

VEVAY TOWNSHIP MASTER PLAN

October 11, 2016

**Approved By The
Vevay Township Planning Commission
March 8, 2017**

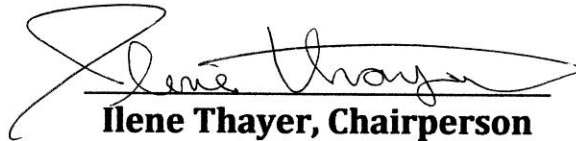
**Prepared By The
Vevay Township Planning Commission
Under The Direction Of The
Vevay Township Board Of Trustees**

**Assisted By
Mark A. Eidelson, AICP
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**VEVAY TOWNSHIP
INGHAM COUNTY, MICHIGAN**

Statement of Approval

**This is to certify that this Master Plan
dated October 11, 2016 is the
Vevay Township Master Plan
approved by the
Vevay Township Planning Commission
on March 8, 2017.**

A handwritten signature in black ink, appearing to read "Ilene Thayer", written over a horizontal line.

**Ilene Thayer, Chairperson
Vevay Township Planning Commission**

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Chapter One OVERVIEW

Introduction

This Chapter provides an overview of the Vevay Township Master Plan and the Master Plan's role, importance, preparation process, and principal policies. Understanding the fundamentals of the Master Plan will enable township residents and officials to appreciate the role it plays in ensuring the future welfare of the community, its residents and its resources. Embracing this Plan as a vital tool in preserving and enhancing the public health, safety and welfare of the township is essential if this Plan is to be effective.

What is the Master Plan?

Purpose / Enabling Authority

Just as individuals and families plan for their future well being, so must municipalities. This Master Plan is a "plan" – it is a specific tangible document consisting of text, maps, and figures that establishes a plan for how growth and associated land development should be guided to enhance the future welfare of Vevay Township.

The following key words and phrases can generally describe the Master Plan:

FUTURE ORIENTED: The plan concerns itself with long-range planning to guide and manage future growth and development, and the manner in which the township should evolve over the next ten to twenty years in response to growth, development and preservation interests.

GENERAL: The plan establishes broad principles and policies to address future land use and public services.

COMPREHENSIVE: The Plan is comprehensive in that it addresses all principal types of land use and the practical geographic boundaries of each.

DYNAMIC: The Plan is intended to be continually evolving in light of the aspirations of local residents, changing conditions in the township, and new strategies to manage growth.

This Master Plan was prepared by the Vevay Township Planning Commission under the authority of the Michigan Planning Enabling Act (P.A 33 of 2008, as amended).

Purpose of the Master Plan

Section 7(2) of the Michigan Planning Enabling Act (MCL 125.3807) provides:

The general purpose of a master plan is to guide and accomplish, in the planning jurisdiction and its environs, development that satisfies all of the following criteria:

- (a) Is coordinated, adjusted, harmonious, efficient, and economical.*
- (b) Considers the character of the planning jurisdiction and its suitability for particular uses, judged in terms of such factors as trends in land and population development.*
- (c) Will, in accordance with present and future needs, best promote public health, safety, morals, order, convenience, prosperity, and general welfare.*
- (d) Includes, among other things, promotion of or adequate provision for 1 or more of the following:*
 - (i) A system of transportation to lessen congestion on streets.*
 - (ii) Safety from fire and other dangers.*
 - (iii) Light and air.*
 - (iv) Healthful and convenient distribution of population.*
 - (v) Good civic design and arrangement and wise and efficient expenditure of public funds.*
 - (vi) Public utilities such as sewage disposal and water supply and other public improvements.*
 - (vii) Recreation.*
 - (viii) The use of resources in accordance with their character and adaptability.*

This Master Plan is not a law or regulatory document, but a "policy plan" to be implemented through, in part, zoning and other regulatory and non-regulatory tools. For example, though the Master Plan is not a zoning ordinance, the Master Plan's recommendations and policies serve as a basis for updating the current Vevay Township Zoning Ordinance.

demographic features such as population growth, employment, and education (Appendix C); and maps illustrating township features (Appendix D).

Importance and Application of the Master Plan

The importance and application of the Vevay Township Master Plan are demonstrated in:

- the long-term interests of the township
- the day-to-day administration of the township's planning and zoning program

Long Term Interests

There are a number of interests shared by residents and officials today that can be expected to continue for years to come and be similarly shared by future residents and new officials. Some of these important interests include:

- Protecting the township's rural character.
- Protecting the quality of life.
- Protecting the township's natural resources including its surface and ground water, productive farmland, forest lands, wetlands, and wildlife.
- Minimizing tax burdens.
- Ensuring appropriate land use and adequate services to protect the public health, safety, and welfare of residents and visitors.
- Ensuring compatibility with the use and development of neighboring properties.

This Plan supports these long-term interests through a future-oriented strategy that seeks to further these interests. Chapter Two establishes goals and objectives, and Chapters Three and Four establishes future land use and public services strategies, to secure these and other long-term interests.

**Zoning Ordinance
Must be Based on a Master Plan**

The Michigan Zoning Enabling Act, which provides Michigan municipalities with the statutory authority to adopt zoning regulations, requires that a municipality's land development regulations *"...shall be based upon a plan designed to promote the public health, safety, and general welfare, to encourage the use of lands in accordance with their character and adaptability, to limit the improper use of land, to conserve natural resources and energy..."*

The Vevay Township Master Plan addresses this statutory requirement and ensures a strong legal foundation for the township's zoning regulations.

Elements of the Master Plan

This Master Plan consists of the following key components:

Chapter One (Introduction) presents an overview of the purpose and role of the Plan, the process followed in its preparation, key planning policies, and a summary of township conditions.

Chapter Two (Planning Issues, Goals and Objectives) presents important planning issues facing the township today, and associated goals and objectives that address these issues.

Chapter Three (Future Land Use Strategy) presents future land use policies.

Chapter Four (Coordinated Public Services) presents policies addressing the coordination of public services with the planned future land use pattern and the township's overall welfare.

Chapter Five (Implementation) presents key measures to effectuate the policies of the Plan.

The Appendices present an overview of existing conditions and trends in the township, addressing cultural features such as roads, land use, and public services (Appendix A); natural features such as soils, topography, and water resources (Appendix B);

**Balancing Development
with Services and Natural Resources**

Development without adequate public services to meet the demands of the development, as well as development which places excessive demands on the township's natural resources (on-site sewage disposal, potable water quality, etc.) can lead the township into a future of social and environmental risks that may seriously threaten the public's health, safety, and welfare.

Day-To-Day Administration

In addition to furthering the long-term interests of the township, the Master Plan also plays an important role in the day-to-day planning and zoning efforts of the township:

- **Advisory Policies:** The Plan is an official advisory policy statement that should be readily shared with existing and prospective landowners and developers. The Plan informs all of the long term intentions of the township regarding land use and encourages development proposals more closely integrated with the official policies of the Plan.
- **Regulatory Programs:** The Plan establishes a practical basis for the township to revise, update, or otherwise prepare regulatory programs intended to ensure that the policies of the Plan are implemented including zoning and land division regulations.
- **Review of Land Development Proposals:** Chapter Two includes a list of township goals and objectives that should be reviewed when consideration is given to future proposed rezoning requests, site plans, and related land use proposals, to further establish a record upon which the proposal can be evaluated. Chapter Three provides policies regarding the planned future land use pattern in the township – valuable reference points upon which land use proposals should be evaluated.
- **Public Services Improvements:** The identification of a planned future land use pattern enables the township to prioritize areas in need of current or future public services improvements and plan accordingly. Chapters Four and Five provide important guidance in this area.
- **Intergovernmental Coordination:** This Plan provides the basis for township officials to communicate effectively with neighboring communities regarding both the impact of their planning and zoning actions and opportunities for mutual gain through coordinated land use and public services efforts.
- **Factual Reference:** This Plan includes a factual overview of trends and conditions in the township. This factual profile can educate local officials and residents and aid in the review of development proposals, encourage constructive discussion of planning issues and policies, and serve as a base line for future studies.

How The Plan Was Prepared

The township adopted a master plan in 2004 under the Township Planning Act. The Vevay Township Planning Commission undertook a review of the Plan in the fall of 2014 and identified revision issues ranging from old and out-dated facts and figures to more substantive concerns regarding the Plan's policies and other content. With the increasing age of the 2004 Plan and concerns about certain aspects of the 2004 Plan, and the repeal of the Township Planning Act in 2008, replaced by the Planning Enabling Act (Public Act 33 of 2008), Vevay Township embarked on the development of a wholly new plan in the spring of 2015. The process leading to the decision to pursue a new master plan included the identification of some of the substantive concerns regarding aspects of the 2004 Plan.

One of the first tasks undertaken by the township was the administration of a community-wide mail survey in May of 2015 to gain insight into local perceptions about the township and aspirations for the future including land use and public services.

Some Themes from the Responses to the Community-Wide Master Plan Survey

- Preserve natural features
- Preserve rural character
- Preserve farmland
- Limit commercial and industrial expansion
- Continue to direct growth toward the City of Mason
- 80% or more of respondents found these to be important in making Vevay Township a desirable place to live:
 - Farmland
 - Quality of schools
 - Reasonable taxes
 - Natural resources
 - Police and fire protection
 - Rural character/country living
- 64% or more of respondents found these services to be "okay" or "good":
 - Ambulance service
 - Cellular phone coverage
 - Recreation opportunities
 - Police and fire protection

The Planning Commission held a series of meetings to review and discuss the findings of the survey and how the new master plan should best address the survey results and the previously identified revision issues, and any new issues that had surfaced.

The Planning Commission's initial efforts were also directed at establishing an updated database about the Township for use during the planning process. This involved a review of physical and cultural conditions in the township including road conditions, existing land use patterns, public services, and demographic characteristics.

The Planning Commission assembled a complete initial draft of the new Plan and refined the draft to arrive at a document suitable for presentation to the community. The Planning Commission held a public hearing on the draft Plan and subsequently finalized the Plan for adoption.

Throughout the development of the Plan, the township followed the procedural requirements of the Planning Enabling Act including notification of neighboring communities of its intent to prepare the Plan, and the township's subsequent solicitation for input on the draft plan.

Overview of Planning Policies

This Plan presents a coordinated strategy that addresses growth, development and preservation.

The Plan supports the continuation of Vevay Township as a predominantly agricultural and rural residential community, with more than three-quarters of the township set aside for these principal uses. The Plan directs more suburban and urban development to the area immediately surrounding the City of Mason. This growth area is to facilitate opportunities for comparably higher density living arrangements than afforded elsewhere in the township, where adequate potable water and sewage disposal are provided.

The Plan provides opportunities for limited commercial and industrial expansion, focused principally in the Mason Jewett Field area (airport) and the southwest corner of the U.S.-127/Kipp Road interchange.

The Plan supports the existing development nodes in the community such as the Cedar Street commercial corridor, the Legion Drive industrial area, and the manufactured housing community area at the U.S.-127/Barnes Road interchange, but does not generally recommend significant expansion of these areas.

Public services improvements are to be focused in those areas of the community where heightened growth and development are anticipated, as described above.

Maintaining the 2004 Master Plan Theme
While township officials decided to prepare a new Master Plan to replace the 2004 Master Plan, there was strong support to maintain the basic direction of the 2004 Plan, including directing higher-intensity growth toward the City of Mason.

Vevay Township Overview

The following is a brief overview of Vevay Township. A more detailed review of township trends and conditions can be found in Appendix A, B, C, and D.

Vevay Township is located in central Ingham County in the south-central region of Michigan's Lower Peninsula. Principal surrounding townships are Alaiedon to the north, Ingham and Bunker Hill to the east, Leslie to the south, and Aurelius to the west. Vevay Township occupies approximately 20,600 acres and recorded a 2010 U.S. Census population of 3,537. The City of Mason, with a population of approximately 8,250, is located within the congressional boundaries of the township in its north-central area and occupies approximately five square miles. Aside from Mason and the greater Lansing/East Lansing area (including Meridian Township) to the north and northwest, the landscape of the surrounding region is dominated by agriculture and scattered residential development.

Interstate 96 (I-96) travels within six miles of the township's north border. U.S. 127 travels north-south through the western half of the Township. The I-96/U.S.-127 interchange is five miles from the Township's northwest corner. M-36 provides additional regional access, traveling across the eastern half of the township into Mason where it then turns into Business Route 27/Cedar Street and extends to Lansing. The township's local roadway network generally exhibits a grid-like pattern. Aside from U.S. 127 and M-36, the busiest corridors include segments of Cedar Street, Barnes Road, Okemos Road, Hull Road, Dexter Trail and Columbia Road.

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The topography of Vevay Township can be described as level to gently rolling, with isolated steep areas. Sycamore Creek flows northward through the eastern half of the township and, along with its associated tributaries, drains the majority of the Township's western half. The Talmadge Drain, along with Mud Creek and their associated tributaries, drain the majority of the township's eastern half.

There are approximately 1,100 acres of wetlands in the Township, comprising about 5% of its area (See "Wetlands" Map). Wetlands are located throughout the Township but are most prominent along the stream and creek corridors and in the township's southeast quarter. There are approximately 2,100 acres of upland woodlands in the township and are most prominent in the eastern half of the community.

Well drained to poorly drained sandy and loamy soils predominate in Vevay Township. According to the Natural Resources Conservation Service, nearly the entire Township presents severe limitations to septic systems. While the area soils present primarily severe limitations to septic drain fields, approximately two-thirds of the township is classified by the Natural Resources Conservation Service as "prime farmland."

The dominant land use in Vevay Township is agriculture, and most of the balance is comprised of woodlands, wetlands and other open spaces. Together, agricultural operations and other open spaces account for approximately 85% of the community. The more urbanized areas, including those developed for commercial, industrial, and suburban residential uses, are located primarily around the peripheral areas of Mason.

Residential development comprises approximately 14% (2,975 acres) of the acreage in Vevay Township. The 2010 Census recorded 1,410 dwelling units, 4.8% more than the 1,309 dwellings recorded in 2000. Of the 1,410 dwellings in 2010, about 99% were single family dwellings. Of these single-family dwellings, about 10% were mobile homes and nearly all were located in the township's only manufactured housing community (Mason Manor) at the southeast corner of the US-127/Barnes Road interchange.

While the original residential settlement pattern of farm dwellings on parcels approaching 40 acres or more in size is evident today, the majority of dwellings are located on smaller two, five and ten-acre parcels stripped along Section-line roads.

Commercial development occupies approximately 40 acres of the township. Cedar Street is the more traditional and only service-oriented commercial node in the township. This quarter-mile commercial strip is bounded by the US-127/Cedar Street interchange to the east and Howell Road. Cedar Street extends from Mason, northwest to Lansing, with much of its frontage characterized by strip commercial development. Uses along Cedar Street in the township include a restaurant, hair salon, day care service, car dealership, sports accessories sales, real estate office, insurance office, and a service station. There are other commercial uses in the township near Mason, on Hull, Kipp, Tomlinson, and Eden Roads.

The most visible signs of industrial activity are the paving and excavation operations south of Mason and the large Dart Container Corporation facility at the US-127/Cedar Street interchange. The facility occupies a portion of the triangular area formed by Howell Road, Cedar Street, and the US-127/Cedar Street interchange. The township also has about eight centralized industrial facilities off of Legion Drive behind the Cedar Street commercial area. Excluding paving and excavation operations, there are approximately 40 acres of industry in the township.

There are numerous commercial and industrial facilities that are within PA 425 Agreement areas. Public Act 425 of 1984 enables two local units of government to conditionally transfer property by written agreement for the purpose of economic development projects. During the period that a particular agreement is in effect, the municipal boundaries of the city extend to encompass the agreement acreage. Since 1989, the Vevay Township and the City of Mason have entered into four such agreements. These agreement areas include, but are not limited to, such facilities as Meijer, Gestamp, Michigan Packaging Company and Biochot Concrete.

A five member Township Board governs Vevay Township. Township offices are located in the township hall on the west side of Eden Road, approximately one-half mile south of Kipp Road. The Vevay Township Board relies on a tax millage to fund the public facilities and services it provides.

The township operates and maintains three cemeteries. It also operates a single recreation site, comprised of the township hall property and its associated recreation fields and facilities. There is no public water in Vevay Township and sewer service is generally limited to the Legion Drive industrial area.

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As part of a 1998 court settlement agreement between Mason and the township, Mason is available to extend sewer and water service south of Kipp Road provided the township takes responsibility for infrastructure costs.

The Township receives fire protection services from the City of Mason. Police services are provided by a number of area law enforcement agencies.

Chapter Two PLANNING ISSUES, GOALS & OBJECTIVES

Introduction

The primary goal of this Plan is to establish a basis for future land use and public services. To effectively plan for the township's well being with regard to future land use and public services, it is beneficial to identify important planning issues facing the community and clarify its long term goals and objectives. This chapter discusses important planning issues facing the Vevay Township community and presents associated goals and objectives.

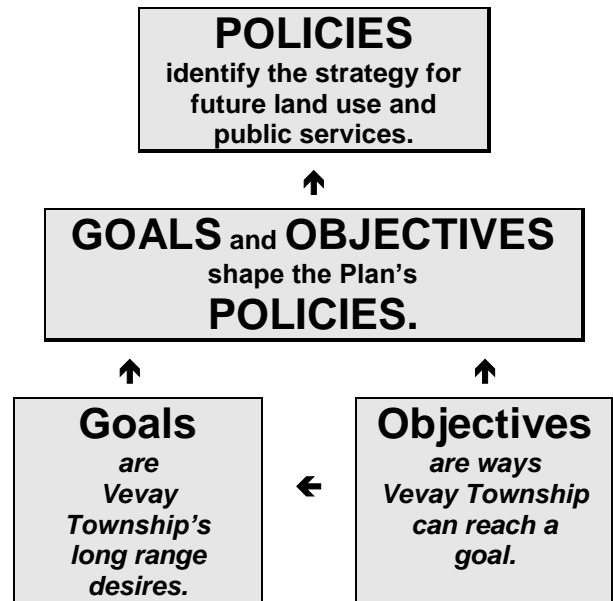
Planning Issues, Goals & Objectives

A number of key planning issues are apparent today. These issues vary in scope and are clearly inter-related. The future quality of life and character of the township will be largely shaped by the township's strategy to address these issues.

Each issue presented in this Chapter is followed by a set of goal and objective statements. Planning goals are statements that express the township's long range desires. Each goal has accompanying objectives that are general strategies that the township will pursue to attain the specified goal.

The Importance of Goals and Objectives

- **Vevay Township Vision:** The goals and objectives provide current and future residents with an overview of the intended future character of the community.
- **Shape Policies:** The goals and objectives identify and outline the basic parameters that should be used in guiding land use and public services policies and decisions.
- **Evaluate Development Proposals:** The goals and objectives serve as references upon which future rezoning and land development decisions can be evaluated.



Goals, Objectives, and Policies of the Plan

The planning issues and goals and objectives are divided into the following major categories:

- Growth Management and Public Services
- Community Character and Environment
- Farmland Protection
- Housing
- Commercial Development
- Industry
- Circulation
- Regional Coordination

The planning issues presented in the following pages are not intended to be all inclusive. Rather, they are presented as the primary issues that Vevay Township must address as it establishes a future for itself. These issues will evolve over time and should be reexamined periodically and the appropriate modifications made.

The objectives listed on the following pages should not be interpreted as limitations on the township's efforts to reach its goals. The township's commitment to the following objectives does not preclude it pursuing other objectives that it determines are

beneficial. In addition, the objectives listed are not time specific. The township may choose to act on some objectives in a shorter time frame than others.

GROWTH MANAGEMENT and PUBLIC SERVICES

Vevay Township is a very desirable place to live with abundant natural resources and open spaces; excellent access to highways and nearby employment centers; an overall rural character; and the nearby retail and other urban services. It is reasonable to expect the township's strong growth into the 1990s may well continue once current state-wide economic conditions substantially improve.

Individual properties and land uses exist within a network of adjoining and nearby properties and land uses. This weave of uses helps to establish the character of the township. The accommodation of growth and development should assure compatibility between land uses and the continued enjoyment of the use of properties as development occurs nearby. Effective growth management extends well beyond parcel-to-parcel relationships to township-wide issues. Growth and development has the potential to impact all residents' quality of life.

Successful growth management includes:

- minimizing unnecessary loss or degradation of natural resources including farmland, woodlands and water resources
- coordinating the amount and rate of new development with adequate public services including emergency services
- accommodating growth and development in a manner that preserves the desired character of the community and its environmental integrity
- encouraging economic development compatible with the character of the township
- encouraging orderly development including compatibility between adjacent land uses
- encouraging adequate public services and wise expenditures of Township funds
- limiting traffic hazards and nuisances

The township's character and quality of life will be impacted by the way the township chooses to manage growth and development.

Tax revenues dictate, in part, the extent and quality of public services. Public services in the community are comparatively limited at this time, including the lack of public sewer or water. The limited public services has not been identified as a problem, but a way of life. Although development will increase the

township's tax base, the same development will place additional demands upon public services.

Contrary to traditional planning wisdom and thought, research has shown that development does not necessarily "pay its way," particularly as it applies to traditional single family residential development. Maintaining the current quality of public services, let alone the pursuit of improvements, can be very difficult in the face of unmanaged growth and development.

Development patterns that minimize new public costs should be sought where practical. In this regard, it is advantageous to maintain a compact form of growth and development and, to the extent it is practical, locate higher density and intensity development near or adjacent to areas currently being served with higher levels of public services or anticipated to be served by such services in the future.

GROWTH MANAGEMENT GOAL: *Guide future development in a manner that assures land use patterns compatible with public facilities and services and the cost-effective use of tax dollars, and encourages the preservation of natural resources, property values, and rural character.*

Objectives

- 1) Document and monitor the township's natural and cultural features that impact growth management efforts, such as public services, existing land use patterns, road infrastructure, and sensitive environmental resources.
- 2) Develop a rational land use strategy that provides an appropriately balanced scope of uses, including agricultural, residential, and non-residential uses, and which considers the constraints and opportunities presented by the township's natural features and public services and facilities.
- 3) Establish effective land use and development review regulations to ensure development is coordinated with the policies, goals and objectives of this Plan.
- 4) Guide development into areas where public facilities and services have adequate capacity to accommodate the growth and increased development intensities, and where the provision or expansion of public facilities is cost-effective.
- 5) Prohibit new growth and development that requires levels of public facilities and services not available, until the time such levels of services become available.

- 6) Separate incompatible land uses by distance, natural features, or man-made landscape buffers that adequately screen or mitigate adverse impacts.
- 7) Where legally permissible, local regulations should require new developments pay for the additional direct and indirect public services costs associated with that development. These costs should not be imposed on existing residents except where public interests or benefits may be at stake.
- 8) Discourage public services improvements that will have the effect of encouraging development at a rate beyond the township's ability to ensure adequate public health, safety, and welfare.
- 9) Discourage public services improvements that will have the effect of encouraging development in areas not designated for such growth.
- 10) Encourage the preservation of the township's natural resources including farmland resources, wetlands and woodlands.
- 11) Provide regular opportunities for substantive public input on growth and development issues facing the township.
- 12) Continually monitor local attitudes about public facilities and services, including police and fire protection, water and sewer, and recreation, and pursue options to address identified public service and/or facility needs.
- 13) Update zoning and other tools to implement the Plan's policies, goals and objectives, and evaluate rezoning petitions, site plans, and other development decisions according to the Plan's policies, goals and objectives.

potential for environmental degradation and the loss of rural character.

The township's woodland, wetlands, and other natural resources are important in shaping the community's rural character and also provide vital environmental roles including wildlife habitats, flood control, water purification, groundwater recharge, and air quality.

Effective protection of rural character and the natural environment does not require the prohibition of growth and development. Managed growth and development encourages the continuation of the township's overall rural character. The preservation of rural character and environmental resources in the face of growth and development is dependent upon site development practices that actively incorporate the protection of open spaces, natural resources and environmental ecosystems into the development plan. Limitations on the extent to which suburban and urban development patterns are permitted to encroach into more rural and resource-rich areas are an important part of the equation.

Recognition of the more urban areas of the township is equally important. These areas contribute to the overall fabric of the township and its character. The manner in which these areas are maintained, expanded, and/or enhanced will similarly impact the perception of these areas, their contributions to the community, and the extent to which they are a valued component of the community.

COMMUNITY CHARACTER and ENVIRONMENT

Residents view Vevay Township as a "rural" community – an important factor in their enjoyment of the community. "Rural" is a subjective quality, but is often associated with an overall perception of limited development, open spaces comprised of farmland and/or similar landscapes including woodlands, wetlands, and fields, and a way of life often associated with the outdoors and generations past.

The township has abundant natural resources and sensitive environmental features. Residents strongly support the township's rural character and its resources, and want to preserve these community features. Preservation of these resources can be very difficult because the process of encroachment can occur slowly. Increased environmental knowledge, awareness, and education, when incorporated into a comprehensive planning strategy, can minimize the

COMMUNITY CHARACTER and ENVIRONMENT

GOAL: *Preserve the dominant rural character of Vevay Township and the integrity of its environmental resources.*

Objectives

- 1) Encourage land development designed in scale with existing developed areas and the dominant rural character of the community, through reasonable standards that address density, building size, height, and other development features.
- 2) Encourage the maintenance of historically significant structures and a structurally sound housing stock, and the rehabilitation or removal of blighted structures and yard areas.
- 3) Review proposed development in light of its potential impact upon wetlands, woodlands, and other natural resource areas.

- 4) Educate the public about waste management and the township's fundamental reliance upon groundwater resources for potable water supplies and the potential detrimental effects of irresponsible land use and development practices.
- 5) Encourage land development that actively strives to preserve open spaces as part of a development project (woodlands, wetlands, and fields), by use of tools such as conservation easements, land trusts, and more flexible development standards.
- 6) Encourage the establishment and protection of interconnected systems of natural/environmental areas that provide a diverse and viable habitat for wildlife and native plants.
- 7) Ensure that the quantity and quality of new development does not unreasonably create increases in air, noise, land, and water pollution, or the degradation of land and water resource environments including groundwater.
- 8) Increased limitations should be placed on development densities and intensities in environmentally sensitive areas, and all development should be in compliance with applicable local, county, state, and federal regulations.
- 9) Recognize and maintain the special environmental role and natural character of the Sycamore Creek, Mud Creek, Talmadge Drain and other key drainage corridors, including their wetland, woodland, and other wildlife habitats.
- 10) Introduce appropriately designed and landscaped signage along key entrances into the township, which highlight the township's identity and place within the region.
- 11) Encourage the placement of signs or markers at designated historic sites, buildings and areas, to highlight the historic resources of the township. .

FARMLAND PROTECTION

Approximately two-thirds of the township is devoted to agricultural use. Farming continues to play a dominant role in the community. The farmland resources provide important food and fiber to both local and regional populations, are an important source of income, and contribute to the economic stability of the local economy. Farmland has been found to generate more municipal revenues than the costs associated with the municipal services it requires. There is strong support in the community for the preservation of the township's farmland resources.

Many farm communities are facing a challenge today, as is Vevay Township. Persons yearning for a rural lifestyle flock to farm communities and incrementally consume farmland for home sites – the very farmland that contributes to the rural lifestyle they seek. The number of farms in the township has declined over the years and dwellings have appeared in their place. Of course, the home site would not be available if it were not for the farmer providing the residential lot. To limit the farmer's ability to provide home sites can undermine the farm operation during difficult economic times, or otherwise burden the farmer when the continuation of the farm operation is no longer practical, economical, or otherwise desirable. Factors that can encourage the decline in farming include changing economic conditions, residential encroachment that can interfere with day-to-day farm operations, and the fewer young persons interested in continuing in their parents' footsteps.

Effective farmland preservation is dependent upon the management of both the number and size of new non-farm lots. Ten-acre divisions accelerate the loss of farmland and are an inefficient use of the township's land resources. On the other hand, one-acre zoning across the township encourages residential encroachment and sets the stage for a build-out population approaching 40,000 persons. Residential encroachment into farm areas leads to farmland consumption, increased land use conflicts between farm and non-farm residents, and congestion and safety hazards for farm machinery along the public roads – all of which hinder the long term economic viability of the farm operations.

State law illustrates the importance and need for farmland preservation. Public Act 116 of 1974, the Farmland and Open Space Preservation Act (now part of the Michigan Natural Resources and Environmental Protection Act), enables a landowner to enroll property in a tax relief program provided the property is maintained in an agricultural/open space status. The purchase of development rights (PDR) enables a landowner to voluntarily sell the development rights to a governmental body in turn for placing an easement on the land prohibiting future non-farm development. The transfer of development rights (TDR) enables a landowner to transfer (through purchase) the farm parcel's development rights to another parcel in an area planned for growth and development. Both PDR and TDR provide landowners the opportunity to realize part or all of the development value of their land without having to actually develop it. Under both programs, all other private property rights remain intact.

While a PDR program may not typically be viable under the sole authority and administration of a township, the viability increases dramatically when administered on a county or greater regional/state level. The viability for such a program for Ingham County farmers increased significantly in 2008 when county voters approved a millage for such a program.

The township recognizes the economic and other challenges facing the local farming community. The township also recognizes the economic benefits of local farming not only for its productive capacity and contribution to the local economy, but for their limited demand on public services, infrastructure, and township revenues.

The challenge before the township is to encourage farmland preservation while, at the same time, accommodate limited opportunities for reasonable alternatives that do not undermine the long-term welfare of farming community-wide.

FARMLAND PRESERVATION GOAL: *Actively encourage the continuation of local farming operations and the long-term protection of farmland resources.*

Objectives

- 1) Document those areas of the township that present favorable conditions for farming, including existing farm areas and compatible soils and parcel sizes.
- 2) Encourage the continuation of farm operations through complementary zoning provisions.
- 3) Establish a disclosure program to insure that prospective builders and home owners in agricultural areas are aware of the fact that a primary planned use in designated agricultural areas is agriculture, and that they should expect the normal smells, odors, noises, dust, and use of pesticides, herbicides, fertilizers and fungicides as a part of daily farm life in the area.
- 4) Establish limits on the amount of non-farm residential development permitted in designated agricultural areas while, at the same time, discourage the wasteful consumption of farmland resources due to unnecessarily large residential lot size requirements and continually explore options for managing the extent of new residences in agricultural areas.
- 5) To the extent that residential development occurs in farm areas, encourage such development to be placed on less productive farmland.

- 6) To the extent that residential development occurs in agricultural areas, encourage developments that incorporate the continuance of the farming operation through the clustering of the residential lots on only a portion of the farm parcel.
- 7) Encourage buffer areas between new residential nodes and abutting agricultural areas.
- 8) Support and maintain P.A. 116 farmland preservation agreements and other preservation programs.
- 9) Discourage the extension of municipal utilities (such as sewer and water) into designated agricultural areas.
- 10) Permit opportunities for “value-added” income sources as part of local farm operations such as agri-tourism, farm markets, and corn mazes, where such activities and specific proposals will not cause unreasonable impacts on surrounding properties and the community as a whole.

HOUSING

As previously noted, Vevay Township’s “town and country” character makes it an attractive place to live for many prospective residents. Residential development will likely be the major land use change in the coming ten to twenty years and it will have the greatest long-term impact on the township’s natural resources, farming, demand for public services, and overall community character. Important questions facing the township with respect to residential growth are what type, how much, and where?

Providing suburban and urban residential development opportunities can be important as part of the township’s efforts to address the varied housing needs of all people, including all age groups, and limit the extent of residential encroachment into agricultural areas.

Vevay Township is in a position to offer varied types of housing. Opportunities for rural residential lifestyles are abundant and are the primary housing option today. The presence of the City of Mason opens the door for higher density development, both within the city and in close proximity. The city is a small urban center that provides consumer services, expanded public services, and education and recreation facilities – all important in facilitating more suburban and urban lifestyles.

Public studies during the past 20 years have consistently documented that multiple family development, unlike low-density residential development, typically generates more municipal revenue than the cost to provide it with services.

Public sentiment, and the township's minimal growth during the past 20 years and limited projected growth in the near future, suggest that a comparatively limited area be set aside for more suburban and urban development patterns. However, the more growth that is accommodated in higher density development patterns – the greater farmland preservation interests may be advanced. The accommodation of 300 new dwellings could occupy as little as 50 acres or less near Mason. The same 300 dwellings could occupy 3,000 acres of farmland (approximately 15% of the township) in the heart of the township based on an average lot size of 10 acres. This less efficient development pattern can dramatically accelerate the rate at which farmland and other undeveloped lands are converted to residential use and undermine the long term economic viability of the local farming industry.

However, it must also be recognized that small acreage zoning across the township without any density limitations, such as one acre zoning, provides for a build-out population (the population resulting from all land being developed at a density of 1 dwelling per acre, exclusive of wetlands and future road rights-of way) approaching 40,000 persons or more. Such a growth pattern will have dramatic effects on farming, community character, taxes, and public services demands. This is not the future vision residents have for their community.

Much of the residential development in the township today is of a strip pattern – residences are “stripped” along the existing county road frontages. This pattern of lot splits has become an increasing source of concern in the planning/transportation fields. This condition leads to an excessive number of driveways directly accessing the county roads and thereby increasing the level of congestion, traffic hazards, and travel times, and incrementally replacing rural road corridor viewsheds with images of driveways, cars, and garages.

HOUSING GOAL: Accommodate new residential development in a manner that recognizes the opportunities and constraints of the township's public services, infrastructure, and natural features; preserves the overall rural character of the township and its farmland resources; and accommodates an appropriate balance and range of densities and lifestyles.

Objectives:

- 1) Encourage the continued dominance of low density housing as the principal housing option, without the necessity for large lot zoning.
- 2) While maintaining low density housing as the primary housing option, provide opportunities for alternative housing options to meet the varying housing preferences of current and future residents, including small lot single family dwellings, townhouses and apartments.
- 3) Assure adequate barriers and/or buffering where residential neighborhoods interface with commercial/industrial development.
- 4) Consider the natural carrying capacity of the land when determining the appropriate density of development. Development densities should not undermine important environmental features.
- 5) Identify limited areas in the township where higher density residential development can be adequately accommodated. Priority should be given to locations that have greater access to improved thoroughfares and necessary public services, and within walking distance of business districts – with the Mason area being of greatest priority.
- 6) Encourage alternatives to strip residential development along the frontage of existing state and county roads.
- 7) Encourage innovative residential development that incorporates the preservation of natural resource systems and open spaces, and the preservation of the township's rural character, in the site planning process. One such initiative, where multiple lots or dwelling units are created, should include the development of only a portion of the original parcel and placing the balance of the parcel in a permanent open space status.
- 8) Encourage residential neighborhoods protected from the encroachment of commercial uses.
- 9) Encourage a housing stock that ensures affordable housing to all, including starter homes, while also ensuring all dwellings are of appropriate design to complement nearby conditions and the community as a whole.
- 10) Discourage uses and structures in residential areas that undermine the residential character and peacefulness of such areas, such as commercial encroachment, or increases conflicts between landowners such as accessory buildings of excessive size or inappropriate location.
- 11) Encourage the rehabilitation of blighted homes and properties.

COMMERCIAL DEVELOPMENT

Commercial development in Vevay Township covers approximately 50 acres and is of a primarily retail and service character such as car sales, restaurants, a meat market, the sale of sports memorabilia, convenience items, and firearms, hair salon services, landscape services, home restoration, and mini-storage. Cedar Street is the township’s centralized commercial node although other commercial uses are located in more scattered locations.

Addressing future commercial development requires consideration of need, location and character. There are no universal land use ratio standards that identify the appropriate amount of commercial development for a particular community. Each community is unique, with its own set of circumstances including infrastructure, existing land use pattern, conditions in surrounding communities, growth, and public perceptions. Still, studies can provide some insight. A 1989 study by David Van Horn, focusing on four counties in Florida, California, and Tennessee (including rural areas), found that the average number of acres devoted to commercial use on a county-wide basis was 7.2 acres per 1,000 population (Urban Land, 1989). It is reasonable to expect that a significant lower ratio exists if all cities and villages are excluded. Vevay Township’s current 50 acres yields a ratio of nearly 15 acres of commercial development per 1,000 population.

According to the 1985 Shopping Center Development Handbook, published by the Urban Land Institute, the township’s population of approximately 3,500 is considered generally adequate to support the smallest of the classifications of commercial centers – the *neighborhood* center. The neighborhood center is considered to require a base population of 3,000 – 4,000 persons and cover approximately 5 – 10 acres in size.

The impact of the presence of Mason, and the varied consumer opportunities within 10 miles of the township including Leslie, Okemos, Holt, and the greater Lansing/East Lansing area, must also be acknowledged. Further, Vevay Township supports the continued viability of the City of Mason’s business areas. Public input received during the preparation of this Plan did not support significant commercial expansion.

These conditions suggest that the amount of commercial development in Vevay Township is adequate today and will likely continue to be so with moderate population growth. However, if the township desires to more aggressively pursue the long-term economic stability of the community, some commercial expansion may be advantageous.

Commercial development that complements the township’s rural character should be encouraged, including development characterized by appropriate limitations on signage, building heights and sizes, and lighting, and the avoidance of expansive parking areas abutting principal thoroughfares and excessive curb cuts and conflicting turning patterns that undermine public safety. To this end, traditional strip commercial development is not considered beneficial for Vevay Township.

As commercial uses are of varying character, so are their impacts upon abutting land uses, the community as a whole, and neighboring municipalities. The nature of commercial development can directly impact the character of a community and the manner in which the community is perceived.

To the extent that commercial development expands in the township, the township offers opportunities for varied commercial uses. The population base provides opportunities for locally-based uses, addressing the day-to-day consumer needs. The presence of U.S. 127 presents potential opportunities for more regionally-based uses, and the highway traveler/commuter presents still a different market. These uses can vary significantly in character, ranging from retail to office, professional and other services, and can range in size and scale from small local businesses to a “big box” department stores and multi-plex movie theaters.

The viability of future commercial development within a community is directly linked, in part, to access, visibility, activity areas, and improved levels of public services such as road, sewer and water infrastructure. Locating future commercial development with recognition of these factors will improve the long term viability of commercial endeavors, minimize additional public costs, have less negative impacts upon the local agriculture industry and residential areas, and avoid inefficient development patterns.

COMMERCIAL DEVELOPMENT GOAL: *Provide opportunities for the limited expansion of commercial development, ensure new commercial development and redevelopment employs measures to compliment the character of surrounding uses and the predominant rural character of the community, minimize new public service costs, and protect the viability and desirability of residential areas.*

Objectives

- 1) Encourage the location of commercial uses in those areas that have access to sufficient facilities and services to support the resulting demands, including road infrastructure, water, and sewer.
- 2) Encourage commercial development in character and scale with nearby land uses, considering such features as building size and height, architectural design, setbacks, signage, landscaping and buffering, complementary open spaces, and related site features.
- 3) Encourage centralized commercial nodes rather than commercial uses indiscriminately encroaching into residential and agricultural areas.
- 4) Encourage the development of unified commercial facilities on a single site while discouraging strip development patterns.
- 5) Coordinate the location of commercial uses with the type of market that it draws from, whether it be day-to-day consumer needs, regional consumer services or the highway traveler.
- 6) Establish landscaping and screening measures to insure commercial development is sensitive to the dominant rural character of the community and minimizes adverse impacts on the normal use and enjoyment of adjoining land.
- 7) Focus new commercial development toward existing commercial areas where practical, with a particular focus on the Mason area.
- 8) Encourage business centers that exhibit an attractive appearance and foster an inviting character, including the upgrading of existing commercial areas.
- 9) Provide limited opportunities for home-based occupations, according to appropriate zoning standards, that will maintain the residential character, appearance, and quality of life experienced by surrounding residential properties and neighborhoods.

INDUSTRY

Industrial development is generally limited to the Dart Container Company, located on Cedar Street, adjacent to U.S. 127, and the Legion Drive industrial area in the same vicinity. Several metal and plastics fabricators also exist in scattered areas of the community. Approximately 40 acres of the township is devoted to industrial use, excluding approximately 40 acres part of gravel extraction operations.

Studies do not suggest a significant shortage of industrial land, particularly in light of the limited public services in the township and the heightened viability of industry in Mason and other nearby urban centers. In addition, public input received during the preparation of this Plan suggests that while industrial expansion may be reasonable (if appropriately located) to improve economic stability or employment opportunities, substantial expansion is not supported.

Like commercial development, effectively addressing future industrial development requires consideration of need, location and character. While APA-published studies (1983) found that an approximate average of 8% – 12% of the land in both large and small cities was devoted to industrial use, more rural communities, particularly those without public sewer and water, have more often exhibited land use ratios of less than 2%. Vevay Township’s current 40 acres of industry (excluding gravel extraction operations) comprises approximately 1.5% of its total developed land area. According to Planning Design Criteria (DeChiara and Koppleman, 1969), a general guideline for the ratio of industrial acreage to population is 12 acres of industrial land for each 1,000 population. Vevay Township’s current 40 acres yields a ratio of about 11.9 acres of industrial development per 1,000 population.

As the intensity of industrial development increases, so typically does its reliance on public infrastructure including water, sewer, and roads. Locating future industrial development in recognition of these factors will minimize additional public costs and more effectively protect groundwater and other environmental resources. As the intensity of development increases, greater distances from residential areas is favored. Existing conditions in the township, including land use patterns, public services and infrastructure, and public sentiment, suggest any future industrial development be of a comparatively light character.

INDUSTRY GOAL: *Provide opportunities for the limited expansion of industry and ensure new industry and the redevelopment of existing industrial sites employs measures to compliment the character of surrounding uses and the predominant rural character of the community, minimize new public service costs, and protect the viability and desirability of residential areas.*

Objectives

- 1) Recognize the significance of the Mason area as a potential location for future industrial development due to existing land use patterns and potential expansion of public services.
- 2) Encourage industrial development in character and scale with surrounding land uses, considering such features as building size and height, architectural design, setbacks, and signage, and landscaping, screening and other open spaces.
- 3) Encourage the clustering of industrial sites in appropriately identified locations and not permit indiscriminate encroachment into residential and agricultural areas.
- 4) Limit industrial uses to those predominately characterized by assembly activities, information and communication technologies, research facilities and similar "light" operations that do not require added levels of public services, do not entail the processing of raw materials, and do not negatively impact surrounding land uses or the community as a whole.
- 5) Encourage industrial uses to locate within industrial parks, characterized by interior road systems, adequate open spaces, landscaping, and buffering.
- 6) Maintain reasonable controls on commercial and industrial uses such as noise, odors, glare, vibration, and similar operational features.

CIRCULATION

As new residential and non-residential land uses are introduced into the township, demands on the roadway network will increase. Even low density residential development can significantly increase local traffic levels. This increased traffic may lessen the level of service along some road segments. Conversely, it must be recognized that road improvements may attract new development which, in turn, will place additional demands on the roadway network. Increased traffic demands can be minimized through adequate road maintenance and the coordination of road improvements with the planned land use pattern and designated growth and development areas.

Opportunities are presented by the township's improved thoroughfares and appropriate land use management can maximize their potential and minimize adverse impacts to other road segments. Future maintenance costs and traffic levels along the township's local roads will be minimized by guiding higher density and intensity land uses (including commercial and industrial development) in comparatively close proximity to these key thoroughfares. On the other hand, principal thoroughfares are vulnerable to strip development by both residential and commercial uses. Improperly managed, these thoroughfares have the potential to evolve into corridors of strip malls and homes, signage, and expansive parking areas and parking lot lighting. This development pattern will undermine the function of these corridors, encourage congestion and traffic hazards, and alter the perception of the township's overall rural character.

Community circulation extends far beyond just accommodating vehicular traffic. More and more attention is being focused on ensuring road systems take into consideration all potential user needs including pedestrians, bicyclists, persons restricted to wheel chairs, and persons of all ages and physical conditions. Similarly, the value of circulation systems between communities that facilitate non-motorized travel have also been recognized as an important part of long range planning. Well planned and designed community and inter-community circulation systems can limit the reliance on the automobile and resulting environmental impacts, improve the health of local residents, and improve the quality of leisure time.

Maintaining adequate vehicular circulation is not solely dependent on the road system itself. The future pattern of residential lot splits and subdivisions will have a significant impact upon the functioning of the township's roads. Residences "stripped" along the existing county road frontages can be debilitating:

- the increased number of driveways directly accessing the county roads increases the level of congestion and safety hazards
- travel times are increased
- the township's rich rural panoramic views of woodlands, fields, and other open spaces, as experienced from the roads, may be reduced to images of driveways, cars, and garages

CIRCULATION GOAL: *Maintain a transportation network throughout the township that encourages efficient and safe travel, by vehicular, pedestrian, and other non-motorized modes, consistent with the rural character of the community and coordinated with the planned future land use pattern.*

Objectives

- 1) Identify priority road segments for systematic maintenance and improvement, based upon the planned future land use pattern and existing and projected traffic patterns.
- 2) Discourage high-traffic generating land uses and development patterns along secondary roads until the time when such roads have been improved to accommodate the development.
- 3) Pursue measures to minimize the potential for traffic congestion and safety hazards along adjacent roadways, including limitations on the number, size, and shape of new land divisions, the discouragement of "strip" development, and limitations on curb cuts.
- 4) Encourage future residential lot split patterns that maintain the integrity of the township's roadway network and rural character.
- 5) Encourage a road improvement program that will not increase development pressures in areas of the township not specified for such growth.
- 6) Work in conjunction with the Ingham County Transportation Department to encourage the use of combined service drives to serve adjacent properties.
- 7) Encourage the inclusion of pedestrian/bicycle paths in association with new residential subdivisions and non-residential development to facilitate safe and convenient non-motorized movement for all potential users.
- 8) Encourage the linking of residential and commercial centers through non-motorized trails, sidewalks and similar linkages.
- 9) Maintain communication and cooperative efforts with the Ingham County Transportation Department to improve opportunities for safe non-motorized travel along all road segments.

REGIONAL COORDINATION

Vevay Township exists within a regional network of communities, none of which are islands unto themselves. Vevay Township abuts the townships of Alaiedon, Ingham, Bunker Hill, Leslie, and Aurelius, and surrounds the City of Mason on three sides. The township and nearby municipalities can greatly benefit by cooperatively pursuing common goals in the areas of land use and public services. Cooperative efforts are already in place, such as in

the case of fire protection services from Mason and several "425 Agreements" with the city as well.

Planned land use and public services should take into consideration conditions in all abutting communities. These conditions vary, from the more urbanized features of the City of Mason to the more agricultural and rural features of surrounding townships. Appendix A provides a review (Neighboring Conditions) of existing conditions in these abutting communities.

Land use planning efforts should seek to establish a land use pattern compatible with surrounding conditions provided the goals of Vevay Township are not undermined. To this end, the township must recognize the potential for annexation efforts and give careful consideration to the location of new commercial and industrial development and the protection of its tax base.

REGIONAL COORDINATION GOAL: *Guide development and public services in a manner that recognizes the position of Vevay Township within the larger region, and the mutual impacts of Vevay Township's planning efforts and those of its neighbor communities.*

Objectives

- 1) Where practical, identify a planned future land use pattern that seeks to ensure compatibility among land uses along municipal borders.
- 2) Where practical, identify a planned future land use pattern that does not risk the loss of important commercial and industrial property tax dollars through annexation.
- 3) Work with officials of Mason to coordinate land use planning efforts that will minimize the potential for land use conflicts and undesirable annexation, including the continued maintenance and use of "PA 425 Agreements."
- 4) Maintain a meaningful communication program with area municipalities and county agencies to discuss local and area-wide public facilities and services needs, land use conditions and trends, contemporary planning issues, and mutually beneficial strategies to address short and long-term needs and issues.
- 5) Encourage the vitality of Mason's business districts through appropriate restrictions on the character and extent of commercial uses in Vevay Township.

Chapter Three FUTURE LAND USE STRATEGY

Introduction

Vevay Township's principal planning components are contained in the Future Land Use Strategy, as discussed in this Chapter Three, and the Public Services Strategy discussed in Chapter Four. The Future Land Use Strategy identifies the desired pattern of land use, development and preservation throughout the township. Chapter Four presents guidelines regarding public services to help ensure that public services are coordinated with the planned land use pattern and the achievement of the Plan's goals and objectives.

Implementation of the policies of this Chapter and Plan rests with regulatory and non-regulatory tools – most importantly the Vevay Township Zoning Ordinance. The Zoning Ordinance generally regulates the type, location, bulk, and intensity of land development. The township may also adopt other supporting regulatory and non-regulatory tools to further the implementation of the policies of this Plan. Chapter Five discusses implementation strategies in more detail.

The foundation on which the Future Land Use Strategy is rooted in the goals and objectives in Chapter Two including:

- ***encourage the preservation of farmland, natural resources and rural character***
- ***guide future development in a manner that ensures land use patterns compatible with public facilities and services***
- ***encourage compact development and growth areas***
- ***encourage the cost-effective use of tax dollars***

The Future Land Use Strategy is based on an analysis of the township's natural and cultural features such as community attitudes, existing land use, road network, existing and nearby public infrastructure, and environmental features including soils. Also considered are conditions in neighboring

municipalities. The opportunities and constraints presented by these characteristics were evaluated in the context of the goals and objectives in Chapter Two to arrive at a planned future land use pattern.

Planning Areas

The Future Land Use Strategy divides the township into planning areas and identifies the predominant land use pattern planned for each. These areas collectively formulate the planned land use pattern. These areas are as follows:

- Agricultural/Rural Residential Area
- Suburban Residential Area
- Manufactured Housing Community Area
- Mixed-Use Areas
 - Kipp Road Interchange Mixed-Use Area
 - Cedar Street Mixed-Use Corridor
 - Eden Road Mixed-Use Area

It is not the intent of this Plan to identify the specific land uses that should be permitted in each of these planning areas. This Plan presents broad-based policies regarding the dominant land use(s) to be in each. Specific permitted land uses will be determined by the zoning provisions of the township based upon considerations of compatibility. There may be certain existing land uses that do not “fit” with the planned future land use pattern. This should not be necessarily interpreted as a lack of township support for the continuation of such uses. Zoning regulations will clarify this matter.

Boundaries: The approximate boundaries of the planning areas are illustrated on the Future Land Use Map at the end of this chapter. The boundaries are described as approximate. There is frequently room for discretion at the exact interface between the boundaries of two planning areas and appropriate uses at these points of interface. However, the approximate boundaries presented in this Plan have been considered carefully. Significant departures are strongly discouraged except for unique circumstances and only when the public health,

safety and welfare will not be undermined. The specified boundaries of the planning areas are purposeful. These areas are not intended to incrementally evolve into extended strip corridors or other expanded development zones contrary to this theme.

It is also important to recognize that neither the Future Land Use Map nor the explanatory text is intended to stand on its own. Both the policy discussions and map are inseparable and must be viewed together.

Appropriate Site Development: Irrespective of the particular planning area, all nonresidential development should be of such character and design that encourages compatibility with adjacent and nearby land uses and the desired rural character of the township including site layout, principal buildings and accessory facilities. Such compatibility should be based on, in part, appropriate signage; building height, size, and bulk; setbacks; and landscaping and screening. In light of the existing and planned mixed-use character of some of the planning areas, special care must be exercised during all phases of the review and approval of specific development proposals to ensure that proposed uses, buildings and other site modifications, and their interface with surrounding properties, enhances their compatibility.

The reliance on private “community sewer systems”, established as part of and to only serve a new subdivision or similar neighborhood development, should not serve as a basis for development patterns and densities contrary to the density policies presented in this chapter.

Site development should incorporate the inclusion of nonmotorized travel and measures to enhance the safety and comfort of nonmotorized travel along road corridors and elsewhere.

Agricultural/Rural Residential Area

The Agricultural/Rural Residential Area makes up the majority of the township. The Area is comprised nearly entirely of farmland along with scattered residences. The intent of the Agricultural/Rural Residential Area is to provide opportunities for and encourage farming and the preservation of farmland resources, while also providing opportunities for low-density residential development and rural residential lifestyles. This Area is established in recognition of the importance of agriculture, the preservation of farmland resources, and the local farming industry,

and the local, regional, national and international benefits provided by farming.

Lands in the Agricultural/Rural Residential Area are largely characterized by conditions that enhance their long term agricultural economic viability including:

- the presence of active farm operations
- acreage contained within parcels commonly approaching 40 acres or more
- limited encroachment by non-agricultural land uses
- enrollment in the P.A. 116 Farmland and Open Space Protection Program
- adjacency to other farmland parcels considered to offer similar opportunities for enhanced economically viable farming operations
- participation in the Ingham County Purchase of Development Rights program

It is intended that development densities in the Agricultural/Rural Residential Area be low. Limited densities are supported by a number of factors including, in part:

- the township’s commitment to protecting its natural resources and rural character
- the township’s commitment to protecting its farming industry and minimizing land use conflicts between farm operations and neighboring land uses
- the township’s commitment to managing growth, providing cost effective public services, and limiting urban development densities to specific and compact portions of the community
- the presence of a market for low-density rural life styles.

Key policies of the Agricultural/Rural Residential Area are:

1. The primary use of land should be agriculture, resource conservation and other open space areas, and rural residential lifestyles.
2. Secondary uses should typically be limited to those that are uniquely compatible with the environmental and/or rural character of the Area such as kennels, stables, golf courses, and bed and breakfasts.
3. Maximum development densities should be one dwelling per approximately two acres. Exceptions to this density limitation are appropriate where special measures are implemented to protect the integrity of the township’s roadway network, rural character, and open space resources, in the form of “open

space developments” as described further in Chapter Five.

The Agricultural/Rural Residential Area encourages the continuation of all current farming activities as well as the introduction of new farming activities, provided appropriate measures are followed to minimize impacts on surrounding land uses and the environment. Care should be exercised with all farming practices including specialized agricultural operations that may have heightened impacts such as concentrated livestock operations.

Potential new residents in this Area should recognize that the traditional noises and agricultural operations associated with responsible farm operations are a significant component of the Agricultural/Rural Residential Area and will continue on a long term basis. Vevay Township does not consider such activities and operations as nuisances. The township supports the long term continuation and protection of responsible farm operations and the local farming industry. Local developers and real estate agents should disclose this information to prospective buyers of land.

There are some existing small settlement areas in the Agricultural/Rural Residential Area. The Plan recognizes the viability and desirability of these settlement areas, and that some may be of a higher density than recommended for the Agricultural/Rural Residential Area. However, these settlement areas are not to serve or be interpreted as future growth and expansion zones.

Suburban Residential Area

The Suburban Residential Area provides for residential development of a more suburban and urban character than planned elsewhere in the township. This Area includes existing residential development of a suburban character as well as vacant land where new residential development of similar character is considered most appropriate.

The Suburban Residential Area surrounds the City of Mason. The Area extends approximately one-quarter mile from the city’s west side and one-half mile from the city’s east and south side, with an extension to the southeast to the Shawnee Estates neighborhood area. This area is characterized by numerous conditions that support its appropriateness for future higher-density housing including access via county primary roads, M-36 and two US-127 interchanges, adjacency to the compact development pattern and

urban services of Mason including opportunities for the extension of public sewer and water, proximity to education and recreation facilities and fire protection services, planned suburban residential development in Alaiedon Township to the north, and portions of this Area are subject to a 1998 court settlement between Mason and Vevay Township that facilitates future annexation. In addition, the east side of Mason presents less favorable conditions for long-term farming.

Key policies of the Suburban Residential Area are:

- 1) The primary use of land should be single-family and two-family residences, including opportunities for comparatively higher density small-lot subdivisions where adequate provisions are made for potable water and sewage disposal.
- 2) Secondary uses should be principally limited to alternative living arrangements such as townhouses, apartments, retirement centers, and similar housing options, along with uses that directly support and enhance desirable residential areas such as schools, religious institutions, and recreation facilities.
- 3) All living arrangements should ensure healthy living environments including sufficient open space and safe motorized and non-motorized circulation.
- 4) Maximum development densities should typically not exceed one dwelling per approximately one-half acre, provided adequate measures are in place for sewage disposal and potable water.
- 5) Development densities approaching three or more dwellings per acre may be reasonable but only after special review proceedings to determine if the project is appropriate on the proposed property. Minimum guidelines that should be considered are:
 - adequate infrastructure and public services including sewage disposal and potable water.
 - environmental limitations presented by site conditions
 - anticipated impacts upon existing neighborhoods and opportunities for minimizing negative impacts through appropriate design measures
 - developments involving densities of three or more dwellings per acre should be of such size, or phasing, to ensure that the desired character of the community is preserved and public health, safety and welfare will be maintained.
 - multiple family developments of a comparatively large scale should be guided to

locations of heightened access such as the Kipp Road interchange.

The presence of extensive wetlands or other sensitive environmental resources may suggest lower development densities in selected areas. On the other hand, the Future Land Use Strategy supports the exploration of a transfer of development rights (TDR) program as a means to more effectively preserve farmland in the Agricultural/Rural Residential Area, and which may suggest special opportunities for additional density bonuses in the Suburban Residential Area. See Chapter Five for a summary of TDR.

Manufactured Housing Community Area

The Manufactured Housing Community Area is established to recognize the existing manufactured housing community development (frequently referred to as mobile home parks) at the U.S.-127/Barnes Road interchange area, and the intent of this Plan that any future development of similar character be limited to this immediate location. Manufactured housing communities provide certain benefits to a municipality and future residents. Most particularly, they allow growth to be accommodated in a compact area rather than encroaching into more agricultural and rural areas of a community. They can provide attractive residential environments at more affordable costs, and permit ownership of a home without the need to maintain large yard areas. These benefits can be particularly attractive for individuals who are less mobile or possibly frail, do not have the time or interest in maintaining a conventional residence, and/or do not have or care to spend the financial resources necessary to own a more traditional home and lot.

The U.S.-127/Barnes Road interchange area is the sole location in the township where there exists development of similar density, and the location is afforded excellent access to U.S. 127. There is already vacant land zoned for this form of development in this location. No additional land should be rezoned for manufactured housing communities until a clear need is demonstrated for additional manufactured housing community development. The Manufactured Housing Community Area is not intended to address, facilitate or encourage other high-density residential development due to the preferred locations discussed above.

Mixed – Use Areas

The Future Land Use Strategy establishes several planned “Mixed-Use Areas.” As the phrase implies, these areas are recognized as being appropriate for a mix of land uses depending upon market conditions and the character and merits of specific development proposals. The areas are characterized by one or more conditions that support a heightened degree of development flexibility including a surrounding land use pattern of a mixed character, the absence of significant existing residential development, proximity to highway interchanges, and the availability of or the cost-effective extension of utilities.

In light of the potential mixed-use character of these areas, special care must be exercised during all phases of the review and approval of specific development proposals. A fundamental goal is to ensure that the arrangement of uses, buildings and facilities and their respective design features enhance their presence including in the manner development sites interface with neighboring sites.

All development should reflect design measures to encourage compatibility with adjacent and nearby land uses and the desired rural character of the community. Limitations on signage, building heights, size, and related architectural qualities will encourage compatibility of new land uses with the desired character of the surrounding areas and the township as a whole. Special attention should be directed at preventing the undermining of the public health, safety or welfare due to poor road access practices such as excessive curb cuts and conflicting turning patterns.

Three mixed-use areas are established. Their locations and recommended land use programs are as follows:

The **Kipp Road Interchange Mixed-Use Area** occupies the northeast quarter of Section 17 and includes frontage along Kipp Road, U.S.-127 and the access ramp, and Jewett Road. The area is considered appropriate for mixed residential, commercial and industrial uses. Where industry may be pursued, it should generally be limited to uses and operations with minimal external impacts such as service-oriented industries, communication and information technologies, and light industrial operations that focus on the assembly of pre-made parts. A full range of commercial uses is considered appropriate. Special care should be taken during the review and approval of development proposals to ensure the Kipp Road corridor provides an inviting entrance into the township and city, through proper

signage, lighting, placement of buildings and parking areas, architectural features and ample landscaping and open spaces. A full range of housing options is considered appropriate including single-family and two-family residences, apartments, townhouses and assisted living facilities.

The **Cedar Street Mixed-Use Corridor** follows Cedar Street from the U.S.-127 interchange to Howell Road. This corridor is characterized by an existing mixed-use pattern. Existing commercial development addresses both the consumer needs of highway travelers and those of local and regional populations, and occupies the majority of the Cedar Street frontage. Dart Container Company is located along a portion of this frontage and other industrial operations are present along Legion Drive.

This mixed-use area is established in recognition of the existing development pattern and the Plan's support for the continuation of this corridor as a mixed-use non-residential area. Like the current pattern, the Cedar Street frontage should generally be reserved for commercial use. This corridor should undergo improvements to heighten public safety and visual amenities including streetscape enhancements that address, in part, landscaping and lighting, signage, limitations on the frequency and number of driveways, and the use of shared service drives. Redevelopment of properties that incorporate these features is encouraged.

The **Eden Road Mixed-Use Commercial/Industrial Area** is bisected by Eden Road and extends from Mason south to Tomlinson Road, and includes the area currently occupied by the Jewett Airfield and west to the city and U.S.-127 including businesses along Hull Road. This Area includes the township's existing principal industrial operations such as Michigan Packaging Company and Biochot Concrete. Much of the land along the east side of Eden Road is classified as a Michigan Select Site by the Michigan Economic Development Corporation. The Jewett Airfield occupies the largest portion of this Area. Non-industrial uses include snow equipment sales, several landscape services, an indoor sports training facility, the township hall, restoration and remodeling services, and a mini-storage facility. The presence of the airfield and other existing industrial sites undermines the desirability and viability of new residential development in this immediate area.

The Eden Road Mixed-Use Area is intended to provide opportunities for principally transportation services, light industry and commercial businesses that cater to the needs of the U.S-127 traveler as well as uses that are particularly dependent on the proximity of highway corridors do to the regional market that they serve and/or their dependence on

the efficient movement of goods by ground transportation. The Plan supports the continued presence of the Jewett Airfield and the transportation services it provides. Should the viability of the airfield decline, the Plan supports the reuse or redevelopment of the developed portions of the airfield for alternative uses as described above.

Should the airfield no longer be used for air transportation, the redevelopment of the site for commercial or industrial purposes should be limited principally to those areas occupied by existing buildings, hangars and similar improved portions of the airfield. Redevelopment of the airfield for commercial or industrial uses should not extend south beyond these existing improved areas. Farming and residential development of a character described under the Agricultural/Rural Residential Area should be the dominant land uses in these more peripheral areas of the existing airfield should redevelopment occur, excluding the Eden Road frontage area.

Conservation of Natural Resources

Vevay Township is characterized by conditions that require a strong conservation effort. These conditions include approximately 1,100 acres of wetlands, 2,100 acres of woodlands, and important drainage corridors such as Sycamore Creek. In addition to presenting severe limitations to development, these resources provide important environmental benefits including habitats for wildlife, flood control, groundwater recharge and discharge, and surface water purification. In addition, they provide special opportunities for passive recreation and contribute to the township's overall rural character.

In light of the critical roles these resources play and the limitations they present to development, and public sentiment that places a high priority on the township's natural resources, the Plan strongly supports the preservation of these resources.

Preservation of natural resources should take precedence over the unnecessary disturbance and/or destruction of these resources through land development practices. The presence of such resources in areas designated for development should be recognized in the deliberation of rezoning, site plan, and similar zoning requests.

Land uses requiring state and/or federal permits (especially for wetland or floodplain alterations) should not receive final township approval until satisfactory evidence has been submitted verifying the acquisition of all necessary permits. Where a portion of a parcel contains environmentally sensitive areas, modifications to the site should be directed elsewhere on the site.

Of special interest and concern is the preservation of open space corridors including wetlands, woodlands, and stream corridors including stream banks, bank

vegetation, and shoreline environments. These resources are a critical component of the township's natural environment and environmental stability, facilitate recreation opportunities, and support the area's wildlife resources. Through the review of development proposals and the development of special zoning tools, both regulations and incentives can be used to incrementally establish these open space and wildlife corridors.

Greening Mid-Michigan

Greening Mid-Michigan is a joint collaboration of: Clinton County Greenspace Commission, Eaton Conservation District, Eaton County Parks Department, Ingham County Parks Department, Ingham County Open Space and Farmland Preservation Board, Greater Lansing Regional Committee for Stormwater Management, and Heart of Michigan Trails Partnership

Greening Mid-Michigan's mission is to:

- Keep urbanized areas viable
- Protect farmland, open space and rural quality of life
- Promote non-motorized connections between public amenities
- Promote the use of the potential conservation areas assessment in all areas of planning

There are three initiatives of Greening Mid-Michigan:

- The identification of natural resources within the region
- The establishment of a resource conservation plan including specific geographic area targeted for conservation and collaboration among officials and planners regarding the same
- The mapping of green infrastructure systems

Greening Mid-Michigan has developed a "poster plan" that identifies existing green infrastructure systems throughout the region along with existing and proposed trail linkages between the resource systems, and serves as a resource for local officials and other stakeholders. The plan's vision *"provides an opportunity to shape land use that will positively impact our communities in the years to come."*

Greening Mid -Michigan is funded in part by the Tri-County Regional Planning Commission and the United States Department of Housing and Urban Development.

For more information and to view the poster plan, visit <http://greenmidmichigan.org>

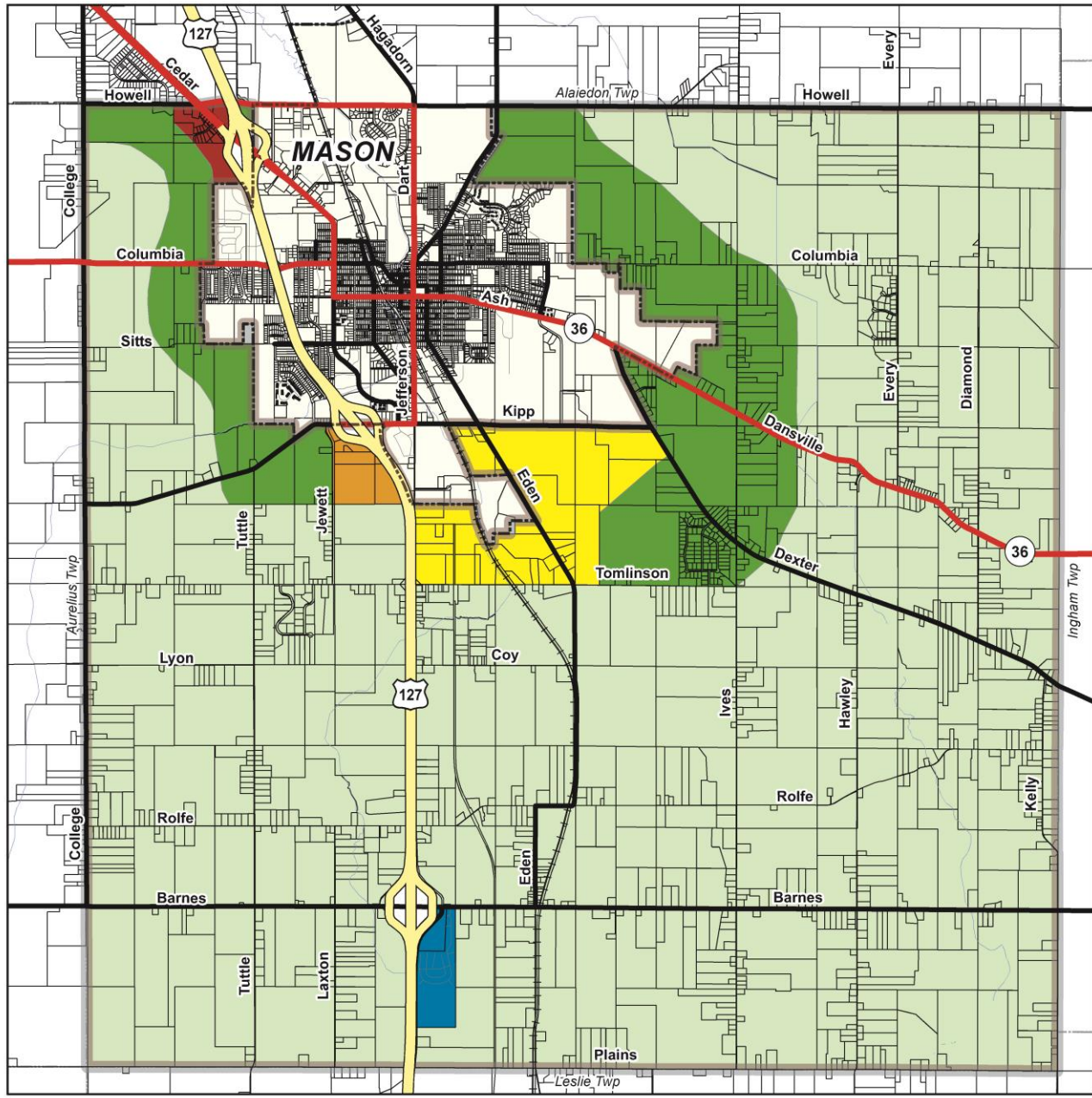
Phased Zoning

This Plan recommends that the rezoning of land to a more intensive zoning district be done in a phased or incremental manner. For example, while the Plan may identify township locations that are appropriate to accommodate suburban residential development, the Plan does not recommend “across the board” or immediate rezonings of such land. The Plan recommends that rezonings to more intensive districts occur incrementally over time to ensure:

- adequate public services
- managed township-wide growth and development
- proper review of rezoning requests as they pertain to specific sites
- rezonings are in response to a demonstrated need
- minimizing unnecessary hardships upon a landowner as a result of property assessments and/or the unintended creation of nonconforming uses and structures.

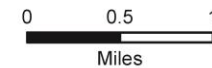
Future Land Use

10/11/2016
 Vevay Township
 Master Plan



Future Land Use

- Agricultural/Rural Residential Area
- Suburban Residential Area
- Manufactured Community Housing
- Kipp Road Interchange Mixed-Use Area
- Cedar Street Mixed-Use Corridor
- Eden Road Mixed Use Area
- Vevay Parcels 2015



Chapter Four COORDINATED PUBLIC SERVICES

Introduction

Chapter Three describes the planned pattern of land use throughout the township. Chapter Four discusses the public services strategy to be coordinated with the planned pattern of land use. The character and feasibility of land use and development is influenced by the extent to which public services are available. In addition, the character of public services can directly impact the perceived quality of life among residents in the community.

An important principle of the Future Land Use Strategy is that no new development should occur in the township unless public services are adequate to meet the needs of that new development.

On the other hand, public service improvements and the increased development that may result from such improvements should not jeopardize the township's preservation interests and commitment to managed growth and development. Thus, it is very important that future public service improvements be coordinated with the planned pattern of future land use as described in Chapter Three.

Circulation and "Complete Streets"

As growth and development occurs, demands on the road network will increase. The additional residential development anticipated in this Plan will result in higher traffic levels. It must be recognized that road improvements may well attract new development which, in turn, will place additional demands on the road network.

The township's road infrastructure currently fulfills its function well for vehicular traffic. This is due, in large part, to the existing low development density throughout most of the township, the paved status of important thoroughfares, and the presence of M-36 and U.S.-127 including two local interchanges.

However, opportunities for safe pedestrian and non-motorized travel are comparatively limited. Safe pedestrian and non-motorized travel has received greater and greater focus within the planning arena, on local, regional, state and federal levels. The provision of opportunities for safe and comprehensive pedestrian and non-motorized travel has been found to encourage health in individuals, provide alternative means of recreation, and lessen congestion, air pollution, and the consumption of fossil fuels. The importance of safe and comprehensive pedestrian and non-motorized travel led to the Michigan Legislature to amend the Planning Enabling Act in 2010 to require a "complete streets" element in a master plan. Placing the automobile as the sole design factor for roads is no longer the "norm."

"Complete streets" generally refers to the design of roads that take into account the circulation needs of all potential users including pedestrians, bicyclists, motorists, and public transportation users. The "complete streets" program emphasizes safety along roads for all users and users of all age groups. While recognizing that there is no single "complete streets" design solution that applies to all roads in all communities, the program emphasizes the need for new roads to be designed, and existing roads be improved, to facilitate their safe and efficient use by all prospective users within the context of the particular community's needs and character.

As a rural community, implementation of a "complete streets" program is different than that of an urban center. While an urban community may pursue sidewalks, bike lanes or paved shoulders, bus lanes, convenient public transportation stops, median islands, frequent and well marked cross-walks, and other measures, rural communities such as Vevay Township typically have fewer options and frequently focus on paved shoulders. However, even in Vevay Township, the feasibility of implementing "complete streets" elements increases in the planned residential and non-residential development areas.

The Ingham County Transportation Department has jurisdiction over the township’s public roads. Still, the township has the opportunity to provide input regarding road maintenance, design and improvements.

Circulation/Complete Streets Policies:

- 1) Greatest priority for road improvements will be assigned to those road segments whose current conditions present imminent danger to the public health, safety and welfare, such as in the case of road impasses and flooding.
- 2) Functional classification of roads will dictate the priority of improvements when all other conditions are generally equal. The functional importance of the roads in the township, from highest to lowest, is: 1) M-36; 2) county primary roads, particularly those segments servicing the Future Land Use Strategy’s Suburban Residential and Mixed-Use Areas; 3) county local roads, particularly those segments servicing the Suburban Residential and Mixed-Use Areas, but excluding roads in a platted subdivisions and similar neighborhood developments; and 4) minor roads, such as local subdivision roads and similar neighborhood development roads.
- 3) Aside from the consideration of the extension of Kipp Road to provide direct access to M-36, no new roads or road extensions should be undertaken except upon a clear finding of need to ensure public safety and welfare or to provide access to new development projects, such as the provision of access to lots in new subdivisions.
- 4) All roads will be designed and constructed to Ingham County Transportation Department standards except upon a finding that, in specific instances, such standards do not justify the impact on the natural environment and rural character of the community or are otherwise unnecessary, and lesser standards will not undermine public safety and welfare including the long term stability of the road infrastructure.
- 5) All proposed future road construction will be evaluated carefully for local and regional impacts on traffic flow, congestion, public safety and land use. New road construction will be coordinated with other local and regional road improvements to address traffic movement in a unified, regional and comprehensive manner.
- 6) The township will monitor development patterns and periodically explore the development of a non-motorized circulation plan to facilitate the provision of safe non-motorized travel, with particular focus on linkages within and between neighborhoods, schools, and other activity centers in the

community including in association with new residential developments.

- 7) The township will work with the Ingham County Transportation Department to incorporate “complete streets” measures in road construction, maintenance and improvements.
- 8) The township will evaluate proposed developments within the context of “complete streets” to ensure all users of a development are afforded opportunities for safe and efficient travel within and between development sites including neighborhoods and commercial and industrial areas.

Sewage Disposal and Potable Water

There is no public water service in Vevay Township. Public sewer service is limited to the Dart Container facility and Legion Drive area (west of the US-127/Cedar Street interchange), and to the MDOT garage on Jewett Road and the Michigan Packaging plant on Eden Road. Residents rely on private wells and septic systems for potable water and sewage disposal. Improperly operating septic systems can contaminate potable groundwater resources, lakes and streams. This poses a public health threat.

As land development densities increase, so does the need for public sewer and water. Industrial, commercial, and higher density residential land uses generally have greater sewage disposal and potable water needs than can often be met by traditional on-site facilities. Failure to provide adequate sewer and water facilities to these land uses can lead to severe health and environmental problems, while the premature provision of these services can lead to accelerated and unmanaged growth and development. Many of the township soils present severe limitations to on-site sewage disposal. This condition highlights the critical relationship between land use, development intensities, and on-site sewage disposal and potable water.

As part of a 1998 court settlement agreement between Mason and Vevay Township, Mason is available to extend sewer and water service south of Sections 7 – 12 (generally defined by Kipp Road) provided the township and/or developer takes responsibility for infrastructure costs.

The viability of an effective affordable housing program significantly increases where public sewer is available. Similarly, the presence of public sewer and water will facilitate development in the planned Mixed-Use Areas. The Public Services Strategy supports the

extension of public sewer to the planned development areas of the township.

Sewage Disposal and Potable Water Policies:

- 1) All on-site sewage disposal and potable water facilities will be constructed and maintained in accordance with the requirements and standards of the Ingham County Public Health Department, Michigan Department of Health and Human Services, and other applicable public agencies.
- 2) The township will support the phased extension of public sewer and water to the planned Suburban Residential and Mixed-Use Areas.
- 3) Public sewer and water services will not be introduced into planned agricultural areas except in response to a significant public health threat and where no other practical means of addressing the threat is available.
- 4) Any introduction or expansion of public sewer and/or water service, and associated infrastructure, will occur in a phased and incremental manner to ensure effective growth management.
- 5) The introduction or expansion of public sewer and/or water should be based upon sound engineering principles and infrastructure design that will facilitate incremental increases in demand on the system while, at the same time, will not create excessive capacity that will encourage expansion into planned agricultural and low density residential areas.

Though flooding, soil erosion, sedimentation and pollution may originate from site-specific circumstances, their impact can extend to adjacent properties and more regional areas including other downstream communities. Storm water management aims to minimize flood conditions and control the quality and quantity of runoff that is discharged into the watershed system (streams, rivers, wetlands, lakes, etc.) from a development site.

Storm Water Management Policies:

- 1) Increased runoff that may occur as a result of property development will be appropriately managed to ensure that the quality of the water runoff discharged is of such quality that it does not undermine the integrity of the township’s surface and ground water.
- 2) Proposed land uses will not be permitted if the level of service currently provided by existing storm water management infrastructure and/or existing drainage patterns will be decreased, unless necessary improvements to such infrastructure or natural drainage courses are first made.
- 3) New and existing land uses shall comply with all local, county, state, and federal regulations regarding storm water management and soil erosion, including the regulations of the Ingham County Drain Commissioner, except where local officials determine less stringent standards in site-specific instances are appropriate and will not undermine the public health, safety and welfare.
- 4) Storm water management measures will emphasize “green infrastructure” – planned networks of natural lands, functioning landscapes and other open spaces that minimize alterations to the natural landscape and lessen the reliance on storm sewer and similar “grey” infrastructure.
- 5) All development will be reviewed within the context of its impact on Sycamore Creek, Willow Creek and other drainage corridors and surface water and groundwater resources, including wetlands, to ensure discharge practices do not undermine the environmental integrity of these resources.
- 6) The Township will maintain regular communication with the Ingham County Drain Commissioner and Road Commission regarding drains and roadside ditches in disrepair.

Storm Water Management

As buildings, parking lots and other impermeable surfaces associated with new development cover more of the township’s land surface, the quantity of storm water runoff increases. The vegetated landscape that previously absorbed and slowed much of the water associated with storms is replaced by impervious surfaces. Unless specific preventive measures are taken, this condition encourages flooding, soil erosion, sedimentation and pollution of water resources. The township’s water resources, including Sycamore Creek and its abundant wetlands, are vulnerable to degradation.

Attention should also be directed to ensuring adequate drainage of farmlands. Storm water management is not a development issue only. While development can pose increased flood potential, improper maintenance of county drains and roadside ditches, and filling of wetlands, can increase flood conditions in agricultural and rural areas.

Police and Fire Protection Services

Vevay Township receives fire protection services from the City of Mason. The Fire Department has mutual-aid agreements with surrounding communities. Police protection services are provided by various local law enforcement agencies. As community growth and land development increases, so does the demand for emergency services. It is important that the township ensure that adequate fire and police protection services are available to existing and future residents and property.

The community survey undertaken as part of the development of this Master Plan suggests that police protection is currently viewed as adequate. Fire protection services are viewed in a noticeably more favorable manner. Commonly referenced industry standards regarding fire protection suggest a maximum service radius from a fire station in low density residential areas of approximately 3 miles, and an approximately 3/4 to 2 mile service radius in commercial, industrial, and high density residential areas. There are portions of the township that are not within these recommended ranges. Mutual aid agreements with surrounding municipalities do not address these deficiencies. It is the southern and eastern peripheral areas of the township that are of greater deficiency. There are no widely accepted standards for police protection levels, though levels are frequently measured as a function of public satisfaction.

Police and Fire Protection Policies:

- 1) The township will require the provision of fire protection infrastructure (wells, water lines, etc.) for all new developments which are of such size and density that on-site infrastructure is considered critical. On-site fire protection infrastructure will generally be considered necessary for residential developments that concentrate building sites on lots of approximately one-half to three-quarters of an acre or smaller.
- 2) The township will continually monitor police and fire protection needs and services to minimize and/or prevent emergency services deficiencies, and explore ways to improve service levels. Considerations for expansion of services will include both the expansion of joint services with neighboring municipalities and the establishment of independent operations.

Recreation

Vevay Township operates a single recreation site comprised of the Township Hall property and its associated recreation fields and facilities. Park facilities at the site include a softball field, soccer field, pavilion, picnic tables, grills, sandboxes, swings, a play structure, and storage shed. The site also includes two field areas with portable hockey goals. Many of the sports fields overlap one another. Township residents are also able to use recreational facilities and services of other public bodies including the school facilities and programs of the Mason and Dansville School Districts, the parks and recreation programs of nearby municipalities including the Cities of Mason and Lansing, as well as regional facilities operated by Ingham County and other public agencies such as the state's Dansville State Game Area.

The well being of the township's residents is affected by the availability of recreation opportunities, and the type and availability of nearby recreation facilities are important.

Demands for recreation opportunities increase with population growth. Available land for recreational purposes decreases as housing and other land uses consume more of what was open space and potential outdoor recreation land. Recreation lands must be appropriately located within the community. The township's commitment to ensuring adequate recreation opportunities for its residents is reflected in the Township Board's adoption of the Township Recreation Plan as updated in 2010. The Plan addresses existing conditions in the township including recreation opportunities and deficiencies, and presents a strategy for improving recreation conditions.

The Master Plan supports the recommendations of the Vevay Township Recreation Plan including the following important themes:

Inter-Urban Railroad Trail: Affording bicycle and pedestrian access within and between communities has long been identified as an important goal in improving quality of life. Vevay Township, like several other communities in the area, is fortunate to encompass part of the old Inter-Urban Railroad corridor. The long abandoned rail corridor in Ingham County is now within a Consumers Power Company right-of-way that extends from the City of Leslie, through Vevay Township, to Mason and Lansing. Use of this right-of-way, as available, for a trail system, would be a tremendous recreational opportunity for the residents of the township as well as for the entire region.

VEVAY TOWNSHIP MASTER PLAN

The trail will provide non-motorized access between communities, safe from the hazards of vehicular traffic, and provide opportunities for nature appreciation, jogging, bicycling, cross-country skiing, and other appropriate uses.

Township Hall Park: Maintenance and incremental improvements to the park at the Vevay Township Hall is key to the future success of recreation in the community. As the Township's only recreational facility at this time and centrally located, commitment to its maintenance and improvement is essential. Recreation improvements should reflect what the community-at-large places most emphasis upon.

Water Park: Over the past 30 years, gravel deposits have been removed creating several high quality small lakes. These small lakes could potentially be developed into small water access parks. The southeast quarter of the county is void of such a facility. A joint venture with Ingham County may facilitate a successful project.

Recreation Financial Stability: As more park improvements are made and/or recreation sites acquired, maintenance and operational costs can be expected to increase. Current and future maintenance and operations costs must be planned for to ensure quality recreation year to year. This underscores the importance for the township to continually explore alternative means for generating recreation dollars, including grants, donations, user fees and a tax millage.

Close-To-Home Park Sites: At present, residential development in the Township consists primarily of individual land divisions along existing public roads. There are comparatively few platted subdivisions or similar neighborhood developments. However, as the community grows and neighborhood developments may increase, an increasing demand for close-to-home recreation sites will likely rise. The township must continually monitor growth and development trends and encourage park sites close to population centers and the inclusion of recreation areas in neighborhood developments.

Park Linkages: The principal roadway network of Vevay Township is characterized by double lane thoroughfares where traffic speeds can be high. The thoroughfares are generally void of sidewalks or safe shoulders for non-motorized travel. Foot and bicycle traffic heading to future and current park sites can be extremely hazardous and this condition limits convenient and safe park access. The township will continually explore the development of trail systems designed to link park sites with one another and with current and future population centers.

The Vevay Township Community Recreation Plan is available for review on the township's website and at the Township Hall for those desiring a more detailed understanding of the Plan.

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Chapter Five IMPLEMENTATION STRATEGIES

Introduction

This Master Plan establishes a strategy for growth, development and preservation in Vevay Township. The Plan is comprised of graphic and narrative policies intended to provide basic guidelines for making reasonable and realistic community decisions. It establishes policies and recommendations for the proper use of land and the provision of public services and facilities. The Plan is intended to be used by local officials, by those considering private sector developments, and by all residents interested in the future of the township.

This Plan is a policy document. As a policy document, the Plan's effectiveness is directly tied to the implementation of its policies through specific tools and actions.

The completion of the Plan is one part of the planning process. Realization or implementation of the goals, objectives and policies of the Plan can only be achieved by specific actions, over an extended period of time, and through the cooperative efforts of both the public and private sectors.

Implementation of the Plan may be realized by:

- encouraging knowledge, understanding, and support of the Plan by residents and the business community, and the continued communication with and involvement of the citizenry
- providing a program of capital improvements and adequate, economical public services to accommodate desirable development
- pursuing an action plan to address the objectives presented in Chapter Two
- regulating the use and manner of development through up-to-date reasonable zoning controls, subdivision regulations, and other regulatory and non-regulatory tools
- maintaining a current master plan

The purpose of this Chapter is to identify important implementation tools available to the township.

Public Support, Communication and Community Involvement

Citizen participation and understanding of the general planning process and the specific goals, objectives and policies of the Plan are critical to the success of the township's planning program. Understanding and support of the Plan by local citizens can greatly enhance its implementation. This enhancement may be found in citizen support for bond proposals, special assessments, zoning decisions, and development proposals.

In order to organize public support most effectively, the township must emphasize the necessity of, and reasons for long-range planning and the development of the Master Plan.

Specific actions to be undertaken to encourage public understanding and support of the township's planning program, and the continued communication with and involvement of the citizenry, are as follows.

- 1) Ensure that copies of the Master Plan are available at the township hall and on the township's web site.
- 2) Post the Future Land Use Map in the township hall where it is clearly visible.
- 3) Post a regularly updated listing of current events pertaining to planning and zoning matters at the township hall and on its web site.
- 4) Through public notices, newsletters, township hall postings, web site postings, and other means, apprise residents of:
 - the planning efforts of the township
 - meetings that will address development and public service improvement proposals as the projects move through review
 - proposed developments and land use decisions under consideration, and where individuals may acquire additional information on such matters
- 5) Periodically hold special meetings for the specific purpose of discussing the township's planning efforts and providing residents with the opportunity to share concerns and suggestions.

- 6) Encourage “neighborhood watch” programs in each neighborhood to promote safety, cooperation and communication.
- 7) Maintain regular and continued communication with neighboring communities and encourage coordination of planning efforts.

As the township grows and increased demands for public services and infrastructure improvements surface, the benefit of a comprehensive capital improvement program will grow.

Capital Improvements Programming

The use of capital improvements programming can be an effective tool for implementing the Master Plan and ensuring the orderly programming of public improvements. In its basic form, a Capital Improvements Program (CIP) is a complete list of all proposed public improvements planned for a six year period (the time span may vary), including costs, sources of funding, location, and priority. It is a schedule for implementing capital improvements that acknowledges current and anticipated demands, and recognizes present and potential financial resources available to the community. The CIP is not intended to encourage the spending of additional public monies, but is simply a means by which an impartial evaluation of needs may be made.

The importance of CIPs is highlighted by the fact that Sec. 65 of the Planning Enabling Act strongly endorses capital improving planning for all communities, and mandates that a township prepare an annual six-year CIP if the township owns or operates a water supply or sewage disposal system.

The CIP outlines the projects that will replace or improve existing facilities, or that will be necessary to serve current and projected land use development within a community. Advanced planning for public works through the use of a CIP ensures more effective and economical capital expenditures, as well as the provision of public works in a timely manner. Few communities are fortunate enough to have available at any given time sufficient revenues to satisfy all demands for new or improved public facilities and services. Consequently, most are faced with the necessity of determining the relative priority of specific projects and establishing a program schedule for their initiation and completion.

This Master Plan does not recommend specific increases in public services or infrastructure, and includes no recommendations for the expansion of public sewer or water, the acquisition of additional park sites, or the construction of an additional fire station. Still, regularly prioritizing even “minor” community improvements is an important part of the planning process.

Objectives Action Plan

The objectives presented in Chapter Two serve as strategies to reach the goals of this Master Plan and to put in place the policies of Chapter Three (Future Land Use Strategy) and Chapter Four (Coordinated Public Services). Some of the objectives require comparatively short periods of focus for successful implementation (one or several years). Other objectives may require a longer implementation period and continued maintenance as a regular annual effort each and every year.

The Chapter Two objectives are of limited value unless they are routinely and regularly reviewed and an annual action plan is developed. The action plan should identify the objectives to pursue in the coming year and each subsequent year, and the recommended township entity that is best suited to take the lead in furthering the selected objective(s). Undertaking the implementation of an excessive number of objectives during a single year is likely not realistic and may lead to very little being accomplished. Identifying a realistic set of annual objectives to pursue may ultimately lead to a more successful long-term implementation program.

The Planning Commission and Township Board should meet annually:

- to prioritize objectives to be pursued in the coming several years and those that should take priority in the immediate year ahead
- to identify the entity to take charge in the respective objective’s implementation
- to identify the steps to be taken for the objective’s implementation
- to identify from where funding is to be provided (if funding is necessary)

Prioritization of the objectives should be based on such factors as public safety, economic stability and growth, comparative need, comparative impact community wide, and the number of residents and/or businesses that benefit.

Development Codes and Programs

Zoning Ordinance

A zoning ordinance is the primary tool for implementing a Master Plan. A zoning ordinance regulates the use of land. The ordinance generally divides a community into districts and identifies the land uses permitted in each district. Each district prescribes minimum standards that must be met such as minimum lot area, lot width, and building setbacks. Since 2006, zoning regulations for Michigan communities are adopted under the authority of the Michigan Zoning Enabling Act, P.A. 110 of 2006.

The purpose of zoning, according to the Act, is to (in part): “regulate the use of land and structures; to meet the needs of the state’s citizens for food, fiber, energy, and other natural resources, places of residence, recreation, industry, trade, service, and other uses of land; to insure that use of the land shall be situated in appropriate locations and relationships; to limit the overcrowding of land and congestion of population, transportation systems, and other public facilities.”

Vevay Township has had local zoning in place for more than 30 years. Its current ordinance was adopted in 2008 and it has been periodically amended. With the adoption of this Master Plan, the township’s zoning ordinance should again be carefully reviewed to identify amendments that may be beneficial to implement the policies of the Plan and facilitate efficient day-to-day zoning administration.

Adoption of zoning regulations by the Township Board provides the legal basis for enforcement of zoning provisions. The ultimate effectiveness of the various ordinance requirements is dependent on the overall quality of ordinance administration and enforcement. If administrative procedures are lax, or if enforcement is handled in an inconsistent, sporadic manner, the result will be unsatisfactory. The Planning Commission, Township Board, and staff are responsible for carrying out zoning/development related functions including the review of development plans and site inspections. These functions can require special expertise and a substantial investment of time to ensure that these essential day-to-day functions are met and appropriate development is facilitated.

Vevay Township Zone Plan

The following pages present a Zone Plan. The Zone Plan establishes a foundation for the township’s zoning regulations. The Zone Plan is comprised of three elements.

Zone Plan – Part One

Recommended Zoning Districts and Relation to Future Land Use Strategy/Map.

Part One of the Zone Plan presents guidelines for the presentation of zoning districts in the Vevay Township Zoning Ordinance to implement the Future Land Use Strategy presented in Chapter Three of the Master Plan including the Future Land Use Map.

Zone Plan – Part Two

Zoning District Site Development Standards.

Part Two of the Zone Plan presents guidelines for basic site development standards for zoning districts to implement the Future Land Use Strategy presented in Chapter Three of the Master Plan including the Future Land Use Map.

Zone Plan – Part Three

Critical Components of the Vevay Township Zoning Ordinance.

Part Three of the Zone Plan identifies important general elements that the Vevay Township Zoning Ordinance should include to ensure its ease of use and effectiveness in advancing the goals, objectives and policies of the Master Plan. The ordinance should be reviewed within the context of these elements.

Zone Plan – Part One

Table of Recommended Zoning Districts and Relation to Future Land Use Map

The following table presents general guidelines for the presentation of zoning districts in the Vevay Township Zoning Ordinance, within the context of how the suggested districts and the Master Plan’s Future Land Use Strategy (including Future Land Use map) relate to one another and the principal types of uses envisioned for each district. Secondary uses identified in the table, or others specified in the Zoning Ordinance, should typically be subject to comprehensive review to determine if the proposed use is appropriate on the subject site based on, in part, compatibility with surrounding land uses, environmental conditions, road infrastructure, and public services. The Zoning Ordinance may incorporate other more specialized overlay or other districts to address such matters as uses and development in floodplains and in close proximity to the Jewett Airfield, high density subdivision developments, and/or “planned unit development” provisions as authorized by the Zoning Enabling Act.

Zoning District (example names)	Primary Relationship to Future Land Use Map	Primary Intended District Uses	Examples of Potential Secondary District Uses
<u>A-1</u> Agricultural	Agricultural/Rural Residential Area	Agriculture and single-family residences	Agricultural service businesses, kennels, bed and breakfasts, and campgrounds
<u>R-1A</u> Rural Residential	Suburban Residential Area	Single family residences	Religious institutions, bed and breakfasts, cemeteries, schools, libraries, utility substations, and golf courses
<u>R-1B</u> Low Density Residential	Suburban Residential Area	Single family residences	Religious institutions, bed and breakfasts, cemeteries, schools, libraries, utility substations, and golf courses
<u>R-2</u> Medium Density Residential	Suburban Residential Area	Single and two-family residences	Religious institutions, bed and breakfasts, cemeteries, schools, libraries, utility substations, and golf courses
<u>R-MHC</u> Manufactured Housing Community	Manufactured Housing Community Area	Manufactured housing communities	Religious institutions, nursing/convalescent facilities, and schools
<u>R-MF</u> Multiple Family	Suburban Residential Area	Multiple family developments	Religious institutions, assisted living facilities, nursing/convalescent facilities, schools, utility substations and golf courses
<u>B-1</u> Local Business	Mixed-Use Areas	Retail, office and personal service uses, catering to local needs	Banquet halls, clubs, indoor recreational facilities, day care centers, and funeral homes.
<u>B-2</u> Highway Service	Mixed-Use Areas	Retail, office & personal service uses catering to the needs of the local population and highway traveler, and highway-based land uses	Drive-thru facilities, service stations, motels, hotels, bowling alleys, mini-storage, outdoor recreation facilities, kennels, vehicle repair, gas stations, and truck terminals.
<u>M-1</u> Light Industrial	Mixed-Use Areas	Industrial uses of a comparatively “light” character such as assembly of pre-made parts, tool and die, lumber yards, saw mills, and laboratories	Concrete/asphalt plants, junk yards, truck terminals, and fuel storage

VEVAY TOWNSHIP MASTER PLAN

**Zone Plan – Part Two
Table of Zoning District Site Development Standards**

The following table establishes general guidelines for the basic site development standards of the zoning districts intended to implement the Future Land Use Strategy in Chapter Three (including the Future Land Use Map). The table’s standards establish a realistic concept for each district. All guidelines below are approximate and serve as a framework for detailed Zoning Ordinance standards.

Conditions may suggest divergences from the guidelines to resolve conflicts or otherwise ensure the public health, safety and welfare such as: a) exceptions to the height standards for special buildings and structures; b) exceptions to the setback standards where neighboring uses may suggest more stringent standards such as a commercial use adjacent to a residential lot; c) more stringent lot width standards as part of an access management program; and d) higher density subdivision districts with more lenient standards.

Zoning District (example name)	Minimum Lot Area	Minimum Lot Width and Frontage	Maximum Building Heights	Maximum Lot Coverage	Minimum Yard Setback (each)		
					Front	Side	Rear
A-1 Agricultural	2 acres	200 ft.	2.5 stories but no greater than 35 ft.	15% of lot area	60 ft.	30 ft.	50 ft.
R-1A Rural Residential	30,000 sq. ft.	165 ft.	35 ft.	15%	60 ft.	20 ft.	40 ft.
R-1B Low Density Residential	30,000 sq. ft.	130 ft.	35 ft.	20%	60 ft.	12 ft.	40 ft.
R-2 Medium Density Residential	15,000 sq. ft.	80 ft.	35 ft.	25%	30 ft.	15 ft.	35 ft.
R-MHC Manufactured Housing Community	Conformance with Rules and Regulations of the Michigan Manufactured Housing Commission						
R-MF Multiple Family	1 acre	200 ft.	35 ft.	30%	60 ft.	30 ft.	50 ft.
B-1 Local Business	30,000 sq. ft.	125 ft.	35 ft.	65%	60 ft.	15 ft.	30 ft.
B-2 Highway Service	1 acre	200 ft.	35 ft.	75%	60 ft.	20 ft.	30 ft.
M-1 Light Industrial	2 acres	200 ft.	3 stories but no greater than 45 ft.	85%	60 ft.	30 ft.	25 ft.

Zone Plan, Part Three – Critical Components of the Vevay Township Zoning Ordinance.

The following identifies important general elements that the Vevay Township Zoning Ordinance should include to ensure its ease of use and effectiveness in advancing the goals, objectives and policies of the Master Plan. The ordinance should be reviewed within the context of these elements:

1) Procedural Matters/Plan Review

The Zoning Ordinance should be reviewed to ensure it includes clear and comprehensive step-by-step provisions addressing procedural matters such as the application process and approval standards for zoning permits, amendments, matters that come before the Zoning Board of Appeals, and enforcement efforts.

The zoning permit application procedures should include clear requirements for the submittal of necessary plans illustrating proposed modifications to a site, to enable officials to determine if the proposal complies with all standards of the Ordinance. The provisions should ensure such plans include comprehensive information pertinent to the development such as the delineation of existing natural features, the extent of alterations to such features, and the salient features of the development including buildings, parking, screening, lighting, grading and storm water management.

The Zoning Ordinance should include a comprehensive set of approval standards addressing such matters as access management and vehicular/pedestrian circulation, emergency vehicle access, natural resource protection, utilities, storm water management and compatibility with surrounding conditions.

2) District Provisions/Special Land Uses

The ordinance should include a clear and comprehensive presentation of zoning districts including the purpose, authorized uses, and site development standards for each district. To this end, the districts should differentiate between uses authorized “by right” versus as “special land uses.”

Uses permitted by right are the primary uses and structures specified for which a particular district has been established. An example may be a dwelling in a residential district.

Special land uses are uses that are generally accepted as reasonably compatible with the primary uses and structures within a district but, because of their particular character, may present potential injurious effects upon the primary uses in

the district or are otherwise unique in character, and it may not be appropriate in certain situations or on certain parcels. An example may be a kennel in a residential district.

Special land uses require special consideration in relation to the welfare of adjacent properties and to the township as a whole, and may not be appropriate in all locations.

3) Site Development Standards

In addition to the standards presented in the Zoning Ordinance for each district, such as minimum lot area, width, and setbacks, the Ordinance should be reviewed to ensure it presents clear and comprehensive standards addressing more general fundamental site development issues such as:

- a. Proper access to ensure public safety and welfare including access management along thoroughfares, emergency vehicle access, and non-motorized circulation.
- b. Off-street parking and loading to ensure adequate facilities are provided on a development site and design features encourage safe and efficient circulation for all.
- c. Landscaping and screening provisions that ensure new development (commercial, industrial, institutional, etc.) is compatible with surrounding conditions and supportive of the desired character of the community.
- d. Sign regulations to ensure local signage does not contribute to traffic safety hazards, visual clutter, confusion for vehicle drivers, visual blight, and decreased property values.
- e. Environmental safeguard provisions to ensure new development minimizes disturbances to the township’s natural resources including grading and storm water management.

4) Nonconformities

The Zoning Ordinance should address lots, uses and structures that are nonconforming due to changes to the zoning ordinance, and the extent to which such lots, uses and structures can be replaced, expanded, enlarged, or otherwise altered.

5) Site Condominium Regulations

The Zoning Ordinance should address site condominiums. Site condominiums come in many forms, but they typically involve residential developments that look identical or nearly identical to platted subdivisions. The principal differences between the two is that while privately owned lots

comprise the entirety (or near entirety) of a platted subdivision, site condominiums are comprised of privately owned (or rented) building envelopes where there are no “lot lines” and greater portions of the development are commonly owned. Site condominiums are not comprised of “lots” in the traditional sense. Zoning regulations must clearly address this form of development and correlate site condominium development with “lot” regulations to ensure such development is subject to the same review procedures and standards as otherwise applicable to other residential development of similar physical character (platted subdivisions).

6) Clustering / Open Space Developments

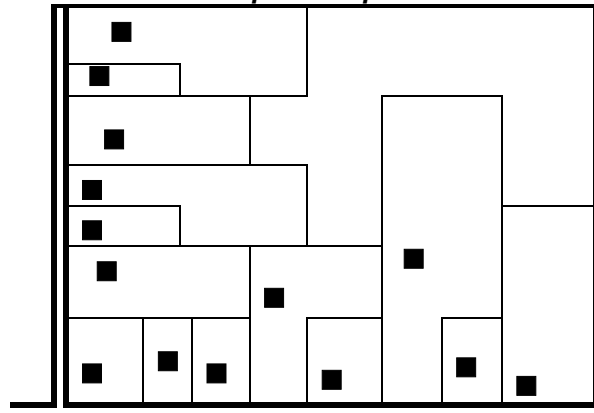
As a tool to facilitate the conservation of important natural resources and ecosystems, this Plan supports what are commonly referred to as “cluster developments” and “open space developments” in association with platted subdivisions, condominium subdivisions, and similar neighborhood developments. This development option is a beneficial alternative to large lot “rural sprawl,” which consumes open space and creates lots that are too small for farming or meaningful habitat protection.

This form of development provides for the clustering of smaller lots than what is normally required, on only a portion of the development parcel, so that the balance of the parcel can be retained as open space and for the preservation of important environmental resources. As much as 50% or more of a site, and preferably the most environmentally significant, may be preserved in its existing natural state, with individual house lots occupying the remaining acreage. These “open space” areas can be reserved by the use of conservation easements, deed restrictions, or similar tools. A critical component of clustering should be the inclusion of new interior roads to serve the new lots, rather than stripping new dwellings along existing road frontages. Provisions must recognize the specific requirements of Sec. 506 of the Michigan Zoning Enabling Act.

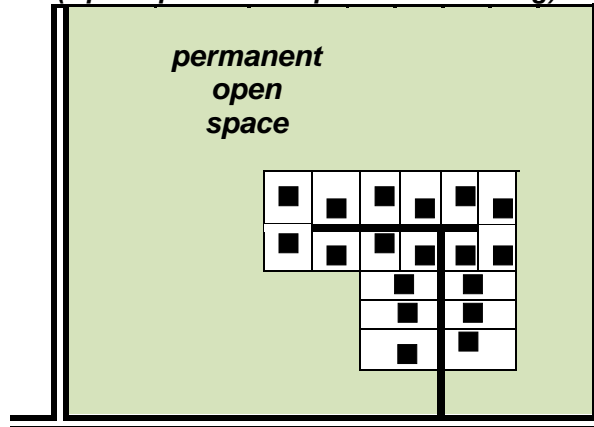
More traditional strip residential development along the township’s major roads is illustrated in Example A below. This is the easiest form of development but it impacts public safety due to the many driveways directly accessing the road and it can significantly undermine the rural character of the township. Example B, illustrating an open space development, improves public safety along the road, and more effectively preserves the existing character of the community including its open spaces and environmental resources and habitats. Clustering can also save

infrastructure costs by reducing the length of roads and utility lines.

Example A
Strip Development



Example B
(Open Space Development / Clustering)



One of the most effective means to encourage the open space development option is through more flexible development standards than otherwise available, such as standards pertaining to permissible densities, lot sizes, and setbacks. This Plan supports appropriate incentives to facilitate this preferred form of development provided such incentives are not contrary to the principal policies of the Plan including the intended character of each Area comprising the Future Land Use Strategy. Accordingly, moderate increases in recommended maximum development densities presented in Chapter Three may be reasonable.

7) Planned Unit Developments (PUDs):

“Planned unit development” provisions in a Zoning Ordinance typically permit a more flexible form of development that is normally permitted by the district in which the site is located or the other districts established in the Ordinance. PUDs are expressly authorized by the Zoning Enabling Act with the intent to facilitate development that, in

part, encourages innovation in land use and variety in design, layout, and type of structures constructed; achieves economy and efficiency in the use of land, natural resources, energy, and the provision of public services and utilities; encourages useful open space; and provides better housing, employment, and shopping opportunities. PUDs are sometimes used as a means to facilitate residential cluster development discussed in (6) above, but are frequently used to facilitate development that provides a mix of housing units and nonresidential uses in one unified site design. The specific PUD provisions of an ordinance dictate the character and scope of development that may occur under such a development option.

8) Special Issues:

A very beneficial part of a zoning ordinance, commonly referred to as “Special Provisions”, can be used to address a host of land use issues that have relevance to the particular community. The particular scope of issues addressed under “Special Provisions” should be tailored to the particular community. However, common issues addressed under “Special Provisions” include, but are not limited to, some of the following:

- conditional approvals
- moving buildings
- essential services
- one dwelling per lot
- single family dwelling standards
- temporary dwellings
- accessory uses, buildings, and structures
- outdoor furnaces
- home occupations
- keeping of livestock (dwelling related)
- roadside stands
- swimming pools
- outdoor display, sales, and storage
- outdoor recreational vehicle storage
- temporary non-residential buildings/uses
- building height exceptions
- setback exceptions

9) Clarity

The clarity of a zoning ordinance’s wording and organization will greatly impact the ability of officials to administer the ordinance in a consistent manner, validly enforce the ordinance’s provisions, and facilitate a user-friendly document for officials, applicants and the general public. This clarity must be reflected in the wording of individual provisions as well as linkages between chapters including the avoidance of conflicting provisions.

10) Compliance with Current Law

The Zoning Ordinance’s provisions must comply with current law to ensure its validity and the ability of officials to enforce the Ordinance. The Township Zoning Act, under which Vevay Township adopted its first zoning regulations, was repealed in 2006 and replaced by the Zoning Enabling Act (Public Act 110). The township’s zoning regulations should be coordinated with the Zoning Enabling Act and periodically updated to address any subsequent changes to the law.

Transfer of Development Rights (TDR)

A transfer of development rights (TDR) program is another option the township may explore in an effort to preserve farmland resources and open space. A TDR program would enable a farmer in the planned agricultural area to voluntarily sell the farm parcel’s development rights to another parcel owner in an area planned for growth and development, under the management and authority of the township. TDR provides landowners the opportunity to realize the development value of their land without having to actually develop it. The result is the long-term preservation of farmland resources, open space, and rural character, and the cost-effective delivery of public services.

A TDR program would focus on transferring development rights from the planned Agricultural/Rural Residential Area to the Suburban Residential Area. Key objectives of such a program should include:

- Limit residential encroachment in important Agricultural/Rural Residential Areas, identified as “preservation” areas.
- Enable farmers to realize a portion or all of the development value of their land by establishing a mechanism to transfer/sell their development rights to interested landowners of parcels in the designated “development zone,” being the Suburban Residential Area.
- Allow the owners of land in the Suburban Residential Area the opportunity to develop such land with heightened densities to capture the investment of their purchase of the transferred development rights from the farmer in the Agricultural/Rural Residential Area.

A successful TDR program will likely require that the formula for the determination of available development rights on a farm parcel be calibrated so as to result in available development rights that are considerably less than if the same parcel was developed at the currently authorized density of one dwelling per two acres.

Subdivision and Land Divisions Ordinances

When a developer proposes to subdivide land, the developer is, in effect, planning a portion of the township. To ensure that such a development is in harmony with the Master Plan, the subdivision or resubdivision of residential and nonresidential land must be adequately reviewed. Vevay Township has adopted a subdivision ordinance (General Ordinance 6) that establishes requirements and design standards for the development of plats including streets, blocks, lots, curbs, sidewalks, open spaces, easements, public utilities, and other associated subdivision improvements. This ordinance better ensures that development occurs in an orderly manner and the public health, safety and welfare is maintained. For example, subdivision regulations can help ensure developments are provided with adequate utilities and streets.

Of equal importance is the adoption of a “land division ordinance.” While a subdivision ordinance addresses unified residential developments of multiple units (plats), much of the development in Vevay Township is in association with incremental land divisions for the purpose of establishing individual home sites. Vevay Township has adopted Ordinance 45 to regulate land divisions. The ordinance assures that these incremental divisions meet certain minimum zoning ordinance standards such as lot area and width, and there are consistent review and approval procedures in place.

Other Special Purpose Ordinances

While zoning and subdivision regulations are the most frequently used tools for the regulation of land use and development, the control of land use activities can extend beyond their respective scopes. Special purpose rules and regulations can complement zoning and subdivision regulations and further the implementation of the Master Plan. Such ordinances may address matters pertaining to noise, public nuisances, outdoor assemblies, junk, weeds, and many other activities. Township officials should evaluate the scope of the township’s current special purpose ordinances and determine what new ordinances, and/or amendments made to current ordinances, may be beneficial to further implement the Master Plan.

Maintaining a Current Master Plan

Successful planning requires the maintenance of a current Master Plan. The Master Plan should be updated periodically. The Plan must be responsive to community changes if it is to be an effective community tool and relied upon for guidance. Periodic review of the Plan should be undertaken by the Planning Commission, Township Board, and other officials to determine whether the Plan continues to be sensitive to the needs of the community and continues to chart a realistic and desirable future.

Community changes that may suggest updates to the Plan include, but need not be limited to, changing conditions involving available infrastructure and public services, growth trends, unanticipated and large-scale development, and changing community aspirations. The importance of maintaining a current Plan is reflected in the Planning Enabling Act’s requirement that a Planning Commission review its Master Plan at intervals not greater than five years and to document the Commission’s findings.

Amendments to the Plan, or the preparation of a wholly new Plan, should follow the minimum procedures delineated in the Planning Enabling Act in addition to measures the township believes will enhance the planning process.

**Important questions to be asked during a review
of this Plan should include, at a minimum:**

- Does the Plan present valid and current inventory data (Appendices and elsewhere)?
- Does the discussion of planning issues and specific goals/objectives continue to be appropriate today?
- Do the future land use and public services policies of the Plan continue to reflect preferred strategies to address development, preservation and public services?
- Have there been any new and/or significant development projects that have raised concerns about the township's future, or the future of a particular area of the township, that may suggest changes to the Master Plan's goals, objectives and/or policies regarding development, preservation and public services?
- Have there been any other major changes in the township that were not anticipated under the current Master Plan?
- Have any specific development decisions been made (such as rezonings and site plan approvals) that may have appeared contrary to the Master Plan and, if so, do such decisions suggest the need to revise the Plan to be more responsive to local conditions?
- Have any text amendments been made to the Zoning Ordinance that suggest Master Plan revisions in association with the Plan's goals, objectives and/or policies?
- Is the character of local growth and development (residentially, commercially and other) since the Plan was adopted (or last updated) in keeping with Plan's vision (goals, objectives, and policies)?
- Are there significant discrepancies between the Future Land Use Map and Zoning Map, recognizing that the Zoning Map is current law and the Future Land Use Map portrays the future vision?
- Are there conditions and/or trends in surrounding areas, particularly along the township's borders, which may suggest modifications to the township's policies addressing future land use and public services?
- Does the Master Plan comply with current law?

Appendix A

CULTURAL FEATURES

Geography & Early History

Vevay Township is a rural community located in central Ingham County in the south-central region of Michigan's Lower Peninsula. Principal surrounding townships are Alaiedon to the north, Ingham and Bunker Hill to the east, Leslie to the south, and Aurelius to the west. The township occupies approximately 20,600 acres. The City of Mason, with a population of approximately 8,250, is located within the congressional boundaries of Vevay Township in its north-central area and occupies approximately five square miles. Due to the presence of Mason, the township does not have the typical 36-square mile area common among most Michigan townships in the Lower Peninsula.

The outer fringes of the large urban centers of Lansing and East Lansing and the highly suburbanized Meridian and Delhi Townships, with a total population of approximately 230,000, are located within seven miles of Vevay Township's northern region. Aside from the Cities of Lansing, East Lansing, and Mason, the landscape of the surrounding communities is dominated by agriculture and scattered residential development. Approximate distances between Vevay Township and some other major regional urban centers are: 1) Detroit, 65 miles east; 2) Ann Arbor, 45 miles southeast; 3) Jackson, 20 miles south; and 4) Grand Rapids, 70 miles west.

Settlement of Vevay Township, and Ingham County as a whole, was spurred by the abundant timber and resulting logging industry. As the land was cleared, farming followed. The 1874 Atlas of Ingham and Eaton Counties lists Vevay Township as having the highest value of farms, farming implements, and livestock among townships in Ingham County. Grains and dairy products formed an especially important part of the Township's early agricultural activities. The Rolfe settlement, founded in 1836, was the first in Vevay Township (outside of Mason). Others followed, including Kipp, Hubbard, Hawley, Walters, Wilson, and Pink. In its early years, Vevay Township developed in a typical pattern of several scattered settlements located throughout the area.

As settlers arrived, interest in sectioning off land areas into townships for governmental purposes increased. The Northwest Ordinances, laws initiated by Thomas Jefferson, then a member of the Continental Congress, were adopted between 1785 and 1787 and paved the way for township divisions and development. As adopted, the Northwest Ordinance of 1787 provided for areas consisting of 36 sections, each of one square mile. Aurelius and Ingham Townships were the first townships established in Ingham County on March 11, 1837. One year later, in March of 1838, Aurelius Township was subdivided to create the original Alaiedon Township. It covered the four-township area in Ingham County's northwest corner.

This same division of Aurelius Township also created Vevay Township and on April 2, 1838, Vevay Township held its first town meeting. Pat Linderman was elected township supervisor and Anson Jackson was elected township clerk. The following resolutions were also recorded at this meeting:

Resolved, That there will be a bounty on wolves for two dollars, if killed by a citizen of the township.

Resolved, That a lawful fence be four and a half feet high.

Resolved, That swine shall not be free commoners.

Just three days after Vevay Township's first town meeting, Ingham County was officially organized and named for Samuel D. Ingham, Secretary of the Treasury in President Jackson's cabinet from 1829 to 1831. Vevay Township was one of only six townships in existence in the newly organized county. The movement of the state capital from Detroit to Lansing in 1847 further spurred growth in the area. By 1850, Ingham County was home to eight flour- mills and 24 saw- mills.

Various enterprises played a part in the Township's early growth. In 1840, a sawmill was constructed which was known as the Hawley Mill, after its owner. The mill pond was part of the property purchased by the state in 1916 for the Michigan State Game Farm, and is now owned and managed by the Ingham Conservation District. Another saw-mill was operated by F. L. Wilson. Saw-mills played an important part in processing trees cut to clear the wilderness for farming. The lumber produced was used to build roads and farms for early residents in the area. Several other factories came and went after the saw-mills had faded. These included hoops, boxes, and washboard (the most notable made of glass) factories. Around 1870, Frank White built a cheese company on the banks of Sycamore Creek, east of the old Vevay Township Hall at Kipp and Hull Roads. He imported an expert cheese maker from the east to introduce the art of cheese making. The cheese factory became famous and was rated as one of the thriving businesses in the region. During this period, a cider mill in the Village of Eden was also popular. Eventually, an apple dryer was added to the cider mill that was very successful. Apple driers subsequently became a thriving business and provided employment for many in the community.

Access and Circulation

Regional Access

Regional access to Vevay Township is very good. Interstate 96 (I-96) travels east-west across the state and within six miles of the Township's north border. US 127 travels north-south through the western half of the Township and the I-96/US 127 interchange is 5 1/2 miles from the Township's northwest corner (See "Road Network" Map). M-36 begins in Mason at the U.S.-127/M-36 interchange and travels in an easterly direction through the city (referred to as Cedar Street) and across the township to Dansville, Gregory, and Pinckney. West of the U.S. 127/M-36 interchange, M-36 becomes Cedar Street and travels northwest through Holt and Lansing and becomes Business Route 127 before terminating at the U.S.-127 interchange just north of St. Johns.

Mason Jewitt Field, a Class C airport, is located immediately south of Mason along Kipp and Eden Roads. Lansing's Capital City Airport is located 14 miles northwest of the township.

Local Road Network

Vevay Township's local roadway network generally exhibits a grid-like pattern, characteristic of the majority of townships in Michigan. All roads in the township are under the jurisdiction of the Ingham County Road Department (ICRD) except for U.S. 127 and M-36. The ICRD maintains jurisdiction over approximately 29.4 miles of primary roads and 47.5 miles of local roads. All roads are paved except for approximately 0.7 miles.

The ICRD recently completed two road projects in Vevay Township – the replacement of the Hull Road bridge over Sycamore Creek and the reconstruction and/or repaving of Kipp Road between U.S.-127 and Dexter Trail. There are no other major road improvement projects planned through 2017.

Public Act Road Classifications: In compliance with the requirements of Public Act 51 of 1951, the ICRD classifies all roads under its jurisdiction as either “*primary*” or “*local*” (See Public Road Network – Public Act 51 Map, Appendix D). Primary roads are considered the most critical in providing regional circulation throughout the county. The classification of roads by the ICRD has important financial implications with regard to maintenance and improvements. Under Michigan law, townships have no responsibility for funding road improvements and maintenance. The ICRD is responsible for local road maintenance. On the other hand, while the ICRD must maintain and improve primary roads at its own expense, state law limits the participation of road commissions and departments to no more than 50% of the cost for improvements to local roads. Requests by local townships for local road maintenance levels beyond those considered adequate or feasible by the ICRD frequently require local funding. In reality, there are very few counties in Michigan where local townships are not actively involved in funding road improvements.

Roads in the Township that the ICRD classifies as “*primary*” include:

- Barnes Rd.
- Cedar St.
- College Rd.
- Columbia Rd., west of Mason.
- Dexter Trail.
- Eden Rd.
- Howell Rd.
- Hull Rd., between Tomlinson Rd. and Mason.
- Kipp Rd., between College Rd. and Dexter Trail.
- Okemos Rd. (less than a 1/4 mile, north of Mason)
- Tuttle Rd.

All other roads in the Township under the jurisdiction of the ICRD are classified as “*local*.”

National Functional Classifications (NFC): Also of importance is the national functional classification of roads as established by the Federal Highway Administration (FHA). The FHA classifies road segments according to their function – the extent to which the road is intended to facilitate traffic movement over long distances versus over shorter distances and for access to abutting property (see Public Road Network – National Functional Classification Map, Appendix D). The relative hierarchy of the classification and its applicability to Vevay Township follows:

Interstates, Freeways and Principal Arterials are thoroughfares intended to move large volumes of traffic over long distances. Facilitating circulation on a regional level, including between cities and states, is the primary role of these thoroughfares. Interstates/freeways in Vevay Township are limited to U.S.-127. There are no principal arterials in the township.

Minor Arterials/Major Collectors serve to accommodate through traffic while also providing access to abutting properties and minor intersecting streets.

Minor arterials in Vevay Township are limited to:

- M-36, east of the City of Mason
- Cedar Street to the northwest of the U.S.-127/M-36 interchange

Major collectors in Vevay Township are limited to:

- Barnes Road
- Columbia Road west of Mason
- Dexter Trail
- Howell Road
- Kipp Road, west of Mason
- Okemos Road

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Minor Collectors serve to collect traffic from local streets and to provide a means of access to local destinations and minor arterial/major collector roads. Minor collectors in Vevay Township are:

- College Road
- Eden Road, south of Mason
- Kipp Road, west of Mason

Local Streets serve primarily to provide access to adjacent properties and minor collectors. The roads in the Township not otherwise identified above are classified as local streets.

Federal aid for road projects is limited to roads classified as major collectors or higher. Roads classified as minor collectors have only limited eligibility. Roads classified as local streets are not eligible for federal funding.

Traffic Counts: The ICRD periodically records 24-hour traffic counts for roads under its jurisdiction. The most current average daily traffic counts recorded by the ICRD for Vevay Township, between 1997 and 2006, showed that roads experiencing daily traffic counts in excess of 2,000 were limited to the following:

- Barnes Road west of Eden Road: 4,607 (2008)
- Barnes Road west of Ives Road: 2,869 (2006)
- Barnes Road east of Laxton Road: 2,901 (2006)
- Barnes Road, between Hawley and Eden Road: 2,181 – 2,869 (2008)
- Cedar Street: northbound at Legion Drive: 5,124 (2008)
- College Road, north of Columbia Road: 2,978 (2011)
- Columbia Road, west of Mason: 3,964 (2008)
- Dexter Trail, west of Ives Road: 3,221 (2011)
- Dexter Trail, east of Hawley Road: 2,909 (2010)
- Howell Road, east of Cedar Street: 3,382 (2006)
- Hull Road, at City of Mason: 2,159 (2004)
- Hull Road, between Tomlinson and Rolfe Roads: 3,309 – 3,474 (2008)
- Hull Road, north of Barnes Road: 2,994 (2006)
- Kipp Road, between Eden Road and Dexter Trail: 3,271 (2006)
- Kipp Road, west of Jewett Road: 2,819 (2008)
- Kipp Road, west of Tuttle Road: 2,039 (2006)
- Legion Drive: 3,286 (2006)
- Okemos Road, south of Howell Road: 3,991 (2007)

There are a multitude of factors that impact the capacity of roads and their ability to assure efficient and safe travel. These factors include, but are not limited to, road alignment, frequency of driveways and other curb cuts, roadside development, driveway turning patterns, and traffic controls (lights, signs, etc.). It is common for a two-lane paved rural road to be capable of accommodating between 9,000 – 15,000 trips per day without the need for additional lanes. A major factor contributing to the need for additional lanes is the extent to which roadside development encourages left-turn vehicle movements.

Land Use & Development

The dominant land use in Vevay Township is agriculture, and most of the balance is comprised of woodlands, wetlands and other open spaces (see Land Use/Land Cover Map, Appendix D). Together, agricultural operations and other open spaces account for approximately 80% of the Vevay Township area. The more urbanized areas of the Township, including those developed for commercial, industrial, and suburban residential uses, are located primarily around the peripheral areas of Mason. A review of some of the more significant characteristics of land use and development in the township follows.

Public Act 425 Agreements: In addition to sharing municipal borders, Vevay Township and the City of Mason have a special relationship as a result of “425 Agreements.” Public Act 425 of 1984 enables two local units of government to conditionally transfer property by written agreement for the purpose of economic development projects. During the period that a particular agreement is in effect, the municipal boundaries of the city extend to encompass the agreement acreage. Since 1989, the two municipalities have entered into four such agreements. As part of the conditional transfers of the properties to the city, the township receives certain tax revenues and the City is the primary body responsible for public services to these properties. These agreements were entered into as a means of avoiding annexations by the city.

- *The 1989/1994 Agreements:* The 1989 Agreement includes 134 acres between the Penn Central Railroad and US-127, and includes Meijer and the Gestamp facility. The 1989 Agreement was amended by a 1994 Agreement that extended the agreement area to include 73 acres east of the railroad, including Michigan Packaging Company and Biochot Concrete. Due to a settlement agreement between the City of Mason and Vevay Township in 1998, all property described in the 1989/1994 425 Agreement will become a permanent portion of the City upon expiration or non-renewal of the 30-year agreement.
- *1993 Agreement:* The 1993 Agreement covers 31 acres on the north side of Columbia Road, west of US-127. The agreement was initiated to facilitate the expansion of the Sycamore Mobile Home Park. The agreement provides that the acreage will become a permanent portion of the city upon expiration or non-renewal of the 10-year agreement.
- *2000 Agreement:* The 2000 Agreement covers 134 acres located primarily along the west side of Dexter Trail Road between Kipp Road and M-36. The 2000 Agreement provides that the agreement acreage south of M-36 will become a permanent portion of the city upon expiration or non-renewal of the 20-year term, and the agreement acreage north of M-36 will revert back to the township upon expiration or non-renewal of the 40-year term. This acreage is largely vacant at this time.

Table A-1 provides a breakdown of general land use/land cover in Vevay Township. The table is followed by a review of some of the more significant characteristics of land use and development in the township.

**Table A-1
Approximate General Land Use/Land Cover Allocation, 2015**

Land Use-Land Cover	Approximate Acreage	Approximate Portion (%) of Township
Agriculture	12,800	62.1
Open Space, such as woodlands, wetlands, and meadows	3,050	14.8
Residential	2,975	14.4
Transportation, such as road right-of-ways, MDOT garage, and airport.	1,050	5.1
Outdoor Recreation, limited to shooting ranges, golf courses and parks.	550	2.7
Industrial	85	0.4
Commercial	55	0.3
Other, such as churches, clubs cemeteries, township hall and related uses.	65	0.3

Table is based on aerial imagery, township records and “windshield” survey.

Agriculture

Farming operations occupy approximately 62% (approximately 12,800 acres) of the township. While farming is present throughout the Township, it is less prevalent in the eastern third. Nearly all of the farm acreage is used for crop production. Some of the more commonly harvested crops are corn, soybeans, wheat, and oats.

In an effort to better protect Michigan’s farming interests, that state passed Public Act 116 of 1974 – the Farmland and Open Space Preservation Act. The Act has since been amended and ultimately repealed, and made part of Public Act 451 of 1994 – the Natural Resources and Environmental Protection Act. The program continues to be commonly referred to as the “PA 116 Program.” The Act establishes a program whereby farmers can enroll their properties to gain property tax relief, provided the farmland is maintained in an agricultural/open space status. There were approximately 3,400 acres enrolled in the Farmland and Open Space Preservation Program in 2015, comprising approximately 17% of the township’s area. This figure represents an approximately 29% increase over the acreage enrolled in 2001. The PA 451 parcels are scattered throughout the township, without any primary PA 451 core area (see Public Act 451 Parcels map, Appendix D).

In 2008, Ingham County voters approved a millage for the purchase of development rights (PDR) as a means to preserve farmland. PDR enables a landowner to voluntarily sell a property’s development rights to a governmental body (Ingham County in this case) in turn for placing an easement on the land that prohibits future non-farm development. PDR provides landowners the opportunity to realize part or all of the development value of their land without having to actually develop it. The first PDR agreements (two) in Vevay Township were recorded in 2015 and cover a total of approximately 66 acres in Section 18.

Residential Development and Land Division

Residential development comprises approximately 14.4% (2,975 acres) of the acreage in Vevay Township. The 2010 Census recorded 1,410 dwelling units, a 4.8% increase over the 1,346 dwellings in 2000. 5.9% of the dwelling units were vacant in 2010, 71.1% of which were available for sale or rent.

According to the 2014 Census Bureau’s American Community Survey, approximately 99.2% of the township’s dwellings were single- family dwellings. Of these single- family dwellings, approximately 10.2% were mobile homes and nearly all mobile homes were located in the Mason Manor manufactured housing community – the township’s single manufactured housing community and located at the southeast corner of the U.S.-127/Barnes Road interchange.

According to the 2014 Census Bureau’s American Community Survey, 41.5% of the dwelling units were constructed between 1940 and 1979, and 13.7% were constructed prior to 1940 (see Table A-1). 44.8% of the dwelling units were constructed since 1980. The township’s housing stock is comparatively young when compared to the county and state. The 44.8% of the township’s housing stock constructed since 1980 is 50.3% greater than county-wide and more than three times greater than the state’s housing stock. The township’s 2013 median value of the owner-occupied housing stock was \$157,300, approximately 33.6% greater than the county (\$117,700) and more than twice that of the state (\$60,600).

TABLE A-2
Selected Housing Characteristics Comparison, 2013
 Source: U.S. Census Bureau, 2013 American Community Survey

DWELLINGS	VEVAY TOWNSHIP	INGHAM COUNTY	STATE OF MICHIGAN
Year Built (%)			
Since 1980	44.8%	29.8%	13.6%
1940 to 1979	41.5%	53.4%	65.6%
Before 1940	13.7%	16.8%	20.8%
Median Value	\$157,300	\$117,700	\$60,600
Median Rent	\$933	\$790	\$343

Residential development in Vevay Township exhibits three principal development patterns. The first and original form is the farm homestead and other large land tracts. In the early half of the 1900s, primarily large parcels of 120 to 160 acres or more characterized the dominant land division pattern in the township. The parcels were commonly occupied by farming families and those in the timber industry.

By the 1960s, new dimensions to the township’s land division pattern had begun to emerge. The presence of smaller parcels, typically between two to 20 acres in size and stripped along the township’s principal road network (section-line roads), began to become apparent and has expanded over the years. This second form of housing evolved as some of the original large tracts were incrementally split up. This land division pattern became very apparent during the 1970s and 1980s and today, parcels of 20 acres or less stripped along the township’s section-line roads account for approximately 13% of the township’s total acreage.

Conversely, while parcels of 80 acres and more dominated the township landscape in the early 1900s, only approximately one-half of the township’s current acreage is included in parcels of 80 acres or more in area.

The third principal form of residential development also surfaced in the mid 1900s – plats. Mason Heights and Mason Heights 1 were platted in the mid-1950s with lots generally ranging between one-half to one acre in size. Unlike the incremental and independent partitioning of land along section-line roads, commonly characterized by the two to ten-acre parcels, platted subdivisions represent multiple land divisions established as a unified development project pursuant to the platting requirements (platted subdivisions) of the Land Division Act (formerly Subdivision Control Act). Between 1960 and 2002, 11 additional platted subdivisions were recorded.

There were approximately 14 platted subdivisions in Vevay Township in 2015, the most recent being Ashton Court on the south side of Dansville Road in Section 10. All of the subdivisions are comparatively small, none of which contain more than 30 lots. However, the Shawnee Estates neighborhood near Dexter Trail and Ives Road was developed through multiple plats between 1967 and 1978 and includes a total of approximately 74 lots. These 74 lots account for nearly half of all the platted lots in the Township. Nearly all of the subdivisions are comprised of lots ranging in size from one-half to one acre. Several of the subdivisions include larger lots of three to four acres. The majority of the subdivisions are located in the township's northern half, particularly in the northeast quarter.

The trend of parcel splitting along the township's section-line roads is the primary manner in which residential development has been accommodated in the Township to date. Commonly referred to as *strip development*, this pattern is readily evident along such road segments as Ives and Laxton Roads, south of Barnes Road; Ives Road, in the area of M-36; and Tomlinson Road, west of Ives Road. This form of development has been the source of increasing concern in the transportation and land use planning arena due to its negative impacts upon traffic safety, congestion, farmland preservation, and rural character preservation.

The original residential settlement pattern – dwellings on farm parcels approaching 40 acres or more is still very evident but accounts for a small portion of the total households.

Commercial Development

Commercial development occupies approximately 50 acres in Vevay Township. The facilities are primarily situated in close proximity to Mason.

Cedar Street is the more traditional and only service-oriented commercial node in Vevay Township. This quarter-mile commercial strip is bounded by the US-127/Cedar Street interchange to the southeast and Howell Road to the northwest. Cedar Street extends from Mason, northwest to Lansing, with the majority of the corridor being of a commercial character. Commercial development along Cedar Street in Vevay Township is limited to the south side and includes such uses as auto sales and repair, sports memorabilia, fast-food restaurant, firearm and accessory sales, hair salon, and health club.

The other principal commercial enterprises located in a more scattered manner include:

- several auto-related businesses along the south side of Kipp Road west of Eden Road
- several businesses along Hull Road between Kipp Road and Tomlinson Road including landscape services, restoration and remodeling services, and a mini-storage facility
- several businesses along Eden Road north of Tomlinson Road, including snow removal equipment sales, basement restoration services, and an indoor sports training facility
- two landscaping services along Tomlinson Road between Hull and Eden Roads.
- a golf course on the north and south sides of Tomlinson Road just west of U.S.-127.
- a convenience store at the M-36/Dexter Trail intersection
- a meat market and mini-storage facility on Barnes Road east of the U.S.-127

There are a host of other commercial enterprises scattered throughout the township in association with agricultural operations and in association with occupations conducted from residences, permitted pursuant to approvals under the township's Zoning Ordinance.

Industry

Perhaps the most visible signs of industrial activity in Vevay Township are the paving and extraction operation south of Mason on the west side of Eden Road and the large Dart Container Corporation facility along Cedar Street at the US-127/Cedar Street interchange. Excluding the paving and extraction operations, the Dart Container facility is the largest single industrial facility in the township and occupies approximately 15 acres. The facility occupies nearly all of the triangular area formed by Howell Road, Cedar Street, and the US-127/Cedar Street interchange. The facility has frontage on the south side of Howell Road and operations extend north across Howell Road into Alaiedon Township.

The township's only centralized grouping of industrial uses is the approximately eight businesses along Legion Drive behind the Cedar Street commercial area. This approximately quarter-mile drive extends west from the south side of Cedar Street and is home to an assortment of industrial operations including metal fabrication, fuel supply, pipe manufacturing and general light manufacturing. This industrial center covers approximately 20 acres.

There are approximately six other industrial facilities scattered in the township within 1.5 miles of Mason, on Howell, Hull, Eden and Tomlinson Roads, including trucking services, metal fabrication, warehousing, and special products engineering.

There are approximately 80 acres of industrial development in the township, about half of which are in association with the Eden Road paving and extraction operations.

Public and Semi-Public Development

There are a number of properties in Vevay Township devoted to public or semi-public use, such as religious institutions, clubs and social organizations, in addition to the Vevay Township Hall and the cemeteries it operates. Some of the larger facilities are:

- The Michigan Department of Transportation maintains a garage/repair facility on Jewett Road in Section 17.
- The Michigan Department of Natural Resources operates an approximately 10-acre shooting range on Kelly Road north of Barnes Road.
- The Michigan Trap Shooting Association operates an approximately 355-acre trap shooting facility off of West Service Road in Section 20 (primarily).
- The Ingham Conservation District maintains 220 acres near the Hawley Road/Dexter Trail intersection.
- The Michigan Steam Engine Club maintains approximately 30 acres along the northeast portion of the U.S-127/Barnes Road interchange.

Vevay Township Downtown Development Authority

Public Act 197 of 1975 authorizes a local unit of government to establish a legal organization with the responsibility for planning economic development. A key element for stimulating such development is the organization's authority to establish special tax programs to fund the infrastructure improvements necessary to effectively attract new development (or redevelopment). The Vevay Township Downtown Development Authority was established in 1988 and the Authority developed a Downtown Development Plan (1990) for economic development in the geographic area identified as the legal limits of the Development District. The Development District includes portions of Sections 10, 15, 16, and 17. The majority of the various 425 Agreement acreages are also in the Development District. A tax increment financing plan was established to fund infrastructure improvements. Tax increment financing involves the capture of increased property taxes resulting from development to pay for the public facilities and other activities required for the development.

Community Facilities & Services

Government Administration

A five member Township Board governs Vevay Township. Township offices are located in the Township Hall on the west side of Eden Road, approximately one-half mile south of Kipp Road. The Hall was constructed in 1978 and includes office space, restrooms, and a meeting room. The building is divided into two primary sections. The south half is used for township offices. The north half consists of a large meeting room that is used for township meetings and is available for rent for special events such as family reunions and wedding showers. The corridor dividing the two halves of the building includes restrooms. The township hall is open Monday through Friday during regular business hours. The hall covers approximately 6,000 square feet on a 7.9-acre parcel. The remaining land is used for recreational purposes and is discussed in more detail under "Recreation."

The Vevay Township Board relies on a tax millage to fund the public facilities and services it provides. The tax levied by the Township in 2015 was 0.9161 mills. A mill is equivalent to one dollar collected for each \$1,000 of assessed property value. The 0.9161 mills levied by the Township in 2015 represented only approximately 3% of the total 32 mills levied by the local school districts.

Cemeteries

Vevay Township operates and maintains three cemeteries, ranging in size from approximately 3/4 to five acres. These cemeteries are:

- Eden Cemetery on Barnes Road, 1/2 mile east of Eden Road in Section 34.
- Hawley Cemetery on Dexter Trail, 1/2 mile east of Hawley Road in Section 24.
- Rolfe Cemetery on Barnes Road, 3/4 of a mile west of U.S.-127 in Section 29.

Education

Vevay Township is served by two public school districts. Nearly the entire Township is served by Mason Public Schools. Approximately 400 acres of land in the general vicinity of Dexter Trail, Kelly and Rolfe Roads in Sections 24 and 25 are served by the Dansville School District. There are no public school facilities located in the township itself. Mason High School, the closest public school facility, is located at the northeast corner of the Kipp Road/Barnes Street intersection.

Public Sewer and Water

There is no public water in Vevay Township. The various 425 Agreement areas are served by public water but are currently within the corporate limits of Mason. In addition, Mason provides the township with sewer service in the Legion Drive area, west of the U.S.-127/Cedar Street interchange. As part of a 1998 court settlement agreement between Mason and Vevay Township, Mason is available to extend sewer and water service south of Kipp Road provided the township takes responsibility for infrastructure costs.

Fire and Police Protection Services

Vevay Township receives fire protection services from the City of Mason. The city maintains two fire stations. The main fire station and the one used as the operational center is located in downtown Mason on Ash Street. The second station is located in north Mason on Curtis Street near Cedar Street, and is used principally for storage purposes. In addition to an annual stand-by fee paid to Mason by Vevay Township to cover costs associated with the purchase and maintenance of vehicles and equipment, the Mason Fire Department charges a user fee to those requiring its services. The Fire Department has mutual-aid agreements with surrounding communities. Vevay Township receives back-up service from other fire departments when necessary.

Police protection services are provided by the Michigan State Police and local law enforcement agencies on an as-needed basis.

Ambulance Service

Vevay Township residents rely on the Mason Area Ambulance Service for ambulance needs. This private service is contacted by the County 911 dispatch service upon receipt of an ambulance call. User fees fund this service. The closest ambulance station is located on Legion Drive near the U.S.-127/Cedar Street interchange. In the event the Mason Area Ambulance Service is not available to respond to an emergency call, backup service is available from the Delhi Fire Department.

Recreation

Vevay Township operates a single recreation site, comprised of the western portion of the township hall property. Park facilities at the site include a softball field, soccer field, pavilion housing approximately 15 picnic tables and covering approximately 1,000 sq. ft., one large sandbox, four swings, a play structure, and storage shed. The site also includes two field areas with portable soccer goals. Many of the sports fields overlap one another. Township residents also have available to them recreational facilities and services of other public entities including the school facilities and programs of the Mason and Dansville School Districts, the parks and recreation programs of nearby municipalities including the Cities of Mason and Lansing, the Ingham Conservation District property near the Hawley/Dexter Trail intersection, and a number of regional facilities operated by Ingham County and the state. Of special note is the Dansville State Game Area, which covers approximately 4,200 acres and is primarily in the neighboring townships of Ingham and Bunker Hill.

Neighboring Conditions

Just as cultural features in Vevay Township have bearing upon the township's efforts to identify appropriate planning and future land use policies, so does the land use pattern along the township's borders in neighboring communities. Existing land use patterns are important considerations, as are the planning policies and zoning that affects these abutting areas. Following is a review of the principal land use conditions along Vevay Township's borders.

Alaiedon Township

Alaiedon Township abuts those portions of Vevay Township's north boundary not otherwise within the City of Mason. This boundary generally coincides with Howell Road. Alaiedon Township's existing land use pattern along Howell Road is predominantly agricultural and scattered residences except in the area of the U.S.-127 interchange and westward. Dart Container Corp. is located south of Howell Road in Vevay Township and north of Howell Road in Alaiedon Township. Westward along the north side of Howell Road is residential development and a church at the corner of Howell and College Roads. Alaiedon Township's Master Plan policies generally support the existing pattern of land use as described above as do the current zoning district classifications along the north side of Howell Road. The agricultural and residential district classifications along the north side of Howell Road in Alaiedon Township provide for minimum lot sizes of approximately $\frac{3}{4}$ to two-acres.

Ingham Township

Ingham Township abuts the east border of Vevay Township, except for the most southern quarter-mile. Ingham Township's existing land use pattern adjacent to Vevay Township (not defined by a road, but generally west of Meridian Road) is predominantly agricultural along with scattered residences and the Dansville State Game Area. The township's master plan provides for the continuation of this land use pattern along Vevay Township's borders. The area is similarly zoned for agricultural and other open space uses including the state game area, and residential use at densities ranging from one dwelling per one to three acres.

Bunker Hill Township

Bunker Hill Township abuts the east border of Vevay Township, for a quarter-mile north of Plains Road. Bunker Hill Township's existing land use pattern in this area is open space and agricultural. The township's master plan carries forward this land use pattern and existing zoning is agricultural/residential in character.

Leslie Township

Leslie Township abuts the entire southern border of Vevay Township. Leslie Township's existing land use pattern along this border is comprised of agriculture and scattered residences. The township is nearing the adoption of a new Master Plan and the draft plan provides for agricultural/residential policies along its northern region. The current zoning in place along Leslie Township's northern region provides principally for agriculture and residences, with a minimum lot size requirement of one acre.

Aurelius Township

Aurelius Township abuts the entire western border of Vevay Township, defined by College Road. Aurelius Township's existing land use pattern along this border is comprised of agriculture and scattered residences, along with pockets of strip residential development north of Barnes Road and between Sitts and Howell Roads. Current zoning places nearly the entire six-mile length of shared College Road frontage in an agricultural/residential status with minimum required lot sizes of two acres. The principal exceptions to this zoning are: a) the College and Howell Roads intersection area,

zoned residential (minimum required one-half acre lots); b) from Barnes Road north for a distance of one mile, zoned residential (minimum required two-acre lots); and c) a 1,320' segment between Plains Road and Barnes Road, zoned for residential development at a density of approximately one dwelling per ½-acre. The Aurelius Township Master Plan reflects the same general policies along the College Road corridor as the current zoning.

City of Mason

The City of Mason extends into the congressional boundary of Vevay Township to occupy approximately five square miles. The majority of the city that abuts Vevay Township is of a residential or agricultural/open space character. The city's northeast periphery is comprised of agriculture, scattered residences and several platted subdivisions. Aside from the 425 Agreement parcels along Hull and Eden Roads, the city's southeast periphery is principally comprised of the high school, Rayner Park and the County Fair Grounds, agriculture, and scattered residences. Nearly the entire western periphery of the city is comprised of platted subdivisions, the Sycamore Mobile Home Park (southeast of the US-127/Cedar Street interchange), and scattered residences on large parcels. Most of the subdivisions along the city's periphery are comprised of lots of less than one acre. The principal exception to this residential and agricultural land use pattern is along the city's northwest periphery where strip commercial development along Cedar Street is present. The U.S.-127 corridor separates this strip commercial corridor from privately owned land in Vevay Township.

The zoning along the city's periphery generally reflects the existing land use pattern described above. The principal exceptions are: a) industrially zoned parcels on the north side of Kipp Road to the east of the fairgrounds; b) industrially zoned parcels on the north side of Kipp Road to the west of the high school; and c) a commercially-zoned small parcel on the north side of Kipp Road west of Jewett Road. All residential districts in the city provide for minimum lot areas of approximately one-quarter acre or less, and the minimum lot size requirement in its agricultural/residential district is approximately three-quarters of an acre.

The 2014 City of Mason Master Plan recommends the majority of the areas along the city's borders be devoted to residential use of varying densities ranging from single family to two-family housing and multiple family housing opportunities. The principal exceptions are:

- The area between Hull Road and U.S.-127 (Meijer) is planned for commercial use.
- The area between Hull Road and Eden Road comprising the 1989/1994 Public Act 425 Agreement area (including Gestamp and Michigan Packaging Company) is planned for industrial use.
- The northwest corner of the city, just east of the U.S.-127/Cedar Street interchange, is planned for commercial use along Cedar Street and industrial use further north.
- The high school and fairgrounds are designated as "Public."

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Appendix B

ENVIRONMENTAL FEATURES

Geology & Topography

During the Paleozoic era of geological history, Ingham County and the state as a whole was inundated by successive warm, shallow seas during which large amounts of sediment were deposited. These deposits subsequently lithified to form bedrock. The entire area of Vevay Township sits upon Saginaw Formation bedrock, consisting of sandstone with interbedded shale, limestone, coal and gypsum. The Ice Age brought four successive continental glaciers across the Great Lakes area. As these ice sheets moved southward from Canada, they scoured and abraded the surface of the land leaving behind deeper valleys and more rounded hilltops. The advancing glaciers carried large quantities of rock materials scraped and gouged from the land's surface. These materials were then deposited during the melting of the ice to form drift materials covering the bedrock below. While the depth to bedrock exceeds 800 feet in some parts of Michigan, the depth of the drift layer in Vevay Township ranges between 50 to 150 feet, and generally increases as one moves northward.

The topography of Vevay Township can be described as level to gently rolling, with isolated steep areas. The vast majority of the township reflects grades of 3% or less. These comparatively level areas are most prominent west of the City of Mason and extending southeast of the City into the central portion of the township. There are areas that are somewhat more rolling and are most prominent in the township's southern third and its eastern periphery. Lands east of Every and Hawley Roads reflect far greater topographic relief than elsewhere. Grades frequently approach 10% or more, and reach as high as 20% – 30% in several small isolated locations. The majority of the township ranges from 910 to 970 feet above sea level, and the total elevation difference across the township is approximately 130 feet. The lowest elevations are approximately 870 feet above sea level and are present along the Mud Creek corridor in Sections 2 and 3. The highest elevations, approximately 1,040 feet above sea level, are located east of the Diamond Road/M-36 intersection.

The character of an area's geology and topography has bearing on development and land use planning. As surface grades increase in severity, significant challenges arise for septic systems and there is an increased potential for soil erosion and sedimentation of water courses and wetlands. Construction costs frequently increase as well. Slopes exceeding 7% present special challenges in this regard. It is generally recommended that development be restricted in intensity where grades exceed approximately 12%, and be strongly discouraged where grades exceed 18%.

Drainage and Water Courses

Drainage in Vevay Township is facilitated by four principal water courses, the most significant being Sycamore Creek. Sycamore Creek flows northward through the eastern half of the township and through the City of Mason. Willow Creek flows northward, just west of College Road in Aurelius Township, before traveling eastward across Vevay Township (north of Kipp Road) and emptying into Sycamore Creek in Mason. Together, these watercourses and their associated wetland and smaller tributaries drain the majority of the township's western half. The Talmadge Drain flows northward through the southeast quarter of the township where it empties into Sycamore Creek just south of Tomlinson Road. Mud Creek flows northward through the eastern third of the township and also empties into Sycamore Creek, several miles north of Mason. The Talmadge Drain, along with Mud Creek and their associated wetlands and tributaries, drain the majority of the township's eastern half. Sycamore Creek subsequently flows into the Grand River in Lansing, and the Grand River ultimately empties into Lake Michigan. There are no lakes of significance in the township. In addition to the stream corridors, there are several elongated and unnamed water bodies of ten to twenty acres in size. These are located in association with the Mud Creek corridor and gravel extraction operations (south of Mason).

Lands abutting or in close proximity to drainage courses are subject to flood conditions where the drainage courses do not have the capacity to accommodate the rate of runoff from a single heavy rainfall or numerous lighter rainfalls over a relatively short period of time. Serious flooding has not been a common occurrence in Vevay Township. This is due in large part to the comparatively limited development (impervious surfaces) in the Township, and the network of drainage courses and wetlands that carry and store runoff. The Federal Emergency Management Agency (FEMA) completed a floodplain study for the Mason and surrounding areas in 2011. The study identifies those areas of the township that are subject to a flood event that has a 1% chance of happening in any single year, commonly referred to as the 100-year flood. The areas of the township that would be subject to such flood conditions are very limited and closely correspond to the corridors of Mud Creek, Talmadge Drain, Sycamore Creek, Willow Creek and the Aurelius Vevay Drain. The flood boundaries generally do not extend more than 500' from the edges of such water courses although there do exist exceptions including portions of the area between Talmadge Drain and Eden Road to the south of Coy Road, Talmadge Drain near Plains Road, Mud Creek near Howell Road, and the area between Mud Creek and Kelly Road near Barnes Road.

Although Vevay Township may be relatively free of any regular threat of flooding, improperly managed land development practices can impact flood conditions both in the Township and in communities downstream.

Groundwater

As runoff flows across land surfaces and travels through drainage courses, a portion of the runoff seeps into the ground through gravitational forces and collects in great quantities in the underlying soils and deeper bedrock. *Groundwater* is a term that is generally used to describe this subsurface water below the water table in soils and bedrock.

The reservoirs of groundwater are referred to as *aquifers*. Aquifers are geological formations that are capable of yielding a significant amount of water to a well or spring. The water drawn from the Saginaw Formation aquifer is considered to be of very good quality. However, as the Saginaw Formation is composed of sandstone with interbedded shale, limestone, coal and gypsum, the quantity and quality of available groundwater for domestic purposes can vary somewhat based upon the particular bedrock from which it is being drawn. For example, shale typically provides a higher quality of water but significantly restricts the rate at which the water can be drawn due to its

comparatively limited permeability. Sandstone permits a higher rate of draw yet the water quality is frequently not as good as that from shale.

Aquifers serve as the sources of drinking water for nearly all residents of Vevay Township. Aquifers can be “*confined*” or “*unconfined*” systems. Confined systems have an impermeable soil layer (typically clay) above them which acts to confine the aquifer and protect the aquifer from contaminants seeping into the subsurface above the confining soil layer, such as petroleum products, fertilizers, and improperly disposed household liquids. Unconfined systems do not have this protective layer of clay soil and are much more prone to contamination. Even confined systems can be contaminated due to hazardous material entering the groundwater as a result of groundwater flows from non-confined aquifers and improperly constructed and/or abandoned wells.

A random survey of well records for Vevay Township suggests that the vast majority of wells in the township draw from sandstone and/or shale bedrock and typically extend to a depth of 125’ to 300’. Local well logs suggest there is a confining layer of clay across most of Vevay Township but not completely, and the depth of the clay liner is variable with increased opportunities for ground water contamination. Wells that draw from the glacial drift above the bedrock where a confining clay layer is not present or otherwise fragmented with sandy or gravelly soils, are especially vulnerable to groundwater contamination.

The process by which water is added to the groundwater system is called *recharge*. Generally, groundwater flow within an aquifer is typically from an area where groundwater is being recharged, or *recharge area*, toward an area where groundwater is being discharged (e.g. stream, river, or lake). Many factors influence the rate at which water will infiltrate the ground surface and flow through an aquifer. Of these, the permeability of the soil or bedrock is an important factor. Water recharge into or through an aquifer is generally greater when the soil or bedrock formations are highly permeable. Sands and gravels, and fractured bedrock are materials that are generally considered to have a high permeability.

Contamination of ground water resources can originate from a number of sources including, but not necessarily limited to poorly operating septic drain fields, floor drains that discharge to the outdoors, the storage of hazardous and toxic substances without the necessary safeguards, the improper disposal of fuels and oils, excessive use of fertilizers, and improper disposal of wastes by industrial, commercial and residential activities. Areas where the potential for groundwater recharge is the greatest are also the most susceptible to groundwater contamination attributable to improper agricultural, commercial, industrial and household practices, including poorly designed and/or functioning septic systems. The protection of groundwater quality requires appropriate land use management along various fronts.

Vegetation

Vegetative cover in Vevay Township is comprised largely of farm pasture and crop land, accounting for approximately 62% of the township area. The principal exceptions are those areas characterized by wetlands, woodlands, scrub lands and fields, and residential development and associated lawns.

There are approximately 1,100 acres of wetlands in the Township, comprising 5.3% of its area (see Wetlands map, Appendix D). Wetland areas are generally characterized by the interface between water and land, where water depths are comparatively shallow and the soils are moist (perhaps seasonally only), dark, and high in organic content. Tree vegetation frequently associated with wetland environments include cottonwood, red and silver maple, and northern white cedar. Shrubs include alder and cranberry, and other typical plant species include cattails. Wetlands are located throughout Vevay Township but are most prominent along the stream and creek corridors and in the

township's southeast quarter. Nearly half of Section 25 and 36 are characterized by wetlands. The township's wetlands range in size from less than ten acres to more than 100 acres. Both the Mud Creek and Sycamore Creek corridors include wetlands that approach 150 acres in area. Contiguous wetlands in Sections 25, 35, and 36 comprise approximately 450 acres. Approximately half of the township's wetlands are comprised of lowland hardwoods such as ash, elm, soft maples, and cottonwoods. The balance is comprised of shrub and emergent wetlands.

There are approximately 2,100 acres of upland woodlands in the Township. These woodlands are predominantly characterized by such species as sugar and red maple, elm, beech, cherry, basswood, and white ash. The upland woodlands are most prominent in the eastern half of the Township, particularly within 1 1/2 mile of M-36 (east of Ives Road).

The network of wooded and non-wooded wetlands is important because of the vital role these resources play in flood control, runoff purification, groundwater recharge, wildlife habitats, recreational opportunities, and supporting the rural character of the Township.

Wetlands are environmentally sensitive resources and can experience degradation and destruction due to changes in water levels, erosion and sedimentation, filling, dredging, and draining. The degradation or pollution of a wetland area can have a destructive impact upon wetlands and related woodland resources distances away due to the frequent physical linkages between these resource areas. In addition to the environmental constraints wetlands pose for development, wetlands present severe physical constraints on land development due to flooding and instability of the soils.

Because of the important environmental role of wetlands, they are protected by the Michigan Natural Resources and Environmental Protection Act, Part 303. Wetlands are regulated by the state if they meet any of the established criteria including, but not limited to, wetlands connected to one of the Great Lakes or located within 1,000 feet of one of the Great Lakes, wetlands located within 500 feet of an inland lake, pond, river or stream, and other wetlands of five acres or more in area. The law requires a permit be obtained from the state for depositing fill in a wetland, dredging or removing soil from a wetland, constructing or operating a use in a wetland, or draining surface water from a wetland. The Michigan Department of Environmental Quality will not issue a permit unless it finds, in part, that there would be no unacceptable disruption to aquatic resources and that the proposed activity is wetland dependent or no feasible and prudent alternatives exists.

Soils

The U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS), has prepared a soil survey for Ingham County. According to the survey, the majority of the Township is characterized by loamy and sandy soils. Soils classified as "loam" typically have near equal proportions of sand, silt and clay. Soils classified as sandy are typically comprised of sand at a proportion of at least 50% to 55%. Nearly one-quarter of the township area is characterized by hydric soils (see Hydric Soils map, Appendix D). Hydric soils exhibit an especially high moisture content, are generally quite low in oxygen (O₂) content, and are frequently associated with wetland and floodplain environments.

The character of soils can have a profound impact upon the suitability of future land uses with regard to groundwater contamination, buckling and shifting of foundations and roads, erosion, on-site sewage disposal, and agricultural productivity. The NRCS has identified specific individual soil units throughout the county based upon the characteristics of the upper soil layers (approximately five feet in depth) that provides a reliable basis for township planning purposes.

According to the NRCS, nearly all of the township presents severe limitations to septic systems and approximately two-thirds of the Township presents severe limitations to basements. These limitations are a result of seasonally high water tables, ponding, poor soil filtration characteristics, soil wetness, bearing instability and/or related soil characteristics (see Soil Limitations for Septic Tank Absorption Fields and Soil Limitations for Dwellings Without Basements maps, Appendix D).

In regard to septic system compatibility, a primary concern is the soil's ability to absorb and break down the leachate from the septic drain fields before it reaches underground water supplies. This can be particularly troublesome where soils are characterized by wetness and poor percolation rates. For example, considerable areas of the township are characterized by Capac loam soils of 0% - 3% grade. According to the NRCS, the winter and spring seasonal high water table approaches to within one to two feet of the ground surface of such soils. In some cases, soils exhibit shallower water tables and result in standing water. Soil limitations on septic systems can often be overcome with increased lot sizes and/or specially engineered septic systems at additional costs. Soils that present only moderate or slight limitations to septic tank absorption are scattered throughout the Township in a marbled pattern, most prevalent in the Township's eastern half. The Dexter Trail/Hawley Road intersection area is the only location where this marbled pattern becomes noticeably concentrated.

The Ingham County Health Department is responsible for issuing permits for on-site sewage disposal. A permit will not be issued unless all county requirements have been met. Under typical conditions, sites approaching two acres are generally adequate to meet the Health Department's requirements for effective septic systems, including a back-up area should the initial drain field fail. Even on a two-acre site, a mounded system (raised) is frequently required to minimize soil wetness below. Sites approaching one acre must meet more stringent standards and may not be able to do so due to soil conditions. Development at this density may require a sewer system.

It should be noted that while a site may be classified by the Natural Resources Conservation Service as presenting limitations to septic systems and building construction, on-site investigation may show the classification to be less than fully accurate and/or show that the deeper soils (more than five feet deep) present different characteristics from the upper layer soils and thus, varying limitations.

While the area soils present primarily severe limitations to septic drain fields and basements, approximately two-thirds of the township is classified by the NRCS as *prime farmland* and the majority of the balance is classified as *additional farmland of local importance*. The NRCS generally defines *prime farmland* as land that is, under proper management, particularly well suited for food, feed, forage, fiber, and oilseed crops and is capable of producing sustained high yields. These prime farmland areas are less prevalent in the southeast quarter of the township (See Prime Farmland map, Appendix D).

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Appendix C DEMOGRAPHIC FEATURES

Population Growth Trends

The 2010 Census recorded a Vevay Township population of 3,537 persons, a decrease of 2.1% from its 2000 population (3,614) and a 3.6% decrease from its 1990 population (3,668 persons). The Township’s slight population drop during the 1990’s (-1.5%) occurred during a period when just three other Ingham County townships witnessed population declines (Leslie, Lock, and Lansing Charter Townships). The county as a whole dropped in population by -0.9% during the same period due, in large part, to the population losses in the cities of Lansing and East Lansing.

The township’s 2.1% decline in population growth between 2001 and 2010 corresponded to Michigan’s overall 0.5% decline in population – the only state to record a population loss and a reflection of the economic and housing market decline across the nation and particularly evident in Michigan.

Prior to the population declines in the township between 1990 and 2010, the township witnessed consistent growth since 1940 and at a rate far greater than that of the county and state. Vevay Township has grown 243% since 1940 when its population was 1,032. The county and state have grown 215% and 88% respectively during the same period. The township’s strongest growth occurred during the 1970s when it witnessed a 62.5% growth rate. This growth far exceeded the county and state growth of 5.6% and 4.1% respectively.

Despite the township’s and state’s population decline in the 2000s, Ingham County witnessed a 0.6% growth rate and recorded a 2000 population of 280,895 persons.

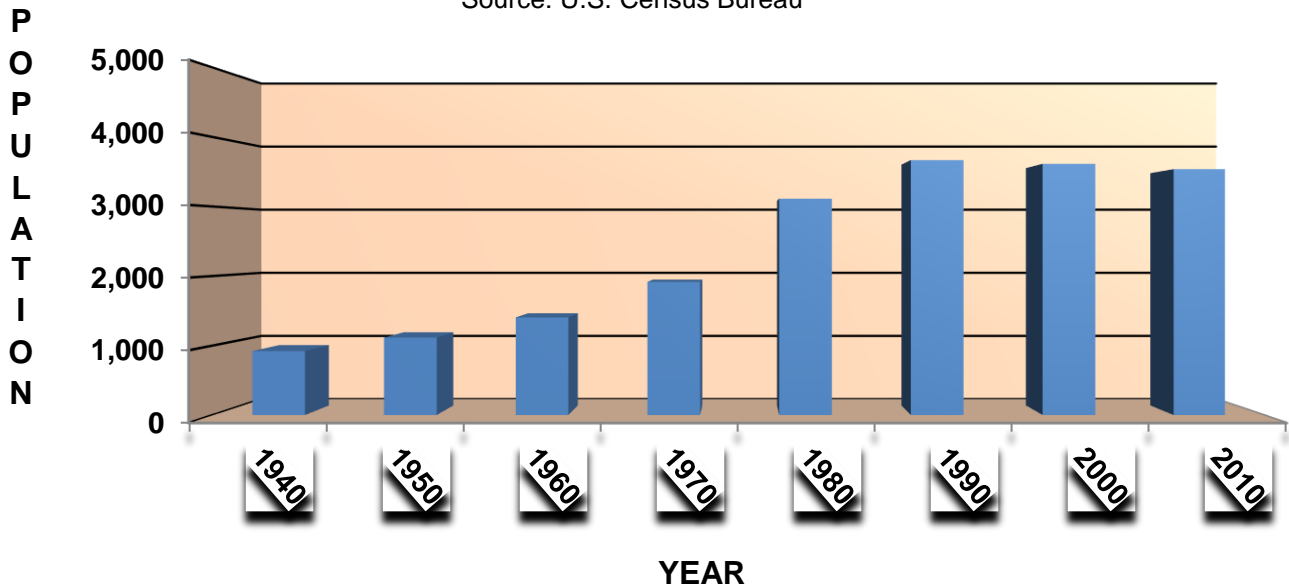
The township’s growth has increased in population density, rising from 32 persons per square mile in 1940 to 110 persons per square mile in 2010. By comparison, Meridian Township, the county’s most populated township, had a 2010 population of 39,688 persons and a population density of 1,248 persons per square mile. The City of Lansing had a 2010 population density of 3,114 persons per square mile.

**TABLE C-1
Population Trends & Growth Rates Comparison**

Source: U.S. Census Bureau
(previous ten-year growth rate indicated by “%”)

YEAR	VEVAY TOWNSHIP		INGHAM COUNTY		STATE of MICHIGAN	
1940	1,032		130,616		5,256,106	
1950	1,114	7.9%	172,941	32.4%	6,371,766	17.6%
1960	1,404	26.0%	211,296	22.2%	7,823,194	18.6%
1970	1,916	36.5%	261,039	23.5%	8,881,826	11.9%
1980	3,113	62.5%	275,520	5.6%	9,262,078	4.1%
1990	3,668	17.8%	281,912	2.3%	9,295,297	0.4%
2000	3,614	-1.5%	279,320	-0.9%	9,938,444	6.9%
2010	3,537	-2.1%	280,895	0.6%	9,883,640	-0.5%

FIGURE C-1
Vevay Township Growth
 Source: U.S. Census Bureau



The varying growth rates of the township and county since 1940 have resulted in a 62.5% increase in the proportion of Vevay Township residents comprising the total county population increasing from 0.8% in 1940 and to 1.3% in 2010.

POPULATION PROJECTIONS

Estimating future population growth can provide important insights into identifying future land use and public services needs. Projecting the growth of a community's population over a prescribed period of time is not an exact science. The many unpredictable factors that affect growth make population projections somewhat speculative. Because of the severity of the housing and financial market that surfaced in 2007, both in Michigan and nationally, projecting population growth at this particular time is uniquely challenging. By using several projection techniques, a range of growth estimates can be generated. These shed light on potential growth scenarios provided planning policies and land development regulations do not limit or encourage growth any more than in the past.

Table C-2 presents a number of population projects:

- The historical trend projection assumes the township will grow 21.0% every ten years – the same average 10-year growth rate between the years 1940 and 2010.
- The low growth trend projection assumes the township will grow at a rate 50% less than that of the historical trend rate, or 10.5% every ten years.
- The very low growth trend projection assumes the township will grow at a rate 75% less than that of the historical trend rate, or 5.3% every ten years.
- The high growth trend projection assumes the township will grow at a rate 25% greater than that of the historical trend rate, or 26.3% every ten years.

The low or very low growth projections may be the most likely over the next 20 years given current (though improving) economic conditions in Michigan. This is further supported by the U.S. Census Bureau’s estimated 2013 Vevay Township population of 3,530 – seven persons less than its 2010 Census population. The Tri-County Regional Planning Commission’s population projections for Ingham County as a whole, based on an average of projection studies, also suggests limited growth county-wide growth – 3.9% through 2045. See Table C-2 regarding Vevay Township population projections.

TABLE C-2
Vevay Township Population Projections

Projection Trend	Population In 2010	2020 Projection	2030 Projection	2040 Projection
Very Low Growth Trend (5.3%)	3,537	3,724	3,922	4,130
Low Growth Trend (10.5%)	3,537	3,908	4,319	4,772
Historical Trend (21.0%)	3,537	4,280	5,178	6,266
High Growth Trend (26.3%)	3,537	4,467	5,642	7,126

SOCIAL and ECONOMIC CHARACTERISTICS

RACE: The 2010 Census showed Vevay Township to have a racial composition far more homogeneous than that of the county and state as a whole. 96.4% of the township population was white, compared to 76.2% and 78.9% for the county and state respectively. The township’s homogeneity is typical of rural Michigan communities, as compared to more urban areas such as Lansing and East Lansing. (See Table C-3).

TABLE C-3
Race Profile Comparison, 2010 (By Percent)

Source: 2010 U.S. Census

RACE	VEVAY TOWNSHIP	INGHAM COUNTY	STATE of MICHIGAN
White Only	96.4	76.2	78.9
Black/African American Only	0.5	11.8	14.2
American Indian, Alaska Native Only	0.6	0.6	0.6
Asian Only	0.3	5.2	2.4
Native Hawaiian/Other Pacific Islander Only	0.0	0.0	0.0
Some Other Single Race Only	1.0	2.3	1.5
Two or More Races	1.3	4.0	2.3

AGE: Vevay Township’s overall age composition in 2010 was generally similar to that of the state as a whole but reflected a noticeably older population compared to the county. The proportion of the township’s population between 15 and 24 years of age (12.6%) was just over half that of the county’s (23.1%). The proportion of the township’s population between 45 and 64 years of age (34.1%) was nearly one-third greater that of the county’s (24.0%). The contrast in age profile between the township and county is likely linked to the presence of the Michigan State University student body residing in East Lansing and immediately surrounding areas. See Figure C-2 and Table C-4.

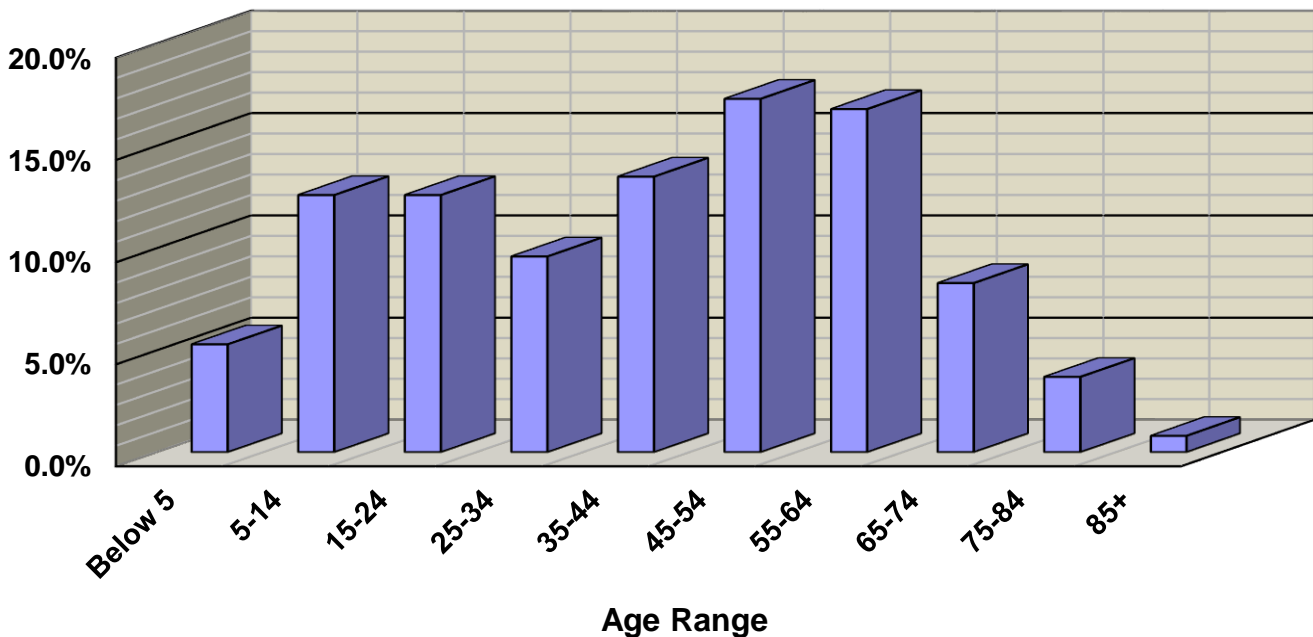
TABLE C-4
Age Profile Comparison (By Percent, except where noted)
 Source: 2010 U.S. Census

AGE	VEVAY TOWNSHIP	INGHAM COUNTY	STATE of MICHIGAN
Under 5 yrs.	5.3	5.7	6.0
5 – 14 yrs.	12.6	11.5	13.3
15 - 24 yrs.	12.6	23.1	14.3
25 - 34 yrs.	9.0	14.0	11.8
35 – 44 yrs.	13.5	11.1	12.9
45 - 54 yrs.	17.3	12.8	15.2
55 - 64 yrs.	16.8	11.2	12.7
65 - 74	8.3	5.5	7.3
75 - 84	3.7	3.3	4.5
85 yrs. or more	0.8	1.5	1.9
Under 18 yrs.	22.7	20.9	20.8
65 yrs and over	12.9	10.5	13.8
Median Age	43.3	31.4 yrs.	38.9 yrs.

The township’s population in 2010 can be divided into near equal thirds according to the following age groups:

- Less than 29 years of age
- 30 – 51 years of age
- 52 years of age and greater

FIGURE C-2
Vevay Township Age Profile
 Source: 2010 U.S. Census



VEVAY TOWNSHIP MASTER PLAN

The township’s median age of 43.3 years in 2010 was noticeably higher than that of the county (31.4) and state (38.9). Like the balance of the state and nation, the township’s residents are continuing to mature. The township’s 2010 median age of 43.3 years reflects:

- a 15.5% increase over its 2000 median age of 37.5 years
- a 37.5% increase over its 1990 median age of 31.5 years
- a 56.9% increase over its 1980 median age of 27.6 years

HOUSEHOLDS: The 2010 Census recorded 1,327 households, 79.7% of which were family households and 66.0% were comprised of a married-couple family. Of the 13.7% of the households not comprised of a married couple, about two of three such households were headed by a female. The township’s proportion of married-couple households was 37.5% and 67.5% greater than that of the county and state respectively. The 1,327 households reflected an increase of 5.0% households since the 2000 Census (1,264 households), despite the economic downturn across Michigan and the drop in overall township population. This is a reflection of, in part, the shrinking average household size and resulting increased number of dwellings housing the same number of persons. The township’s average household size of 2.7 persons in 2010 was 6.9% lower than its average household size of 2.9 in 2000, and was somewhat greater than the 2010 average household sizes for the county (2.4) and state (2.5). See Figure C-3 and Table C-5.

FIGURE C-3
Vevay Township Household Type

Source: 2010 U.S. Census

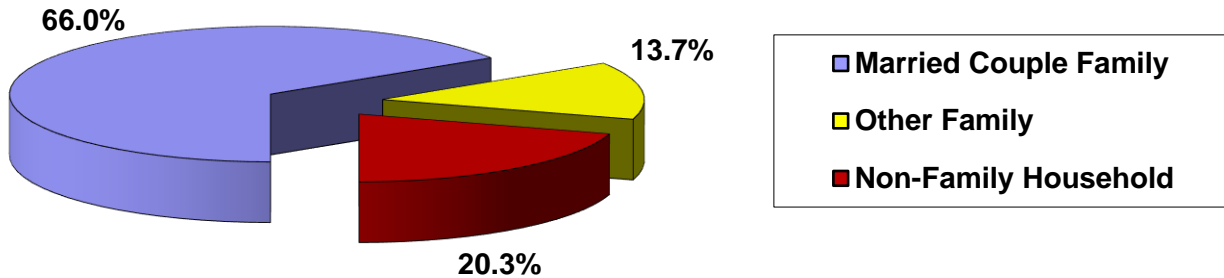


TABLE C-5
Household Type and Size Comparison
(by percent, except where otherwise noted)

Source: 2010 U.S. Census

	VEVAY TOWNSHIP	INGHAM COUNTY	STATE OF MICHIGAN
HOUSEHOLD TYPE			
Married-couple family	66.0	39.4	48.0
Other family:	13.7	17.1	18.0
Male householder	4.7	4.4	4.8
Female householder	9.0	12.7	13.2
Non-family household	20.3	43.6	34.0
PERSONS Per HOUSEHOLD	2.7 persons	2.4 persons	2.5 persons
PERSONS Per FAMILY	3.0 persons	3.0 persons	3.1 persons

VEVAY TOWNSHIP MASTER PLAN

With the township reflecting a comparatively high proportion of married-couple families, it is not surprising that the 20.3% of all households comprised of non-family households was about 40.3% less than the state (34.0%) as a whole and 54.1% less than the county (43.6%). Of the township's non-family households, about three-quarters were comprised of the householder living alone.

EMPLOYMENT and INCOME: Of the estimated 2,871 township residents of age 16 years and over in 2013, 67.4% were in the labor force and all were in the civilian labor force. The four principal employment industries for employed township workers were: 1) education, health, and social services; 2) retail trade; 3) manufacturing; and 4) construction. These four industries alone accounted for 59.3% of township workers' employment, and education, health and social services alone accounted for the largest share of employment – 21.2% of workers. The comparatively high rate of employment in the education, health and social services industry is likely linked to Michigan State University staff residing in the township. In contrast, the 8.2% of workers in the professional and related services industry was noticeably low compared to the county (14.1%) and state (13.5%). Of greater contrast is the 8.3 percent of township workers employed in the agriculture, forestry, fishing, hunting and mining industry – a rate more than seven time higher than that of the county (0.9%) and state (1.2%) and linked to the presence of active mining operations. See Table C-6.

4.6% of township's work force worked within their place of residence, a percentage greater than for the county (4.0%) and state (3.6%) as a whole. For those township residents who commuted to work, the mean travel time was 22.0 minutes, somewhat higher than that of the county (19.9 minutes) and slightly lower than the state (24.0 minutes). This is a reflection of the comparatively limited employment opportunities in the immediate township area but considerable employment opportunities in association with the Lansing regional area including Michigan State University in East Lansing.

TABLE C-6
Employment by Industry Comparison
(employed persons 16 years and older, by percent)
 Source: 2013 American Community Survey, U.S. Census Bureau

INDUSTRY	VEVAY TOWNSHIP	INGHAM COUNTY	STATE of MICHIGAN
Education, health, and social services	21.2	28.7	22.4
Retail trade	13.3	11.6	11.6
Manufacturing	12.8	8.7	18.3
Construction	12.0	3.9	5.6
Agriculture, forestry, fishing, hunting, mining	8.3	0.9	1.2
Professional, scientific, management, administrative, waste management, other services not listed (excluding public administration)	8.2	14.1	13.5
Finance, insurance, and real estate	7.5	6.6	5.7
Public administration	7.3	7.7	3.7
Art, entertainment, recreation, accommodations, and food services	4.3	10.4	9.0
Wholesale trade	2.8	2.1	2.9
Transportation, warehousing, and utilities	1.5	3.1	4.2
Information	0.7	2.1	1.9

VEVAY TOWNSHIP MASTER PLAN

The prosperity of Vevay Township is noticeably greater than that of the county and state as a whole.

- The township’s 2013 median household income of \$72,026 was approximately one-third greater than the county (\$45,606) and state (\$48,700).
- The township’s median family income of \$75,833 was approximately 19% greater than the county (\$61,619) and state (\$60,635).
- The township’s per capita income of \$29,800 was approximately 18% to 26% greater than that of the county (\$23,669) and state (\$25,172)
- The portions of families and persons below poverty level in the township in 2013, 2.5% and 3.8% respectively, were nearly one-quarter or less than that of the county and state.

See Figure C-4 and Table C-7.

FIGURE C-4
Income Characteristics Comparison, 2013
 Source: 2013 American Community Survey, U.S. Census Bureau

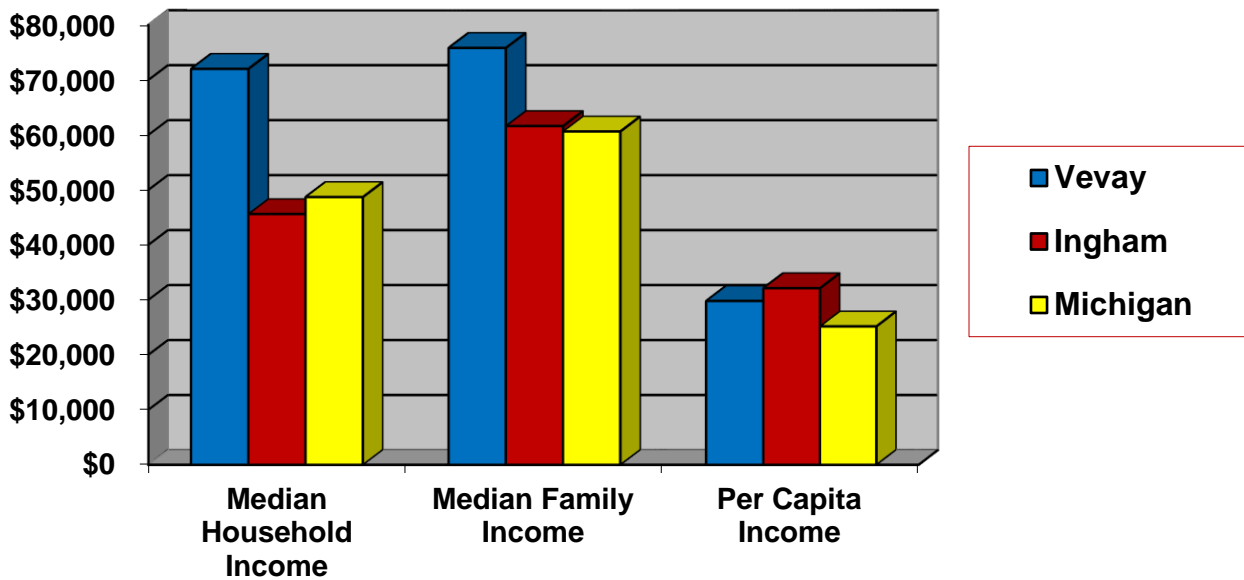


TABLE C-7
Income Characteristics Comparison
 Source: 2013 American Community Survey, U.S. Census Bureau

INCOME CHARACTERISTIC	VEVAY TOWNSHIP	INGHAM COUNTY	STATE OF MICHIGAN
Median household income	\$72,026	\$45,606	\$48,700
Median family income	\$75,833	\$61,619	\$60,635
Per capita income	\$29,800	\$23,669	\$25,172
Families below poverty level	2.5%	11.8%	10.3%
Persons below poverty level	3.8%	19.9%	14.5%

EDUCATION: Formal education levels for Vevay Township residents in 2013 were comparable or somewhat lower than that of the state as a whole, and noticeably lower than the county as a whole.

- The township’s 28.8% of residents 25 years of age or older that had not pursued formal education beyond the attainment of a high school diploma (or equivalent) fell between that of the county (25.0%) and the state (31.8%).
- The township’s 23.8% of residents 25 years of age or older that had attained a bachelor’s degree or higher level of education was slightly less than the state (24.5%) and 31.8% less than the county.
- The 10.1% of township residents that pursued formal education after attaining a bachelor’s degree was slightly greater than the state (9.3%) and 32.7% less than the county.

See Table C-8 and Figures C-5 and C-6.

TABLE C-8
Highest Level of Education Attainment Comparison
 (for persons 25 years of age and higher, by percent)

Source: 2013 American Community Survey, U.S. Census Bureau

HIGHEST EDUCATION ATTAINMENT	VEVAY TOWNSHIP	INGHAM COUNTY	STATE of MICHIGAN
Less Than 9th Grade	0.6	2.9	3.7
9th to 12th, no diploma	4.7	6.4	8.9
High School Diploma	28.8	25.0	31.8
Some college, no degree	34.4	22.6	23.1
Associates Degree	7.7	8.2	8.0
Bachelor’s Degree	13.7	19.9	15.2
Graduate/Professional Degree	10.1	15.0	9.3
High school graduate or higher	94.7	90.7	87.4
Bachelor’s degree or higher	23.8	34.9	24.5

FIGURE C-5
Highest Level of Education Attainment, Vevay Township
 (for persons 25 years of age and higher)

Source: 2009 - 2013 American Community Survey, U.S. Census Bureau

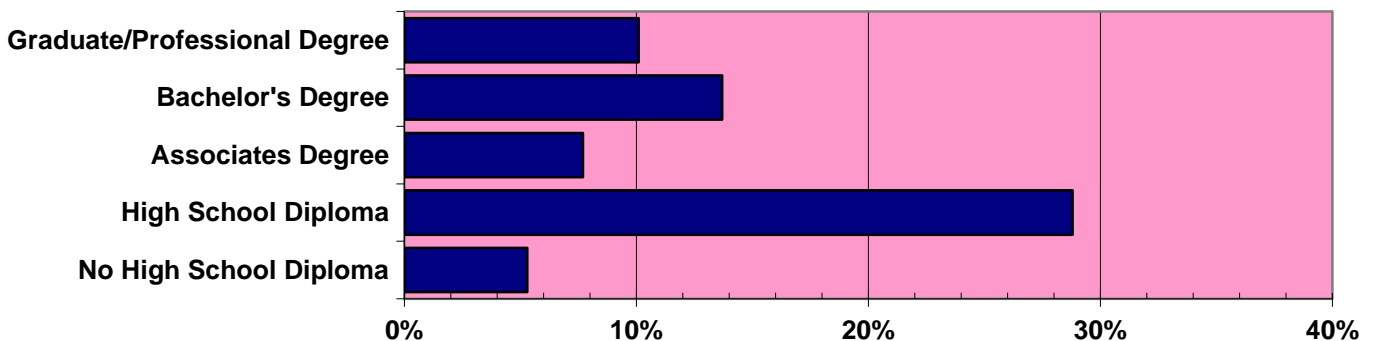
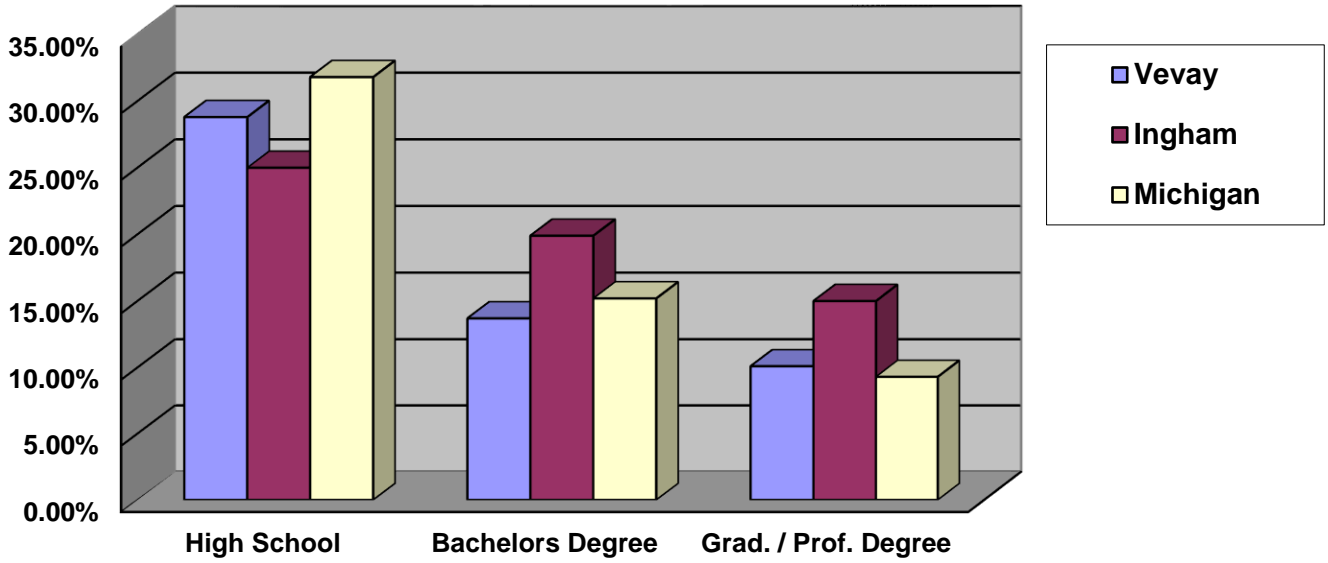


FIGURE C-6
Highest Level of Education Attainment Comparison
(for persons 25 years of age and higher)
Source: 2013 American Community Survey, U.S. Census Bureau



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Appendix D INVENTORY MAPS

Public Road Network – Michigan Public Act 51 of 1951

Public roads under the jurisdiction of the Ingham County Road Department and classified by the Department as “primary” or “local” pursuant to Public Act 51 of 1951.

Public Road Network – National Functional Classification

Public roads as classified by the Michigan Department of Transportation according to the Federal Highway Administration’s National Functional Classification System.

Land Use/Land Cover

Land use/land cover based on aerial imagery irrespective of zoning, tax classification or ownership.

Public Act 451 Parcels

Land enrolled in the Farmland and Open Space Preservation Program pursuant to the Michigan Natural Resources and Environmental Protection Act, Public Act 451 of 1994.

Wetlands

Wetlands as identified in the National Wetland Inventory prepared by the U.S. Fish and Wildlife Service.

Hydric Soils

Soils that are formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part, and are frequently in association with wetlands.

Soil Limitations for Septic Tank Absorption Fields

The comparative extent of limitations for septic tank absorption fields according to soil conditions including topographic and drainage features (Natural Resources Conservation Service).

Soil Limitations for Dwellings Without Basements

The comparative extent of limitations for dwellings without basements according to soil conditions including topographic and drainage features (Natural Resources Conservation Service).

Prime Farmland

Land that is, under proper management, particularly well suited for food, feed, forage, fiber, and oilseed crops and is capable of producing sustained high yields (Natural Resources Conservation Service).

Public Road Network












Public Act 51

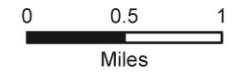
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Vevay Township

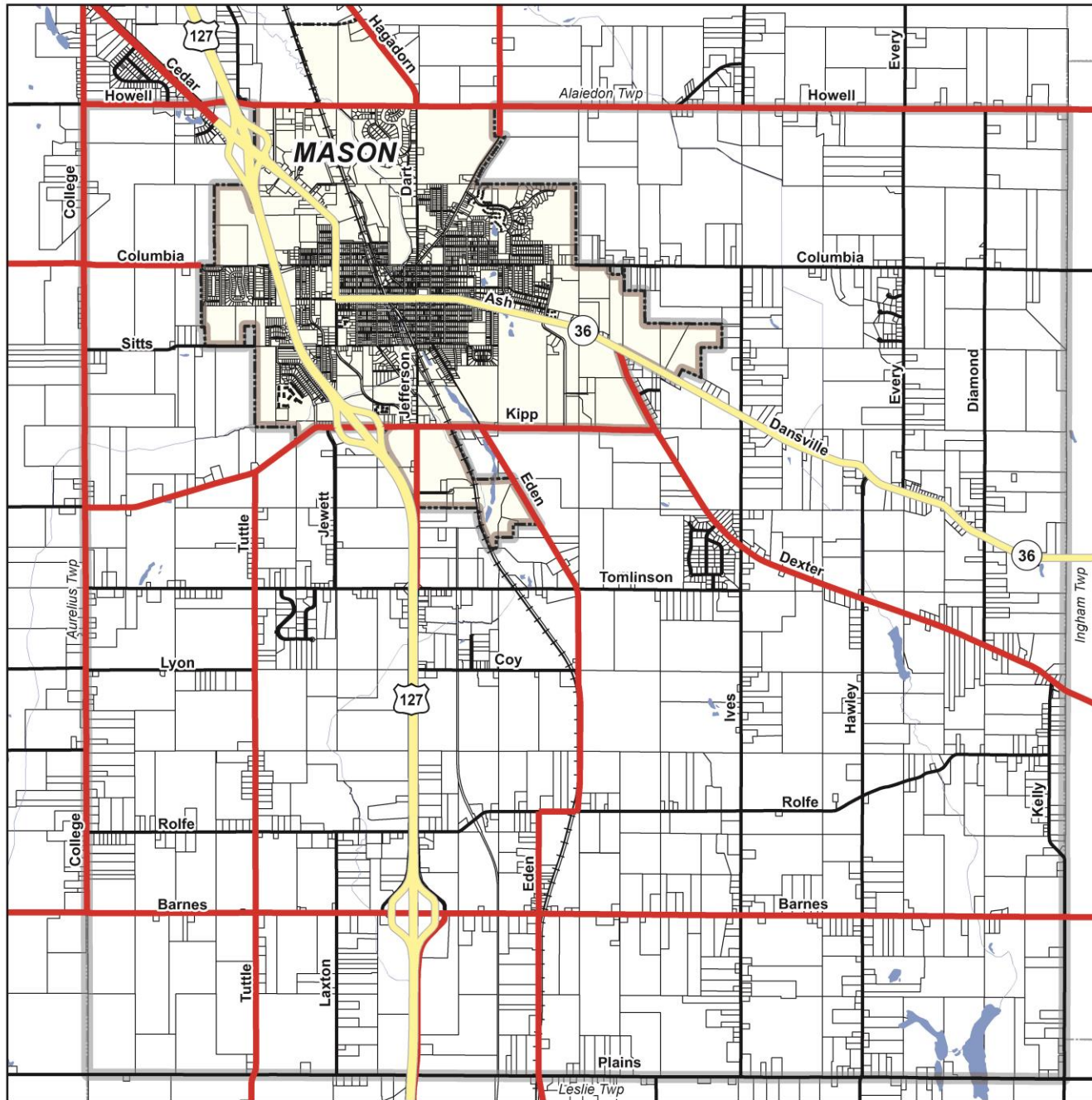
Master Plan

Road Types

-  State Trunkline
-  County Primary
-  County Local
-  City Local
-  Railroad
-  Vevay Township
-  City of Mason
-  Other Townships
-  River, Drain, Lake
-  River & Lake
-  Vevay Parcels 2015



TRI-COUNTY REGIONAL PLANNING COMMISSION
 Planning Mid-Michigan's Future Together Since 1958
 Cartographer: Laura Tschirhart



Sources: State of Michigan, CSS, Framework v15a, 2015; Ingham County Equalization, 2015

Public Road Network

National Functional Classification
10/11/2016

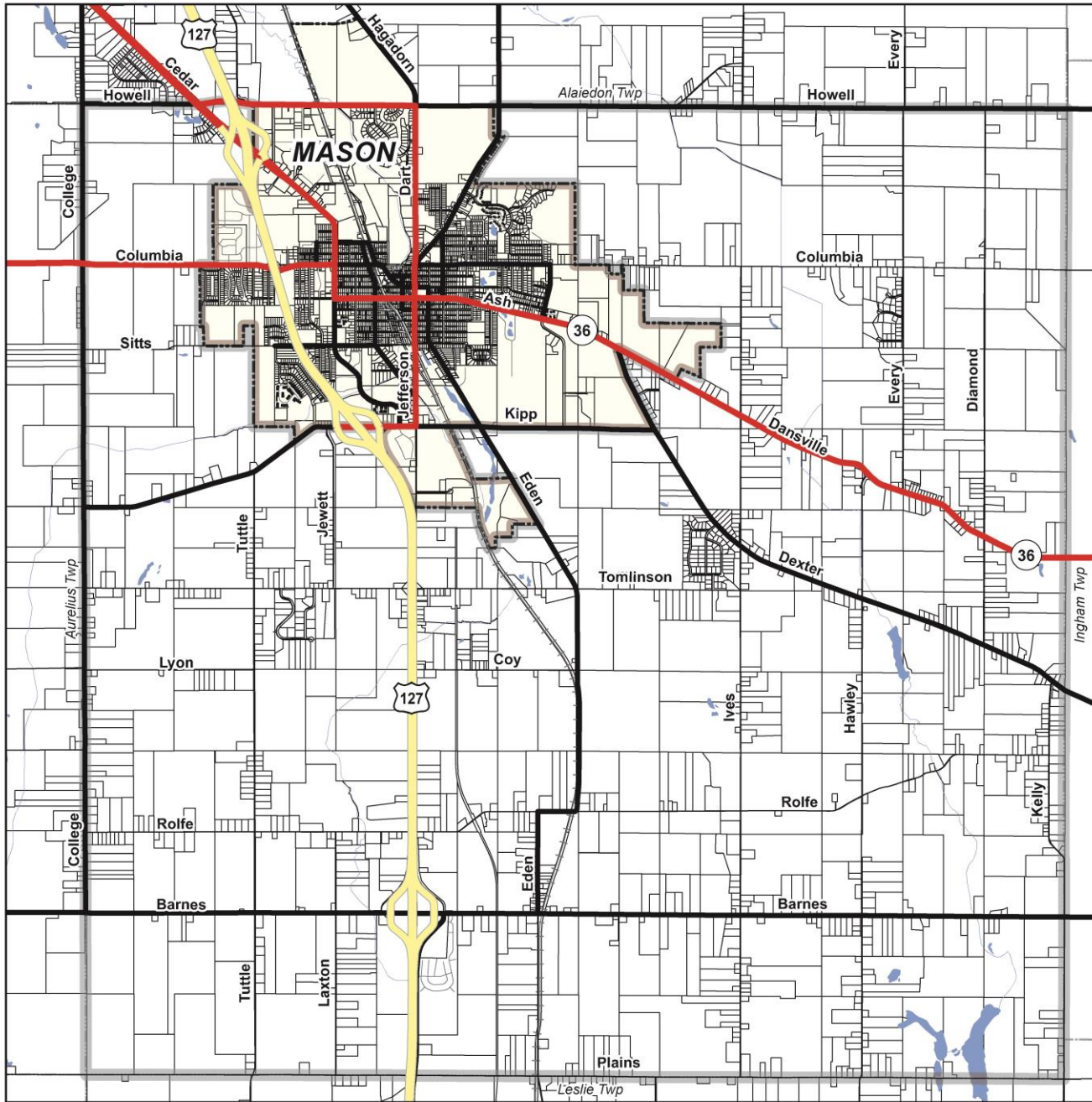
Vevay Township Master Plan

Road Types

-  Interstates/ Freeways
-  Minor Arterials
-  Collectors
-  Local
-  Not a certified public road
-  Railroad
-  Vevay Township
-  City of Mason
-  Other Townships
-  River, Drain, Lake
-  River & Lake
-  Vevay Parcels 2015



TRI-COUNTY REGIONAL PLANNING COMMISSION
Planning Mid-Michigan's Future Together! Since 1959
 Cartographer: Laura Tschirhart



Sources: State of Michigan, CSS, Framework v15a, 2015; Ingham County Equalization, 2015

Land Use/ Land Cover

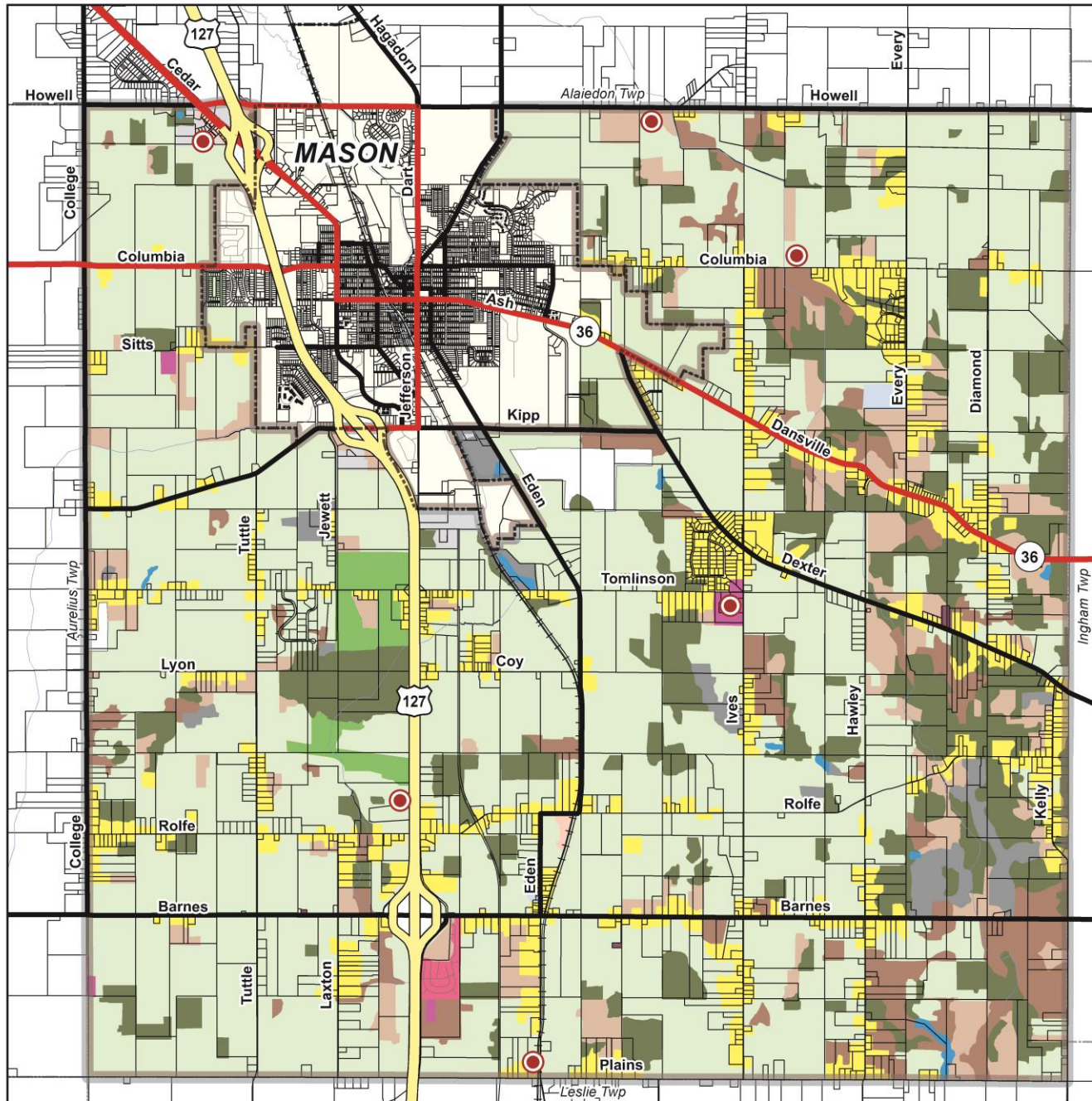
10/11/2016
Vevay Township
Master Plan

Land Use/Land Cover

- Agriculture
- Outdoor Recreation
- Forested
- Single Family Residential
- Mobile Home Park
- Neighborhood Services
- Industrial
- Extractive
- Non-Forested
- Wetlands
- Transportation
- Utilities
- Cemetery
- Institutional
- Water
- Vevay Parcels 2015
- Cellular/Radio Tower Sites



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Sources: Space Imaging color satellite imagery and HNTB, 1999; Vevay Township, 2016; Ingham County Equalization, 2015

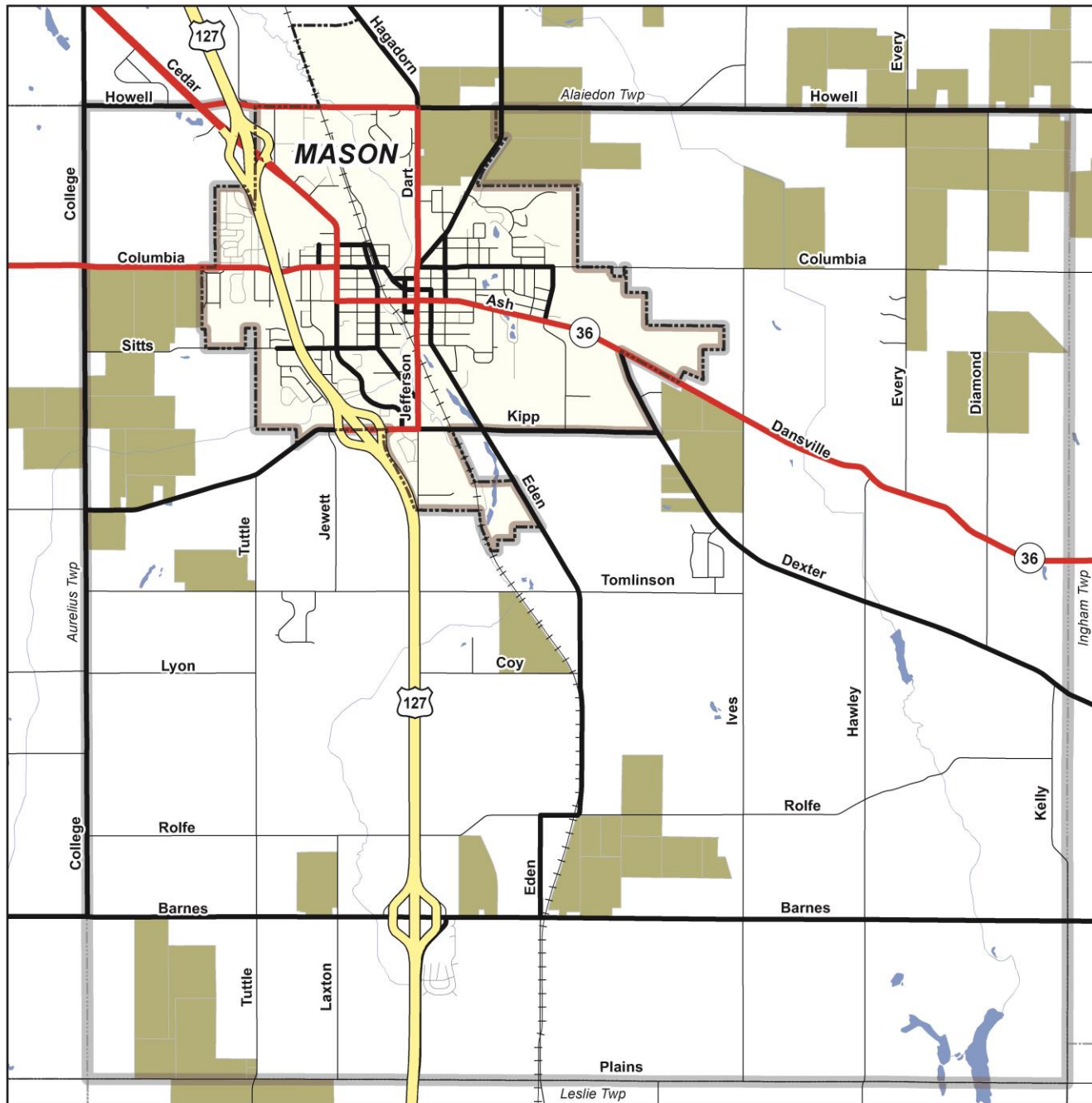
Public Act 451

10/11/2016 Vevay Township Master Plan

Public Act 451

-  Active Public Act 451 Parcels
-  Vevay Parcels 2015

This map was created for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.



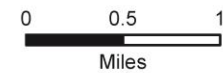
Wetlands

10/11/2016

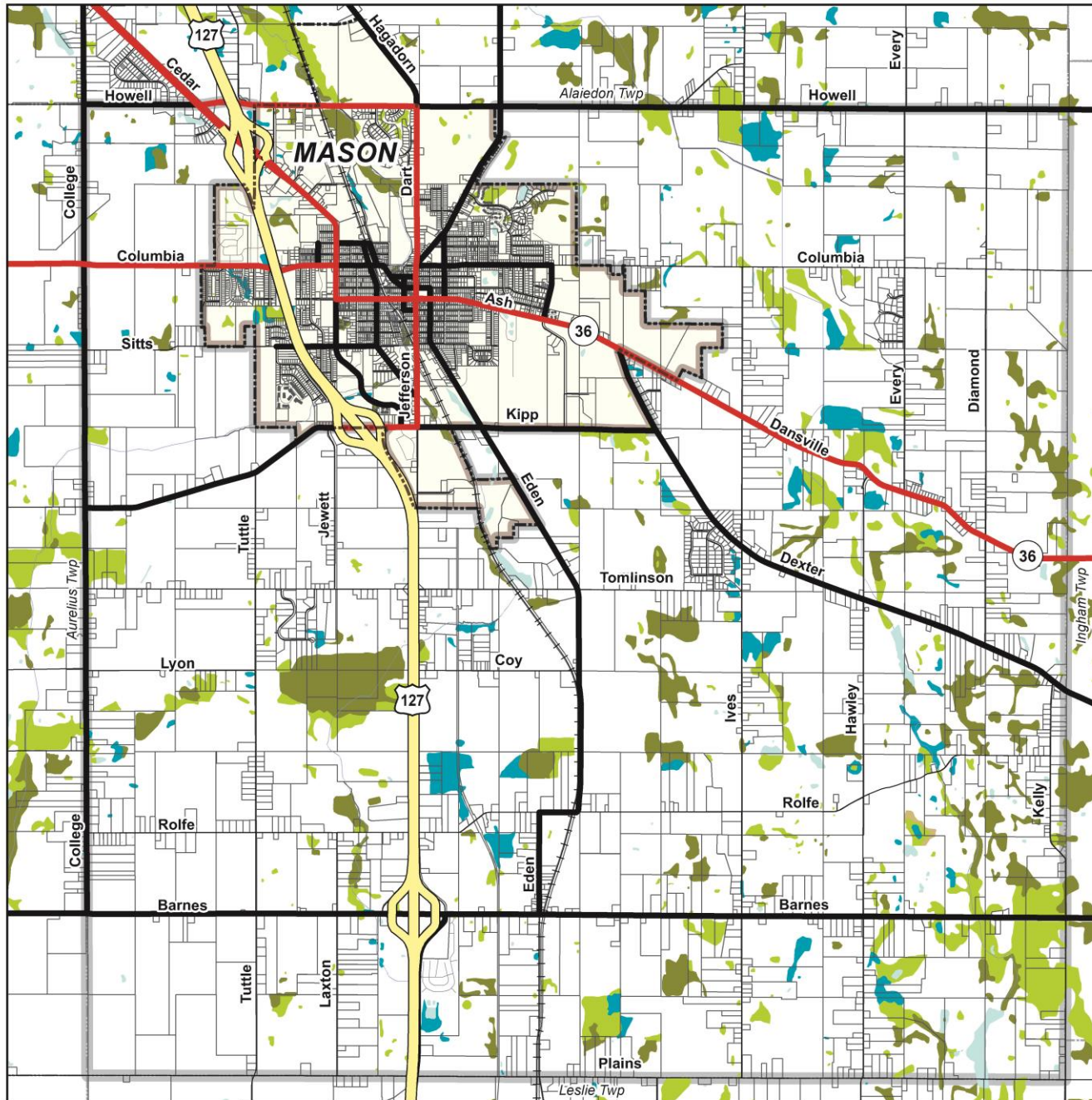
Vevay Township Master Plan

Ingham National Wetlands

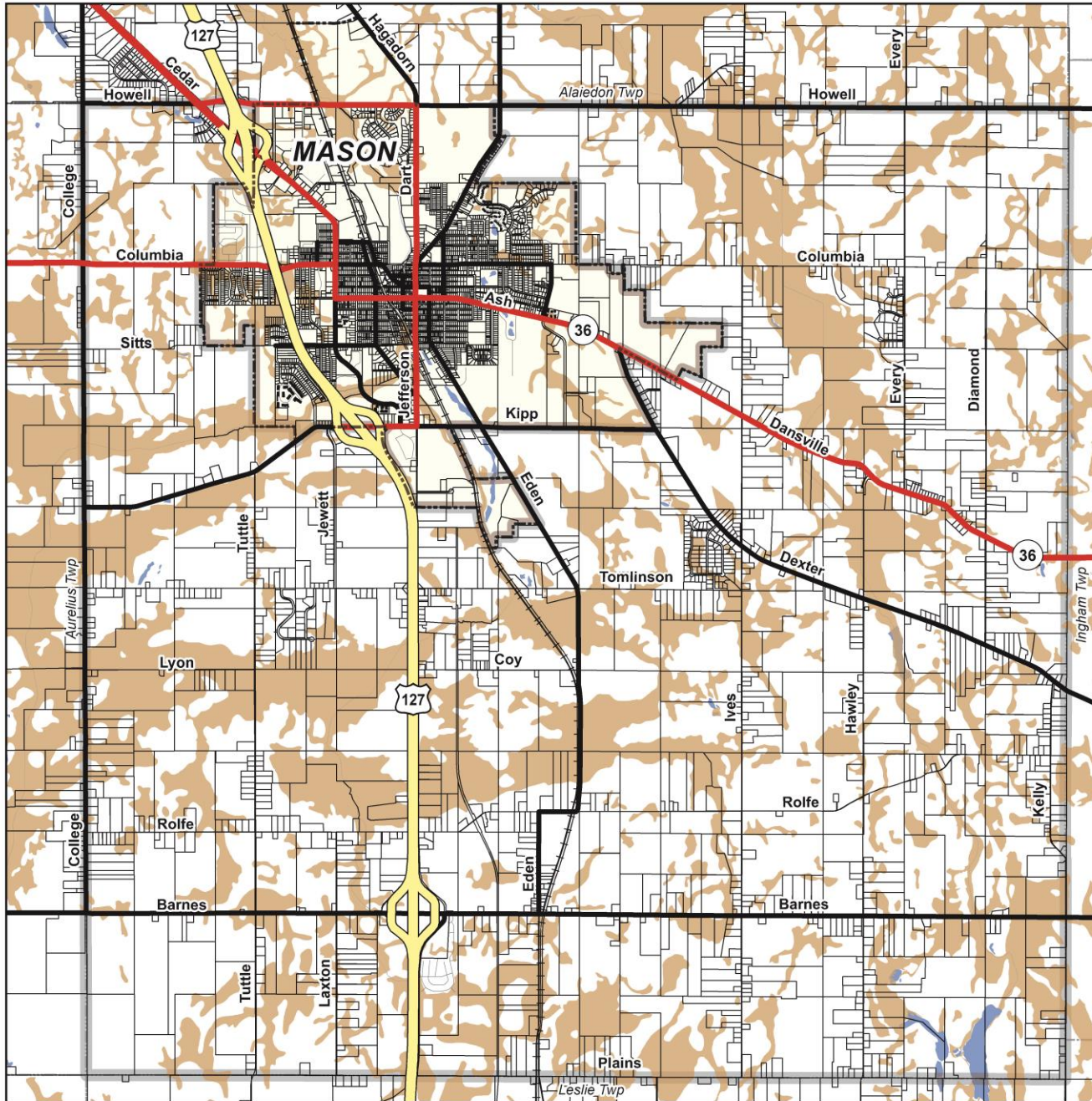
- Scrub-Shrub
- Open Water/Unknown Bottom
- Forested
- Emergent
- Aquatic Bed
- Vevay Parcels 2015



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Sources: National Wetlands Inventory; Ingham County Equalization, 2015



Hydric Soils

10/11/2016

Vevay Township Master Plan

Hydric Soils

-  Hydric Soils
-  Vevay Parcels 2015



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Sources: U.S. Department of Agriculture, Natural Resources Conservation Service, 2014; SSURGO; Ingham County Equalization, 2015

Soil Limitations for Septic Tank Absorption Fields

10/11/2016

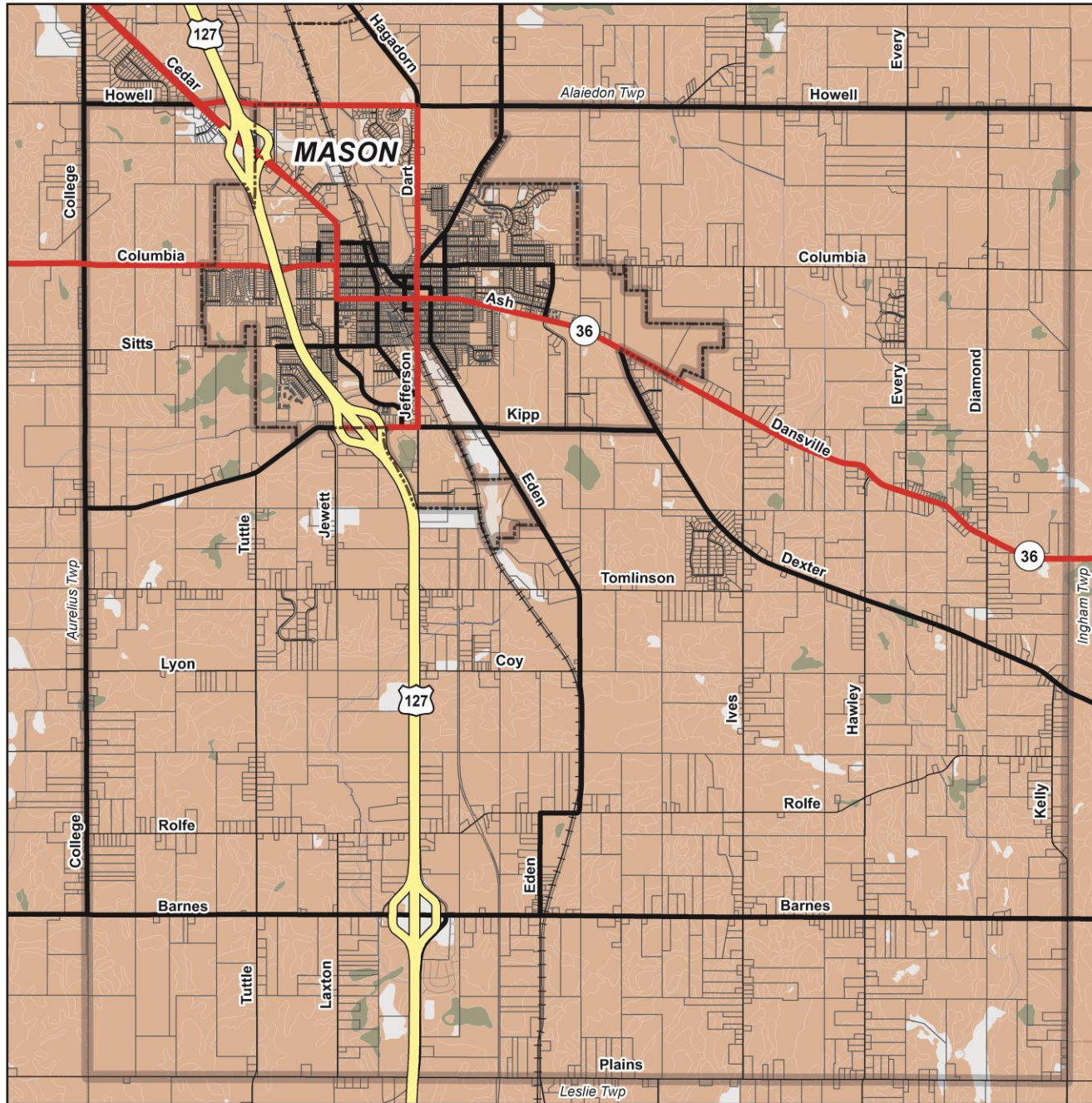
Vevay Township
Master Plan

Septic Tank Absorption Fields

-  Very limited
-  Somewhat limited
-  Not rated or not available
-  Vevay Parcels 2015



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Sources: U.S. Department of Agriculture, Natural Resources Conservation Service, 2014; SSURGO; Ingham County Equalization, 2015

Soil Limitations for Dwellings Without Basements

10/11/2016

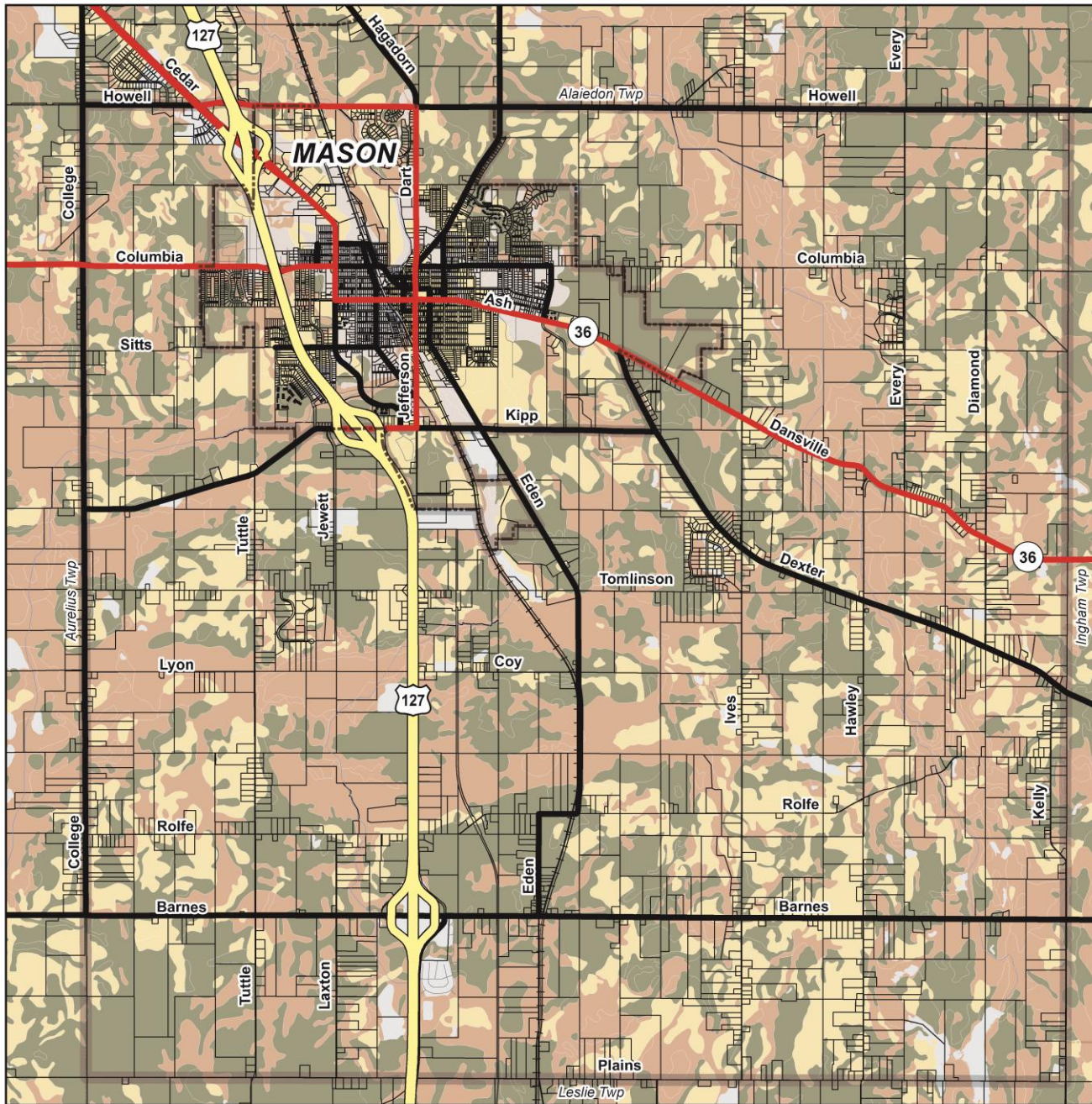
Vevay Township Master Plan

Dwellings Without Basements

-  Very limited
-  Somewhat limited
-  Not limited
-  Not rated or not available
-  Vevay Parcels 2015



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 Cartographer: Laura Tschirhart









Sources: U.S. Department of Agriculture, Natural Resources Conservation Service, 2014; SSURGO; Ingham County Equalization, 2015

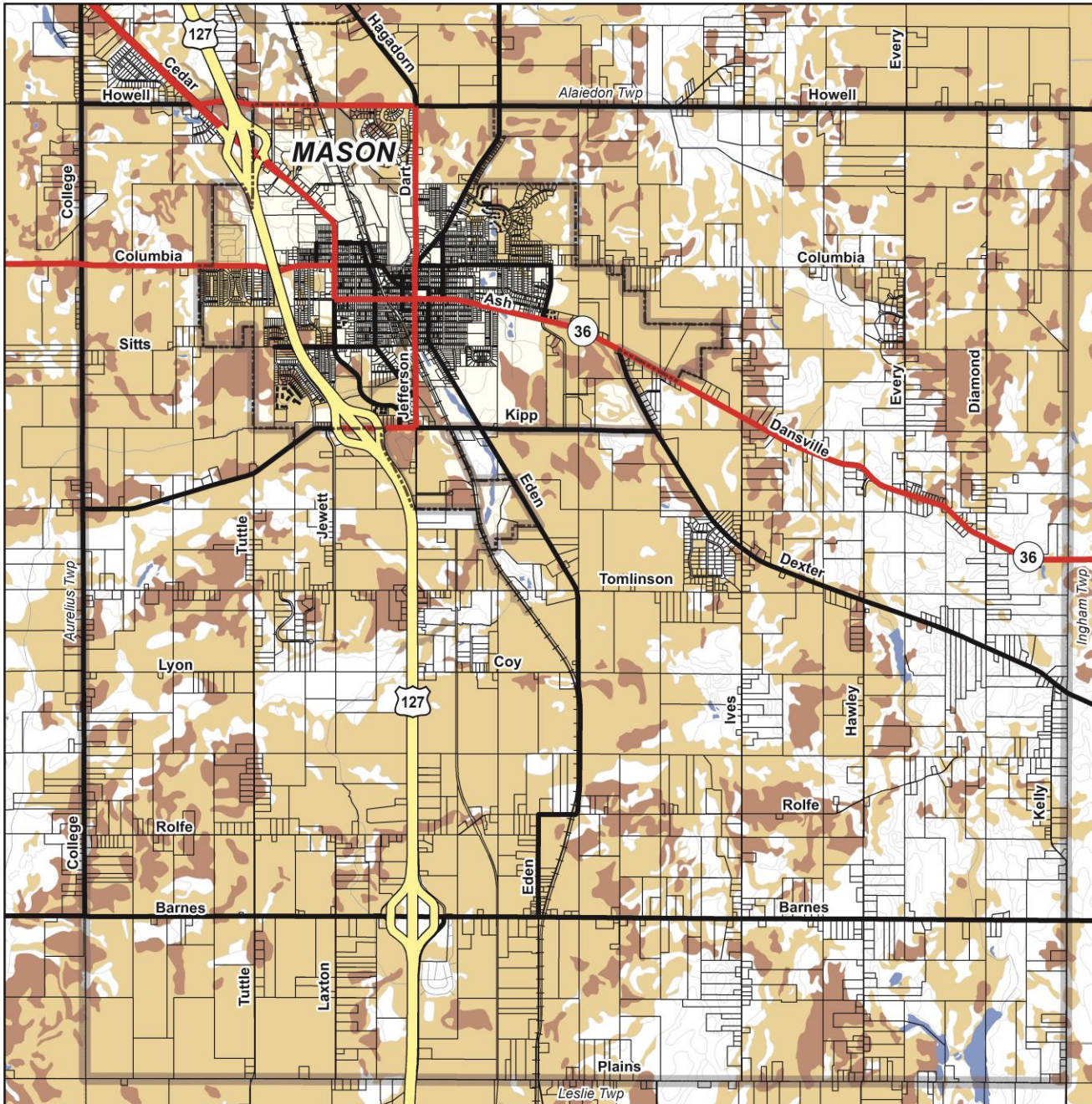
Prime Farmland

10/11/2016

Vevay Township Master Plan

Prime Farmland

-  Prime under all circumstances.
-  Prime if adequately drained.
-  Prime if not flooded more often than occasionally.
-  Prime if adequately drained, not flooded more often than occasionally, and where drained and either protected from or not frequently flooded during the growing season.
-  Non-prime farmland under any conditions.
-  Vevay Parcels 2015



Sources: U.S. Department of Agriculture, Natural Resources Conservation Service, 2014; SSURGO; Ingham County Equalization, 2015