

# ***Marine City Highway Corridor Study***

**Final Report  
February 2023**



# Corridor Study

# Marine City Highway

## Acknowledgments



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**Final Report: February 2023**

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# 1. Project and Process Overview

## Context and Study Area

The Marine City Highway corridor is located in the southeastern portion of St. Clair County, Michigan, within the southeastern portion of Michigan (refer to **Map 1: Regional Context**). The Southeast Michigan region generally encompasses seven counties - St. Clair, Wayne, Oakland, Macomb, Livingston, Washtenaw and Monroe - considered to be part of the greater Detroit metropolitan area. According to the Southeast Michigan Council of Governments (SEMCOG), the region is home to nearly 4.8 million residents (July 2022) and is expected to increase to 5.1 million residents by 2045.

Interstate 94 is located near the western end of the Marine City Highway corridor and provides road access to Detroit, Port Huron and other destinations within the region and beyond. The St. Clair River is located near the eastern end of the corridor. The St. Clair River is a connecting waterway of the Great Lakes, running from Lake Huron to Lake St. Clair. The St. Clair River also forms the international border between the United States and Canada. The Blue Water Bridge, located in Port Huron, is the closest international crossing.

From the perspective of tourism and recreation, the Marine City Highway corridor is part of, and is an important connection to, the Blue Water Region. The Blue Water Region generally includes St. Clair, Sanilac and Huron Counties, which front Lake Huron and the St. Clair River.

The specific study area for this corridor study includes all properties fronting and within approximately one-half mile of Marine City Highway, an 11-mile stretch of road between County Line Road and King Road (refer to **Map 2: Study Area**). In total, the study area com-

prises approximately 8,200 acres of land. The corridor serves as a key east-west route connecting Interstate 94, commercial areas and employment destinations within Macomb County on the west end with the City of Marine City and the St. Clair River on the east end.

**Map 1: Regional Context**



## Background

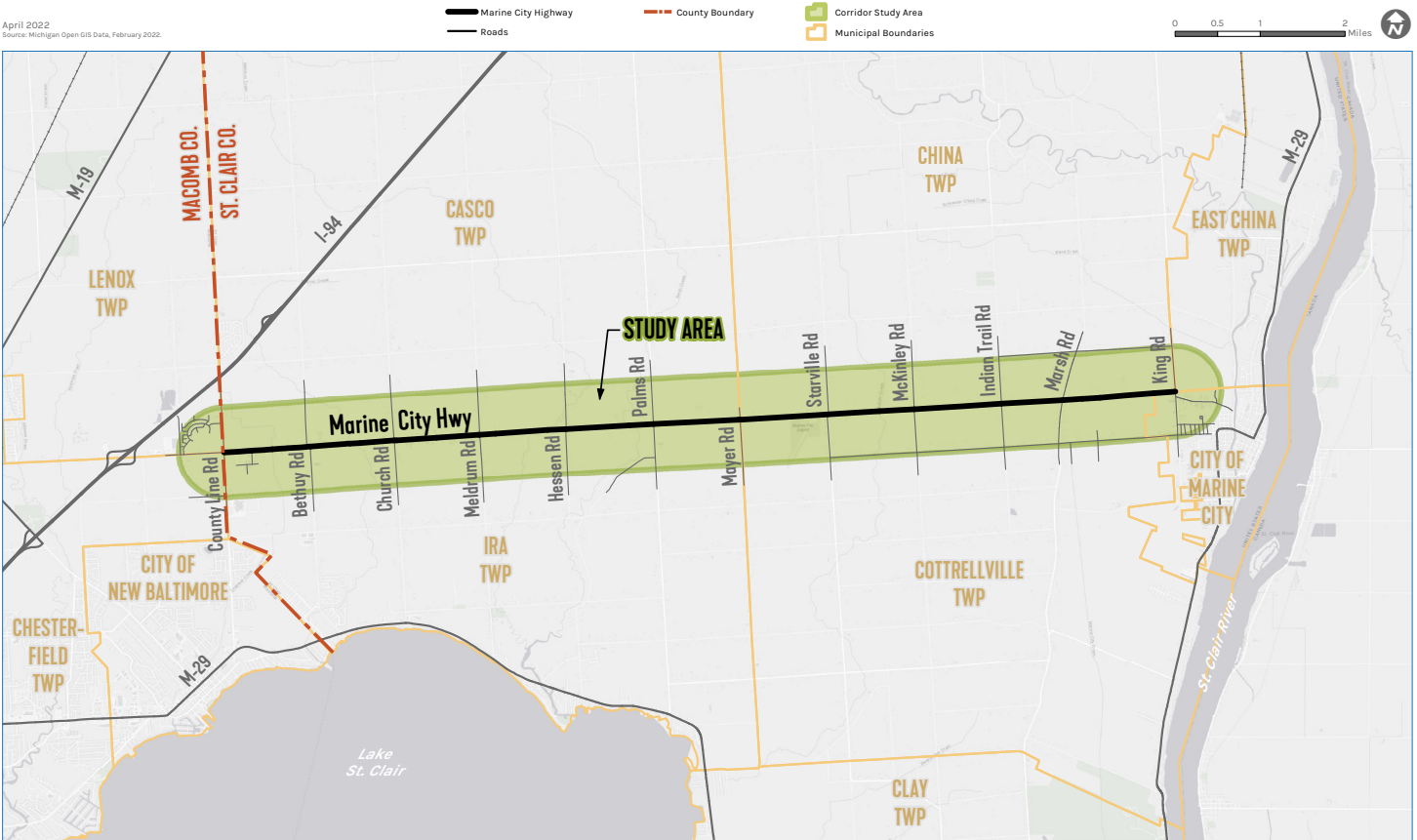
A two-lane county road, Marine City Highway has carried increasingly higher traffic volumes in recent years. Due to recent and anticipated growth along the corridor and in the vicinity, traffic volumes will continue to increase. Recent development in the western end of the corridor in Macomb County (named 26 Mile Road) has included the Bay River Marketplace (Meijer store and frontage commercial development) and a Beaumont outpatient and ambulatory care center campus. More development is slated, including an Ascension ambulatory care center. Nearly every undeveloped property along the approximately 1-mile stretch of 26 Mile Road between I-94 and the beginning of Marine City Highway at the St. Clair County line is listed for sale for prospective development.

New commercial and industrial development has also occurred recently within the Marine City Highway corridor within St. Clair County. Although the overall character of the corridor within St. Clair County remains relatively “rural,” with scattered residential homes and agricultural lands, a significant variety of non-residential and agricultural use currently exists. Industrial parks, several larger industrial complexes, and dozens of smaller

light industrial operations are found, particularly in the western portion of the corridor. Key intersections along the entire corridor (County Line, Palms, Indian Trail, and King) are dotted with commercial services, such as party stores and gas stations. The Marine City Airport is located in the central portion of the corridor. Notably, three schools (Anchor Bay High School, Francois Maconce Elementary, and Palms Elementary School) are located just south of the corridor.

Six St. Clair County municipalities have jurisdiction for land use development within the study area - Casco, China, Cottrellville, East China and Ira Townships and the City of Marine City. The majority of the corridor fronting properties are within Casco, China, Cottrellville and Ira Townships, while East China Township and the City of Marine City comprise only a small portion at the east end of the study area. The St. Clair County Road Commission has responsibility for road design and maintenance of Marine City Highway. Given the multiple regulatory jurisdictions, increasing traffic patterns, and significant development pressures facing the corridor, St. Clair County, in conjunction with the six municipalities, road commission and the Economic Development Alliance (EDA), initiated this effort to prepare a comprehensive corridor management study for the Marine City Highway Corridor.

## Map 2: Study Area





Marine City Highway corridor

## Regional Initiatives

This corridor study has been prepared in recognition of several pertinent regional plans and initiatives. Brief descriptions of these initiatives are provided below.

### St. Clair County Master Plan

The St. Clair County Master Plan was prepared and adopted by the St. Clair County Metropolitan Planning Commission and Board of Commissioners in 2016. The plan establishes goals that, if strived for, will help shape and direct the future of St. Clair County for the next 30 years. The plan advocates for managed growth and change in order to preserve the rural character, unique features, and natural, cultural, and historic resources that make St. Clair County an attractive place to live, work, and play.

As noted in the plan, the “future of planning” in St. Clair County must be rooted in intergovernmental collaboration, being imperative that the County and local units of government work together to find innovative solutions to problems and to carry out planning and economic development projects. This corridor study effort is a great example of intergovernmental coordination.

Five guiding values were established as part of the county-wide master plan. These values are listed in the sidebar to the right and are embraced as guiding values for this Marine City Highway Corridor Study.

The St. Clair County Vision 2045 (refer to the map on the next page) depicts the preferred alternative for future land use in St. Clair County. Within the Marine City Highway corridor, two primary future land use designations

## Master Plan Guiding Values

From the 2016 St. Clair County Master Plan

### 1. Quality of Life

Ensuring that a person can live his or her entire life in St. Clair County – total quality of life. Quality of life refers to the subjective pleasure and convenience that citizens receive from recreational facilities, public services, private and nonprofit organizations, cultural opportunities, environmental resources, historic features, good jobs, and affordable housing.

### 2. Great Places

Bringing people and places together. Creating greater access to complete, walkable neighborhoods and healthy communities. Connecting people to healthy food, parks, shops, transportation options and other amenities.

### 3. Prosperity

Diversifying the tax base so our communities are fiscally sound and educating/training our people to prepare them for 21st century job opportunities. Revitalizing the county’s economy refers to the overall strategies necessary to promote, increase, and support sustainable economic development. This includes fostering entrepreneurial growth, facilitating industrial development, revitalizing our downtowns, and creating high-skill, high wage jobs.

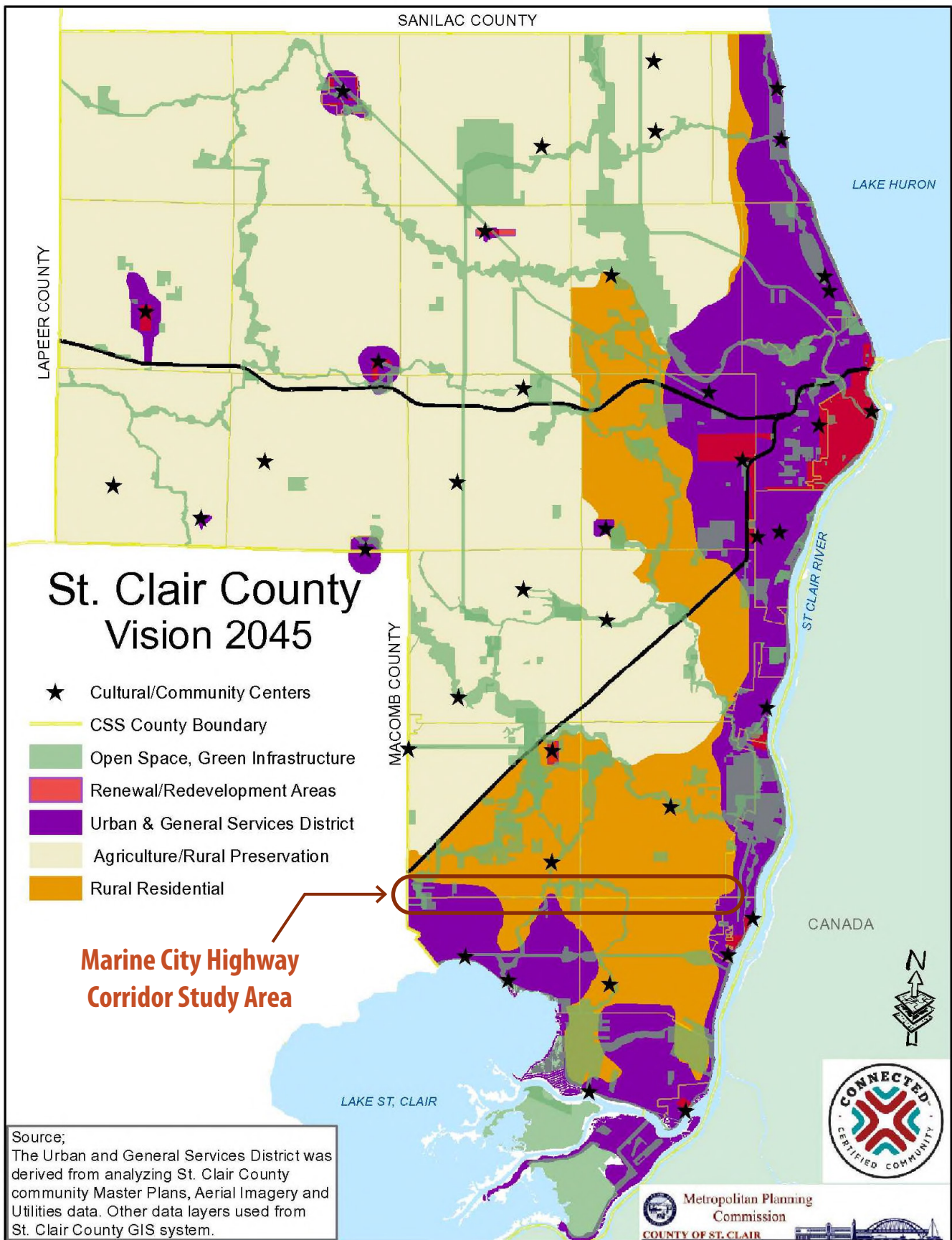
### 4. Sustainability

Protecting and preserving our valuable natural resources and sensitive environments for future generations. Ensuring that public bodies are planning for and implementing development that promotes fiscal sustainability.

### 5. Innovation

Effective and efficient delivery of public services through smart decision making, lean operations, intergovernmental collaboration, and innovation.





St. Clair County Vision 2045 Map from the St. Clair County Master Plan, with the Marine City Highway corridor study area indicated

are found: Urban and General Services District; and, Rural Residential. In addition to these two categories, several smaller areas of planned Open Space and Green Infrastructure lands are found.

The Urban and General Services (UGS) District is the proposed area that should be considered for extension of public sewer, water, stormwater, police, fire, and other urban services through the year 2045. The UGS District will help ensure fiscal responsibility and the wise use of land resources. A sizeable area within the western end of the Marine City Highway corridor is designated for UGS District, as is a smaller area in the eastern end of the corridor.

The St. Clair County Vision 2045 plans for the remainder of the corridor as future Rural Residential District. The Rural Residential District provides for rural, low-density home construction. While farm operations would be preserved in the short term, fewer resources would be devoted to farmland protection as in the central and western portions of the county. This part of the county is already the site of the highest proliferation of new home construction and residential sprawl, primarily because of its proximity to counties to the south. Soils in this area can accommodate a relatively few or lower density of septic systems.

This Marine City Highway Corridor Study recognizes the St. Clair County Master Plan and its Vision 2045 as a guiding framework for future land use and development and road and public infrastructure improvements within the corridor.

## St. Clair County 2045 Long-Range Transportation Plan

The St. Clair County 2045 Long Range Transportation Plan was adopted in 2019 by the St. Clair County Metropolitan Planning Commission and St. Clair County Transportation Study (SCCOTS). The plan was prepared to ensure that the county's transportation system is coordinated throughout the region and serves current needs while contributing to the desired future. Wise investment in the future demands a foresighted plan that balances transportation, land use, and natural resources.

A key strategy outlined in the plan is to strike a balanced approach to transportation. This balanced approach comprises four main elements:

1. Move goods and people by providing: a safe and efficient network of roads, highways, and railways; transit options; and, bicycle and pedestrian facilities.

2. Improve quality of travel by providing: context sensitive design solutions; personal security and safety; and, improved reliability.
3. Manage demand on the system by providing: a connected road network; coordinating land use policy; and, policies that encourage telecommuting/e-commerce.
4. Build a sustainable system by: reducing environmental impacts; and, minimizing costs.

A key component of the plan is a project listing and guide for transportation investments and planning resources within St. Clair County over a 25-year time horizon. Projects are categorized by short term (2020-2023), medium term (2024-2029) and long term (2030-2045). Two future Marine City Highway corridor projects are specifically identified in the plan, including road reconstruction in 2030 between County Line Road and Mayer Road, and reconstruction in 2035 between Mayer Road and King Road.

## St. Clair County Master Recreation Plan

The St. Clair County Master Recreation Plan outlines the importance of economic development and placemaking through parks and recreation planning. This corridor plan substantiates these notions and supports several of the primary planning goals listed in the document. The County Master Recreation Plan also lists the following goals as priorities for county-wide recreation planning:

- Strong collaboration among entities
- Preservation of resources
- Connected greenways/blueways
- Multi-modal transportation
- Livable communities that provide residents with a high quality of life and economic prosperity

## St. Clair County Trails Plan

In St. Clair County, a number of signature regional trails connect to and through portions of the County. Such trails include the Macomb-Orchard Trail, the Wadhams to Avoca Trail, and the Bridge-to-Bay Trail system. These existing trails are already defining elements of the communities through which they pass and greatly valued by residents and visitors alike. Despite these successes in building the County's current trail network, the potential for a county-wide system is not yet fully-realized. Therefore, the St. Clair County Trails Plan was prepared and adopted in 2019 to clearly identify opportunities, needs, and priorities for future trail and bikeway projects in the County.

Notable to this study, the St. Clair County Trails Plan does not indicate the Marine City Highway corridor as being a future regional non-motorized trail route. However, the plan does recognize two existing/planned regional trail routes which “book-end” Marine City Highway: a planned regional trail route identified along County Line Road at the western end of Marine City Highway; and, the existing Brige-to-Bay Trail near the eastern end of Marine City Highway.

## **Bicycle and Pedestrian Mobility Plan for Southeast Michigan**

SEMCOG’s Bicycle and Pedestrian Mobility Plan for Southeast Michigan was created in 2020 and outlines a regional approach to bicycle and pedestrian mobility planning and the development of infrastructure to support safer and more convenient ways for pedestrians and cyclists to travel. The plan endeavors to increase mobility, health, and recreation options for people of all ages and abilities, and help spur placemaking efforts that support both local and regional economic vitality.

Notably, the plan recommends regional policies and actions for bicycle and pedestrian corridors that connect local networks and meet regional needs. The plan also provides technical guidance and regional examples for communities looking to enhance bicycle and pedestrian mobility, as well as guidelines and specifications for infrastructure components that can enhance the bicycle and pedestrian system.

Similar to the St. Clair County Trails Plan, SEMCOG’s regional plan outlines a proposed regional trail network, with existing/planned trail routes that “book-end” Marine City Highway. However, no specific planning or design recommendations for the Marine City Highway itself are outlined in SEMCOG’s Bicycle and Pedestrian Mobility Plan.

## **Blue Meets Green / St. Clair County Economic Development Strategic Plan**

The Blue Meets Green initiative began in 2009 as part of a county-wide Economic Development Strategic Plan. Since its inception, the public, private, and non-profit sectors have collaborated to stimulate economic growth, and prosperity. More than 100 volunteers, who live and work in the Blue Water Region, have invested many hours working diligently to develop the Where Blue Meets Green road map defining specific actions to enable the Blue Water Region to compete and prosper in the future. To implement this plan, people, businesses,

and organizations across St. Clair County are working together for the economic success of this entire region.

The initiative resulted in the development of a vision statement: Develop the Blue Water Region into a prosperous, sustainable economic environment through the united effort and commitment of the private, public, and non-profit sectors. The strategic plan outlined seven key areas of focus, as follows:

1. Career & College Readiness
2. Small Business & Entrepreneurs
3. Downtowns & Neighborhoods
4. Tourism
5. Waterfront Development
6. Workforce Development
7. Healthy Communities

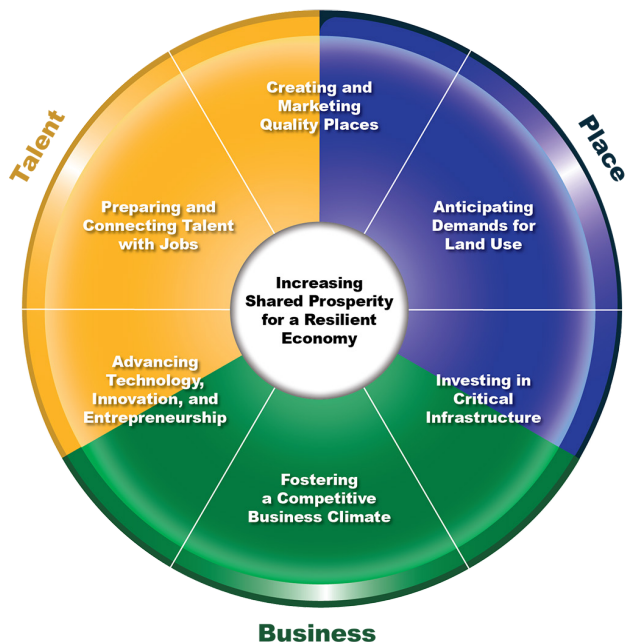
This corridor study directly aligns with the vision of the Blue Meets Green strategy by engaging public and private sectors to establish a unified vision for future growth and development within the Marine City Highway corridor.

## **Comprehensive Economic Development Strategy for Southeast Michigan**

Prepared by SEMCOG in 2021, *Increasing Shared Prosperity for a Resilient Economy* is Southeast Michigan’s Comprehensive Economic Development Strategy (CEDS). As such, it serves as the required vehicle through which the U.S. Economic Development Administration (EDA) evaluates grant and resource requests for organizations in the seven-county region (which includes St. Clair County) to pursue EDA grants and other resources.

The strategy employs a comprehensive approach to economic development, both in the scope of its interrelated strategies and in its focus on regional collaboration to advance them. It also includes policies and actions that incorporate health and equity to help position the region to recover from the current economic downturn and to be more resilient to future major disruptions. This regional strategy focuses on six main, interrelated strategies as well as supporting policies and actions for recovery and resiliency. The six broad strategies are represented in the graphic on the next page.





Economic Development Strategy “Wheel” from the Comprehensive Economic Development Strategy for Southeast Michigan

## Planning Process

This Marine City Highway Corridor Study is sponsored and funded by the St. Clair County Metropolitan Planning Commission and the St. Clair County Economic Development Alliance (EDA). The corridor study effort kicked-off in January 2022 and was led by an approximately 20-member project steering committee consisting of representatives key entities, including:

- St. Clair County Board of Commissioners
- St. Clair County Metropolitan Planning Commission
- EDA of St. Clair County
- St. Clair County Road Commission
- St. Clair County Transportation Study
- Casco Township
- China Township
- Cottrellville Township
- East China Township
- Ira Township
- City of Marine City

Technical planning assistance for the study was provided by Wade Trim and Bonner Advisory Group. The scope of

work for the corridor study featured a detailed analysis of four key elements: land use and development; transportation; infrastructure; and, economic development. The study generally progressed in three phases, starting with a detailed evaluation of existing conditions. After completion of the conditions evaluation, the next stage included stakeholder and citizen engagement, which was accomplished by a variety of means. The final stage of the process was the development of future recommendations, based on the existing conditions analysis, public engagement results, and direction from the project steering committee. The St. Clair County Board of Commissioners took action to receive and file the study at its February 16, 2023 meeting.

## Public Engagement

The corridor study planning effort offered several opportunities for public engagement. The feedback received during the engagement activities had a significant influence on the recommendations outlined in the study. This section lists and summarizes the feedback received from each activity.

## Focus Group Discussions

Two focus group discussions were facilitated with targeted stakeholders to gain additional insight into needs, opportunities and future recommendations.

### *Business Growth and Economic Development*

The first discussion examined the topic of business growth and economic development. Held in May 2022, the discussion was attended by stakeholders primarily from the business community, including business owners/employees and land owners within the corridor. During the discussion, numerous challenges were identified, which included growth pressure, traffic congestion, lack of infrastructure, uncoordinated zoning regulations, and lack of corridor identity. However, attendees also noted a variety of assets and/or advantages of doing business within the corridor, including locally-owned businesses, employee base, available land and nearby water-based recreational destinations.

### *Land Use and Quality of Life*

The second discussion was held in August 2022 and examined the topic of land use and quality of life. This session was attended primarily by Planning Commission members and officials from the municipalities located within the corridor study area. The discussion brought out a variety of concerns related to land use within the corridor, including growth pressure, lack of infrastructure to support development, inefficient use of land due to



narrow, deep parcels, and uncoordinated zoning. Attendees also discussed the steps that should be taken to address the land use concerns. These recommended measures included improved landscaping recommendations, uniform design requirements, and establishing a corridor identity through uniform messaging.

More detailed summaries of the results of each focus group discussion are included in the **Appendix**.

## Citizen Opinion Survey

To engage the broader public, an online citizen opinion survey was prepared and made available in the Summer of 2022. The survey generated significant public interest and was completed by more than 1,400 interested persons. More than 80% of the respondents lived in one of the six municipalities that touch the corridor study area, while nearly 20% lived within the corridor study area.

In general, there was consensus among the respondents regarding the key issues or concerns to be addressed within the corridor. Related to transportation, traffic safety was a significant concern, with respondents most commonly noting speeding/aggressive driving (70%), too much traffic (38%), and dangerous intersections (33%) as the top contributors to unsafe roads. When asked what measures should be taken to improve traffic

flow and safety, the top responses included left turn lanes (50%), road widening (42%), and increased police presence (31%).

Respondents were asked what land use and physical development changes would be most beneficial within the corridor. Nearly 25% stated that no changes were needed. The most common responses for those who felt changes were needed included improved lighting (30%), broadband internet improvements (25%), more green space (22%) and public water/sewer improvements (18%). Several questions prompted respondents to share their thoughts on future strategies for land use and development within the corridor. The responses revealed strong support for managing growth by protecting farmland and agricultural activities, preserving natural features, and slowing the rate of development.

A more detailed summary of the feedback received through the citizen opinion summary is included in the **Appendix**.

## Public Forum

In June 2022, a public forum was facilitated to hear from citizens and stakeholders their ideas and thoughts for the future of the Marine City Highway corridor. The forum was attended by well over 100 interested persons.

The forum began with project team introductions and a project overview presentation. The project team then gave a presentation highlighting key existing conditions findings related to land use and development, demographic and market conditions, traffic analysis, and infrastructure capacities. The remainder of the forum featured two small group exercises where participants worked together to brainstorm and prioritize needed improvements.

The first small group exercise prompted groups to brainstorm and prioritize needed road and infrastructure enhancements within the corridor. Ideas that received support from multiple small groups included road widening, new or improved traffic signals, acceleration/deceleration lanes, water and sewer improvements, and broadband internet improvements.

The second small group exercise directed participants to identify the preferred future land use and development character of the corridor. Small group spokespersons then shared the results of their small group discussions with all forum participants. A key concept that received support across numerous small groups was the desire to limit commercial and industrial development to the



### Two Upcoming Engagement Opportunities!

All are welcome and encouraged to participate

#### Online Citizen and Stakeholder Survey

**SURVEY OPEN: JUNE 1ST THROUGH JULY 15TH, 2022**  
**SURVEY LINK:** <https://www.surveymonkey.com/r/MarineCityHighway>  
**OR SCAN THE QR CODE**



An online survey is being launched to gain feedback from citizens, stakeholders and others who are interested in the future of the Marine City Highway corridor. Your answers to this survey will greatly assist St. Clair County in the formation of this corridor plan.

#### Public Forum

**DAY AND TIME: JUNE 29TH, 2022 @ 6PM**  
**LOCATION: LIONS CLUB OF MARINE CITY, 545 WARD STREET, MARINE CITY**

A public forum is being facilitated to hear from citizens and stakeholders their ideas and thoughts for the future of the Marine City Highway corridor. The first portion of the forum will include an informational presentation about the project and study area. The remainder of the forum will feature exercises and discussions where you will have an opportunity to share your opinions while hearing the opinions of others. **Be prepared to participate!**

For more information about this project, please visit the  
St. Clair County Metropolitan Planning Commission website at:  
[www.stclaircounty.org/offices/metro/](http://www.stclaircounty.org/offices/metro/)

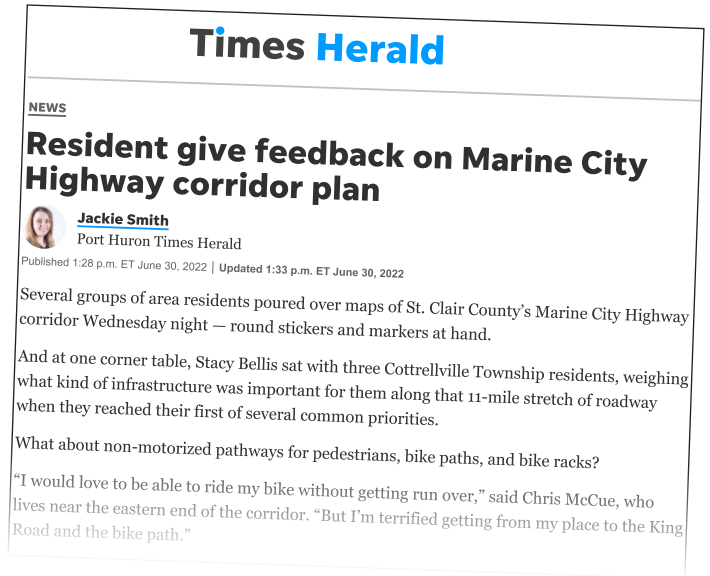


Public forum attendees participating in group exercises

western portion of the corridor (generally between County Line Road and Meldrum Road) and at the eastern end of the corridor (at King Road), while preserving the remainder of the corridor for rural agricultural and residential use.

### Public Open House

After preliminary corridor study recommendations were developed, a public open house was held in November 2022 to give citizens and stakeholders an opportunity to review and comment on the recommendations. The open house was held during a 3-hour window, with various displays and exhibits set up relating to the topics of land use, transportation, economic development and infrastructure. Attendees had the opportunity to engage with members of the project team and provide comments both verbally and in writing. The public open house was attended by more than 50 interested persons.



Open house attendees interacting with project team members

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# 2. Corridor Conditions

## Demographic Profile

This section highlights key trends relevant to the Marine City Highway corridor related to important demographic indices including population, housing, income, educational attainment, and employment.

Several data sources have been used for this profile, including the U.S. Census Bureau’s American Community Survey 5-Year Estimates for the years 2016-2020. Data for 2021 and forecasts for 2026 are published by Esri and were obtained through Esri Business Analyst Online (BAO). Source citations are noted throughout the report.

Data for the following geographies are presented and compared within this section:

- 15 minute drive time radius from the Marine City Highway corridor. This represents the “retail market area” for the corridor -- the geographic area from where businesses and other establishments could reasonably expect to draw customers and visitors.
- 60 minute drive time radius from the Marine City Highway corridor. This represents the “labor market area” for the corridor -- the geographic area from where employers could reasonably expect to attract employees.

**Map 3: Fifteen Minute Drive Time Radius** and **Map 4: Sixty Minute Drive Time Radius** show these two geographic areas.

## Population

### Population Trends and Forecasts

Population forecasts are a key indicator for determining potential future opportunities for a place. Population trends and forecasts for the two geographies are included in **Table 1**. As of 2021, there is an estimated 158,928 residents within a 15 minute drive of the corridor. This figure has grown by nearly 6% since 2010, and is forecasted for another increase of about 2% over the next five years. The population within a 60 minute drive of the Marine City Highway corridor is nearly 4 million as of 2021. This population has grown slightly since 2010 and will continue a slight increase through 2026.

These population trends indicate the potential for the corridor to accommodate additional housing, services and employers, as well as public services to support a growing population.

### Median Age

Following national trends, the median age of the population within and surrounding the corridor has increased since 2010 and is forecasted to continue to increase through 2026 (see **Table 2**). For the lands within 15 minutes of the corridor, the median age will rise 6.6% between 2010 and 2026. For the land area within a 60 minute driving radius, the median age will rise by 8.2% between 2010 and 2026.

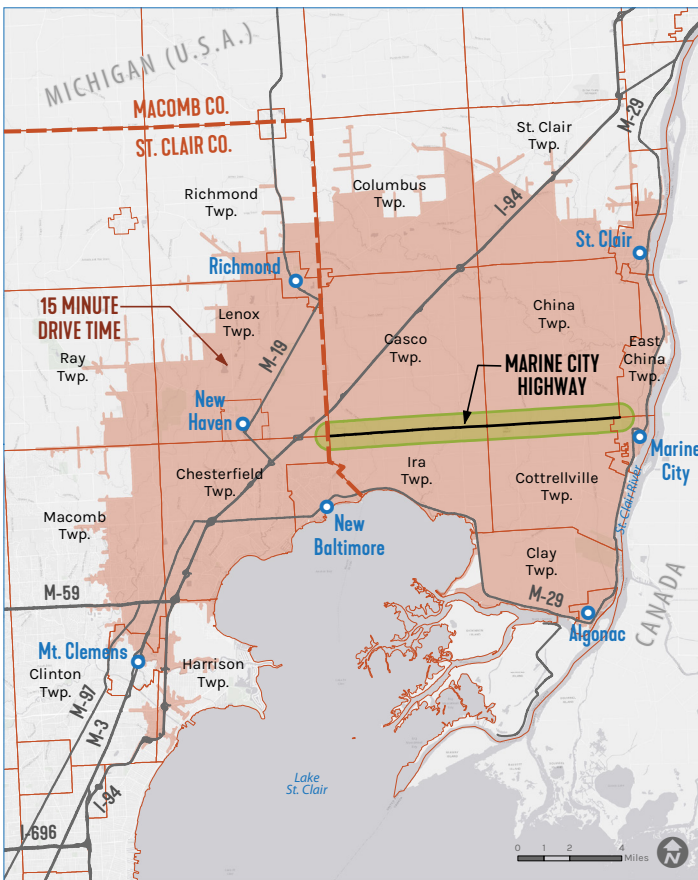
**Table 1: Population Trends and Forecasts, 2010-2026**

GEOGRAPHY	2010	2021	2026	% Chg. '10-'26
15 Minute Drive Time from Marine City Highway	150,141	158,928	162,621	8.3%
60 Minute Drive Time from Marine City Highway	3,901,975	3,931,084	3,959,309	1.5%

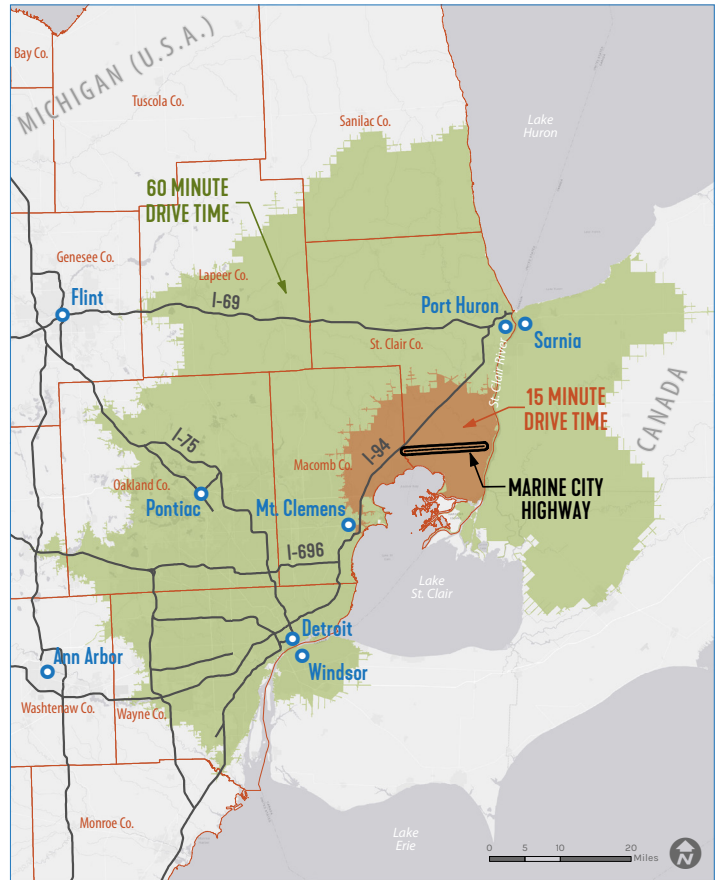
Source: Esri Demographic and Income Profile, 2022



**Map 3: Fifteen Minute Drive Time Radius**



**Map 4: Sixty Minute Drive Time Radius**



**Population by Age Trends**

**Figure 1** and **Figure 2** highlight the changing distribution of population within four age group categories for the 15 minute and 60 minute drive time geographies between 2010 and 2026. Since 2010, the percentage of the population in each age group has begun to even out. By 2026, there will not be a singular age category that has a significant majority or minority of the population, suggesting that as the population has grown, it has not grown evenly amongst age groups. By 2026, each age group will represent a similar proportional share of the population as the next group.

Within a 15 minute driving radius, each of the four age group categories will make up between 19.7% and 27.4% of the total population. Since 2010, there has been significant growth in the population aged 65 and older, increasing from 12.2% of the population to a projected 19.7% of the population. The population decreased from 32.6% to 27.4% for those residents aged 24 and younger. Residents in age categories of 25-44 and 45-64 are projected to remain relatively stable through 2026.

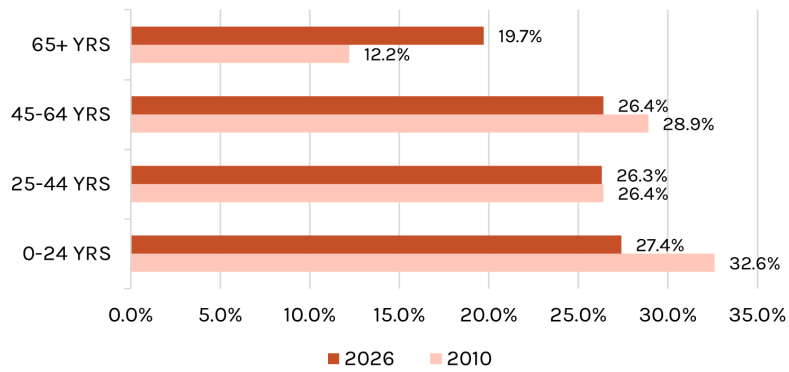
The trends are similar for the population residing with a 60 minute drive time. The population aged 65 years or older is projected to increase from 13.4% to 20.8% of the population, while the young population (ages 0-24) is projected to decrease from 32.9% to 28.1% of the total population.

**Table 2: Median Age, 2010-2026**

GEOGRAPHY	2010	2021	2026	% Chg. '10-'26
15 Minute Drive Time from Marine City Highway	39.5	41.5	42.1	6.6%
60 Minute Drive Time from Marine City Highway	38.8	41.1	42.0	8.2%

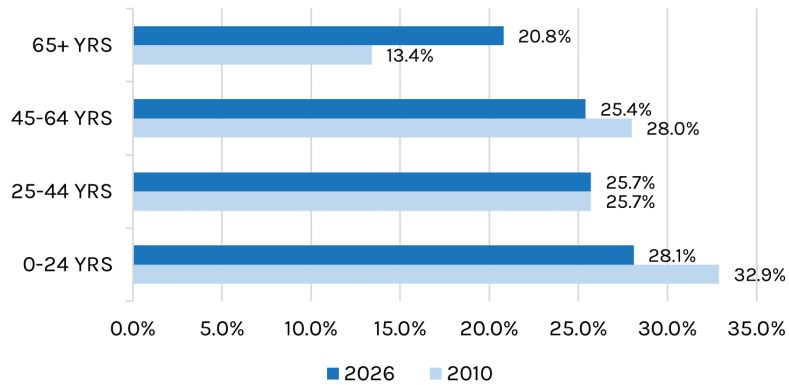
Source: Esri Demographic and Income Profile, 2022

**Figure 1: Population by Age, 15 Minute Drive Time Radius**



Source: Esri Demographic and Income Profile, 2022

**Figure 2: Population by Age, 60 Minute Drive Time Radius**



Source: Esri Demographic and Income Profile, 2022

With an aging population, municipalities within the geographic area face both challenges and opportunities. Challenges include providing municipal services and amenities to serve the aging population; opportunities include new businesses that offer products demanded by an aging population.

## Housing

### Total Units

As of 2021, there are an estimated 67,508 total housing units within a 15 minute drive time. According to Esri estimates, this number will increase to 69,233 by 2026, a growth of 2.6%. There are an estimated 1,765,069 housing units within a 60 minute drive time of the corridor. This is expected to increase to 1,788,495 units by 2026, a growth of 1.3%. This represents a potential opportunity to capture new housing units within the Marine City Highway corridor.

### Housing Value

As shown in **Table 3**, housing values within and around the corridor are projected to increase over the next five years. The median value of owner occupied housing units in 2021 within a 15 minute radius of the corridor was slightly more than \$229,000, while the median value was just over \$200,000 in the land area within a 60 minutes drive time of the corridor. For both geographies, the median housing value of owner occupied units is forecasted to increase through 2026 – within the 15 minute radius by 10.3%, and within a 60 minute radius by 19.9%.

### Affordability

Esri has established a housing affordability measure -- Housing Affordability Index (HAI) -- that measures the ability of a typical resident to purchase an existing home in the area. The index has a base of 100, representing an area where the median income is sufficient to qualify for a loan on a home valued at the median home price and not be cost-burdened. Esri uses a common measure where a household is considered cost-burdened if they spend more than 30 percent of their income on housing-related costs.

**Table 3: Median Value of Owner-Occupied Housing Units, 2021-2026**

GEOGRAPHY	2021	2026	% Chg. '21-'26
15 Minute Drive Time from Marine City Highway	\$229,112.0	\$252,702.0	10.3%
60 Minute Drive Time from Marine City Highway	\$200,184.0	\$240,106.0	19.9%

Source: Esri Housing Profile, 2022

An HAI greater than 100 references areas where homes are affordable. An HAI less than 100 indicates areas where homes are less affordable and where median income is not high enough to purchase a median valued home.

As of 2021, the housing affordability index for the 15 minute drive time geography stands at 142; for the 60 minute drive time geography, it is 138. The United States HAI is 130, while Michigan’s index is 153. These figures indicate that the typical resident within the area surrounding the Marine City Highway is able to afford a home. However, housing within the area surrounding the corridor is less affordable than the state as a whole.

## Income

### Median Income

**Table 4** highlights the median household incomes within a 15 minute and 60 minute radius from the corridor. Within the 15 minute driving radius, median household incomes are about \$68,000, with a projected increase to nearly \$77,000 by 2026. Within a 60 minute driving radius, the median household income is significantly lower at about \$60,000 annually. This income is expected to increase to over \$67,000 in the next 5 years. Both land areas are projected to increase by over 11.5%.

**Table 4: Median Household Income, 2021-2026**

GEOGRAPHY	2021	2026	% Chg. '21-'26
15 Minute Drive Time from Marine City Highway	\$68,675	\$76,767	11.8%
60 Minute Drive Time from Marine City Highway	\$60,622	\$67,675	11.6%

Source: Esri Demographic and Income Profile, 2022

**Table 5: Per Capita Income, 2021-2026**

GEOGRAPHY	2021	2026	% Chg. '21-'26
15 Minute Drive Time from Marine City Highway	\$32,870	\$36,827	12.0%
60 Minute Drive Time from Marine City Highway	\$34,216	\$38,493	12.5%

Source: Esri Demographic and Income Profile, 2022

### Per Capita Income

**Table 5** highlights the per capita incomes within a 15 minute and 60 minute radius from the corridor. Within the 15 minute driving radius, per capita incomes are about \$33,000, with a projected increase to nearly \$37,000 by 2026 (12.0%). Within a 60 minute driving radius, the per capita income is slightly higher at about \$34,000 annually. This income is expected to increase to over \$38,000 in the next 5 years, representing an increase of about 12.5%.

**Table 6: Educational Attainment, 2021**

CATEGORY	15 Minute Drive from Marine City Highway	60 Minute Drive from Marine City Highway
	% OF POP.*	% OF POP.*
Did not graduate high school	8.0%	9.5%
High school graduate or higher	92.1%	90.6%
Associate Degree or higher	35.1%	41.1%
Bachelor's degree or higher	23.2%	32.2%
Graduate/professional degree	8.3%	13.2%

\*Population 25 years or older

Source: Esri Market Profile, 2022

## Educational Attainment

Educational attainment characteristics are shown in **Table 6** and reveal a highly educated local population. As of 2021, high school graduate rates in the 15 minute and 60 minute driving radii are over 90% (92.1% and 90.6%, respectively).

Within a 60 minute driving radius from the corridor, 32.3% of the population has a bachelor's degree or higher and 13.2% have a graduate or professional degree. The equivalent percentages are slightly lower within the 15 minute radius, at 23.2% and 8.3%, respectively.

## Employment

### Employment by Occupation

Occupational statistics for the employed population aged 16 years or older in 2021 for lands within a 15 minute drive of the corridor and lands within a 60 minute drive of the corridor are shown in **Table 7**.

Within both the 15 minute and 60 minute drive time land areas, the professional (21.4% and 25.0%, respectively) and management/financial/business (16.6% and 17.9%, respectively) fields are the primary occupations within and near the corridor. Service occupations are also prominent in the 15 minute and 60 minute radii, at 15.2% and 14.7% of jobs for the employed population 16 years or older. Jobs that are less common in the areas surrounding the corridor are farming/forestry/fishing and installation/maintenance/repair jobs.

### Employment by Industry and Location Quotient

**Table 8** shows a breakdown of employment distribution by industry within the region and its corresponding location quotient. A location quotient is calculated by dividing the local percentage of a particular industry by the national percentage for the same industry. The resulting number indicates whether the region's employment mix of that industry is higher or lower than the national average.

A location quotient greater than 1 means that the share of employment in that industry is larger than the national average for the same industry. Within a 15 minute driving radius of the corridor, there are 6 industries whose percentage of employment is larger than the percentage of employment they occupy at the national level. These are:

1. Manufacturing (2.06)
2. Public administration (1.12)
3. Utilities (1.11)
4. Construction (1.09)
5. Retail trade (1.06)
6. Health care/social assistance (1.01)

Within a 60 minute driving radius, 5 industries occupy a greater percentage of jobs than they employ at a national level. These are:

1. Manufacturing (1.77)
2. Accommodation/food services (1.07)
3. Finance/insurance (1.06)
4. Health care/social assistance (1.06)
5. Retail trade (1.04)



**Table 7: Employment by Occupation, 2021**

OCCUPATION	15 Minute Drive Time from Marine City Highway	60 Minute Drive Time from Marine City Highway
	% OF POPULATION*	% OF POPULATION*
Management/Business/ Financial	16.6%	17.9%
Professional	21.4%	25.0%
Sales	8.6%	9.2%
Administrative Support	11.0%	11.2%
Services	15.2%	14.7%
Farming/Forestry/Fishing	0.1%	0.2%
Construction/Extraction	5.9%	3.8%
Installation/Maintenance/Repair	3.7%	2.6%
Production	10.3%	7.7%
Transportation/Material Moving	7.2%	7.5%

\*Employed population 16 years or older

Source: Esri Market Profile, 2022

**Table 8: Employment by Industry, 2021**

INDUSTRY	15 Minute Drive Time from Marine City Highway		60 Minute Drive Time from Marine City Highway	
	% OF POPULATION*	LOCATION QUOTIENT	% OF POPULATION*	LOCATION QUOTIENT
Agriculture/Forestry/Fishing	0.3%	0.23	0.3%	0.23
Mining/Quarrying/Oil & Gas	0.0%	0.00	0.0%	0.00
Construction	8.1%	1.09	5.1%	0.69
Manufacturing	21.8%	2.06	18.8%	1.77
Wholesale Trade	2.2%	0.88	2.4%	0.96
Retail Trade	10.3%	1.06	10.1%	1.04
Transportation/Warehousing	3.1%	0.66	4.2%	0.89
Utilities	1.0%	1.11	0.8%	0.89
Information	1.1%	0.61	1.3%	0.72
Finance/Insurance	4.3%	0.88	5.2%	1.06
Real Estate/Rental/Leasing	1.4%	0.67	1.8%	0.86
Professional/Scientific/Tech	5.0%	0.61	7.9%	0.96
Management of Companies	0.1%	1.00	0.1%	1.00
Admin/Support/Waste Management	2.8%	0.72	3.7%	0.95
Educational Services	6.7%	0.69	7.1%	0.73
Health Care/Social Assistance	15.2%	1.01	16.0%	1.06
Arts/Entertainment/Recreation	1.2%	0.75	1.4%	0.88
Accommodation/Food Services	5.5%	0.98	6.0%	1.07
Other Services (Excluding Public)	4.2%	0.91	4.3%	0.93
Public Administration	5.4%	1.12	3.6%	0.75

\*Employed population 16 years or older

Source: Esri Civilian Labor Force Profile, 2022

**Table 9: Labor Force Participation, 2021**

<b>STATUS</b>	<b>15 Minute Drive Time from Marine City Highway % OF POPULATION*</b>	<b>60 Minute Drive Time from Marine City Highway % OF POPULATION*</b>
	Employed	93.5%
Unemployed (Unemployment Rate)	6.5%	8.4%

\*Civilian population 16 years or older and in the labor force

Source: Esri Market Profile, 2022

Location quotients are useful for determining what types of jobs are available in a particular region and which industries are successful. They may also provide insight into the skillset and education levels of the workers, or may help to identify regional and local needs of an area. Within a 15 minute and 60 minute driving radius from the corridor, there are a significant number of jobs in manufacturing, retail, and healthcare/social assistance. There may be additional opportunities to expand these industries or to invest in some of the underrepresented industries along the corridor.

### **Labor Force Participation**

Of the 15 minute and 60 minute land area population 16 years or older and in the labor force, most (93.5% and 91.6%, respectively) have a place of employment in 2021 (see **Table 9**). About 6.5% of the population in the 15 minute driving radius and 8.4% of the population in the 60 minute driving radius are unemployed. At 5.8%, the unemployment rate for the State of Michigan as a whole is slightly lower than the unemployment rates found in the 15 minute and 60 minute geographic areas. This points to the need for regional and local strategies to bring in new jobs for persons in the workforce who are currently unemployed.

## **Corridor Conditions**

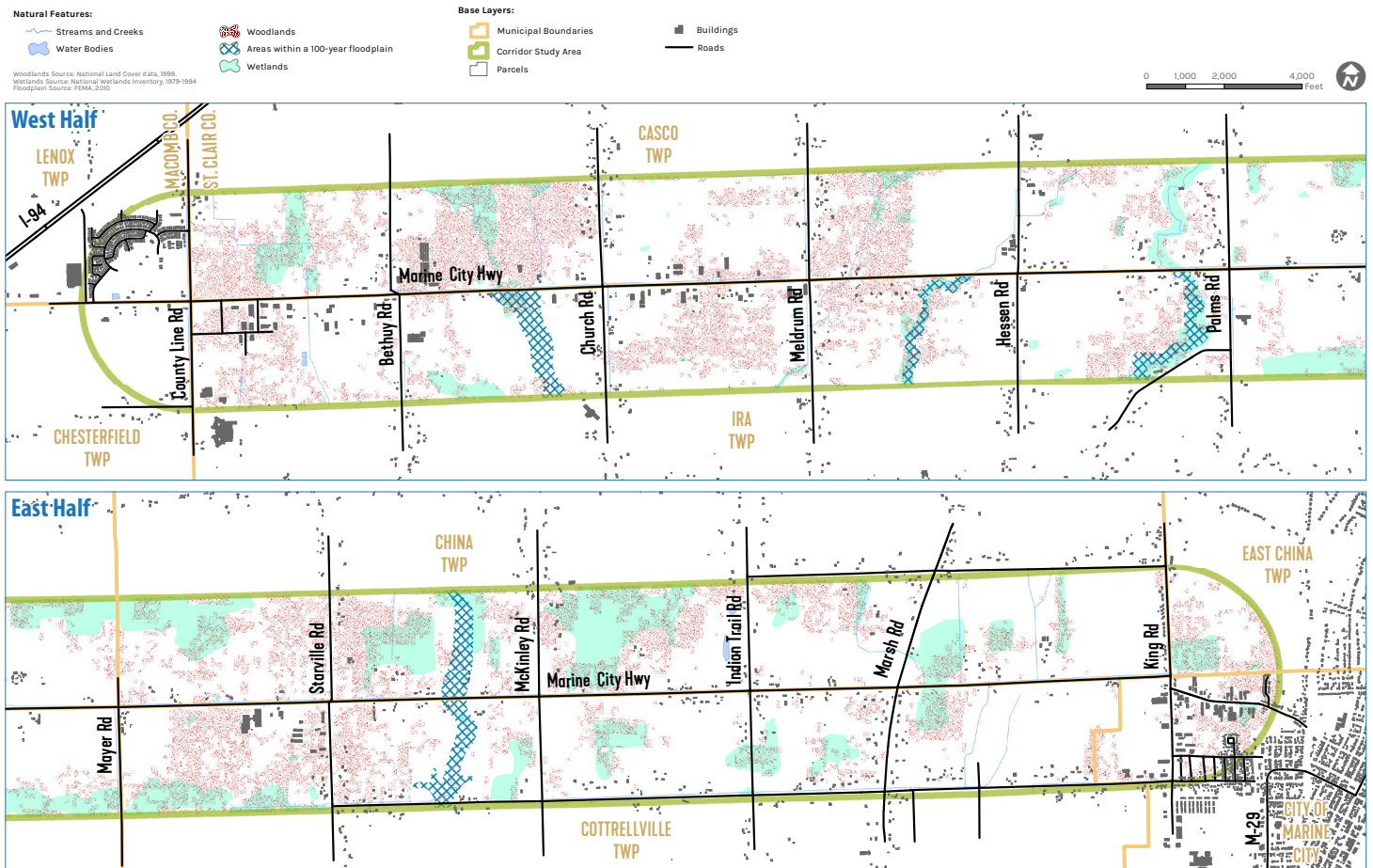
This section offers a summary of key natural and physical characteristics of the Marine City Highway corridor study area.

### **Natural Characteristics**

The Marine City Highway corridor exists within a generally rural area predominantly occupied by agricultural and rural residential uses. A variety of open spaces are found within the corridor, which offer natural amenities including ponds, woodlands and wetlands. The topography of the corridor study area is generally flat or gently rolling, with few steep slopes. No major lakes or bodies of water are found within the study area. However, the highway crosses over a variety of drains, creeks and streams. From west to east, these water features include the Crapaud Creek, Marsac Creek, Meldrum Drain, Swan Creek and Beaubien Creek.

**Map 5** highlights certain natural features within the study area, including woodlands, wetlands and floodplains. According to National Land Cover Data for Michigan, a considerable amount of land within the study area (totaling more than 4,000 acres) is covered by woodlands. Although not as widespread, more than 1,000 acres of the study area are wetland areas, according to the National Wetlands Inventory. Floodplains occupy only a small amount of land within the study area, predominantly along several of the streams and creeks including Marsac Creek, Meldrum Drain, Swan Creek and Beaubien Creek.

## Map 5: Natural Features



### Existing Land Use

**Map 6** highlights the current usage of land within the Marine City Highway corridor study area. A total of 9 existing land use categories have been established and are shown on the map. At approximately 3,850 acres, the agricultural/farmstead existing land use category occupies the greatest amount of land within the study area (comprising nearly 47% of the study area). These agricultural properties are found throughout the study area.

Single-family residential land use occupies approximately 1,900 acres or 24% of the study area. These single-family residential uses are most heavily concentrated east of Meldrum Road.

Vacant or undeveloped properties are scattered throughout the corridor comprising approximately 1,200 acres or 14.5% of the study area.

The most significant non-residential/non-rural land use within the corridor study area is industrial use. Presently, industrial use occupies approximately 680 acres or 8.3% of the study area. Industrial use is most heavily concentrated

in the western portion of the corridor, between County Line Road and Meldrum Road, and at the eastern end of the corridor within the City of Marine City. However, several other smaller pockets of industrial uses are scattered along the corridor.

The remaining existing land use categories occupy a relatively small percentage of land within the corridor. Public and semi-public uses occupy approximately 175 total acres. These uses include the Marine City Airport, Palms Elementary School and Rock Church. Commercial uses occupy approximately 120 acres of the study area. These commercial uses, including multi-tenant shopping centers, gas stations and convenience stores, are scattered along the corridor and particularly at key intersections (County Line Road, Palms Road, Indian Trail Road and King Road). Located just across County Line Road in Macomb County, Millstone Pond is the only mobile home park within the corridor, comprising 95 acres. Two recreation properties, including the Anchor Bay Sportsplex and a nature preserve, occupy approximately 70 total acres. Totalling 3 acres, one multiple-family residential development is located in the study area at the eastern end of the corridor within the City of Marine City

## Map 6: Existing Land Use



## Development Character

### Property Characteristics

Based on property data obtained from St. Clair County, a total of 261 properties immediately front Marine City Highway between County Line Road and King Road. The mean size of these properties is 16.6 acres. The sizes of these 261 properties are distributed as follows:

- Less than 1 acre in size = 5 properties
- 1 to 1.99 acres = 20 properties
- 2 to 2.99 acres = 32 properties
- 3 to 4.99 acres = 42 properties
- 5 to 9.99 acres = 49 properties
- 10 to 19.99 acres = 57 properties
- 20 to 49.99 acres = 39 properties
- 50 or more acres = 17 properties

Many of the properties fronting Marine City Highway are relatively narrow, but deep. This situation is most prevalent in the following corridor segments: between Bethuy

and Meldrum; and, between Starville and King. Within these areas, it is common to find properties with widths (measured at the road frontage) of between 200 and 300 feet and depths of between one-quarter mile (1,320 feet) and one-half mile (2,640 feet).

During the planning process, numerous stakeholders noted how this pattern of narrow and deep lots has led to an inefficient use of land, with buildings typically located near the road frontage with the rear portions of properties generally undeveloped. From an economic development perspective, it was noted that the presence of many narrow and small parcels is a challenge, making land assemblage (acquiring multiple adjacent properties) a necessity step before being able to market properties to prospective developers and investors.

### Building Character

The character of development within the Marine City Highway corridor is varied. The footprints of existing buildings are shown on both **Map 5** and **Map 6**. In total, more than 1,150 buildings/structures are located within the corridor study area. These range from very small residential accessory buildings to large industrial buildings.



More than 50% of the existing buildings (approximately 660) are less than 2,000 square feet in size. These are predominantly found in the central and eastern portion of the corridor and primarily consist of single-family dwellings, accessory buildings, and farm structures. Only 18 total buildings are more than 20,000 square feet in size, the largest of which is approximately 150,000 square feet in size (south side of Marine City Highway, near Starville Road).

The typical size of industrial buildings in the corridor is between 5,000 and 15,000 square feet. The majority of these buildings are 1-story. The architectural design of industrial buildings varies within the corridor. Commonly, a smaller office portion of the building features higher quality building materials such as stone or brick, while the larger industrial/warehouse portion of the building consists of metal siding. No large commercial buildings are found within the corridor (all are less than 15,000 square feet). The typical size of commercial buildings is approximately 5,000 square feet. Most commercial buildings are 1-story in height. The architectural design of commercial buildings within the corridor varies considerably.

Generally, non-residential buildings within the corridor feature generous setbacks from the road, allowing for landscaping and green space between the road and the buildings. Setbacks of between 50 and 150 feet are typical, although this varies considerably within the corridor. In some cases, off-street parking areas for these non-residential buildings are located in the front yard between the road and the building. However, it is more common for off-street parking areas to be located in the side or rear yards. In most cases, access to the non-residential uses within the corridor is provided by individual driveways from Marine City Highway. Few commercial and industrial properties gain access from shared driveways or shared service drives.

### **Signage**

A variety of signage types and sizes are found within the corridor. Most non-residential uses feature both ground signs and wall signs. Newer non-residential developments within the corridor typically employ monument signage, while many of the older non-residential developments employ taller pole/pylon signs. Temporary signs are found throughout the corridor and commonly include real estate signs, political signs, and advertising banners (ground attached “feather” or “flag” banners). Additionally, numerous off-premise signs (billboards) are scattered throughout the corridor.

## **Representative Imagery:**

Western Portion of Marine City Highway Corridor  
(County Line Road to Meldrum Road)



Industrial use within Andrews Corporate Park



Northpointe Storage



New commercial and office building



Light industrial development





New industrial use under construction



Ground sign, berm and landscaping in the front yard of a mini-storage facility



Sidewalks are present only in limited areas within the western portion of the corridor



ML Chartier Excavating and Environmental Services



Marine City Highway near Meldrum Road



## Representative Imagery:

Central and Eastern Portion of Marine City Highway Corridor (Meldrum Road to King Road)



Marine City Airport



Marine City Nursery



Single-family dwellings and accessory structures



Blue Ribbon Farms & Greenhouses



Farmland and farm structures



Gas station and pylon sign

## Road Conditions

Marine City Highway is currently a two-lane bituminous (asphalt) road with traffic signals at the intersections of County Line Road, Palms Road, and King Road. The corridor links the mostly agricultural and residential areas east of Meldrum Road to the industrial area on the west side of Marine City Highway, as well as the developments in Macomb County and the I-94 ramps. The potential for additional growth along the corridor dictates the need for more road capacity to meet current and future traffic demands. Additionally, the roadway is generally in fair to poor condition and no accommodations exist for non-motorized traffic.

## Traffic Volumes

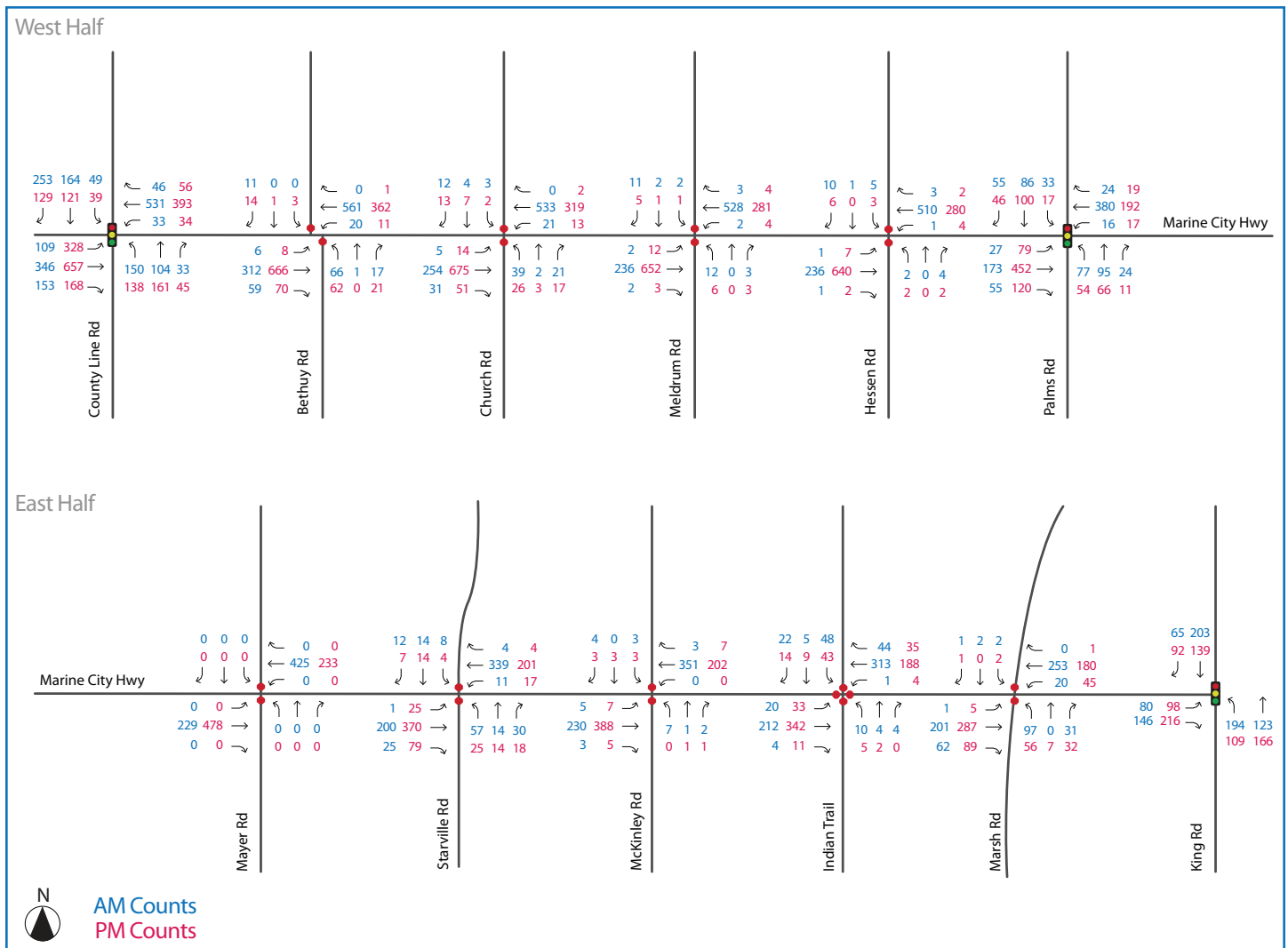
Key intersection directional turning movement counts on Marine City Highway from County Line Road to King Road were collected in May 2022. The data for this analysis includes the morning peak hour from 7:00 AM to 9:00 AM and the afternoon peak hour from 4:00 PM to 6:00 PM.

PM. Vehicular, truck, pedestrian, and bicycle counts were collected. Peak hour vehicle turning movements at these intersection approaches are summarized in **Figure 3**. The data indicate that the intersection with the highest peak hour volume is County Line Road, followed by Bethuy Road and Palms Road.

Historical volumes for the study area were taken from the Michigan Department of Transportation (MDOT) Transportation Data Management System as well as the Southeast Michigan Council of Government's (SEMCOG) traffic data archive. Based on MDOT and SEMCOG traffic count data taken between 2012 and 2021, the average daily traffic (ADT) volumes on Marine City Highway are:

- 15,180 vehicles per day between County Line Road and Church Road
- 10,480 vehicles per day between Church Road and Palms Road
- 8,042 vehicles per day between Palms Road and Starville Road

**Figure 3: Existing Peak Hour Traffic Volumes on the Marine City Highway Corridor**





- 6,980 vehicles per day between Starville Road and Indian Trail
- 5,970 vehicles per day between Indian Trail and King Road

These counts were used for comparison of the data collected in 2022. Prior to 2020, the MDOT counts near the study intersections were nearly consistent from 2012 to 2019. The 2022 counts were within 11 percent of these volumes and no changes were made to the existing traffic volumes for this analysis.

### Traffic Safety

To examine the crash history of the study corridor, police crash data were obtained from the Traffic Improvement Association's (TIA) Traffic Crash Analysis Tool (TCAT) website files for the five-year period between January 1, 2017 and December 31, 2021. The most recent five years of traffic crash data along Marine City Highway corridor

and within a 250-foot radius of each intersection was reviewed to determine if any crash patterns were present. The results from the corridor-wide analysis on Marine City Highway from County Line Road to King Road are shown in **Table 10**. During the five-year study period, there were 394 crashes, averaging 78.8 crashes per year. Deer, Rear End, and Angle were the most frequent crash types. Three crashes involved a pedestrian or bicyclist. There were 112 crashes that resulted in injury to one or more persons, averaging 22.4 injury crashes per year, or 28.4% of all crashes. There were three fatal crashes, 15 Type A Incapacitating Injury crashes, 34 Type B Non-Incapacitating Injury crashes, and 60 Type C Possible Injury crashes.

**Table 10: Marine City Highway Corridor Crash Summary, 2017-2021**

CHARACTERISTIC	NO. OF CRASHES	PERCENTAGE	AVERAGE
<b>TYPE</b>			
Deer	129	32.7%	25.8
Rear End	81	20.6%	16.2
Angle	62	15.7%	12.4
Single Motor Vehicle	46	11.7%	9.2
Sideswipe – Same Direction	26	6.6%	5.2
Head On – Left Turn	18	4.6%	3.6
Other	12	3.0%	2.4
Head On	9	2.3%	1.8
Sideswipe – Opposite Direction	5	1.3%	1.0
Backing	3	0.8%	0.6
Bicycle	2	0.5%	0.4
Pedestrian	1	0.2%	0.2
<b>TOTAL</b>	<b>394</b>	<b>100.0%</b>	<b>78.8</b>
<b>INJURY SEVERITY</b>			
Fatal	3	0.8%	0.6
Injury A/B/C	109	27.7%	21.8
<b>OTHER CHARACTERISTICS</b>			
Dark – Lighted	30	7.6%	6.0
Dark – Unlighted	157	39.8%	31.4
Wet/Ice/Snow	97	24.6%	19.4

Source: Traffic Improvement Association's (TIA) Traffic Crash Analysis Tool (TCAT), January 1, 2017 and December 31, 2021

# 3. Land Use and Development Plan

This chapter is intended to serve as a guide for land use and development within the Marine City Highway corridor. The future land use and development recommendations have been developed in recognition of five key tenants:

1. **Regional cooperation for a shared vision** - As the corridor spans multiple municipal jurisdictions, a coordinated approach is needed to establish a shared vision for the corridor. Collectively, the county and local municipalities have an opportunity to look at the entire 11-mile corridor and determine areas most appropriate to accommodate new growth and those areas most appropriate for preservation.
2. **Long-term strategy** - Implementation of this plan will not occur at once. Forward thinking, this study makes recommendations for future land use and development in consideration of an approximately 20-year planning horizon.
3. **Change is inevitable** - A proactive plan for the future must anticipate and manage change.
4. **Alignment of future land use plans with road and infrastructure capacities** - A key component of this study is an analysis of road and infrastructure capacities. The extent and character of proposed future land uses have been established in consideration of existing and proposed infrastructure necessary to support planned development.
5. **Local control** - The authority for planning and zoning within the Marine City Highway corridor rests with the local municipalities. Although this study outlines various recommendations related to future land use and zoning, it is intended to serve as a guide for local planning and zoning decisions made at the discretion of each local municipality, including future changes to master plans and zoning codes.

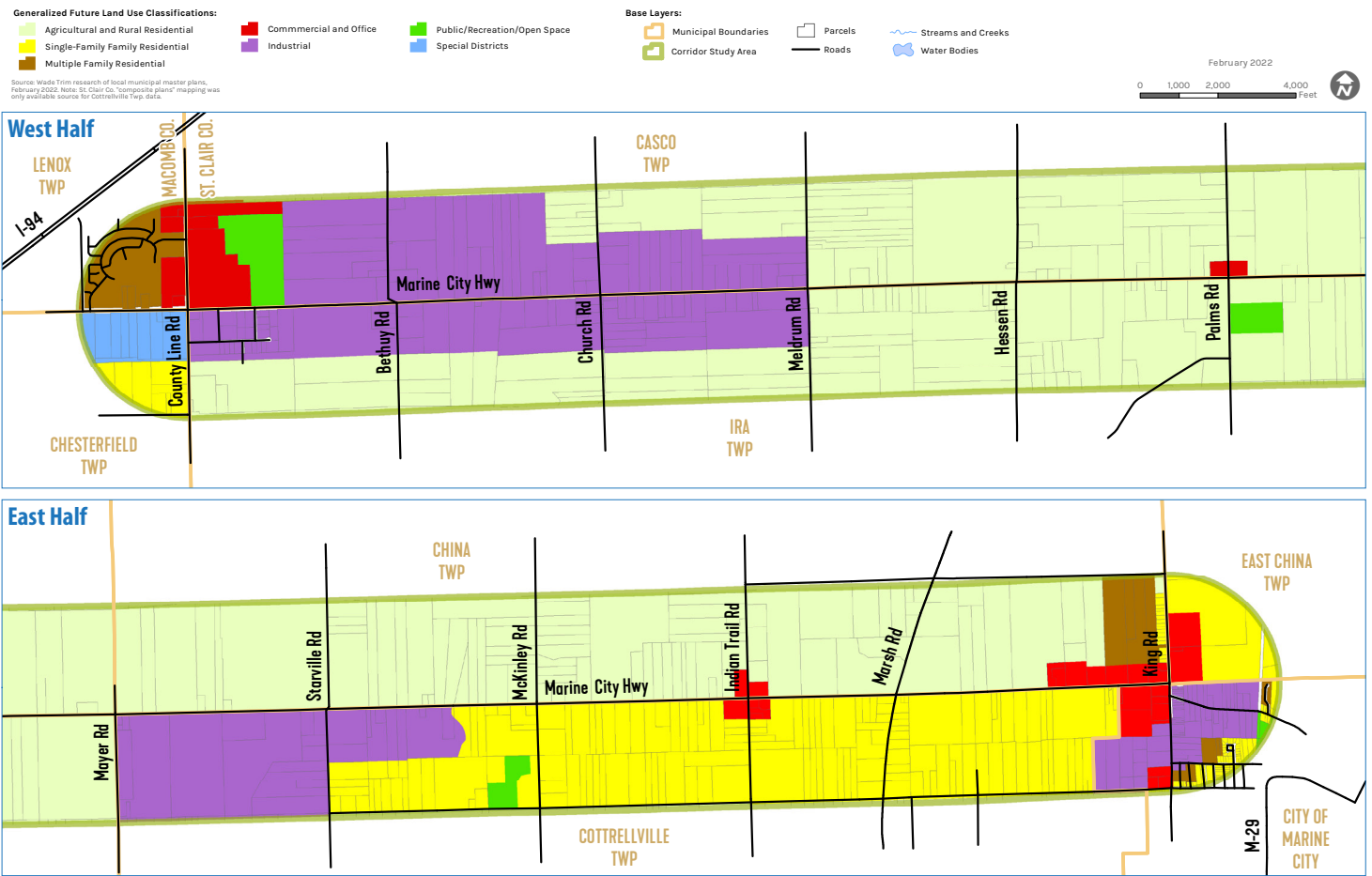
## Local Master Planning

Each local municipality within the Marine City Highway study area maintains control over land use and development through a locally adopted zoning ordinance. In accordance with the Michigan Zoning Enabling Act, Public Act 110 of 2006, any municipal zoning ordinance must be “based upon a plan designed to promote the public health, safety, and general welfare” of the community. As such, every local municipality within the study area has adopted a local master plan. Each of these master plans outlines a vision for future land use within their respective community. These locally adopted future land use plans serve as the starting point for the land use recommendations outlined within this Marine City Highway Corridor Study.

**Map 7** shows the future land use classifications as established by each local municipality within the corridor study area. Because every local master plan is unique, the classifications have been “generalized” into basic land use categories such as multiple family residential and commercial and office. As shown in the map, the majority of land within the study area (approximately 55%) is planned for agricultural and rural residential use. Planned industrial land occupies the second largest percentage of the corridor, comprising approximately 1,750 acres or 21%. These planned industrial areas are found at the west and east ends of the corridor, along with a planned industrial area in the central portion of the corridor. Planned single-family residential lands account for 16% of the corridor, most of which are found in Cottrellville Township.

The remaining future land use categories comprise less than 10% of the study area, each accounting for less than 300 acres. Planned commercial and office areas are concentrated at the west and east ends of the corridor, with small nodes at the Palms Road and Indian Trail Road intersections. A modest-sized area for multiple family residential use has been planned at the northwest corner of King Road and Marine City Highway.

## Map 7: Generalized Local Future Land Use Classifications



### Local Zoning

**Map 8** shows the zoning districts as adopted by each local municipality within the corridor study area. Because every local zoning ordinance is unique, the locally adopted zoning districts have been “generalized” into basic zoning categories such as agricultural and industrial. As shown in the map, the majority of land within the corridor study area (approximately 70%) is currently designated as an agricultural zoning district. The second most prevalent zoning designation within the corridor is industrial, which comprises approximately 1,700 acres or 21% of the corridor. Similar to the future land use plans, these industrial areas are found at the west and east ends of the corridor, along with an industrial zoned area in the central portion of the corridor.

The properties zoned other than agricultural or industrial comprise less than 10% of the study area. Commercial zoning designations are found at the east and west ends of the corridors, with nodes of commercial zoning found at the Palms Road, McKinley Road and Indian Trail Road intersections. Multiple family residential zoning is found at the northwest corner of King Road and Marine City Highway.

### Corridor Future Land Use Plan

In consideration of currently adopted local master plans, existing conditions analysis findings, feedback received during the various public engagement activities, and direction provided by the project steering committee, a future land use plan has been prepared for the Marine City Highway corridor. This future land use plan is presented as **Map 9**. All recommendations outlined in this study, notably those related to road, infrastructure and economic development, have been established in consideration of the planned allocation of land use within the corridor as shown on **Map 9**.

A total of 6 future land use classifications have been established, each with unique characteristics and use allowances. These classifications are described below.

#### Agricultural/Rural Residential

The agricultural/rural residential future land use classification encompasses those areas intended to be used primarily for agriculture, horticulture, or agribusiness support uses, as well as farmsteads and related agricultural buildings located near the principal dwellings on those farmsteads. This category also includes large lot

## Map 8: Generalized Local Zoning Districts Map



single family residential uses, and isolated single family residences situated in predominantly agricultural areas. Rural residential supportive land uses, such as schools, churches and golf courses may also be appropriate within this future land use classification.

This classification is in keeping with the largely rural and agricultural character of the Marine City Highway corridor. As such, nearly 70% of the corridor has been designated for future agricultural/rural residential use.

Minimum lot sizes within this classification will vary depending on local zoning jurisdiction but will generally range from 2.5 acres to 5 acres.

### Low Density Residential

This classification supports single-family detached structures including permanent dwellings and accessory structures, such as garages, that are related to these units. The intent of this category is to support and protect existing residential developments and encourage the construction of new, predominantly single-family detached homes in a carefully planned setting. Residen-

tially supportive land uses, such as schools, churches and golf courses may also be appropriate within the future land use category.

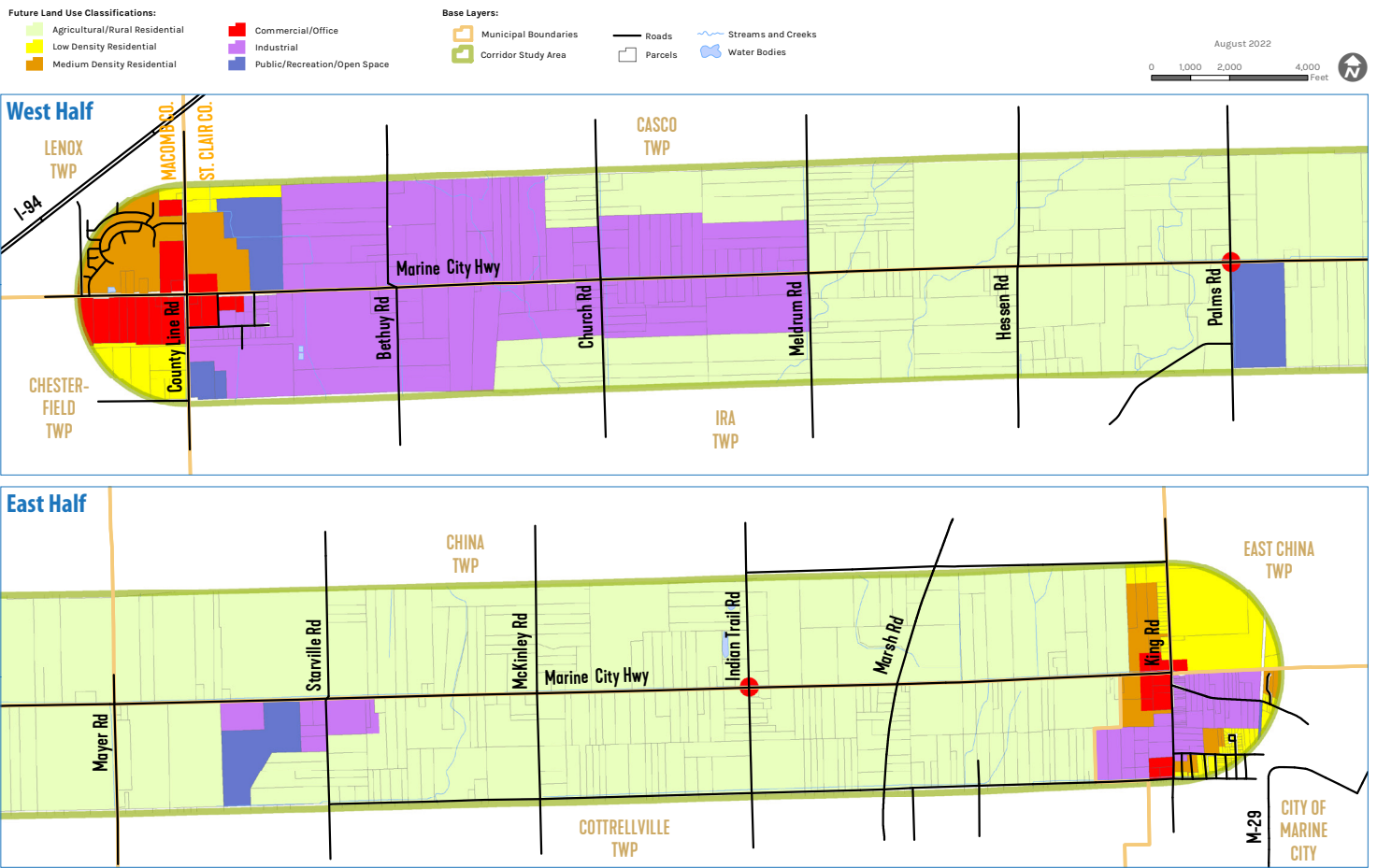
Minimum lot sizes within this classification will vary depending on local zoning jurisdiction and the availability of public water and sewer. For properties without access to public utilities, a minimum lot size of 1 acre is typical. For properties with access to public utilities, minimum lot sizes may be one-quarter acre or less in size. Lands so classified are found on the western and eastern ends of the corridor where there is already a greater intensity of development and where public utilities are already available or are anticipated to become available in the future. This classification accounts for approximately 4% of the corridor study area.

### Medium Density Residential

This future land use category is designed to provide sites for multiple-family dwelling structures, and related uses, which would generally serve as zones of transition between lower density residential uses and more intensive non-residential uses. Although a variety of multiple-family housing types may be allowed, varieties that can be



# Map 9: Proposed Corridor Future Land Use



easily integrated into the rural residential context of the corridor, such as attached townhomes, stacked ranches, and garden apartments, are specifically encouraged. Such developments require access to public water and sewer systems. Maximum densities allowed will vary depending on local zoning jurisdiction.

Lands so classified are found in the western and eastern ends of the corridor where public utilities are already available or are recommended to become available in the future. This classification accounts for approximately 3% of the corridor study area.

## Commercial/Office

This classification is intended to satisfy the convenience shopping and service needs of local residents and travelers along the corridor. Such land uses rely on the higher traffic volumes and easy access provided by Marine City Highway. Typical commercial uses would include convenience stores, personal service establishments, retail stores, restaurants and gas stations. This classification would also accommodate office uses developed as single-tenant buildings or small scale multi-tenant office developments.

New commercial/office development is targeted at the key intersections within the corridor, notably at County Line Road and at King Road where public utilities are already available or are recommended to become available in the future. Smaller-scale local business uses may be accommodated at the Palms Road and Indian Trail Road intersections where such development already exists. This classification accounts for approximately 2% of the corridor study area.

## Industrial

This future land use classification identifies sites for high-quality light industrial uses whose external physical effects are restricted to the site and do not have a detrimental effect on the surrounding areas. The allocation of lands for industrial use is reflective of existing development within the corridor where industrial operations already exist. Comprising approximately 20% of the corridor, these lands are primarily found in the western portion of the corridor between County Line Road and Meldrum Road and at the eastern end of the corridor within the City of Marine City. These are areas where public utilities are already available or are recommended to become available in the future.

This classification would support manufacturing, assembly, prototype development, warehouse, distribution and logistics, and similar uses. It is not the intent of this land use category to allow intensive operations that could significantly impact surrounding development such as energy generation, incineration, salvage yards, landfills, composting facilities, or extraction operations. It is intended for these establishments to be situated in industrial park settings characterized by generously landscaped front yards, ample side yards, attractive buildings, full screening of outdoor activities and other operations, and an overall neat, clean, and unobtrusive appearance. Such uses must also be fully served by public utilities and designed to minimize impact to public services.

### Public/Recreation/Open Space

This classification is intended to accommodate facilities and properties operated by various governmental and public agencies and institutions (including municipal services, religious uses, and park space). Existing facilities including the Marine City Airport, schools and churches have been designated in this classification. This classification accounts for approximately 3% of the corridor study area.

### Phasing Strategy

**Map 9** outlines a recommended land use and development scheme that is anticipated to materialize on a site-by-site basis over an approximately 20-year planning horizon. It is critical for local municipalities to ensure that development occurs in a coordinated manner and only in locations where such development can be adequately served by public water and sewer infrastructure. As is noted in the Infrastructure Plan (Chapter 5), certain public water and sewer improvements are needed to support planned industrial, commercial and higher density residential growth. These infrastructure improvements should be in place before approval of such development or must occur simultaneously with site construction.

This corridor study recognizes the possibility that unanticipated changes will occur or opportunities will arise that may justify modifications or variations from the future land use recommendations. In such case, any modifications or variations should be carefully considered based on the benefit to the corridor as a whole and not to the benefit of a single beneficiary. Input from all corridor stakeholders, including St. County and all municipalities within the corridor, should be sought when evaluating potential changes.

## Zoning and Policy Recommendations

During the project steering committee meetings and focus group discussions, attendees frequently noted uncoordinated and conflicting zoning regulations as a challenge to development, citing the need for a more uniform land use and regulatory scheme within the multi-jurisdictional corridor. This section includes an analysis of existing zoning regulations pertaining to key aspects of site development, as adopted by the five municipalities with jurisdiction along Marine City Highway. (Although East China Township is included within the study area, no properties in the township directly front Marine City Highway.) Based on the analysis, policy recommendations are provided to establish greater regulatory uniformity within the corridor.

### Zoning Policy Implementation

The multi-jurisdictional steering committee established to oversee this planning process should continue to meet regularly to work toward implementation of the zoning policy recommendations. A semi-formal structure should be established for this "Marine City Highway Corridor Planning Committee" for monthly or bi-monthly meetings. At a minimum, the committee should include at least one member of the governing body and at least one member of the planning commission from each of the six municipalities within the study area. After the committee has established recommended zoning ordinance amendment language, each local municipality would need to follow State-required procedures to separately adopt the zoning amendments.

Even after the zoning policy recommendations are implemented, the Marine City Highway Corridor Planning Committee should continue to meet regularly to coordinate improvement efforts and other corridor initiatives. More intensive ongoing coordination is also possible. One or more of the local municipalities could consider creating a joint administrative review committee which is given responsibility for reviews of proposed development projects within the corridor. However, to avoid an unnecessary extra layer of review, only development projects of a certain size threshold should be sent for review before the joint review committee. Another option is for each local municipality to notify the other municipalities of planned development projects within the corridor, seeking input from the other communities if the development warrants their interests.

### Corridor Overlay District as an Implementation Option

An overlay zoning district is an additional zoning district that is laid “on top” of two or more “underlying” zoning districts, usually to introduce more stringent regulations or standards. Several community goals may be achieved by the use of overlay districts, such as natural features preservation, enhancement of architectural design, and access management improvements.

For the Marine City Highway corridor, an overlay zoning district would be an effective tool to add heightened standards and bring uniformity within the corridor. The Marine City Highway Corridor Planning Committee could oversee the development of a single corridor overlay district, applicable for any property adjacent to or within a certain distance of the highway, which incorporates the recommendations of this study pertaining to building design, landscaping, access management, etc. Once prepared, each local municipality within the corridor would need to separately adopt the overlay district.

### Building Design and Placement Zoning Requirements Matrix

CASCO TWP.	IRA TWP.	CHINA TWP.	COTTRELLVILLE TWP.	MARINE CITY
<b>Minimum front yard setback for buildings</b>				
Rural/residential districts: 155'	Rural/residential districts: 105' to 125'	Rural/residential districts: 30' to 40'	Rural/residential districts: 85' to 300'	Rural/residential districts: 25' to 30'
Multi-family res. districts: 150'	Multi-family res. districts: 25'	Multi-family res. districts: 30'	Multi-family res. districts: No requirement	Multi-family res. districts: 30'
Business districts: 160'	Business districts: 25'	Business districts: 25' to 40'	Business districts: No requirement	Business districts: 0' to 25'
Industrial districts: 160'	Industrial districts: 30' to 50'	Industrial districts: 75'	Industrial districts: No requirement	Industrial districts: 50'
<b>Design standards for non-residential buildings?</b>				
YES: face brick, stone or other decorative block materials and compatible accent materials required for any side facing a road	YES: face brick, stone or other decorative materials required within 200' of front property line	NO	NO	YES for shopping centers within the B-2 District: certain requirements are outlined related to façade colors and architectural details, but no building material requirements
<b>Roof-top equipment screening requirement?</b>				
NO	NO	YES	NO	YES

### Building Placement and Design Zoning Recommendations:

1. In light of significant variations between the local municipalities and across the various zoning districts, consider whether amendments may be necessary to establish a more uniform building setback standard along Marine City Highway for residential, business and industrial zoned properties. To offer ample space for front yard landscaping, a generous front yard setback of at least 100 feet is recommended for non-residential development.
2. Develop and adopt uniform building material requirements for all facades visible from Marine City Highway, applicable to all non-residential development. Casco and Ira Township’s requirements for face brick, stone or other decorative materials should be considered as a model for the entire corridor.
3. Amend zoning ordinances to require all roof-top equipment to be screened by decorative architectural features.

## Signage Requirements Matrix

CASCO TWP.	IRA TWP.	CHINA TWP.	COTTRELLVILLE TWP.	MARINE CITY
<b>Billboards allowed?</b>				
YES: industrial district only and must be within 100' of Marine City Highway	NO	YES: industrial districts only	NO	YES: industrial districts only
<b>Electronic changeable copy signs allowed?</b>				
YES	YES	NO (only time and temperature signs may be animated)	NO (only time and temperature signs may be electronic)	Not specifically addressed
<b>Maximum sign brightness requirement?</b>				
YES	NO	NO	NO	NO
<b>Required sign setbacks from front property line?</b>				
YES: min. 10' to 20'	YES: min. 10'	NO	YES: min. 6' to 20'	YES: min. 3' to 15'
<b>Pole/pylon signs allowed?</b>				
YES	NO: monument signs only	YES: but pylon signs are only allowed in industrial districts	NO: ground signs only	YES
<b>Freestanding sign (all types) height requirements</b>				
max. 6' to 25' depending on district	max. 6'	Monument signs: max. 8' to 12' depending on district; Pylon signs (industrial districts only): max. 12'	max. 6'	Monument signs: max. 6'; Pylon signs max. 13' to 30' depending on the district and setback from property lines
<b>Freestanding sign (all types) size requirements</b>				
max. 16ft <sup>2</sup> to 100ft <sup>2</sup> depending on district	max. 24ft <sup>2</sup> to 64ft <sup>2</sup> depending on district	Monument signs: max. 24ft <sup>2</sup> to 100ft <sup>2</sup> depending on district; Pylon signs (industrial districts only): max. 100ft <sup>2</sup> to 350ft <sup>2</sup> depending on I-1 or I-2 district, respectively	max. 18ft <sup>2</sup> to 72ft <sup>2</sup> depending on district	max. 20ft <sup>2</sup> to 150ft <sup>2</sup> depending on district

### Signage Requirements Recommendations:

1. Amend zoning ordinances (Casco/China/Marine City) to prohibit pole/pylon signs within entire corridor.
2. Amend zoning ordinances to create general uniformity with permitted signage, notably the height, size and location of monument signs. Consider using Ira Township monument sign size and height requirements as a model for the remainder of the corridor.
3. Adopt uniform sign brightness requirements following the existing Casco Township regulations as a model.
4. Continue to prohibit electronic changeable copy signs within the primarily rural eastern half of corridor (China/Cottrellville).
5. Amend zoning ordinances to more stringently regulate electronic changeable copy signs (Casco/Ira/Marine City) as well as to include: max. % of sign size; max. sign area; max. brightness; etc.



## Lighting Zoning Requirements Matrix

CASCO TWP.	IRA TWP.	CHINA TWP.	COTTRELLVILLE TWP.	MARINE CITY
<b>General requirements to reduce glare, ensure lighting is directed downward, etc.?</b>				
YES	YES	YES	YES	YES
<b>Requirement for a photometric plan during site plan review?</b>				
NO	NO: may be requested by Planning Commission	NO	NO	NO
<b>Maximum illumination levels specified?</b>				
NO	NO	NO	NO	NO

### Lighting Zoning Recommendations:

1. Amend zoning ordinances to require photometric plans for non-residential projects during site plan review.
2. Amend zoning ordinances to establish a uniform standard for maximum site illumination levels within the corridor.

## Access Management Zoning Requirements Matrix

CASCO TWP.	IRA TWP.	CHINA TWP.	COTTRELLVILLE TWP.	MARINE CITY
<b>Traffic impact study required for certain projects?</b>				
YES: for non-residential driveway requests associated with special land uses	YES: for projects which generate 50+ peak hour trips and rezoning requests inconsistent with the master plan	NO	NO	YES: for projects which generate 100+ peak hour trips and planned unit developments
<b>Access management standards?</b>				
YES: covers min. driveway spacing, alignment with existing driveways and shared driveways	YES: access management must be addressed as part of required traffic study	YES: covers min. driveway spacing, corner clearance, sight distances, alignment with existing driveways, shared driveways and other standards	NO	YES: access management must be addressed as part of required traffic study

### Access Management Zoning Recommendations:

1. Amend zoning ordinances to require a traffic impact study to be submitted for certain projects (China/Cottrellville).
2. Amend zoning ordinance to outline access management standards (Cottrellville).

## Landscaping and Screening Zoning Requirements Matrix

CASCO TWP.	IRA TWP.	CHINA TWP.	COTTRELLVILLE TWP.	MARINE CITY
<b>Natural resources setback/greenbelt requirement?</b>				
NO	YES: min. 25' setback from wetlands, marshes, drains, etc.	NO	NO	NO
<b>General requirement for minimum amount of site landscaping and/or trees?</b>				
NO	NO: but this is indirectly addressed through max. impervious surface requirements	YES	YES	YES
<b>Requirement for screening and/or walls for new development adjacent to residential uses or districts?</b>				
YES	YES	YES	YES	YES
<b>Trash enclosure screening requirement?</b>				
YES	YES	YES	YES	NO
<b>Prohibition of trash enclosures within front yard?</b>				
YES	YES	NO	NO	NO

### Landscaping and Screening Zoning Recommendations:

1. Amend zoning ordinances to require a minimum setback from certain natural features including wetlands (Casco/China/Cottrellville/Marine City).
2. Consider establishing and adopting uniform requirements for the type and amount of landscaping within front greenbelt areas along Marine City Highway.
3. Amend zoning ordinances to require irrigation for all landscaped areas.
4. Consider prohibition of trash enclosures within the front yard (China/Cottrellville/Marine City).

## Off-Street Parking Zoning Requirements Matrix

CASCO TWP.	IRA TWP.	CHINA TWP.	COTTRELLVILLE TWP.	MARINE CITY
<b>Off-street parking allowed within required front yard setback?</b>				
YES	NO	NO	YES	YES
<b>Screening required between front property line and off-street parking?</b>				
YES: min. 5' wide buffer	YES: min. 10' to 25' wide buffer	YES: obscuring wall or berm is required	YES: min. 20' to 50' greenbelt depending on district; obscuring wall or berm is also required	YES: min. 8' to 25' perimeter landscape strip
<b>Interior parking lot landscaping requirement?</b>				
YES	YES	YES	NO	YES

### Off-Street Parking Zoning Recommendations:

1. Create a uniform buffering requirement for parking lots along the corridor, including lush landscaped setbacks, decorative elements including columns and fencing, and a requirement for a short knee wall or opaque landscaping to block view of the cars.
2. Create uniform landscaping of parking lots including interior parking lot landscaping, perimeter parking lot landscaping, and landscaped end islands for larger parking lots.

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# 4. *Transportation Plan*

A detailed transportation planning analysis was conducted as a key component of this Marine City Highway Corridor study to understand current road conditions, project future road conditions based on planned growth, and identify needed road design and traffic control improvements. The complete Transportation Planning Study report is included within the **Appendix**. This report documents the methodology for the planning analysis and includes full details with regard to existing conditions and proposed improvements. This chapter serves as an executive summary of the findings and results of the transportation analysis and highlights key conclusions and recommendations.

## **Background**

A transportation planning study was conducted to determine the need for improving Marine City Highway between County Line Road and King Road. The following basic requirements guided the need for improving this approximately 11-mile section of Marine City Highway:

1. Provide a reasonable level of traffic service at intersections and on the road segments.
2. Improve safety by reducing crash rates at high-crash intersections.
3. Maintain system continuity with the section of Marine City Highway to the west in Macomb County.
4. Maintain and improve growth and economic development in the area.

It is important that the traffic and safety needs of the corridor are examined to ensure continued economic progress and stability of the area. As residential developments and other developments along the corridor are approved, it is important that the developers fund access improvements that accommodate their traffic. If the future cross section of Marine City Highway is established at this time, developers can either tie their access plans into the future cross section, donate right-of-way

needed for future construction, and/or deposit funds to participate in financing future road improvements. Furthermore, developing the transportation plan for the corridor at this time will permit the county and other jurisdictions to earmark existing and future funds for road construction.

Based on expected increases in thru traffic and traffic from planned and expected development in the area, traffic analyses were conducted for the Existing Year 2022 as well as Future Year 2042 with and without any proposed developments in the area. Mitigating measures were recommended to improve any observed or expected deficiencies in traffic safety and operations.

## **Existing Year 2022 and Future Year 2042 No Build Conditions with Planned Improvements**

The highway capacity analysis of Existing 2022 conditions was based on existing intersection geometry, traffic control and peak hour volumes. The capacity analyses for existing conditions revealed that all intersections within the study area operate at an acceptable Level of Service (LOS) C or better during the weekday morning and afternoon peak hours. A safety analysis spanning the five year period between 2017 to 2021 was performed along the corridor and at each intersection in the study area. It was determined that at the intersection of Marine City Highway and Marsh Road, a disproportionate amount of Head On - Left Turn and Angle collisions occurred during the analysis window, with two of the crashes resulting in Type A (incapacitating) injuries. The frequency and severity of the Head-On - Left-Turn and Angle collisions warrants pursuit of safety countermeasures.

The highway capacity analysis of Future Year 2042 No Build conditions was based on existing intersection geometry, traffic control and peak hour volumes, with an additional background growth rate of 1.0% applied to



the traffic volumes. A roundabout at Palms Road and Marine City Highway is proposed separately from the scope of this study and is included in the Future Year 2042 No Build alternative, as well as proposed turn lanes on Marine City Highway at the intersection with Bethuy Road. The capacity analyses for Future Year 2042 No Build conditions revealed that all intersections within the study area will continue to operate at acceptable LOS C or better during the weekday morning and afternoon peak hours. Minor increases in delay are generally expected at each intersection due to the background growth in traffic volumes, while delay is slightly improved at the Marine City Highway intersections at Palms Road and Bethuy Road as a result of the planned improvements.

### **Future Year 2042 Build Conditions and Proposed Roadway Improvements**

A highway capacity analysis of Future Year 2042 Build conditions was prepared based on planned development within the corridor as outlined in Chapter 3 (Land Use and Development Plan) and specifically **Map 9**, Proposed Corridor Future Land Use. The analysis considers the amount of peak-period traffic generated by the planned development, distribution of the planned development traffic onto the local highway network, assignment of traffic volumes to intersections, and the results of capacity analyses in order to evaluate traffic operations for the Future Year 2042 at full build-out under proposed and mitigated conditions.

Capacity analyses of weekday morning and afternoon peak-hour vehicular traffic indicated that if no additional improvements are made on Marine City Highway by the year 2042, the anticipated full build-out traffic volumes will cause many intersections along the corridor to operate at unacceptable levels of service. In particular, the intersections of Marine City Highway at County Line Road, Bethuy Road, Church Road and Palms Road are expected to operate at LOS F or worse during either or both of the weekday morning and afternoon peak hours (average vehicle delays in excess of 100 seconds are expected).

Based on the preliminary traffic safety and operations analyses performed by Wade Trim and discussions with project stakeholders, the following road design and traffic control improvements are proposed for Marine City Highway. **Map 10** depicts these improvements at each location along Marine City Highway.

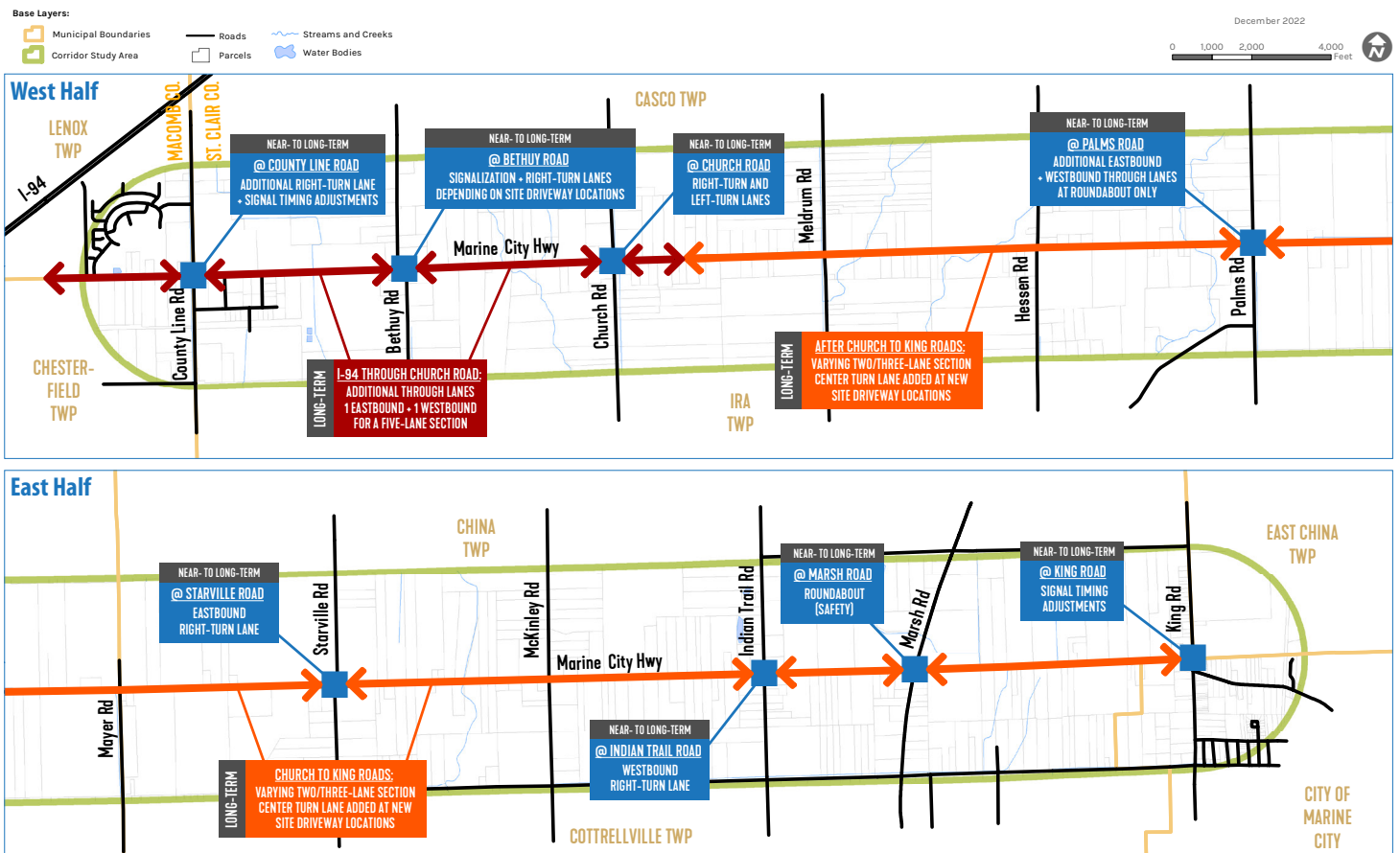
### **Marine City Highway Corridor Cross Section Improvements**

- **Marine City Highway from I-94 to Church Road** – Widen Marine City Highway to accommodate an additional eastbound lane and westbound lane resulting in a five-lane cross section.
- **Marine City Highway from Church Road to King Road** – Roadway cross section to vary between two- and three-lanes, with a center left-turn lane added at proposed site(s) driveway locations.

### **Marine City Highway Intersection Improvements**

- **Marine City Highway at County Line Road** – Construct a right-turn lane on the westbound Marine City Highway approach, and signal timing adjustments.
- **Marine City Highway at Bethuy Road** – Signalize intersection and construct right-turn lanes on eastbound and westbound Marine City Highway approaches depending on site driveway locations. Center left-turn lanes on eastbound and westbound Marine City Highway approaches incorporated in proposed five-lane cross section. Separate left- and right-turn lanes on Bethuy Road approaches.
- **Marine City Highway at Church Road** – Construct right-turn lane on eastbound Marine City Highway approach, left-turn lane on westbound Marine City Highway approach, and left-turn lanes on northbound and southbound Church Road approaches. Center left-turn lane on eastbound Marine City Highway approaches incorporated in proposed five-lane cross section.
- **Marine City Highway at Palms Road** – Construct an additional through lane at the proposed roundabout on the eastbound and westbound Marine City Highway approaches.
- **Marine City Highway at Starville Road** – Construct an eastbound right-turn lane
- **Marine City Highway at Indian Trail Road** – Construct a westbound right-turn lane.
- **Marine City Highway at Marsh Road** – Construct a roundabout as a result of Angle and Head On - Left Turn crash history, including two crashes resulting in Type A (incapacitating) injuries.
- **Marine City Highway at King Road** – Adjust signal timing.

# Map 10: Road Cross Section and Intersection Improvements



The capacity analyses under Future Year 2042 Build conditions with incorporation of the mitigation measures indicated that level of service could be expected to improve to LOS C or better at all intersections during both the morning and afternoon peak hours, with the exception of the County Line Road intersection which is expected to operate at LOS D with 41.0 seconds of average vehicle delay.

## Roadway Improvement Conclusions

Based on the results of the traffic capacity and safety analyses conducted for this study, the mitigation options listed above are recommended for further consideration by St. Clair County and all partnering agencies and jurisdictions as alternatives for implementation. In addition to cost, other factors such as economic growth of the communities, visual quality of the corridor, opportunities for non-motorized travel, etc. should be considered when selecting an alternative. In addition, the decision-making process should include opportunity for input by the public.

## Nonmotorized Transportation Recommendations

As part of this corridor study, existing regional nonmotorized planning efforts were evaluated to determine measures which should be implemented within the Marine City Highway corridor. Summarized in Chapter 1, these regional plans included:

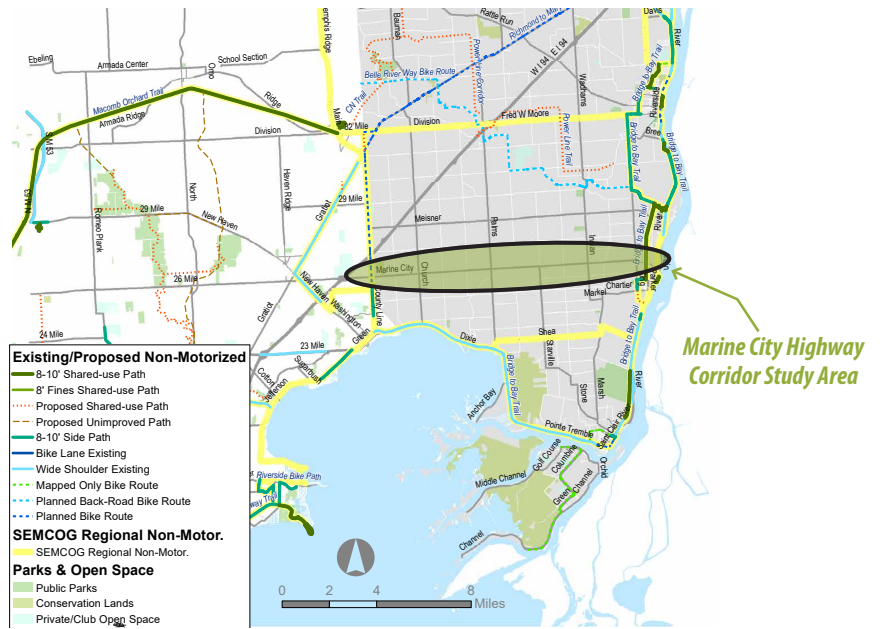
- St. Clair County Trails Plan
- Bicycle and Pedestrian Mobility Plan for Southeast Michigan

Additionally, discussions regarding nonmotorized needs and opportunities within the corridor occurred during the project steering committee meetings and the various public engagement opportunities.

Neither the St. Clair County Trails Plan nor the Bicycle and Pedestrian Mobility Plan for Southeast Michigan propose for a nonmotorized trail route to be accommodated within the Marine City Highway corridor. However, both plans recognize two existing/planned regional trail routes which “book-end” Marine City Highway: a planned regional trail route identified along County Line Road at

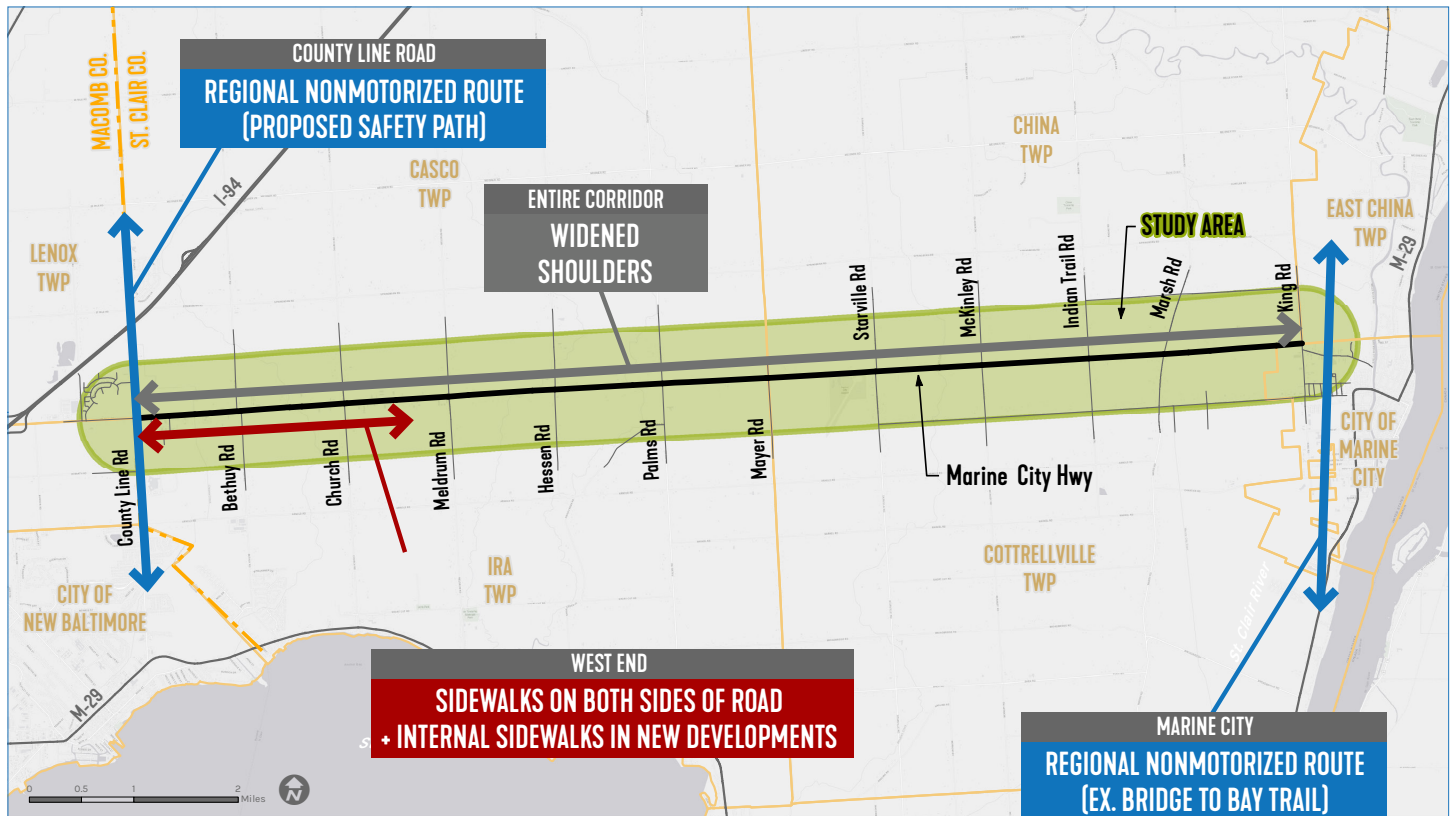
the western end of Marine City Highway; and, the existing Brige-to-Bay Trail near the eastern end of Marine City Highway.

In line with the regional plans, no trail route is proposed within the corridor. However, the trail routes at each end of the corridor are recognized and supported as key regional connections. Within the Marine City Highway right-of-way, widened shoulders are recommended to support bicycle travel which may occur. Additionally, within the western end of the corridor where future industrial development is anticipated and planned to occur, sidewalks should be installed along both sides of Marine City Highway and internal to new developments to support localized pedestrian travel. **Map 11** shows proposed nonmotorized improvements proposed within and adjacent to the Marine City Highway Corridor.



Graphic from the 2019 St. Clair County Trails Plan with the Marine City Highway Corridor Study Area highlighted

### Map 11: Proposed Nonmotorized Improvements



# 5. Infrastructure Plan

## Background

The availability of municipal water and sewer services is often a driving factor in the development of rural areas as they become more urbanized. Development usually “follows the pipe” as service is extended into new areas. This method of development leads to an orderly extension of municipal services into new areas and is usually a very efficient and cost-effective means to develop.

The problem with this development model is that it does not always make the most sense from a land use perspective. Rather than designating certain areas for development that are harmonious with the community, the corridor, and the surrounding land uses, development happens where there is opportunity due to presence of utilities. This Marine City Highway Corridor study takes a step back to look at the bigger picture, to establish future land use where it makes sense, and then determine how to service those desired developments with municipal utilities.

**Map 12** shows the existing public water and sewer service area coverage within the Marine City Highway Corridor. As is shown, the majority of the corridor currently lacks access to public water and sewer facilities.

Within the western portion of the corridor, public water and sewer service is provided by Ira Township and operated by the Ira Township Department of Public Services. The water treatment plant is operated by Ira Township while the wastewater treatment plant (in Algonac) is operated by St. Clair County. Both water and sewer service is available within the corridor generally between County Line Road and Bethuy Road. From Bethuy Road to Meldrum Road, only public water service is available. Through an intergovernmental agreement, selected properties on the north side of Marine City Highway (within Casco Township) have been allowed to tap into the Ira Township water and sewer system, where available.

Within the central portion of the corridor, only properties along Palms Road, south of Marine City Highway, have access to the Ira Township water system. This existing public water line benefits Palms Elementary School at this location.

The east end of the corridor near King Road has available public water and sewer service provided by the City of Marine City and operated by the Marine City Department of Public Works. Marine City operates both a water treatment plant and a wastewater treatment plant.

Those properties without access to public water and sewer, comprising the majority of the corridor, must rely on on-site wells and septic systems.

## Infrastructure Survey

The infrastructure investigation for this corridor study included conversations with area utility authorities to determine what public water and sewer facilities exist, where treatment capacity may be available, and any plans to expand service to or within the corridor. A survey was prepared and distributed to the following entities/authorities to understand their interest or ability to provide water and/or sewer services to the corridor:

- Casco Township
- China Township/ East China Township (St. Clair River Sewer & Water Authority)
- Cottrellville Township
- Ira Township
- Lenox Township
- Marine City
- New Baltimore



# Map 12: Existing Public Water and Sewer Service Areas



The results of the discussions and surveys with these area utility providers revealed only one feasible option for expanding public water and sewer service within the western portion of the corridor to support the planned development within the corridor - Ira Township. Similarly, the discussions revealed only one feasible option for expanding public water and sewer service within the eastern end of the corridor to support planned development - the City of Marine City. No feasible option for providing public water and sewer service within the central and most of the eastern portion of the corridor was found. These findings had a significant influence on the future land use plan for the corridor (see **Map 9**), which intends for growth to be accommodated only in areas that could feasibly be served by public utilities.

## Demand Analysis

An infrastructure demand analysis was conducted to determine future flow requirements generated by planned development within each segment of the corridor. The following assumptions were used to determine future sewer demands:

- Residential uses: Assumed 3.2 persons/unit, 100 gallons/capita/day, peak flow based on "10 States Standards" formula

- Commercial uses: Based on converting commercial demand to residential equivalent units (REU's) using 0.4 REU/1,000 square foot of commercial development. Then applied residential demand model (100 gal/cap/day, 3.2 persons per REU, peaking factor)
- Industrial uses: Flow based on demand factor of 950 gallons/acre/day
- School uses: Based on converting school demand to REU's using 0.02 REU/student. Then applied residential demand model (100 gal/cap/day, 3.2 persons per REU, peaking factor)

The water demand was assumed to be equal to sewer demand. As such, this analysis did not consider water intensive uses, such as a bottling plant. If such uses are ultimately proposed within the corridor, a revised analysis would need to be prepared.

**Table 11** shows the results of these assumptions applied to assumptions for the scale and extent of planned development within each segment of the corridor (also see **Map 9**).

**Table 11: Future Flow Demands Summary by Corridor Segment**

CORRIDOR SEGMENT		AVERAGE DAILY	PEAK FLOW
FROM	TO	FLOW (CFS)	(CFS)
County Line	Bethuy	0.74	2.95
Bethuy	Church	0.79	3.16
Church	Meldrum	0.55	2.19
Meldrum	Hessen	0.005	0.02
Hessen	Palms	0.01	0.03
Palms	Mayer	0.005	0.03
Mayer	Starville	0.06	0.23
Starville	McKinley	0.04	0.17
McKinley	Indian Trail	0.003	0.01
Indian Trail	Marsh	0.003	0.01
Marsh	King	0.11	0.44

CFS = Cubic Feet per Second

### Corridor Development Utility Plan

The following plan for utilities within the Marine City Highway Corridor has been developed in consideration of existing infrastructure capacities and future demand that would be generated by new development in line with the future land use plan for the corridor.

### Infrastructure Capacities: West End

Public water and sewer conveyance/distribution and treatment capacities within the west end of the corridor are highlighted on **Map 13**.

#### Conveyance/Distribution

In terms of distribution capacity, the Ira Township water system has adequate pressure and volume to support future growth generally between County Line Road and Church Road. This section is looped into the Ira Township system, providing the requisite pressure and flow. However, improvements to the Ira Township water system would be required to support growth generally between Church Road and Meldrum Road.

The existing Ira Township sewer pump station located south of Marine City Highway between County Line Road and Bethuy Road has adequate capacity to support future growth in the immediate area. However, the existing Ira Township sewer pump station located near Church Road does not have adequate capacity to support planned growth in the immediate area.

#### Treatment

The existing Ira Township water treatment plant has adequate capacity to support future growth between County Line Road and Meldrum Road. However, the Ira Township wastewater treatment plant does not have adequate capacity to support future growth in this area.

### Infrastructure Capacities: East End

Public water and sewer conveyance/distribution and treatment capacities within the east end of the corridor are highlighted on **Map 13**.

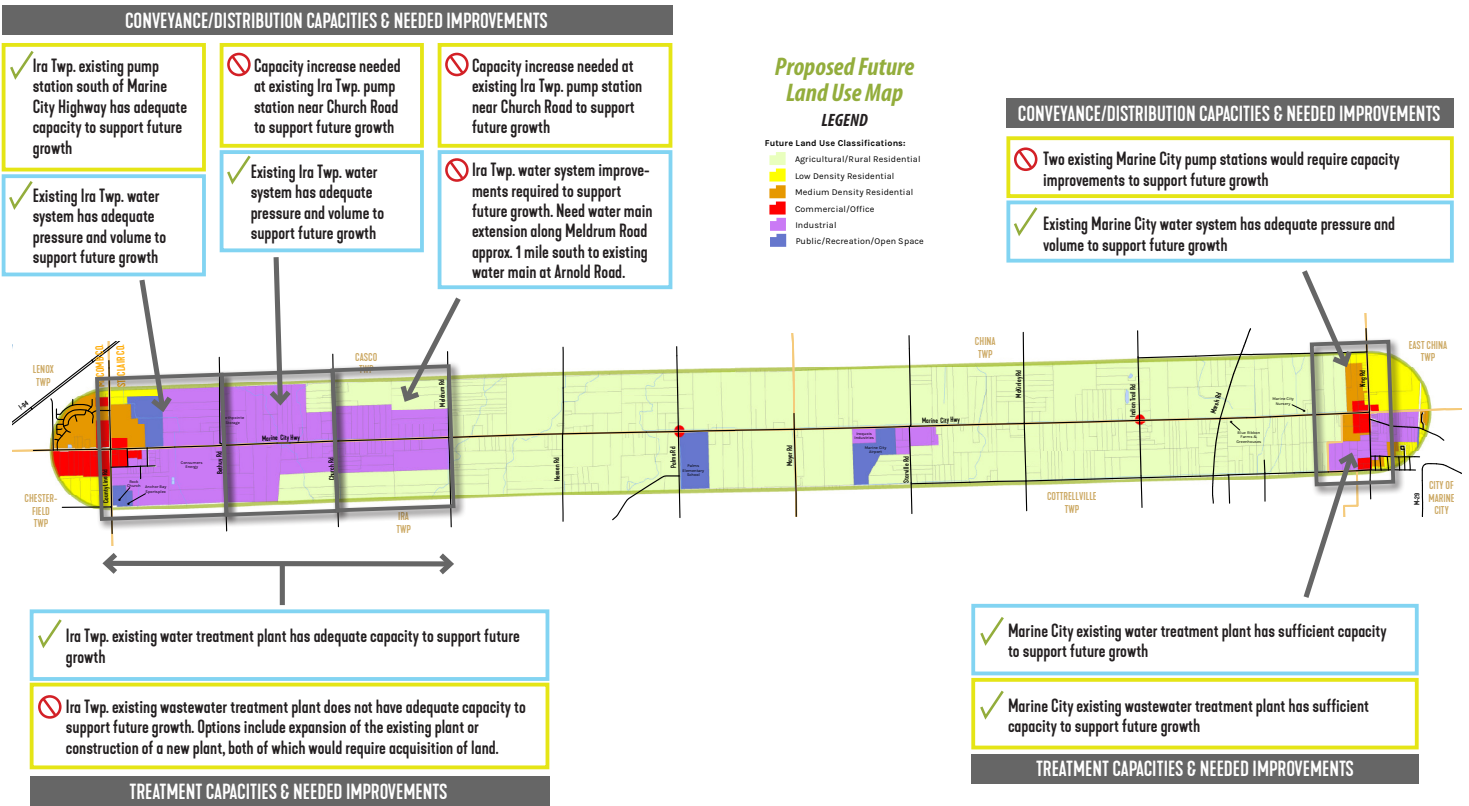
#### Conveyance/Distribution

Currently, the City of Marine City water system has adequate pressure and volume to support future growth along Marine City Highway near King Road. However, the two existing sewer pump stations operated by Marine City in this area would both require capacity improvements to support future growth.

#### Treatment

Both the Marine City water treatment plant and wastewater treatment plant have sufficient capacity to support future growth along Marine City Highway near King Road.

# Map 13: Public Water and Sewer System Capacities and Proposed Improvements



## Recommended Improvements

The utility improvements listed below are recommended for the Marine City Highway corridor. **Map 13** also depicts these improvements.

### Sanitary Sewer: West End (County Line to Meldrum)

The following Ira Township sanitary sewer system improvements are recommended. For properties on the north side of Marine City Highway (Casco Township), sewer can be provided through an existing inter-government agreement between the communities.

- **Sewer Pump Station on Church Road at Francois Maconce Elementary School** - Needs capacity improvement to provide service to the corridor from Bethuy to Meldrum.

*Estimated cost: \$500,000*

- **Wastewater Treatment Plant** - Development is severely limited by the current capacity of the wastewater treatment plant. The plant could be expanded in its current location but would require purchase of adjacent property. A new wastewater treatment plant could be constructed in Ira Township to handle flow from future development.

*The cost of the wastewater treatment plant depends on location, property acquisition and capacity. Average cost for tertiary treatment plant is approximately \$15M for a 1 million gallons per day (MGD) plant capacity, depending on complexity, location and amenities.*

### Water: West End (County Line to Meldrum)

The following Ira Township water system improvements are recommended. For properties on the north side of Marine City Highway (Casco Township), water can be provided through an existing inter-government agreement between the communities.

- **Water Main from Church to Meldrum** - This segment features a dead end main at Meldrum. A new water main would need to be constructed along Meldrum from Marine City Highway to Arnold (1 mile south) for a looped system with adequate pressure and flow for future development.

*Estimated cost: \$1.5M*

### ***Sanitary Sewer: East End (Near King Road)***

The following Marine City sanitary sewer system improvements are recommended. For properties outside of the city limits (within Cottrellville, China and East China Townships), sewer can be provided through new inter-governmental agreements between the townships and Marine City.

- **Sewer Pump Station Improvements** - There are two downstream pump stations between the Marine City Highway corridor and the city's wastewater treatment plant that require capacity improvements (King Road Station and Belle River Station).

*Estimated cost: \$500,000 per station*

### **Implementation**

The infrastructure recommendations outlined in this plan will require a concerted effort on the part of numerous corridor stakeholders and financial resources to implement over time.

#### ***West End***

The top priority infrastructure improvement project for this western end of the corridor is expanding the wastewater treatment plant serving Ira Township or constructing a new plant to add more capacity. This is prerequisite to securing a major industrial development project. The timeframe to plan, design, construct and commission a new or expanded wastewater treatment plant is significant – at least several years. Due to the time requirement, such a project could not be accomplished concurrently with an industrial development project; this project must begin in advance and will require commitment on the part of St. Clair County, Casco and Ira Townships to secure funding and begin the work in advance of development opportunity.

A new wastewater treatment plant would require significant permitting coordination with the State of Michigan Department of Environment, Great Lakes and Energy (EGLE). Permitting would be required to establish a new discharge of treated wastewater effluent to receiving waters of the State, a process which could take 6 to 9 months. For an expansion to the existing wastewater treatment plant, a permit is not required to establish a new discharge, but coordination with EGLE is still required.

The recommended water main and sewer pump station improvements within this portion of the corridor are both critical projects, but do not require as significant

advanced planning and design efforts in comparison to the wastewater treatment plant improvements. It is advised to begin the preliminary work associated with the water main and pump station improvements now, but if needed, these improvements could be done concurrently with development.

It is recommended that St. Clair County organize regular meetings with Casco and Ira Townships to move these recommendations forward. St. Clair County can play an important role of assistance to the local municipalities by helping to identify and organize financial resources necessary for implementation.

#### ***East End***

To serve planned development within the eastern end of the corridor, St. Clair County should provide support to the City of Marine City to begin work on the recommended pump station improvements. Ideally, this effort should begin in advance of proposed development; however, if necessary, these improvements could be done concurrently with development.



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# 6. Economic Development Strategy

This section first highlights national and regional trends in the retail, office and industrial markets, indicating a number of economic opportunities for the study area. For the corridor to improve and succeed in the new economy, it is important to understand the fundamental conditions necessary to attract the key drivers of the economy, based on these new trends.

Any future development in the study area should employ a balanced economic development strategy. This strategy should celebrate the existing industry and character of the corridor, while making investments and implementing policies that enhance these features.

## Market Analysis

### National Retail Trends

In 2021, no other real estate sector is facing the challenges of the retail sector. While other sectors are changing the way they do business, the internet is making brick and mortar retailers fight for their very existence. Many retailers have already succumbed to online competition, like Sears, Borders, and nearly every video chain. An increasing number of malls and clothing stores are beginning to shutter their doors, as online shopping opportunities surpass those in-person opportunities.

Retailers now face stronger competition with each other and with their online counterparts. In an effort to compete, in-person retailers have shifted away from having a large inventory and massive footprint to offer the best experience possible. The goal of these retailers is to offer something in the store that makes people choose to shop there instead of shopping through online sources. In this environment, the Apple Store is the gold standard; customers come in for the experience as much as the product.

The following are key national trends within the retail sector:

- **Smaller Stores** - Retailers are looking for a smaller, more specialized location that focuses on experience and customer service. This means better materials inside, and a highly-trained, customer oriented staff. The goal is not to have as many products as possible, but to provide an experience that gets people to forego online shopping.
- **Less Inventory** - The rise of online shopping has created a disincentive to keep large amounts of inventory in the store. Retailers find it more efficient to use their store as a showroom, and ship directly to a consumer from a central warehouse.
- **Fast Casual Restaurants** - With a price that falls between a fast food restaurant and a sit-down restaurant, the fast-casual dining experience has come to dominate the food service industry. According to data from market research firm Euromonitor, the category have grown by over 550 percent since 1999, which is more than ten times the growth seen in the fast food industry over the same period. Hallmarks include good quality food, simple menus, and quick service that does not require paying the server a tip. Chipotle and Panera Bread are the industry standard, but there are countless other restaurants trying to break into this category.
- **Dead Malls** - All over the county, older shopping malls are closing. For many malls, they have the dual challenge of changing negative demographics combined with increased competition from online retailers and other malls. The death of a mall is often slow and painful due to the investment structure, and sometimes leaves behind an expansive structure that the community must address.
- **Premium Grocers** - With Whole Foods leading the way, many grocers have decided to stop competing with Kroger and Walmart on price, and have

elected to offer higher quality food instead. A focus on smaller stores, higher quality foods, and prepared foods sets these grocers apart from their mass market brethren. These higher-end chains, and their unique, local counterparts, are expected to cut into the market share of mid-level, full-service chains like Kroger.

- **Integrated Strategy** - While some experts predicted the demise of brick and mortar retail altogether due to online competition, this is not the case. Many companies are using the brick and mortar store and the online retailers as an integrated retail strategy. As of August 2021, the U.S. Census Bureau reports that only 13.3% of all sales occur online. Many companies that began as online-only retailers are expanding into retail stores as a way to grow their brand.

## National Office Trends

There are a number of national trends with great influence in the office real estate sector. CBRE Group, Inc. a commercial real estate services and investment firm, has identified national trends for the office real estate sector:

- **Office Downturn and Vacancy** - As a result of the pandemic and the global financial crisis, office real estate saw a downturn in development and use; however, this decline is predicted to stabilize as the pandemic and global economy re-stabilize. Office vacancy rates are still predicted to remain high, as renters continue to dominate the market. In the Detroit Metro Area, vacancy rates were declining prior to the pandemic; however, the impact of remote work has likely halted or reversed this trend.
- **Urban vs. Suburban** - Suburban office markets are predicted to recover from the pandemic and previous economic downturns more quickly than urban environments due to their dependence on mass transit and smaller spaces. The ability to expand over larger areas allowed offices to adapt in the pandemic, while also allowing their businesses to remain responsive and productive.
- **Remote Working** - The shift to remote working, that already began prior to the global pandemic but was accelerated due to health and safety concerns, is beginning to dominate the office market sectors. Companies are beginning to favor hybrid solutions for their employees, allowing them to work from home on a part time basis. This trend is likely to have lasting impacts on the amount of space needed at offices, shifting towards, smaller more niche operating spaces that cater to cli-

entele and showmanship over utility and a full workforce.

## National Industrial Trends

Given the strong shift away from brick and mortar retailers, the national economy is likely to shift from a strong retail focus to an industrial conversion. Adaptive reuse of retail space and infill warehouses are going to continue to increase in popularity as the cost of development rises, according to CBRE Group, Inc.

Although there is a positive future expected outlook for manufacturing and other heavy industry, consultants at Deloitte have stipulated that the toll of the pandemic on heavy industry has impacted supply chains, production agility, and overall performance. Over time, this total industrial production is expected to increase once again, if these industries are able to adapt through digital investments and digital technologies to ensure that the workplace and production capabilities are resilient.

## Stakeholder Interviews

To inform the identification of economic development strategies for the Marine City Highway corridor, interviews were conducted with commercial and industrial real estate brokers familiar with the market, a manufacturing company within the corridor, and two separate developers that are active in the logistics and manufacturing build-to-suit industry. The interviews revealed a number of strengths, weaknesses, opportunities and threats for the Marine City Highway corridor, which are highlighted in **Table 12**. Below is a summary of sentiments regarding market conditions within the corridor:

- The market is too far out from density of business activity, population base, and employee base
- Ironically, the industrial market does not see proximity to the Blue Water Bridge as an opportunity – the bridge is too close for storage, distribution, or warehousing
- Taxes are incredibly low in the region
- Andrews Corporate Park is well positioned with more immediate freeway access
- Macomb Market is pushing population as evidenced by medical facilities and retail facilities but not fast enough to drive more demand
- Majority of the investors are local
- Marine City Highway is a hodgepodge of uses with no consistency in zoning, theme, or design

**Table 12: Stakeholder Interviews SWOT Assessment**

STRENGTHS	
Skilled workforce	Transportation network
Fresh water access	North American trade
Automotive mobility	Parks, trails and natural areas
Regional clusters	
WEAKNESSES	
Lack of transit	Condition of roads
Lack of broadband infrastructure	Labor force participation
Digital divide	Skills gap
Cost of doing business	
OPPORTUNITIES	
Technology and innovation	Career Pathways
Entrepreneurial ecosystem	Low taxes
Mobility industry	Regional clusters
THREATS	
Health crisis	Aging workforce
Lack of critical mass	Vulnerable industries
Aging infrastructure	No sense of place

Source: Wade Trim and Bonner Advisory Group, based on stakeholder interviews, 2022.

- Current limited housing stock and quality of life amenities are a detriment to attracting new residents
- Long term preparedness is needed, including:
  1. Infrastructure improvements to support growth
  2. Establish a consistent land use policy, regulations and design theme
  3. Secure larger tracts of land to control for future development
  4. Collaborate with local municipalities, St. Clair County and regional entities
  5. Partner with educational and workforce training providers

## Corridor Market Opportunities

This section summarizes key market opportunities within the Marine City Highway corridor. **Map 14** identifies locations within the Marine City Highway corridor where these opportunities should be targeted for capture.

### Retail

Presently, the corridor features only a small amount of retail development. Commercial uses within the corridor are primarily service-oriented, such as gas stations and convenience stores. According to data provided by Co-Star, no retail development occurred within the corridor

over the past two years (2020-2022), and only modest gains within the retail sector have been seen over the past ten years (2012-2022). Based on data trends and stakeholder interviews, it is our conclusion that the retail market is not a significant opportunity within the Marine City Highway corridor. This is largely due to a lower density of population immediately surrounding the corridor in addition to an oversaturated retail market in nearby Macomb County.

However, as new residential and industrial development occurs within the corridor, there will be some demand for new commercial and retail uses to serve new residents and workers.

### Office

The shift to remote work and the stagnancy of vacant office spaces provides an opportunity to redevelop spaces for shared offices amongst companies, reduced rents to fill vacancies and attract new business, and increased affordability in desirable areas. The suburban nature of the study area could support a variety of office types and sizes, seeking to build upon the local workforce and shape the character of the corridor. However, based on data trends and stakeholder interviews, it is our conclusion that only limited office development is likely to occur within the Marine City Highway corridor.

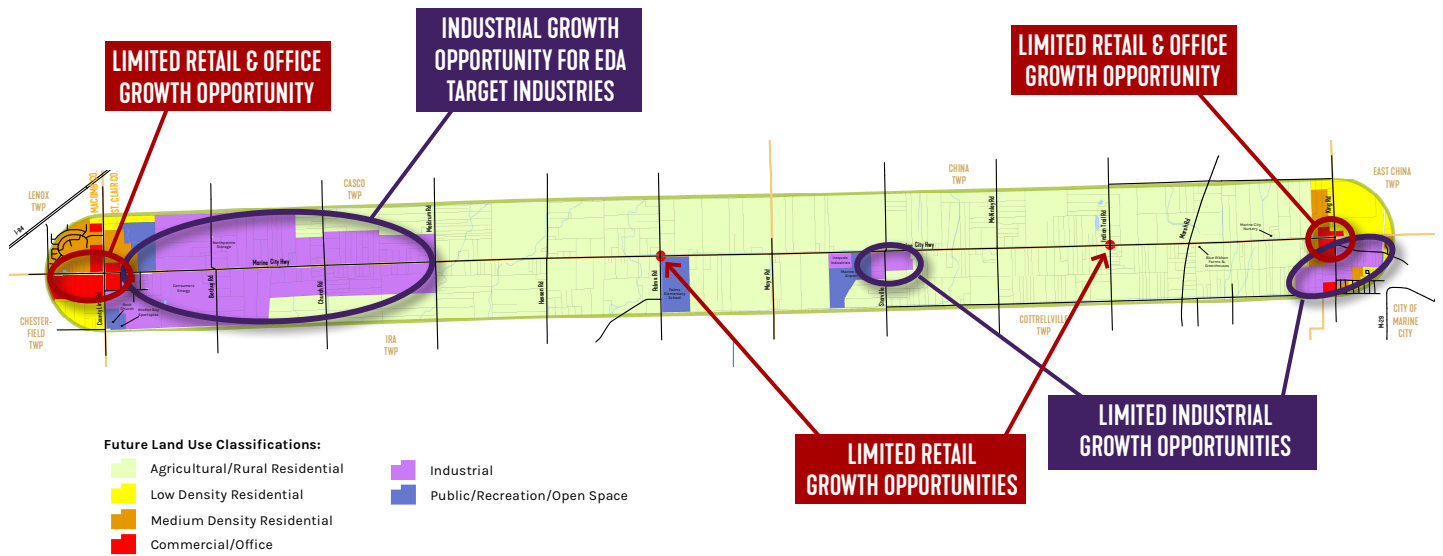
### Industrial

As noted in earlier chapters, the Marine City Highway corridor features a variety of existing industrial establishments, particularly in the western and eastern ends of the corridor. According to data provided by CoStar, the corridor features an existing inventory of 1.1 million square feet of industrial space. Over the last two years (2020-2022), nearly 80,000 square feet of new industrial space was developed. The current (2022) industrial vacancy rate of 1.2% is very low, and rents have grown steadily (9.9% annually between 2012 and 2022). Based on these trends and stakeholder interviews, the industrial market presents the greatest opportunity for growth within the Marine City Highway corridor. This is based on unprecedented demand for industrial space, where there is insufficient supply in both the Detroit market and nationally to keep up with the surge.

The opportunity to capture industrial growth is greatest in the western portion of the corridor closest to I-94, whereas the logistical and locational advantages lessen as distance from I-94 increases.



## Map 14: Summary of Market Opportunities



### St. Clair County Target Industries

Target industries are economy drivers. They employ people at higher wages and with higher economic multipliers. They drive up retail and service activity, home values and entrepreneurship.

The St. Clair County Economic Development Alliance (EDA) has identified four target industries for future expansion and development within St. Clair County. These industries were identified through the existing strengths and opportunities within the region. Given the positive industrial market data, available space and locational advantages of the corridor, the Marine City Highway corridor presents a significant opportunity to capture these target industries.

These target industries are:

- **Mobility and Automotive** - Southeast Michigan has long been a leader in the automotive industry and has remained a hub for automotive engineering development, production, and manufacturing. Today, Michigan is home to 61 of the top 100 automotive suppliers. As an international gateway connecting the U.S. and Canada, St. Clair County is an ideal location for automotive suppliers. The Blue Water Bridge, the CN rail tunnel, and I-69 provide ample opportunity for international access, trade, and business through Canada and Mexico.
- **Advanced Manufacturing** - This sector is considered the top of the manufacturing industry, and St. Clair County already supports two national defense installations. In addition to the automotive industry, Michigan has long-supported man-

ufacturing in nearly every sector of the industry, including robotics and automation, advanced plastics and compounding, aerospace components, heat treating and advanced coatings, metal stamping, prototype manufacturing, medical devices, and paper manufacturing and packaging.

- **Energy Generation and Distribution** - Energy generation is an important industry in St. Clair County. Two DTE coal-fired plants and one natural gas-fueled combined-cycle peaker plant currently exist. The \$950 million Blue Water Energy Center, a 1.1 megawatt natural gas-fueled combined-cycle plant, is under construction and slated for completion in 2023. Consumers Energy also has a major gas distribution plant in the county. Although this study does not recommend for a new energy generation facility to be developed within the corridor, uses and facilities that support the energy industry could be developed within the corridor.
- **Warehouse Distribution and Logistics** - Economic mobility is one of the most important characteristics of economic activity within the St. Clair Region. Due to the county's extensive rail, water, highway, and air networks, and its central location, St. Clair County offers prime access for domestic and international shipping throughout a variety of markets.



The warehouse distribution and logistics sector has been identified as a target industry by the St. Clair County EDA. The Marine City Highway corridor possesses several advantages, including access to I-94, that would be attractive to this industry.

## **Economic Development Strategies**

The following strategies are recommended as a means to attract high-quality development in strategic locations within the Marine City Highway corridor, support existing businesses, provide high-paying jobs for local residents, generate additional tax base, and increase property values:

1. Establish a coordinated land use, zoning and design scheme which protects the rural qualities of the corridor while supporting new investments in strategic locations
2. Develop a unique identity or “brand” for the Marine City Highway corridor; once established, celebrate and promote that identity through print and online materials and advertisements as well as physical improvements such as gateway signage
3. Undertake infrastructure improvements to support existing residents, institutions and businesses and accommodate new growth in strategic locations
4. Work with St. Clair County EDA to implement a long-term strategy to attract and retain workers locally
5. Partner with local and regional workforce training providers to improve technical and foundational skills needed to attract target industries
6. Form partnerships (public/private) to assemble and prepare larger tracts of land to suit the needs of target industries

## **Assembling and Preparing “Shovel-Ready” Sites**

Large tracts of land (sometimes called “mega sites”) under single ownership, with zoning in place and prepped with commensurate utilities and infrastructure (“shovel-ready”) should be assembled and marketed to target industries. The most successful mega sites have access to freeways, railroads, ports, and talent within a 60 minute drive time. The Marine City Highway corridor boasts all of these advantages. However, assembling large sites for development requires proactive planning and a commitment of time and money to acquire, invest and entitle the site. They are most commonly achieved through a consortium of public entities as well as private partners.

A typical partnership scenario consists of a local municipality organizing partnerships with other public agencies including adjacent municipalities, regional governments, special authorities and State governments to work together to acquire, prepare and market sites for development. A combination of funding sources would be tapped, including local funds (general funds, TIF funds, donations, etc.) and outside funds (earmarks, State/ Federal grants, tax incentives, etc.) to assemble the land, bring infrastructure to the site, and ensure a streamlined approval process. The local municipality would then solicit and select a developer who would be responsible for on-site construction.

## **Implementation**

The St. Clair County EDA has a successful track record of identifying prospective sites, assembling financial packages, and organizing partnerships to secure new development. Given this track record, the EDA will play an important role in implementing the recommendations of this strategy, working in coordination with St. Clair County, the Michigan Economic Development Corporation (MEDC), and the local municipalities. However, the EDA has responsibility throughout the County and cannot be expected to lead the charge on their own. As with other recommendations of this study, the multi-jurisdictional steering committee established to oversee this planning process should continue to meet regularly to champion corridor improvement efforts.

## ***Fundamental Requirements for a “Shovel-Ready” Site:***



- 1. Utilities at the site ready to be expanded***
- 2. Transportation infrastructure improvements to support development***
- 3. Zoning in place and “by right” for flexible uses***
- 4. Community support and understanding of the development process***
- 5. Economic incentives***
- 6. Local partnerships in place for energy expansion and local resource expansion such as water and sewer***
- 7. Prepare other partnerships with ports, schools, trade schools, community colleges, local business incubators, etc.***
- 8. Patience – this is a long term effort***

# 7. Action Strategies

This Marine City Highway Corridor Study is intended to serve as a guide related to decisions about future land use and development, transportation, infrastructure and economic development within the corridor. Transforming the corridor study's recommendations into reality will require a long-term commitment and political consensus on the part of the county and local municipalities within the corridor. Implementation will require the ongoing efforts of elected officials, appointed officials, county and municipal staff, and citizens. The effectiveness of the corridor study relies upon the diligence with which its provisions are implemented.

The study is designed to be a road map for action, incorporating strategies, specific projects, and programs that will achieve the desired results. This chapter identifies the actions needed to transform the study's vision into reality.

## Implementation Matrix

To aid St. Clair County and the local municipalities in implementation of the study's recommendations, an Implementation Matrix has been prepared (**Table 13**).

Within the matrix, various "actions" are presented. These actions are grouped by timeframe, starting with the actions that should be undertaken immediately. Each action lists the task leader(s) most likely to carry out the action. The task leader listed first should be the primary lead on the action item; others listed are recommended collaborators.

### Timeframe Key

**Now:** Begin work immediately upon study adoption

**Near:** Begin work within 1 to 2 years

**Next:** Begin work within 3 to 5 years

**Ongoing:** Actions that require continuous monitoring or effort

### Responsibility Key

**SCC:** St. Clair County Board of Commissioners

**MPC:** St. Clair County Metropolitan Planning Commission and staff

**EDA:** St. Clair County EDA and staff

**SCCRC:** St. Clair County Road Commission & Staff

**CPC:** Marine City Highway Corridor Planning Committee and subcommittees

**LM:** Local municipalities (Townships of Ira, Casco, China, Cottrellville and East China and the City of Marine City)

**LUA:** Local utility authorities (Ira Township Department of Public Services, City of Marine City Department of Public Works)



**Table 13: Implementation Matrix**

Action Strategy/Implementation Step	Responsibility
<b>Timeframe: Now</b>	
<p>1. Adopt/approve this Marine City Highway Corridor Study.</p> <p>2. Post the Marine City Highway Corridor Study report on the county and local municipal websites.</p> <p>3. Prepare a “road show” presentation of the key recommendations of this study and meet with representatives who will play an important role in the implementation of the plan. This will include the governing bodies and planning commissions of each local municipality within the corridor.</p> <p>4. Convene a final meeting of the project steering committee with the purpose of identifying participants to serve on a new, ad-hoc Marine City Highway Corridor Planning Committee. Establish protocols and a schedule of regular meetings for the Corridor Planning Committee. Initially, the committee should meet monthly or bi-monthly.</p> <p>5. The Marine City Highway Corridor Planning Committee should review this implementation matrix and consider appointing subcommittees to serve as champions for specific initiatives, such as the creation and adoption of zoning ordinance amendments.</p>	<p>SCC, MPC</p> <p>SCC, MPC, LM</p> <p>MPC, EDA</p> <p>MPC, EDA, LM, CPC</p> <p>CPC, MPC</p>
<b>Timeframe: Near (1-2 Years)</b>	
<p>1. Engage with the St. Clair County Road Commission to ensure that the road cross section and intersection improvement recommendations will be accomplished over time as new development occurs. Identify road improvement projects which should be scheduled for completion as part of the Road Commission’s major roads plan.</p> <p>2. Establish a subcommittee(s) or team(s) to lead the preliminary planning efforts for infrastructure improvements within the corridor.</p> <p>3. Establish a subcommittee(s) or team(s) to explore partnerships, funding resources and options for assembling and preparing larger tracts of land to suit the needs of target industries.</p> <p>4. Consider the merits of establishing a Corridor Improvement Authority (CIA) for the Marine City Highway corridor, as authorized by Public Act 57 of 2018. This would be a multi-jurisdictional authority with participation from some or all of the local municipalities within the corridor. A CIA has the ability to establish tax increment financing (TIF), a tool to generate revenues which can be utilized to undertake improvements within the corridor. If established, the new CIA Board would likely take the place of the Corridor Planning Committee as the key entity overseeing corridor improvement initiatives over time.</p> <p>5. Corridor Zoning Amendments - Undertake the effort to prepare zoning amendments as recommended by this corridor study. This may include the establishment of a corridor overlay district. Authority for adoption rests with each local municipality.</p> <p>6. West End Wastewater Treatment Improvements - Secure funding and begin the planning, design and permitting of needed capacity improvements at the existing wastewater treatment plant serving Ira Township or construction of a new plant.</p>	<p>CPC, SCCRC, MPC</p> <p>CPC, SCC, EDA, LM, LUA</p> <p>CPC, MPC, EDA, LM</p> <p>CPC, EDA, MPC, LM</p> <p>CPC, MPC, LM</p> <p>LUA, SCC, EDA, CPC, LM</p>

**Table 13: Implementation Matrix (cont.)**

Action Strategy/Implementation Step	Responsibility
<b>Timeframe: Next (3-5 Years)</b>	
1. Consider establishment of a joint administrative review committee which is given responsibility for reviews of proposed development projects within the corridor.	CPC, LM
2. Corridor Identity/Branding - Undertake the effort to establish a unique identity or brand for the Marine City Highway corridor. Once established, promote the new corridor identity through print and online materials and advertisements. Seek funding to undertake physical improvements such as gateway signage.	CPC, EDA, LM, SCCRC
<b>Timeframe: Ongoing</b>	
1. Local Master Plan Updates - Consider and adopt amendments or updates to local municipal master plans which may be necessary or appropriate in light of the recommendations of this corridor study. Authority for adoption rests with each local municipality.	LM, CPC
2. Implement recommended infrastructure improvements (pump station improvements, water main loop extensions, etc.) within the western and eastern portions of the corridor concurrent with new development.	LUA, CPC, LM
3. Implement recommended road improvements (turn lanes, acceleration/deceleration lanes, signal timing adjustments, etc.) within the corridor concurrent with new development.	SCCRC, CPC, LM
4. Assemble, prepare and market larger tracts of land within the western portion of the corridor to attract target industries.	EDA, CPC, LM
5. Continue efforts to attract and retain workers within St. Clair County and within the corridor.	EDA
6. Establish and maintain partnerships with local and regional workforce training providers to improve technical and foundational skills needed to attract target industries.	EDA

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# Appendices

- A. Business Growth & Economic Development Focus Group Discussion Summary
- B. Land Use & Quality of Life Focus Group Discussion Summary
- C. Transportation Planning Study



# Marine City Highway Corridor Study

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