: Commercial

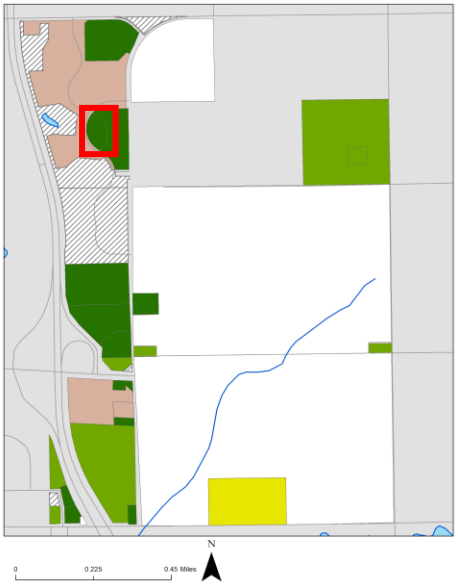
Property Zoning: D-1 Professional Office

Parcel Size: 2.9 Acres

Property Land Value: $127,100

Infrastructure and Services: Sidewalks - ☑, Sanitary Sewer - ☑, Fair Road Condition

Building Condition Classification: Exceptional



Parcel: 33-01-01-25-301-407

Property Current Land Use: Commercial

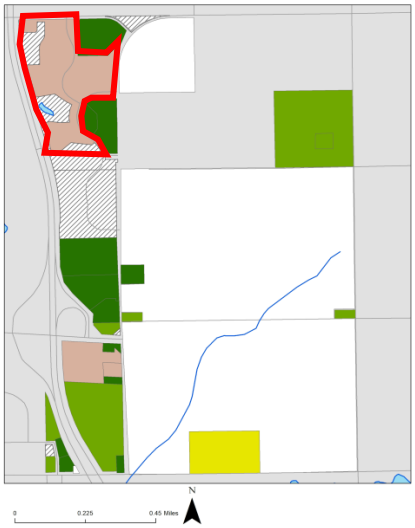
Property Zoning: D-1 Professional Office

Parcel Size: 43.7 Acres

Property Land Value: $1,458,300

Infrastructure and Services: Sidewalks - ☑, Sanitary Sewer - ☑, Fair to Poor Road Condition

Building Condition Classification: Brownfield/In Development



Parcel: 33-01-01-36-102-002

Property Current Land Use: Vacant

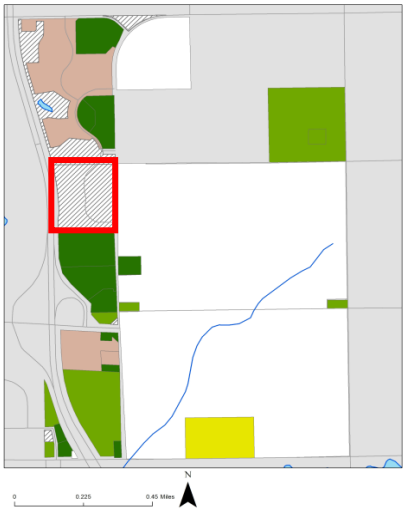
Property Zoning: D-1 Professional Office

Parcel Size: 28.3 Acres

Property Land Value: $2,465,496

Infrastructure and Services: Sidewalks - ☑, Sanitary Sewer - ☑, Fair to Poor Road Condition

Building Condition Classification: Vacant



Parcel: 33-01-01-36-102-032

Property Current Land Use: Office

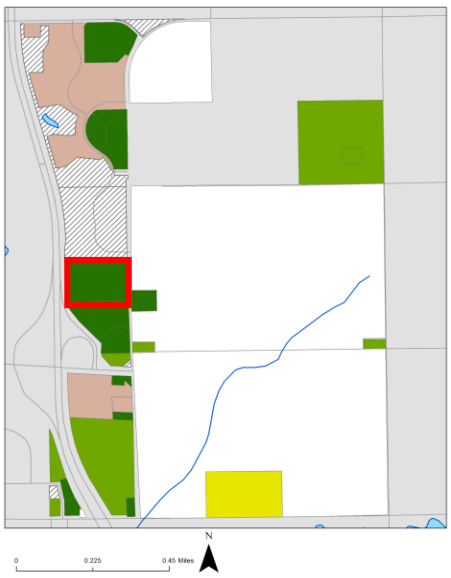
Property Zoning: D-1 Professional Office

Parcel Size: 15.0 Acres

Property Land Value: $653,400

Infrastructure and Services: Sidewalks - ☑, Sanitary Sewer - ☑, Poor Road Condition

Building Condition Classification: Exceptional



Parcel: 33-01-01-25-301-410

Property Current Land Use: Vacant; Temporarily Used as Storage

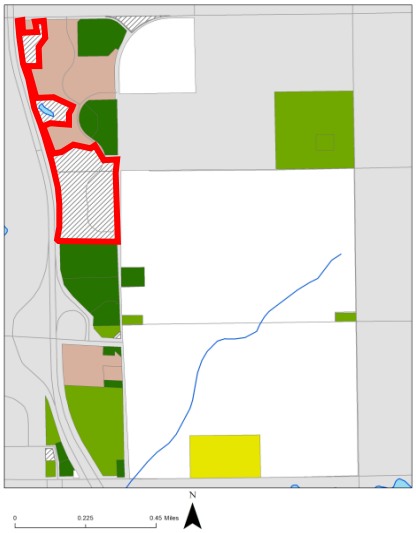
Property Zoning: D-1 Professional Office

Parcel Size: 21.8 Acres

Property Land Value: $1,425,534

Infrastructure and Services: Sidewalks - ☑, Sanitary Sewers - ☑, Fair to Poor Road Condition

Building Condition Classification: Vacant



Parcel: 33-01-01-36-352-032

Property Current Land Use: Commercial

Property Zoning: F - Commercial

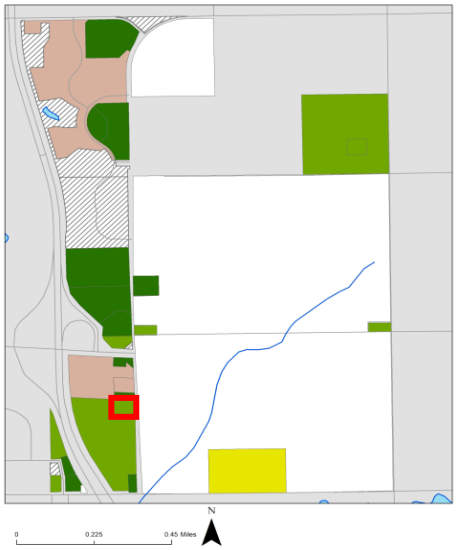
Parcel Size: 1.7 Acres

Property Land Value: $94,400

Infrastructure and Services: Sidewalks - ☑, Unknown Sewage System,

Good Road Condition - ☑

Building Condition Classification: Brownfield/In Development



Parcel: 33-01-01-36-352-041

Property Current Land Use and Zoning: Commercial

Property Zoning: F - Commercial

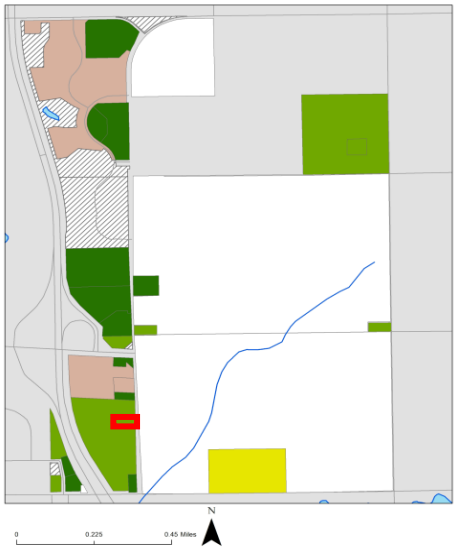
Parcel Size: 0.9 Acres

Property Land Value: $223,300

Infrastructure and Services: Sidewalks - ☑, Unknown Sewage System,

Good Road Condition - ☑

Building Condition Classification: Exceptional



Parcel: 33-01-01-36-102-092

Property Current Land Use: Office

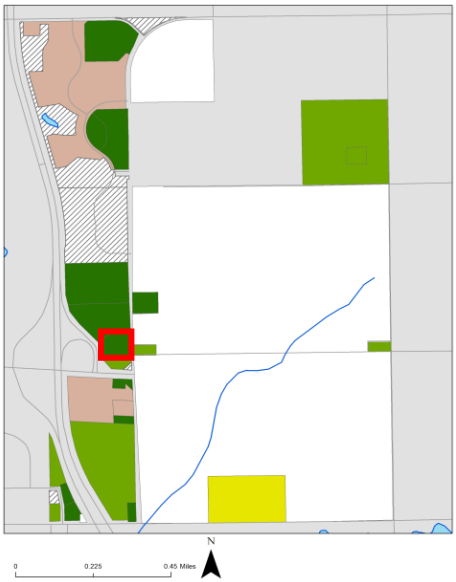
Property Zoning: F - Commercial

Parcel Size: 3.8 Acres

Property Land Value: $1,332,300

Infrastructure and Services: No Sidewalks, Sanitary Sewer - ☑, Good Road Condition - ☑

Building Condition Classification: Exceptional



Parcel: 33-01-01-36-252-001

Property Current Land Use: Multiple-Family Residential

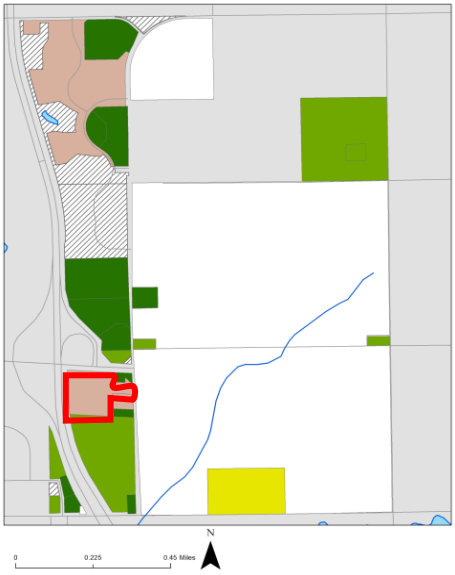
Property Zoning: E-1 Apartment Shop

Parcel Size: 12.09 Acres

Property Land Value: $1,042,400

Infrastructure and Services: No sidewalks, Sanitary Sewer - ☑, Good Road Condition - ☑

Building Condition Classification: Brownfield/In Development



Parcel: 33-01-01-36-352-022

Property Current Land Use: Commercial — Improved

Property Zoning: E-1 Apartment Shop (Small Easement on East Side)

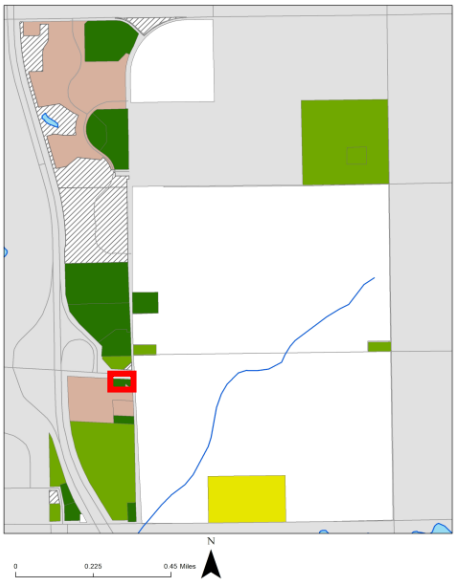
Parcel Size: 0.9 Acres

Property Land Value: $306,300

Infrastructure and Services: No Sidewalks, Sewage System Unknown,

Good Road Condition - ☑

Building Condition Classification: Exceptional



Parcel: 33-01-01-36-102-063

Property Current Land Use and Zoning: Office

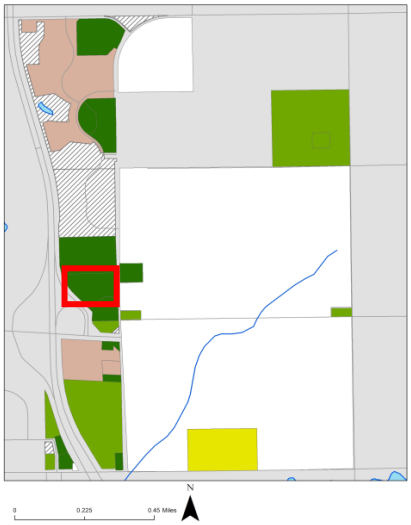
Property Zoning: D-1 Professional Office

Parcel Size: 9.0 Acres

Property Land Value: $2,754,800

Infrastructure and Services: Sidewalks - ☑, Sanitary Sewer - ☑, Fair to Poor Road Condition

Building Condition Classification: Exceptional



Parcel: 33-01-01-36-351-002

Property Current Land Use: Commercial

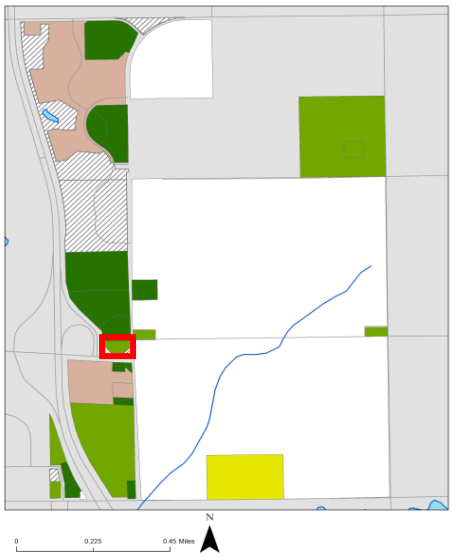
Property Zoning: F - Commercial

Parcel Size: 1.7 Acres

Property Land Value: $673,600

Infrastructure and Services: No Sidewalks, Unknown Sewage System, Fair to Poor Road Condition

Building Condition Classification: Above Average



Parcel: 33-01-01-36-351-031

Property Current Land Use: Vacant

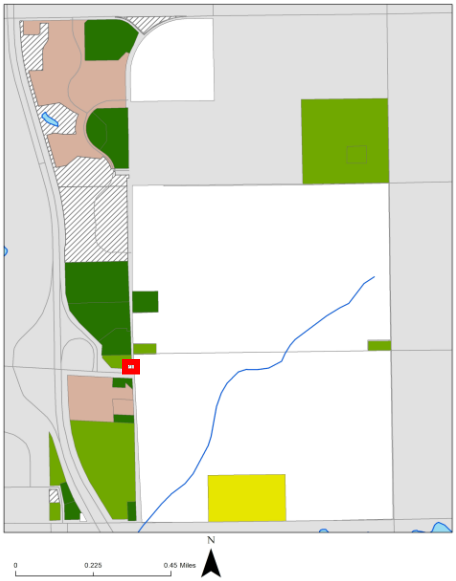
Property Zoning: ROW Right of Way

Parcel Size: 0.2 Acres

Property Land Value: $570

Infrastructure and Services: No sidewalk, Unknown Sanitary Sewer, Poor Road Condition

Building Condition Classification: Vacant



Parcel: 33-01-01-36-359-005

Property Current Land Use: Vacant

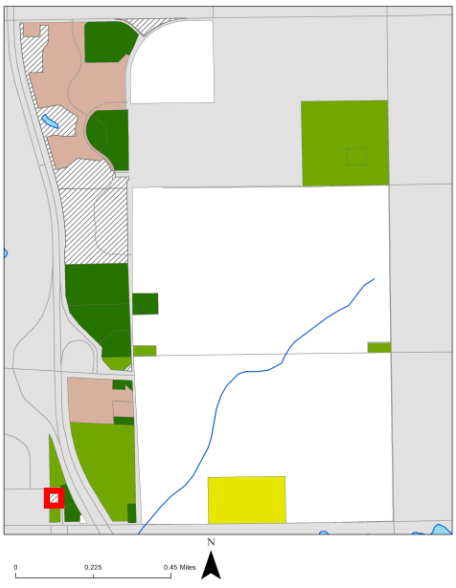
Property Zoning: DM-1 Residential - Multiple

Parcel Size: 0.6 Acres

Property Land Value: $21,900

Infrastructure and Services: Unknown Sanitary Sewer, No Sidewalk, No Road Condition

Building Condition Classification: Vacant



Parcel: 33-01-01-36-353-011

Property Current Land Use: Public/Semi-Public

Property Zoning: DM-1 Residential - Multiple

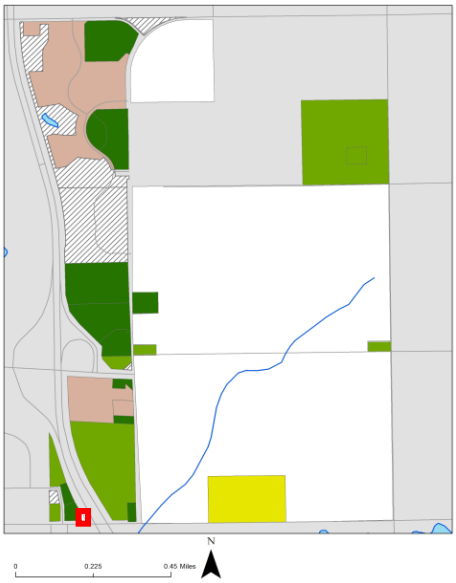
Parcel Size: 0.16 Acres

Property Land Value: $480

Infrastructure and Services: No Sidewalks, Unknown Sewage System,

Good Road Condition - ☑

Building Condition Classification: N/A - Site is a utility easement with no habitable structures



Parcel: 33-01-01-36-353-022

Property Current Land Use: Multiple-Family Residential

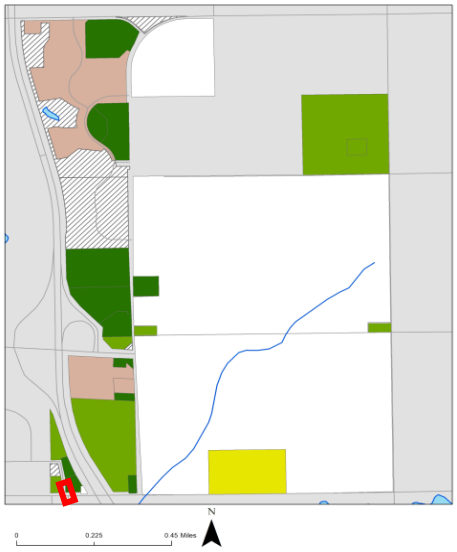
Property Zoning: DM-1 Residential - Multiple

Parcel Size: 0.9 Acres

Property Land Value: $61,400

Infrastructure and Services: No Sidewalks, Sanitary Sewer - ☑, Good Road Condition - ☑

Building Condition Classification: Exceptional



Parcel: 33-01-01-36-353-032

Property Current Land Use: Multiple-Family Residential

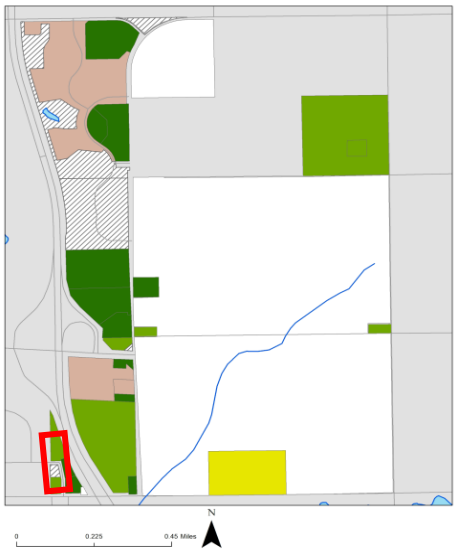
Property Zoning: DM-1 Residential - Multiple

Parcel Size: 2.4 Acres

Property Land Value: $591,700

Infrastructure and Services: Sidewalks - ☑, Sanitary Sewer - ☑, Good Road Condition - ☑

Building Condition Classification: Above Average



Parcel: 33-01-01-36-352-012

Property Current Land Use: Commercial/Industrial

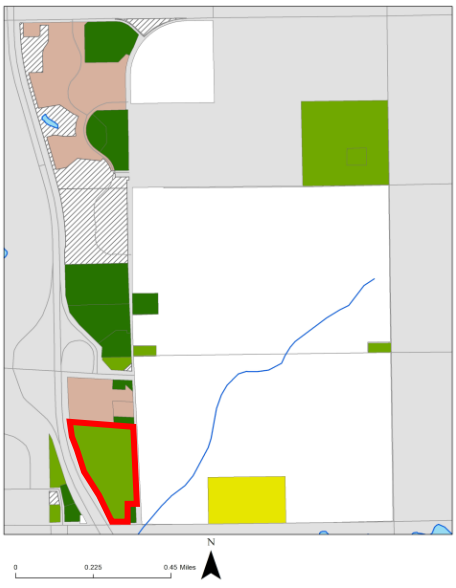
Property Zoning: D-1 Professional Office

Parcel Size: 25.26 Acres

Property Land Value: $4,044,270*

Infrastructure and Services: No Sidewalk, Sanitary Sewer - ☑, Good Road Condition - ☑

Building Condition Classification: Above Average



*Estimated price based on average property values of similar size and in proximity

Parcel: 33-01-01-36-354-001

Property Current Land Use: Commercial/Office

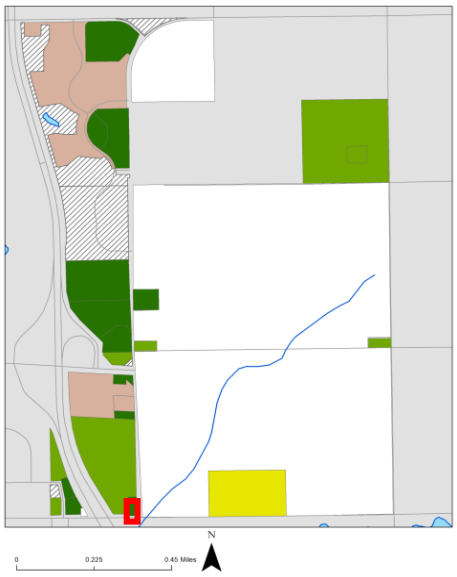
Property Zoning: F - Commercial

Parcel Size: 1.03 Acres

Property Land Value: $450,600

Infrastructure and Services: No Sidewalk, Sanitary Sewer - ☑, Good Road Condition - ☑

Building Condition Classification: Exceptional



Parcel: 33-01-01-36-356-001

Property Current Land Use and Zoning: Multiple-Family Residential

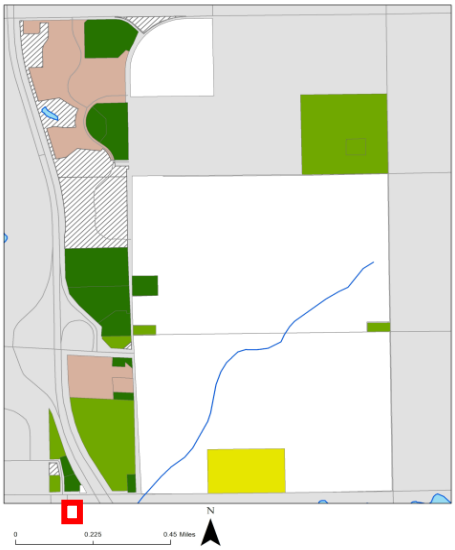
Property Zoning: DM-1 Residential - Multiple

Parcel Size: 1.4 Acres

Property Land Value: $313,000

Infrastructure and Services: Sidewalk - ☑, Sanitary Sewer - ☑, Good Road Condition - ☑

Building Condition Classification: Exceptional



Parcel: 33-01-01-36-357-001

Property Current Land Use: Multiple-Family Residential

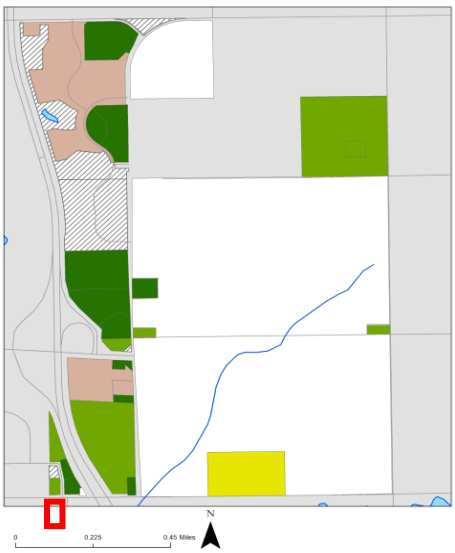
Property Zoning: DM-1 Residential - Multiple

Parcel Size: 1.05 Acres

Property Land Value: $576,800

Infrastructure and Services: Sidewalk - ☑, Sanitary Sewer - ☑, Good Road Condition - ☑

Building Condition Classification: Above Average



Parcel: 33-01-01-25-326-009

Property Current Land Use: Vacant

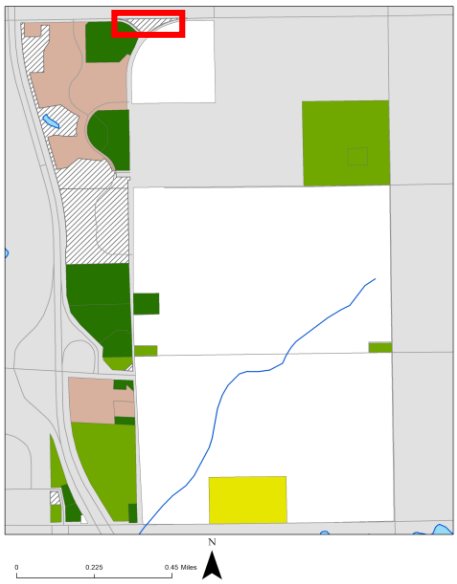
Property Zoning: University-Owned Land

Parcel Size: 2.8 Acres

Property Land Value: $366,615

Infrastructure and Services: No Sidewalk, Unknown Sanitary Sewer, Poor Road Condition

Building Condition Classification: Vacant



Parcel: 33-01-01-25-326-002

Property Current Land Use: Agriculture

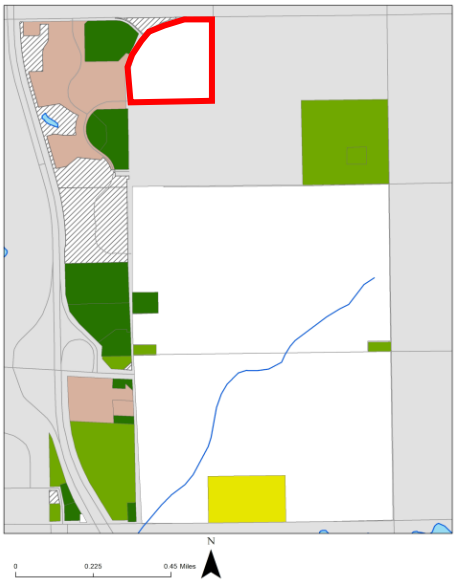
Property Zoning: University-Owned Land

Parcel Size: 51.02 Acres

Property Land Value: $4,445,122

Infrastructure and Services: No Sidewalk, Septic System N/A, Unknown Road Condition

Building Condition Classification: N/A - Agricultural land, no habitable structures present



Parcel: 33-21-01-36-100-017

Property Current Land Use: Agriculture

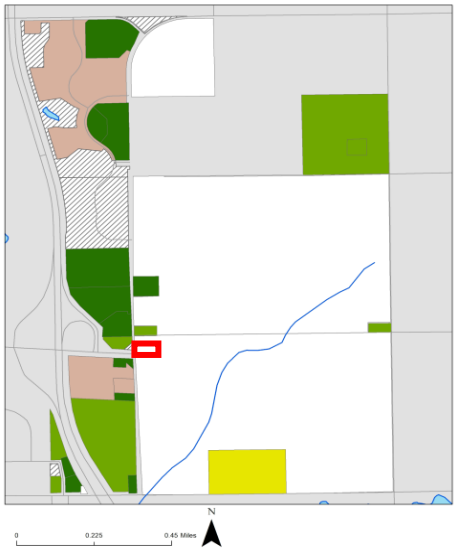
Property Zoning: University-Owned Land

Parcel Size: 1.3 Acres

Property Land Value: $41,818

Infrastructure and Services: No Sidewalk, On-Site Septic System - ☑, Poor Road Condition

Building Condition Classification: Above Average



Parcel: 33-21-01-36-100-013

Property Current Land Use: Agriculture

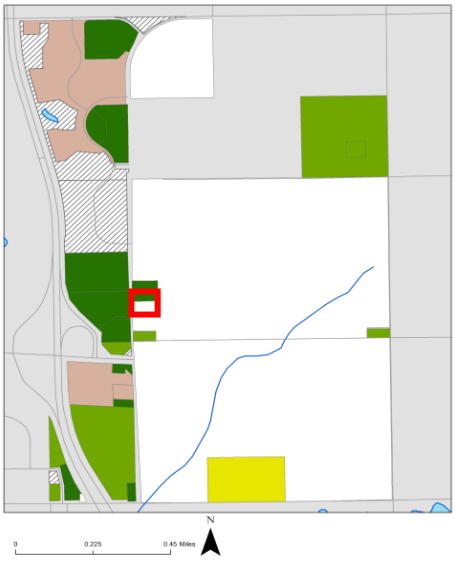
Property Zoning: University-Owned Land

Parcel Size: 3.0 Acres

Property Land Value: $130,680*

Infrastructure and Services: No Sidewalk, On-Site Septic System - ☑, Poor Road Condition

Building Condition Classification: Exceptional



*Price estimation provided by Lansing Township Land Assessor

Parcel: 33-21-01-36-200-007

Property Current Land Use: Agriculture

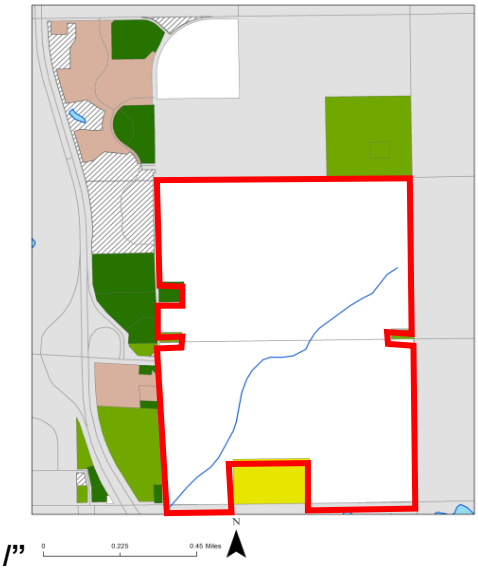
Property Zoning: University-Owned Land

Parcel Size: 447.6 Acres

Property Land Value: $19,497,456*

Infrastructure and Services: No Sidewalk, N/A Sanitary Sewer, Good to Poor Road Condition

Building Condition Classification: N/A - Agricultural land, no habitable structures present



* Price estimation provided by Lansing Township Land Ass

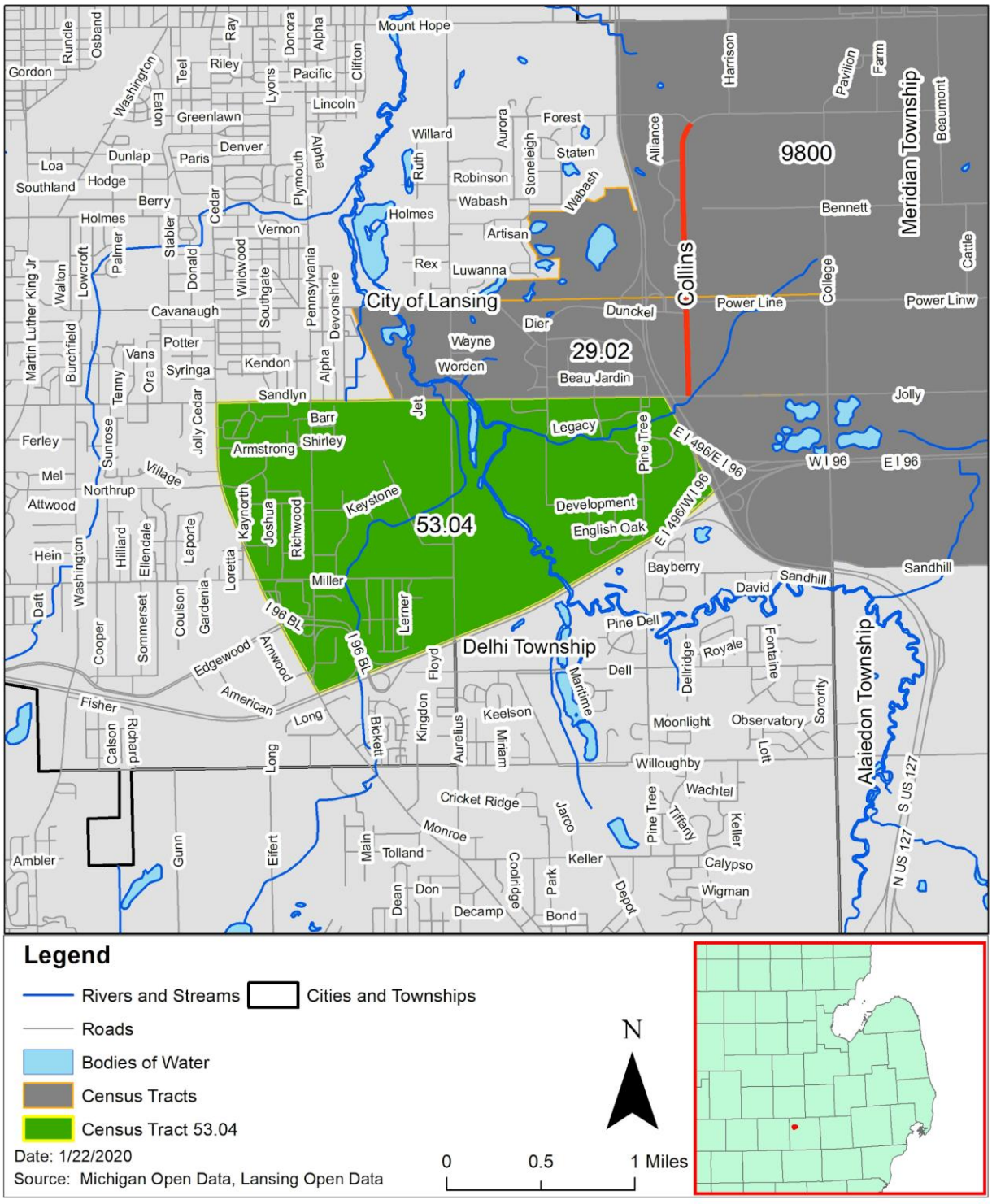
Appendix B: Socioeconomic Profile for Census Tract 53.04

1.0 Introduction

This Socioeconomic Profile examines Census Tract 53.04, which encompasses the area southwest of Collins Road, south of Jolly Road (See Map on Page 2). Due to this relatively large geographical area lying in the periphery of the general corridor, it has not been included within the main Socioeconomic profile as displayed earlier in the report. This decision was collectively agreed upon with the goal to keep data previously collected and analyzed as accurate as possible as it pertains to the corridor itself. However, since the Tract population lives within the general vicinity of the corridor, residents are likely to be impacted by future development that may ensue over the coming years.

This adjunct Socioeconomic Profile will only explore Census Tract 53.04 and use Ingham County as the larger reference area. Since this geographical area is not within the main focus area, not all data and areas of analysis within the main Socioeconomic Profile will be included. However, general demographic, housing, and economic data will be assessed and analyzed to provide stakeholders and administrators alike a glimpse into this area and help them understand who comprises its population and what the economic conditions exhibit overall.

Collins Corridor Census Tracts



Map B1: Location of Census Tract 53.04 with respect to Census Tracts 9800 and 29.02.

2.0 Demographic Analysis

2.1 Total Population

Similar to population statistics provided in the main Socioeconomic Profile, the population data for Census Tract 53.04 can aid in assessing the impact that the development of Collins Road would have on the surrounding populations. When analyzing population statistics of Census Tract 53.04, it can be noted that this area has experienced a marginal increase in population from 2010 to 2018 in comparison to Ingham County. Due to its particularly low growth rate of 1.2%, it can be assumed that Census Tract 53.04 would not require any significant changes to be made to the needs and future plans for the development of the Collins Road Corridor.

Total Population Change (2010-2018)		
Census Year	Tract 53.04	Ingham County
2010	3,336	281,365
2018	3,376	289,564
Percentage Change	1.2%	2.9%

Table B1: Population Change by Geographic Area; Source: American Community Survey 5-Year Estimate

2.2 Race

The racial composition of this adjunct Census Tract was also analyzed to provide a comprehensive understanding of how development along the Collins Road Corridor could potentially impact the surrounding communities and how the racial backgrounds of this area contribute to the primary racial makeup of the subject area.

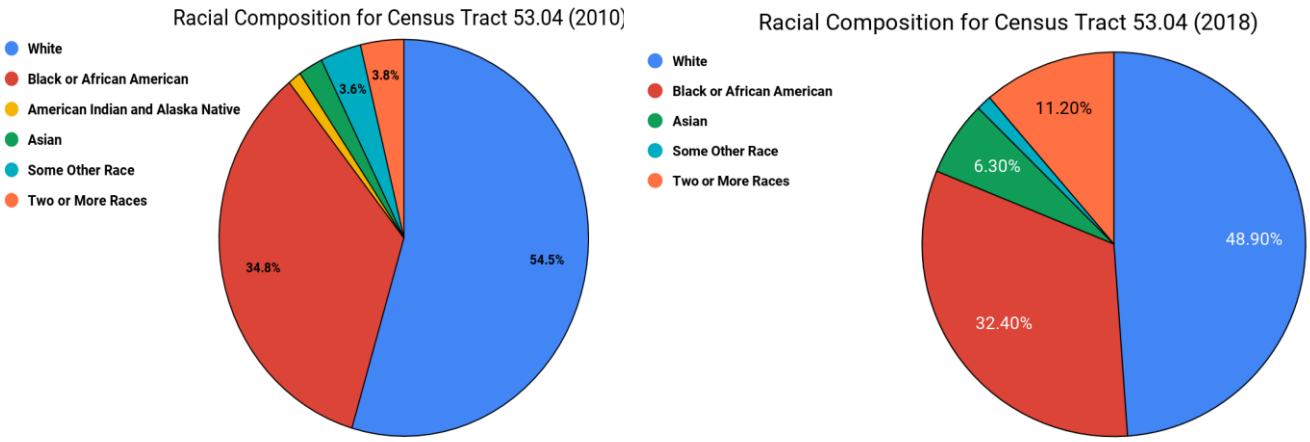


Figure B1: Racial Distribution for Census Tract 53.04; Source: 2014-2018 American Community Survey 5-Year Estimate

The overall makeup of Census Tract 53.04 is white, similar to Census Tract 29.02 and Census Tract 9800 (noted in the primary SEP). Within eight years, the area experienced a small but noticeable amount of diversification. While the two most predominant racial compositions, “White” and “Black or African American,” experienced a decline from 2010 to 2018, “Asian” and “Two or More Races” experienced increases over the same time period.

2.3 Age

The age structure breakdown for the following geographical areas is aimed to provide a better understanding of the age range of residents within the Census Tract. This analysis is vital as different age groups may have different preferences when it comes to the planning and development of an area. Knowing who lives in these areas can provide stakeholders and administrators more informed planning decisions.

Age Structure Breakdown (2018)				
	Tract 53.04		Ingham County	
Age Group	Number	Percent	Number	Percent
Under 5	261	7.7%	16,346	5.7%
5-9	212	6.3%	15,536	5.4%
10-14	191	5.7%	16,243	5.6%
15-17	164	4.9%	10,109	3.5%
18-24	410	12.1%	56,856	19.6%
25-34	657	19.5%	40,492	14.0%
35-44	417	12.4%	31,864	11.0%
45-54	389	11.5%	31,816	11.0%
55-64	336	10.0%	33,428	11.5%
65-74	237	7.0%	22,333	7.7%
75+	102	3.0%	14,528	5.0%

Table B2: Age Structure Breakdown; Source: American Fact Finder 5-Year Estimate

Based upon the information provided, it is apparent that Census Tract 53.04 holds a sizable population of college-aged students (18-24) as well as graduate degree-aged students (25-34). In addition, there is also a sizable portion of working-aged adults (45-44, 45-54, & 55-64). This is generally reflective of population statistics within Ingham County, although the share of those ages 25-34 is slightly less and 18-24 slightly higher. This is an indicator that this area services

young or career professionals and perhaps even graduate students, compared to younger populations that may be found within the vicinity of Michigan State's campus. There is also a larger share of children under the age of 14 which may be a reflection of the large population of residents aged 25-34. Based on that information, it is reasonable to assume that Census Tract 53.04 is home to a large population of young families.

2.3 Educational Attainment

Analyzing the educational attainment for a geographical area is important because populations which hold more advanced degrees usually hold higher incomes. Examining this information can also provide an insight as to what the quality of life may be for the area as well.

Educational Attainment for Population 25 Years and Over: 2018		
Education Attainment	Census Tract 53.04	Ingham County
Less than High School	18.3%	7.3%
High School Graduate (Inc. Equivalency)	27.0%	21.7%
Some College	30.8%	32.5%
Bachelor's Degree	14.2%	20.9%
Master's Degree or Higher	0.8%	17.7%

Table B3: Educational Attainment for Population 25 Years and Over; Source American Community Survey 5-Year Estimate

The table above reports that most residents living within Census Tract 53.04 do not hold a bachelor's degree or higher. There is, however, a sizable portion that has completed either some college or possesses a high school diploma or equivalent. It should also be noted that the percentage of the population over the age of 25 does not hold a high school diploma is much higher than that of Ingham County by a factor of 2.5. These numbers could be down to the fact that many students do not live within this Census Tract.

3.0 Housing Analysis

3.1 Housing Units

Number of Housing Units (2010-2018)		
Census Year	Census Tract 53.04	Ingham County
2010	1,605	121,318
2018	1,623	123,193

Table B3: Changes in Housing Units between 2010 and 2018; Source: 2014-2018 American Community Survey 5-Year Estimate.

When examining the area's housing stock, one can easily draw parallels between changes in the number of housing units which reflects the area's slow growth. Between 2010 and 2018, only 18 new housing units were added to the areas housing stock which again is no surprise given the lack of growth in total population.

3.2 Age of Housing Stock

The age of an area's housing stock is an important area for analysis because it can provide an estimate of its housing values and the type of housing stock it may hold.

Age of Housing Stock for Census Tract 53.04 & Ingham County (2018)				
	Census Tract 53.04		Ingham County	
	Estimate	Percentage	Estimate	Percentage
Built 2014 or Later	0	0%	665	0.54%
Built 2010 to 2013	0	0%	1,527	1.24%
Built 2000 to 2009	12	0.9%	10,020	8.17%
Built 1990 to 1999	25	2.0%	12,943	10.55%
Built 1980 to 1989	231	18.1%	13,721	11.18%
Built 1970 to 1979	537	42.1%	19,548	15.93%
Built 1960 to 1969	212	16.6%	17,184	14.0%
Built 1950 to 1959	105	8.2%	17,374	14.16%
Built 1940 to 1949	53	4.2%	8,798	7.17%
Built 1939 or earlier	102	8.0%	20,940	17.06%

Table B4: Age of Housing Stock; Source American Community Survey 5-Year Estimate & American Fact Finder

Based upon the table, Census Tract 53.04 has not seen new housing development for several years. The decrease in new housing construction after 2009 could be an echo of the Recession or could signify that the area may not require new housing as the area is currently experiencing relatively slow growth (+1.2% since 2010). 42.1% of housing units were built between 1970 and 1979 but a significant portion of the housing stock was constructed in the decades prior.

3.3 Vacancy Rate

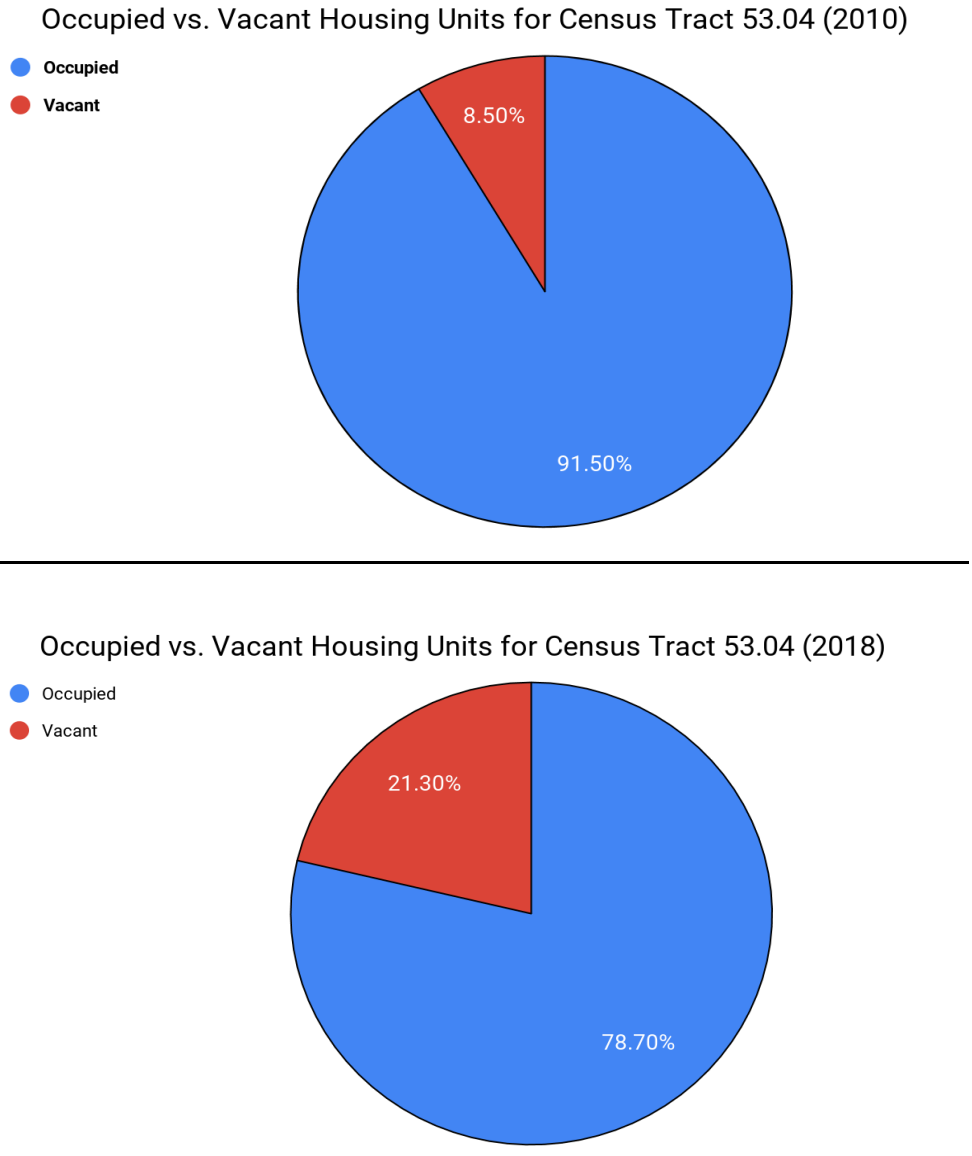


Figure B2: Occupied vs. Vacant Housing; Source: American Fact Finder 5-Year Estimate

Analyzing vacancy rates is vital to understanding the housing characteristics of an area as they generally indicate its level of economic prosperity. Keeping vacancy rates low is also important to the stability of a community as it can often attract crime, reduce surrounding housing values, and decrease the attractiveness of the area. From 2010 to 2018 however, Census Tract 53.04 experienced an increase in vacant housing, growing from 8.5% to 21.3% with a subsequent decline in the housing occupancy rate. Because this area's population earns lower incomes as compared to other nearby areas, perhaps many residents simply cannot afford to live in the area which could explain the high vacancy rate.

4.0 Economic Analysis

Figure B3: Employment and unemployment percentages within Ingham County, MI; Source: 2014-2018 American Community Survey 5-Year Estimates.

4.1 Employment

The graphs on the previous page show the rate of employment within both Census Tract 53.04 and Ingham County for residents ages 16 and older. The “Not in the Labor Force” category is important to include, as it also factors in those who, for example, may be unemployed and not seeking work, or are in a statistically exclusionary situation such as being a member of the military or retired.

In 2010, Census Tract 53.04 had an unemployment rate of 11.1%, which was much higher compared to Ingham County at 5.8%. The relatively high unemployment rate during that time

period can be attributed to the 2008 Recession and the loss of well-paying jobs that likely employed many residents. Since then, employment within the two geographical areas has improved, however unemployment within Census Tract 53.04 still remains quite high at 9.6%.

Comparatively, the employment rate for Ingham County remained relatively stable between the two ACS estimates. With employment slightly improving by 0.5% from 58.7% to 59.2%, and unemployment decreasing from 5.8% to 4.5%, a 1.3% decline. The reason for this may be due in part to relatively stable bases of employment from the State of Michigan and Michigan State University. Both would have been somewhat insulated from the economic downturn due to them being public institutions.

The decline in unemployment is promising and can likely be attributed to a growing economy and young professionals moving into the area. In comparison with Census Tracts 29.02 and 9800 from the main Socioeconomic Profile, unemployment is still relatively high as Census Tract 29.02 has an unemployment rate of 4.6% and 9800 only has an unemployment rate of 3.8% respectively. Because Census Tract 53.04 is further from the Michigan State University campus, where employment opportunities are generally more stable, their unemployment rate is higher than that of the other two comparable Census Tracts.

4.2 Industry and Occupation

Industry by Occupation for Employed Citizens 16 Years and Over (2018)				
Industry Type	Census Tract 53.04 (2010)	Ingham County (2010)	Census Tract 53.04 (2018)	Ingham County (2018)
Agriculture, Forestry, Hunting, Fishing, and Mining	0.0%	1.0%	1.9%	0.6%
Construction	0.0%	3.6%	2.0%	3.5%
Manufacturing	20.0%	8.9%	10.3%	10.0%
Wholesale Trade	2.0%	1.9%	1.4%	1.8%
Retail Trade	11.9%	11.2%	11.5%	10.1%
Transportation and Warehousing	3.7%	3.2%	12.0%	3.7%
Information	0.0%	2.1%	1.2%	1.5%
Finance, Insurance, Real Estate, and Leasing	8.3%	6.7%	3.2%	6.8%
Professional, Scientific, Management, and Waste Management Services	8.7%	9.0%	14.2%	10.0%
Educational Services, Health Care, and Social Assistance	15.1%	29.7%	26.8%	28.9%

Arts, Education, Recreation, Accommodation, and Food Services	12.7%	10.1%	7.2%	11.5%
Other Services, Except Public Administration	9.1%	4.9%	4.6%	4.6%
Public Administration	8.4%	7.6%	3.8%	6.8%

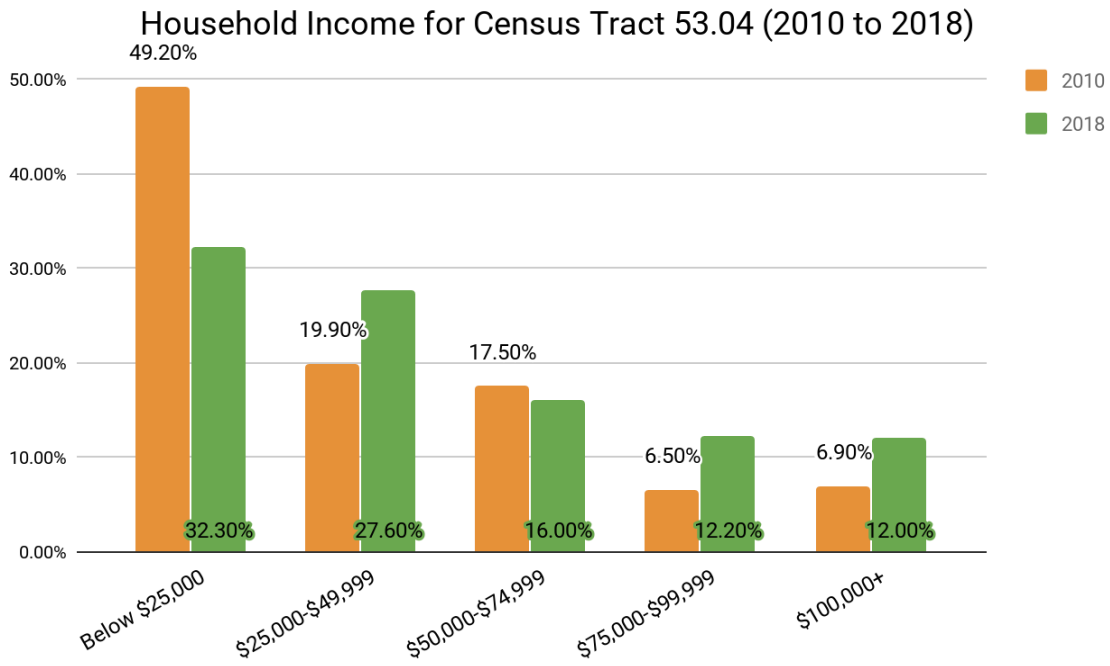
Table B5: Percent of occupied industry for employees over the age of 16; Source: American Community Survey 5-Year Estimate

When examining which industry dominated within Census Tract 53.04, it came as no surprise that Educational Services, Health Care, and Social Assistance made up a significant share at 26.8 percent in 2018, which was an increase of 11.7 percent since 2010. The Professional, Scientific, Management, and Waste Management Services also saw a substantial increase from 2010 to 2018, growing from 8.7 percent in 2010 to 14.2 percent in 2018. Transportation and Warehousing also experienced an increase growing from 3.7 percent to 12.0 percent.

While these sectors experienced an increase, a few industry sectors subsequently lost their share, with the largest decrease occurring in the manufacturing sector which shrank from 20.0 percent to 10.3 percent during the 9-year period. Finance, Insurance, Real Estate, and Leasing also experienced a decrease, falling from 8.3 percent in 2010 to 3.2 percent in 2018. Arts, Education, Recreation, Accommodation, and Food Services too experienced a decline during that period, decreasing by 5.5 percent. Additionally, Other Services, Except Public Administration saw a decrease from 9.1 percent to 4.6 percent and Public Administration too saw a decrease of 4.6 percent during the same time period.

The changes in the Education/Healthcare and Professional, Scientific, Management, and Waste Management sectors are particularly notable for this Census Tract. The proximity of Census Tract 53.04 to the Collins Road Corridor during the same time of development of the University Corporate Research Park (UCRP) may have played a role in the near-doubling of the employment share for the Professional Sector. Additionally, the Education/Healthcare sector also saw the share of employment nearly double, and developments with the University and healthcare services in this corridor may have played an additional role. With the McLaren Hospital slated to open in 2021, it is possible that both of these sectors may see increased growth following the development trend seen between 2010 and 2018.

4.3 Household Income



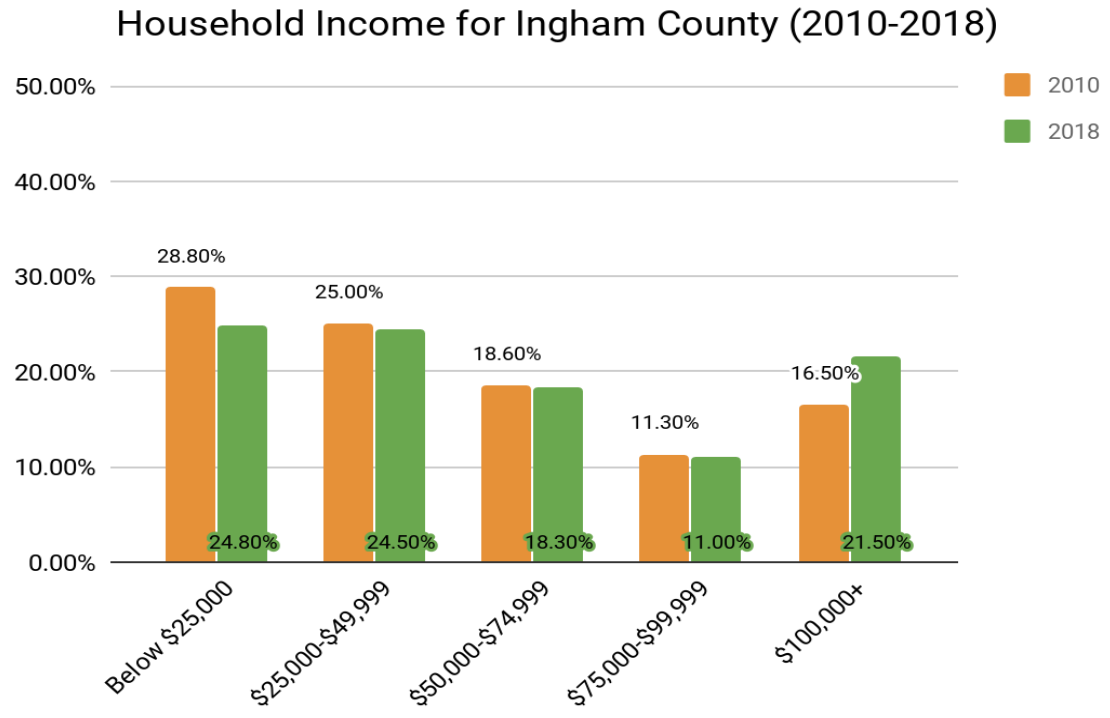


Figure B4: Household Income; Source: American Fact Finder 5-Year Estimates

It can be reasonably inferred that the Collins Road Corridor development will likely bring new opportunities to the surrounding areas which may promise the prospect of high-wage occupations and an injection of economic growth to the general area. Before that growth can be measured, analyzing household income for the area can provide a basic understanding as to what economic conditions are currently like for households in the area.

After examining the data, it is clear that households within Census Tract 53.04 earn less than those in Ingham County across all earning levels however the income level proportions between the two geographical areas is generally the same. In Census Tract 53.04 and Ingham County, households earning below $25,000 annually represent the single-largest earning group which can be attributed to higher levels of unemployment and/or the lower educational attainment in the area. The second-largest earning group for both areas is the $25,00-$49,999 range which encompassed 27.60 percent of household earnings in Census Tract 53.04 and 24.5 percent of households in Ingham County respectively. 16 percent of households in Census Tract 53.04 earned between $50,000 and $74,999 annually and 12.20 percent earned between $75,000 and $99,999. 12.0 percent of households in Census Tract 53.04 earned $100,000 or more annually. In Ingham County, 18.3 percent of households earned between $50,000 and $74,999 per year and 11 percent earned between $75,000 and $99,999 annually. 21.5 percent of households earned $100,000 or more annually. What is interesting about the two geographical areas is the increase in the percentage of households earning over $100,000 per year between 2010 and 2018 which can likely be attributed to a strengthening economy during the 9-year period.

4.4 Per Capita Income

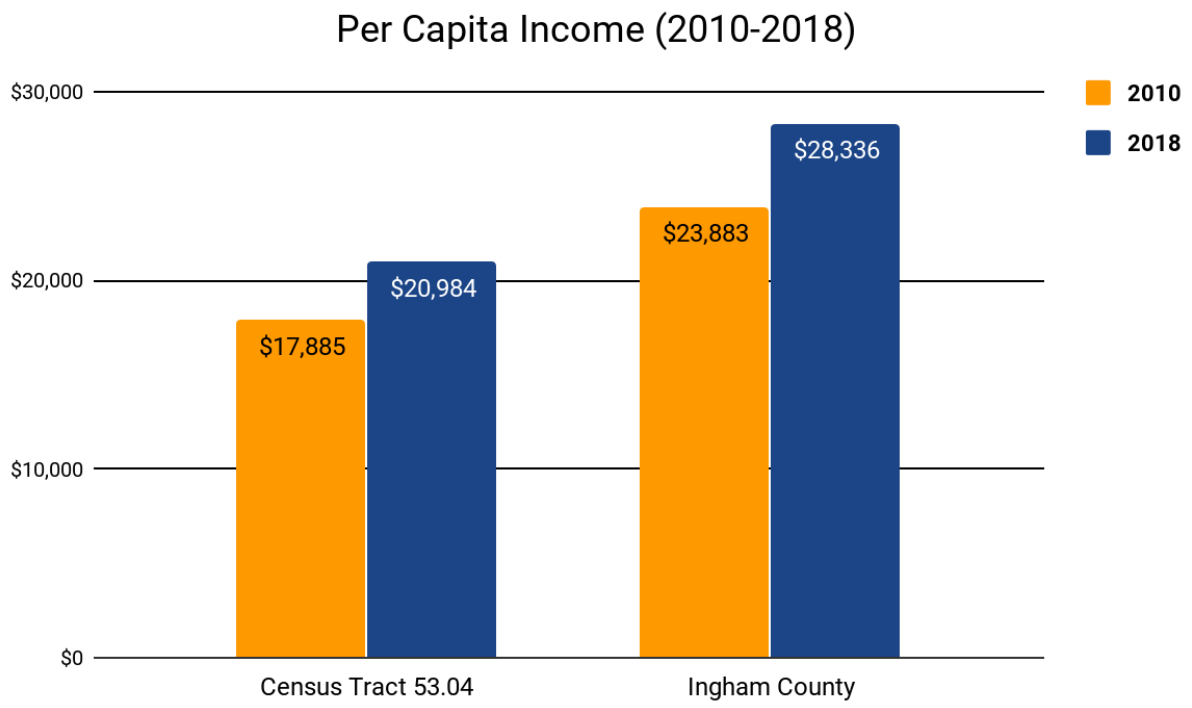


Figure B5: Per Capita Income; Source: American Community Survey 5-Year Estimate

In both 2010 and 2018, Census Tract 53.04 had a per capita income which was less than that of Ingham County with a disparity of $7,352 in 2018 alone. However, it is noteworthy that during this time period, Census Tract 53.04 experienced an increase in per capita income of 17.3 percent whereas Ingham County saw an increase of 18.6 percent. As examined prior, this income disparity could be explained by the lower educational attainment, lower household income levels, and higher unemployment rate as compared to Ingham County as a whole. The presence of students or young professionals living within Census Tract 53.04 may also play a similar role in explaining this phenomena as well.

4.5 Poverty

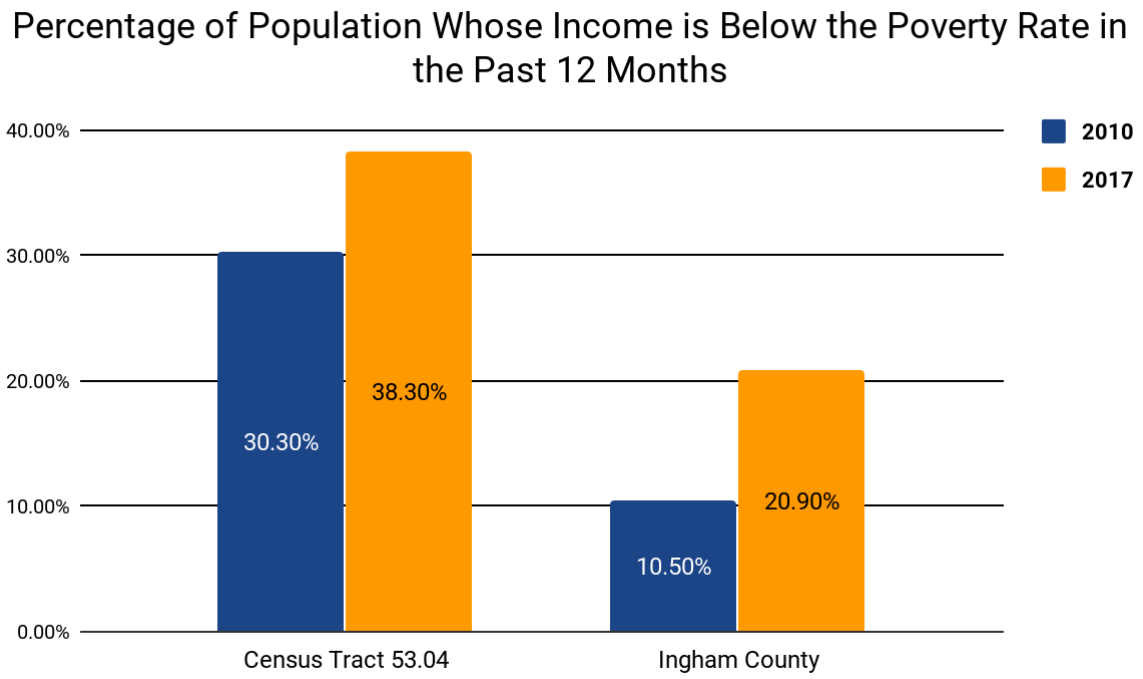


Figure B6: Percentage of Population Whose Income is Below the Poverty Rate in the Past 12 Months; Source: American Fact Finder

Despite economic gains, there has still been a positive trend in the increasing poverty rate, and as of 2017, more than a third, 38.3 percent of the population is considered in poverty. This upward trend in poverty however can be correlated with the lower educational attainment, high vacancy rate, and low per capita income as compared to Ingham County. The presence of a student population can also contribute to a higher poverty rate as they may possess student loans and their incomes may be supplemented by their families. It should be noted however that economic development and the provision of various jobs is a means to stymy poverty and help to push these rates down. Future development along the Collins Road Corridor may spur new economic growth and opportunities to the area to alleviate those living in poverty.

5.0 Conclusion

Although not a major point of emphasis, Census Tract 53.04 still provides important information into the area's demographic makeup, housing stock, and economic conditions. Upon our findings, it is clear that there is a racial makeup that is more diverse than the primary focus area. Although its population grew between 2010 and 2018, it grew at a rate of only 1.2 percent signifying slow growth. Additionally, because this area is further away from Michigan State University, it is not much of a surprise to find that educational attainment is lower than that of Census Tract 29.02, 9800, and Ingham County as well. Economic data for the area indicate relatively high unemployment rates at 9.6 percent a slight decrease from 2010 levels, per capita income and household income were lower than that of Ingham County while the poverty rate was much higher. In terms of industry, Professional, Scientific, Management, and Waste Management Services and Educational Services, Health Care, and Social Assistance were the two largest in the area.

Based upon these findings, it is apparent to see some direct correlations between Census Tracts 29.02, 9800, and Ingham County. However, because the area holds a more diverse population with higher vacancy rates, poverty rates, and lower per capita income, future economic development and investment can and should be considered to bring more opportunity to the area.

Appendix C: Market Analysis

Retail Goods and Services Expenditures

	1 Mile Radius			5 Mile Radius			10 Mile Radius		
	SPI	**Average**	**Total**	**SPI**	**Average**	**Total**	**SPI**	**Average**	**Total**
Apparel and Services	**61**	**$1,297.37**	**$2,886,658.00**	**93**	**$1,990.67**	**$113,828,607.00**	**93**	**$1,993.68**	**$153,892,442.00**
Men's	**68**	**$282.86**	**$629,354.00**	**93**	**$384.34**	**$21,977,160.00**	**92**	**$380.90**	**$29,402,000.00**
Women's	**58**	**$415.93**	**$925,455.00**	**93**	**$671.97**	**$38,423,692.00**	**94**	**$678.67**	**$52,386,575.00**
Children's	**55**	**$177.37**	**$394,656.00**	**93**	**$299.35**	**$17,116,905.00**	**95**	**$307.08**	**$23,703,294.00**
Footwear	**62**	**$298.31**	**$663,740.00**	**93**	**$444.89**	**$25,439,070.00**	**91**	**$435.62**	**$33,625,237.00**
Watches & Jewelry	**65**	**$89.58**	**$199,313.00**	**95**	**$130.85**	**$7,482,115.00**	**95**	**$131.28**	**$10,133,443.00**
Apparel Products and Services (1)	**50**	**$33.32**	**$74,142.00**	**89**	**$59.28**	**$3,389,665.00**	**91**	**$60.14**	**$4,641,893.00**
Computer									
Computers and Hardware for Home Use	**71**	**$117.75**	**$262,003.00**	**95**	**$157.15**	**$8,986,081.00**	**92**	**$152.19**	**$11,747,284.00**
Portable Memory	**58**	**$2.60**	**$5,776.00**	**89**	**$3.97**	**$226,751.00**	**89**	**$3.95**	**$305,122.00**
Computer Software	**78**	**$7.86**	**$17,483.00**	**97**	**$9.82**	**$561,793.00**	**90**	**$9.10**	**$702,558.00**
Computer Accessories	**59**	**$11.19**	**$24,890.00**	**96**	**$18.29**	**$1,045,690.00**	**98**	**$18.59**	**$1,435,336.00**
Entertainment & Recreation	**54**	**$1,752.90**	**$3,900,211.00**	**93**	**$3,046.06**	**$174,176,758.00**	**98**	**$3,200.28**	**$247,029,307.00**
Fees and Admissions	**51**	**$365.51**	**$813,251.00**	**91**	**$647.53**	**$37,026,152.00**	**94**	**$667.93**	**$51,557,474.00**
Membership Fees for Clubs (2)	**52**	**$122.10**	**$271,665.00**	**90**	**$212.40**	**$12,145,348.00**	**92**	**$218.31**	**$16,851,369.00**
Fees for Participant Sports, excl. Trips	**49**	**$52.89**	**$117,684.00**	**93**	**$99.90**	**$5,712,199.00**	**97**	**$104.41**	**$8,059,524.00**

Tickets to Theatre/Operas/Concerts	**56**	**$42.24**	**$93,987.00**	**92**	**$69.15**	**$3,954,057.00**	**92**	**$69.36**	**$5,354,256.00**
Tickets to Movies	**68**	**$37.07**	**$82,486.00**	**92**	**$50.32**	**$2,877,480.00**	**87**	**$47.55**	**$3,670,524.00**
Tickets to Parks or Museums	**56**	**$18.14**	**$40,353.00**	**91**	**$29.58**	**$1,691,596.00**	**94**	**$30.27**	**$2,336,470.00**
Admission to Sporting Events, excl. Trips	**51**	**$32.06**	**$71,335.00**	**96**	**$60.78**	**$3,475,591.00**	**104**	**$65.72**	**$5,073,017.00**
Fees for Recreational Lessons	**42**	**$60.41**	**$134,414.00**	**87**	**$124.64**	**$7,127,218.00**	**92**	**$131.65**	**$10,162,242.00**
Dating Services	**86**	**$0.60**	**$1,328.00**	**107**	**$0.75**	**$42,662.00**	**93**	**$0.65**	**$50,071.00**
TV/Video/Audio	**59**	**$727.04**	**$1,617,660.00**	**96**	**$1,171.69**	**$66,998,647.00**	**98**	**$1,203.98**	**$92,935,342.00**
Cable and Satellite Television Services	**55**	**$484.61**	**$1,078,262.00**	**95**	**$839.02**	**$47,976,131.00**	**100**	**$875.98**	**$67,616,514.00**
Televisions	**67**	**$72.77**	**$161,924.00**	**96**	**$103.90**	**$5,940,859.00**	**95**	**$103.44**	**$7,984,301.00**
Satellite Dishes	**44**	**$0.69**	**$1,536.00**	**85**	**$1.34**	**$76,569.00**	**93**	**$1.46**	**$112,339.00**
VCRs, Video Cameras, and DVD Players	**73**	**$4.23**	**$9,412.00**	**98**	**$5.64**	**$322,381.00**	**94**	**$5.43**	**$419,155.00**
Miscellaneous Video Equipment	**53**	**$13.38**	**$29,767.00**	**99**	**$25.29**	**$1,445,954.00**	**106**	**$26.93**	**$2,078,726.00**
Video Cassettes and DVDs	**64**	**$7.31**	**$16,257.00**	**98**	**$11.19**	**$639,896.00**	**100**	**$11.43**	**$882,443.00**
Video Game Hardware/Accessories	**97**	**$26.93**	**$59,921.00**	**102**	**$28.56**	**$1,633,360.00**	**94**	**$26.12**	**$2,016,203.00**
Video Game Software	**99**	**$15.00**	**$33,381.00**	**101**	**$15.32**	**$875,819.00**	**93**	**$14.08**	**$1,086,837.00**
Rental/Streaming/Downloaded Video	**77**	**$36.10**	**$80,312.00**	**98**	**$45.84**	**$2,621,346.00**	**92**	**$43.12**	**$3,328,696.00**
Installation of Televisions	**38**	**$0.43**	**$951.00**	**89**	**$1.02**	**$58,377.00**	**94**	**$1.07**	**$82,931.00**
Audio (3)	**64**	**$62.94**	**$140,040.00**	**94**	**$91.35**	**$5,223,600.00**	**94**	**$91.90**	**$7,093,437.00**

Rental and Repair of TV/Radio/Sound Equipment	**84**	**$2.65**	**$5,899.00**	**102**	**$3.22**	**$184,354.00**	**96**	**$3.03**	**$233,760.00**
Pets	**49**	**$321.65**	**$715,667.00**	**92**	**$609.81**	**$34,869,636.00**	**101**	**$669.24**	**$51,658,783.00**
Toys/Games/Crafts/Hobbies (4)	**63**	**$74.27**	**$165,244.00**	**96**	**$113.58**	**$6,494,843.00**	**98**	**$115.56**	**$8,920,397.00**
Recreational Vehicles and Fees (5)	**30**	**$47.16**	**$104,923.00**	**85**	**$136.19**	**$7,787,456.00**	**101**	**$161.06**	**$12,432,012.00**
Sports/Recreation/Exercise Equipment (6)	**53**	**$110.23**	**$245,264.00**	**93**	**$192.73**	**$11,020,276.00**	**99**	**$205.09**	**$15,831,075.00**
Photo Equipment and Supplies (7)	**65**	**$33.97**	**$75,594.00**	**96**	**$49.80**	**$2,847,436.00**	**96**	**$49.99**	**$3,858,522.00**
Reading (8)	**53**	**$56.56**	**$125,849.00**	**94**	**$100.17**	**$5,728,020.00**	**97**	**$103.84**	**$8,015,287.00**
Catered Affairs (9)	**62**	**$16.52**	**$36,759.00**	**92**	**$24.56**	**$1,404,293.00**	**88**	**$23.58**	**$1,820,416.00**
Food	**59**	**$5,248.05**	**$11,676,904.00**	**94**	**$8,303.11**	**$474,780,173.00**	**96**	**$8,462.46**	**$653,217,211.00**
Food at Home	**57**	**$2,950.41**	**$6,564,667.00**	**94**	**$4,856.83**	**$277,718,618.00**	**96**	**$4,976.18**	**$384,110,951.00**
Bakery and Cereal Products	**57**	**$385.71**	**$858,215.00**	**94**	**$639.13**	**$36,545,984.00**	**97**	**$656.37**	**$50,665,055.00**
Meats, Poultry, Fish, and Eggs	**58**	**$657.72**	**$1,463,423.00**	**93**	**$1,066.80**	**$61,000,437.00**	**95**	**$1,080.95**	**$83,438,285.00**
Dairy Products	**55**	**$295.43**	**$657,325.00**	**94**	**$501.35**	**$28,667,525.00**	**97**	**$520.74**	**$40,195,973.00**
Fruits and Vegetables	**56**	**$565.33**	**$1,257,864.00**	**93**	**$942.81**	**$53,910,697.00**	**95**	**$961.91**	**$74,249,788.00**
Snacks and Other Food at Home (10)	**58**	**$1,046.22**	**$2,327,839.00**	**95**	**$1,706.76**	**$97,593,975.00**	**98**	**$1,756.21**	**$135,561,849.00**
Food Away from Home	**63**	**$2,297.63**	**$5,112,237.00**	**94**	**$3,446.28**	**$197,061,555.00**	**95**	**$3,486.28**	**$269,106,260.00**
Alcoholic Beverages	**58**	**$332.56**	**$739,937.00**	**93**	**$534.35**	**$30,554,631.00**	**93**	**$536.18**	**$41,387,544.00**
Financial									

Value of Stocks/Bonds/Mutual Funds	42	$8,967.83	$19,953,426.00	95	$20,377.58	$1,165,210,128.00	102	$21,772.87	$1,680,647,744.00
Value of Retirement Plans	37	$35,626.68	$79,269,369.00	95	$90,801.02	$5,192,092,951.00	107	$101,629.19	$7,844,756,984.00
Value of Other Financial Assets	52	$2,932.32	$6,524,403.00	101	$5,710.08	$326,508,198.00	99	$5,625.77	$434,252,870.00
Vehicle Loan Amount excluding Interest	63	$1,787.94	$3,978,174.00	96	$2,744.44	$156,929,921.00	100	$2,858.47	$220,645,537.00
Value of Credit Card Debt	51	$1,247.40	$2,775,457.00	93	$2,280.37	$130,393,621.00	97	$2,381.17	$183,802,301.00
Health									
Nonprescription Drugs	52	$74.19	$165,068.00	97	$139.00	$7,948,431.00	102	$146.60	$11,316,168.00
Prescription Drugs	47	$173.12	$385,186.00	98	$358.77	$20,514,809.00	108	$393.02	$30,337,241.00
Eyeglasses and Contact Lenses	52	$46.75	$104,012.00	97	$87.90	$5,025,957.00	106	$96.36	$7,438,121.00
Home									
Mortgage Payment and Basics (11)	34	$3,419.79	$7,609,027.00	91	$9,126.55	$521,865,084.00	104	$10,452.31	$806,813,446.00
Maintenance and Remodeling Services	33	$711.39	$1,582,838.00	89	$1,909.65	$109,195,692.00	101	$2,159.32	$166,677,583.00
Maintenance and Remodeling Materials (12)	34	$165.80	$368,915.00	95	$464.39	$26,554,183.00	113	$552.23	$42,626,257.00
Utilities, Fuel, and Public Services	57	$2,785.41	$6,197,527.00	95	$4,638.08	$265,209,814.00	99	$4,820.13	$372,066,207.00
Household Furnishings and Equipment									
Household Textiles (13)	60	$59.98	$133,466.00	96	$95.70	$5,472,403.00	97	$97.42	$7,519,607.00
Furniture	60	$365.69	$813,671.00	95	$583.01	$33,336,948.00	97	$592.58	$45,741,376.00

Rugs	**49**	**$15.97**	**$35,535.00**	**100**	**$32.49**	**$1,857,740.00**	**110**	**$35.66**	**$2,752,321.00**
Major Appliances (14)	**48**	**$170.64**	**$379,685.00**	**94**	**$332.89**	**$19,035,047.00**	**102**	**$361.11**	**$27,874,285.00**
Housewares (15)	**56**	**$59.18**	**$131,677.00**	**95**	**$101.46**	**$5,801,328.00**	**100**	**$106.48**	**$8,219,395.00**
Small Appliances	**69**	**$33.65**	**$74,879.00**	**95**	**$46.08**	**$2,634,753.00**	**93**	**$45.36**	**$3,501,408.00**
Luggage	**61**	**$8.53**	**$18,972.00**	**92**	**$12.83**	**$733,826.00**	**91**	**$12.67**	**$977,676.00**
Telephones and Accessories	**57**	**$43.15**	**$95,999.00**	**89**	**$67.46**	**$3,857,450.00**	**87**	**$65.41**	**$5,049,277.00**
Household Operations									
Child Care	**52**	**$267.70**	**$595,628.00**	**89**	**$454.70**	**$26,000,423.00**	**93**	**$474.71**	**$36,642,684.00**
Lawn and Garden (16)	**38**	**$177.78**	**$395,563.00**	**92**	**$430.71**	**$24,628,596.00**	**105**	**$494.92**	**$38,203,205.00**
Moving/Storage/Freight Express	**74**	**$49.22**	**$109,507.00**	**97**	**$64.35**	**$3,679,396.00**	**87**	**$57.76**	**$4,458,240.00**
Housekeeping Supplies (17)	**53**	**$400.81**	**$891,794.00**	**95**	**$709.58**	**$40,574,759.00**	**99**	**$742.35**	**$57,302,209.00**
Insurance									
Owners and Renters Insurance	**40**	**$233.54**	**$519,635.00**	**96**	**$554.37**	**$31,699,640.00**	**109**	**$632.26**	**$48,803,938.00**
Vehicle Insurance	**62**	**$954.89**	**$2,124,628.00**	**95**	**$1,468.16**	**$83,951,135.00**	**97**	**$1,496.91**	**$115,546,537.00**
Life/Other Insurance	**40**	**$184.75**	**$411,059.00**	**95**	**$437.07**	**$24,992,130.00**	**107**	**$494.88**	**$38,199,924.00**
Health Insurance	**50**	**$1,982.06**	**$4,410,083.00**	**96**	**$3,767.59**	**$215,434,442.00**	**102**	**$4,027.23**	**$310,862,119.00**
Personal Care Products (18)	**60**	**$302.80**	**$673,733.00**	**96**	**$479.61**	**$27,424,439.00**	**97**	**$484.22**	**$37,376,776.00**
School Books and Supplies (19)	**78**	**$120.93**	**$269,065.00**	**93**	**$145.09**	**$8,296,661.00**	**92**	**$142.40**	**$10,991,820.00**
Smoking Products	**70**	**$283.68**	**$631,180.00**	**100**	**$401.78**	**$22,974,252.00**	**101**	**$408.94**	**$31,566,159.00**
Transportation									
Payments on Vehicles excluding Leases	**56**	**$1,420.20**	**$3,159,949.00**	**95**	**$2,413.40**	**$138,000,661.00**	**102**	**$2,590.83**	**$199,986,275.00**

Gasoline and Motor Oil	**62**	**$1,420.76**	**$3,161,202.00**	**94**	**$2,159.18**	**$123,464,228.00**	**97**	**$2,229.33**	**$172,081,796.00**
Vehicle Maintenance and Repairs	**62**	**$708.33**	**$1,576,041.00**	**97**	**$1,111.58**	**$63,561,483.00**	**97**	**$1,112.58**	**$85,880,108.00**
Travel									
Airline Fares	**52**	**$284.47**	**$632,940.00**	**89**	**$484.29**	**$27,692,443.00**	**89**	**$488.54**	**$37,710,286.00**
Lodging on Trips	**46**	**$285.83**	**$635,972.00**	**91**	**$564.26**	**$32,265,039.00**	**98**	**$610.28**	**$47,107,707.00**
Auto/Truck Rental on Trips	**53**	**$13.88**	**$30,892.00**	**92**	**$24.14**	**$1,380,579.00**	**95**	**$24.90**	**$1,922,102.00**
Food and Drink on Trips	**52**	**$278.28**	**$619,163.00**	**91**	**$492.65**	**$28,170,301.00**	**96**	**$515.38**	**$39,782,214.00**

Table C1: Retail goods and services expenditures within a 1-, 5-, and 10-mile radius of the Collins Road Corridor.

Full MarketPlace Profile Report

Industry Group	1 Mile Radius				5 Mile Radius				10 Mile Radius			
	Retail Demand	Retail Supply	Retail Gap	Number of Businesses	Retail Demand	Retail Supply	Retail Gap	Number of Businesses	Retail Demand	Retail Supply	Retail Gap	Number of Businesses
Motor Vehicle & Parts Dealer	$8,286,814	$16,221,539	-$7,934,725	2	$404,808,457	$534,321,017	-$129,512,560	117	$366,202,204	$174,609,188	$191,593,016	67
Furniture & Home Furnishings	$1,284,445	$0	$1,284,445	0	$64,144,430	$56,853,893	$7,290,537	42	$57,720,566	$46,201,100	$11,519,466	24
Electronics & Appliances	$1,333,482	$0	$1,333,482	0	$63,340,292	$70,798,416	-$7,458,124	34	$56,212,481	$66,606,791	-$10,394,310	24
Bldg. Material, Garden Equip., & Supply	$2,019,283	$3,037,453	-$1,018,170	1	$125,431,591	$202,308,427	-$76,876,836	68	$120,032,348	$121,101,253	-$1,068,905	50
Food & Beverage	$7,095,780	$582,750	$6,513,030	1	$347,100,941	$577,404,886	-$230,303,945	130	$310,873,080	$703,883,847	-$393,010,767	61
Health & Personal Care	$2,549,746	$0	$2,549,746	0	$136,246,227	$278,395,812	-$142,149,585	114	$125,382,463	$71,961,770	$53,420,693	53
Gasoline Stations	$4,686,160	$4,670,659	$15,501	1	$222,508,545	$86,581,052	$135,927,493	27	$198,913,259	$107,077,614	$91,835,645	30
Clothing Stores	$1,452,179	$0	$1,452,179	0	$102,849,133	$135,703,635	-$32,854,502	125	$91,334,677	$82,099,931	$9,234,746	82
Sporting Goods, Hobby, Book & Music	$1,123,064	$0	$1,123,064	0	$53,090,568	$142,620,917	-$89,530,349	81	$47,098,709	$63,075,234	-$15,976,525	41
General Merchandise	$6,236,550	$0	$6,236,550	0	$303,022,831	$528,139,521	-$225,116,690	48	$270,971,241	$276,892,145	-$5,920,904	33
Miscellaneous Stores	$1,394,154	$870,859	$523,295	2	$69,998,754	$122,722,042	-$52,723,288	142	$63,261,780	$63,140,025	$121,755	91
Nonstore Retailers	$688,848	$0	$688,848	0	$35,265,549	$56,193,768	-$20,928,219	16	$32,038,808	$9,367,675	$22,671,133	17
Food Services & Drinking Places	$4,386,137	$2,346,079	$2,040,058	4	$207,022,674	$381,618,220	-$174,595,546	493	$184,227,007	$165,896,434	$18,330,573	230

Table C2: Full MarketPlace Profile for showing retail gaps and number of retail businesses within a 1-, 5-, and 10-mile radius of the Collins Road Corridor.