

Table of Contents

	Page
Section 1.0 Regional Analysis	1
Regional Analysis	
Introduction	
Historical Background	
Regional Location	
Regional Development Influences	
Traditional Southeast Michigan Development Corridors	8
Macomb County Corridors	
M-59 Growth Corridor	
Conclusions	
Regional Planning Influences	
Southeast Michigan Council of Governments	
Sewer Service Area Map	
· · · · · · · · · · · · · · · · · · ·	
Transportation Planning	•
Regional Development Forecasts	
Macomb County Planning	
Macomb County Greenways Plan	
Local Planning Influences	
Washington Township	
Village of Romeo	
Armada Township	
Almont Township	1-10
Addison Township	1-11
Conclusion	1-11
Section 2.0 Population Analysis	2
Introduction	
Population Change	
Regional Trends	
Local Trends	
Age	
Median Age	
Population By Age	
Households	
Household Growth Trends	
Household Size	
Household and Family Characteristics	
Projections	
Constant Proportion	
Growth Rate	
Arithmetic Method	
Southeast Michigan Council of Governments Small Area Forecasts	
Housing Characteristics	
Number of Units/Housing Type	
Housing Tenure	
Housing Value	2-10

Table of Contents - Continued

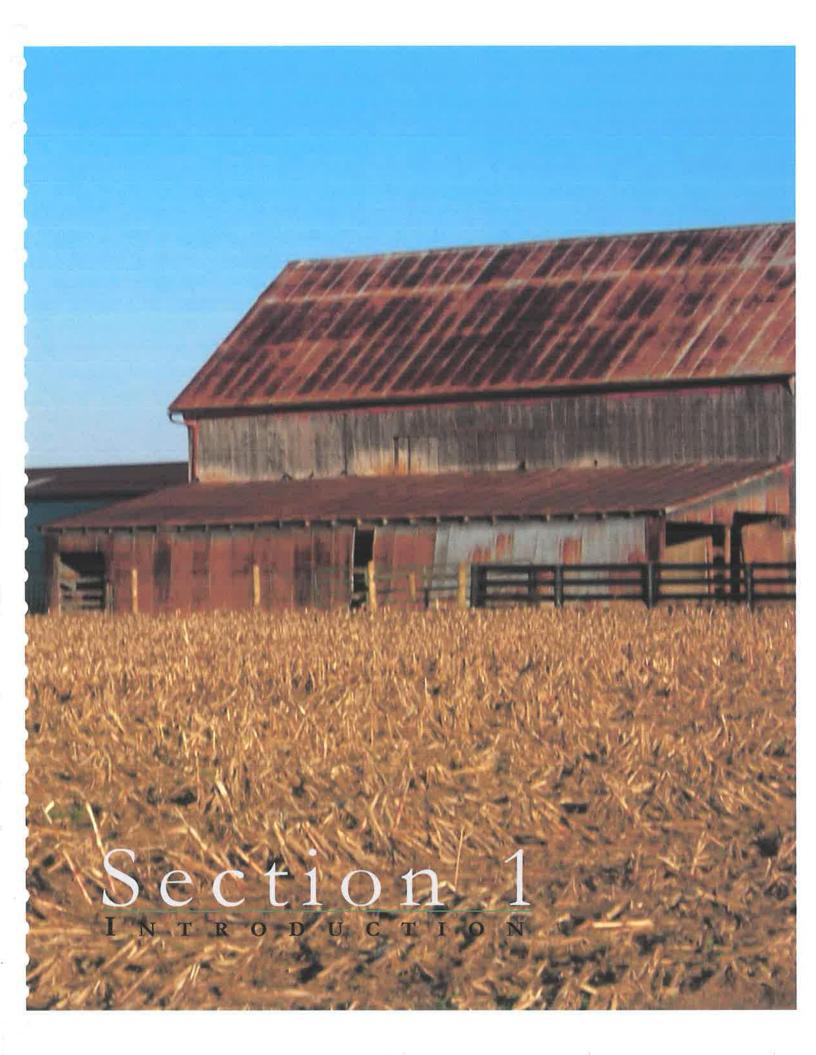
	Page
Section 3.0 Environmental Analysis	
Physical Features	
Introduction	
Geology	3-3
Topography	3-4
Soils	3-6
Septic Limitations	
Water	
Wetlands	
Woodlands	
Michigan Natural Features Inventory	
Floodplains	
Conclusion	3-18
Section 4.0 Existing Land Use	4
Existing Land Use	
Introduction	
Methodology	
Section 5.0 Goals and Objectives	5
Introduction	5_3
Master Plan Goals	
Policy Basis	
Master Plan Objectives	5_4
Master Flair Objectives	
Section 6.0 Agricultural Areas Plan	
Agricultural Areas Plan	
Agricultural Data	6-4
Agricultural Preservation Districts	6-12
Implementation Techniques	6-14
Section 7.0 Residential Plan	7
Planning Districts	
Plan Implementation and Best Management Practice	
Section 8.0 Nonresidential Plan	8
Introduction	
Existing Commercial	8-3
Industrial	
Plan Implementation and Best Management Practice	
Section 9.0 Green Infrastructure Plan	
Introduction	
Sidewalks and Pathways	
Destinations	
Green Connections	
Implementation	
Conclusion	

Table of Contents - Continued

	Page			
Noi Eas Mic	Watershed Plan 10 tersheds 10-3 th Branch Clinton River Watershed 10-3 st Pond Creek Watershed 10-6 Idle Branch Clinton River Watershed 10-8 eny Creek Watershed 10-10			
Intr	Community Facilities			
Conce Existing Master Access	Thoroughfare Plan 12 ction 12-3 ots and Standards 12-4 g Conditions 12-6 Plan Recommendations 12-10 s Management 12-19 rsion 12-22			
	Page			
Table 2 Housin Table 3 M-50 C Table 4 County Table 5 Local C Table 6 Mediar Table 7 Popula Table 8 Total H Table 9 House	tion Growth By Corridor 1990-2000 1-4 g Unit Growth By Corridor 1990-2000 1-5 Growth Corridor 1990-2000 1-6 g Growth Trends 2-4 Growth Trends 1950-2000 2-4 n Age 1980-2000 2-5 tion by Age Group 1990-2000 2-5 ouseholds 1970-2000 2-6 hold Size 1970-2000 2-6 lation and Household Projections 2-9			
List of Photos				
Photo 1 Photo 2 Photo 3 Photo 4	Fiddler's Cove Shopping Center 8-3 Adam's Corners Shopping Center 8-3 Medical Center 8-4 Northwest Gateway Center 8-6			

List of Illustrations

		Page
Illustration 1	Regional Location	1-2
Illustration 2	Southeast Michigan Development Corridors	
Illustration 3	Sewer Service Area Map (SEMCOG)	
Illustration 4	Macomb County Trailways Master Plan	
Illustration 5	Generalized Geology	
Illustration 6	Topography	
Illustration 7	Generalized Soils	
Illustration 8	Soil Suitability	
Illustration 9	Generalized Wetlands	
Illustration 10	Generalized Woodlands	3-14
Illustration 11	Michigan Natural Features Inventory	3-16
Illustration 12	Generalized Watersheds	
Illustration 13	Existing Land Use	4-6
Illustration 14	Prime Farmland	
Illustration 15	Soils Which Produce Over 100 Bushels of Corn/Acre	6-6
Illustration 16	Class I & II Soils	6-7
Illustration 17	Land Enrolled in PA 116	
Illustration 18	Current Farmland and Open Space	
Illustration 19	Current Farmland and Open Space	
Illustration 20	Agricultural Preservation Areas	
Illustration 21	Residential Planning Districts	
Illustration 22	Pathway Plan	
Illustration 23	Greenways Plan	
Illustration 24	School Districts	
Illustration 25	Community Facilities	
Illustration 26	Sanitary Sewer District	
Illustration 27	Road Classification System	
Illustration 28	Road Cross Sections	
Illustration 29	Roadway Condition – Road Commission of Macomb County	
Illustration 30	Traffic Counts – SEMCOG/Road Commission of Macomb County	
Illustration 31	Planned Right of Way – Road Commission of Macomb County	
Illustration 32	Potential M-53 Extension Plan	12-12
Illustration 33	Planned Road Improvements – Short Term –	
	Road Commission of Macomb County	12-14
Illustration 34	Planned Road Improvements – Long Term –	
	Road Commission of Macomb County	
Illustration 35	Scenic Roadways	
Illustration 36	Planning Areas	12-17



PURPOSE OF THE PLAN

The Master Plan serves many functions and is designed to be used in a multitude of ways. The following lists several of its functions

- The Plan itself is a series of statements of the Township's goals and policies for future development. It is designed to provide an overall view of the community's vision for itself.
- The Plan provides a basis for daily decision making. The statements, goals and policies contained within the Plan are designed to guide decisions regarding, zoning issues, residential and nonresidential development, capitol improvements and development in general throughout the Township. As the general guide for these decisions over time, it is important that the fundamental goals and policies of the Master Plan be adhered to. While some individual characteristics may change over time, the foundation should remain the same.
- The Plan provides the basis upon which zoning decisions are to be based. The Michigan Zoning Enabling Act requires that zoning ordinances be based upon a plan designed to promote the public health, safety, and general welfare and a plan that provides the basis for developing such regulations.
- The Plan is designed to help coordinate public improvements and private developments. An outcome of the Plan should be that public investments such as road improvements, utility extensions and the like will be located in areas identified in the Plan as having the greatest benefit to the Township and its residents and shall be provided in unison with private development.
- The Plan is designed to be an educational tool and gives citizens, property owners, developers and adjacent communities a clear indication of the Township's direction for future development.

In summary, the North Branch Township Master Plan is a document which sets forth an agenda for the achievement of goals and policies for the entire Township. It is a long range statement of general goals and policies aimed at the unified and coordinated preservation of the character of the Township while allowing for appropriate and planned development.

The adoption of this Plan furthers the Township's former Master Plan, adopted in 1993. That Master Plan served the Township from 1993 to 2007. The Township recognizing that characteristics of the Township has changed since the adoption of that Plan as well as the adoption of new State legislation requiring the review of community master plans every five (5) years, prompted the development of a new plan.

Using the Township's previous Master Plan as a basis, this plan was developed and reviewed by the Township Planning Commission and Township Board on a monthly basis. Input was sought from residents as well as the Village of North Branch administration. Finally, the Plan adoption process followed the State's requirements for distribution and public hearing.

INTRODUCTION

Regional Location

North Branch Township comprises 36 square miles of area located in north central Lapeer County. The Township is approximately fifteen (15) miles north/northeast of the City of Lapeer; approximately forty (40) miles north of the City of Pontiac via M-24 and M-90 and approximately fifty (50) miles southeast of the City of Saginaw via M-46, M-24 and M-90. It is approximately thirty (35) miles northeast of the City of Flint via I-69, M-24 and M-90. The Township's proximity to each of these growth areas provides growth influences to the Township.

Township History

In 1854, within the dense pine forests abounding with wildlife, the earliest settling of North Branch was undertaken. Having arrived in February from Lapeer to inspect the site, the first pioneers began clearing the land and building log shanties in March, working toward settlement. Toward the end of 1854 and early in 1855, these men brought their families to join them in this wilderness.



REGIONAL LOCATION

Illustration 1-1

North Branch Township was organized in 1855. At that time, 61 parties owned property in the Township. The total population was estimated at less than 100 persons. These founding families shared the land with two encampments of friendly Chippewas who figured prominently in many of the early writings about the Village. The present town site was on Indian encampment and the other was located three miles to the east.

The region was once dense white pine forest from Lapeer to the north branch of the Flint River. At that time there were two Indian Villages, one in Section 2 and the other in Section 5. Immediately after surveying, some Indians purchased the land on which they lived. The 40-acre parcel within Section 2 was once owned by Pesh-schenan-ne-shaw-way-gon and Sahub-won-naw-quot-to-way-be.

The northern tier of sections was considered to be better land with fewer pine trees, and this is where the earliest pioneer settlement concentrated. However to this day many land parcels have abstracts of title leased by Indian names, as each Indian group filed land claims along with the white settlers. Growth was reflected in a typical manner as, gradually, skilled craftsman and men of letters joined the little community.

At this time the nucleus of the Village was the post office, store and trading post founded by John and Richard Beach. So much a center was this that the settlement was actually called Beachville (sometimes spelled Beechville) for a short time.

Richard Beach was the first postmaster. Mail was carried weekly from Lapeer at the price of ten cents a letter. The anticipation of mail arrival on Fridays would bring Villagers to the store. The Chippewas, too, would come to trade their furs. Some interesting competitions and test of skill are said to have taken place while waiting for the arrival of the mail carrier.

Indians were numerous at this time and remained friendly and helpful to settlers. The men were skillful hunters, often keeping their white neighbors supplied with meat by killing the deer which pastured with the cattle. Typical of their respect for nature, a small portion of their prey was always left for the wild animals. The woman did the work of the camp and made baskets and bead crafts. By order of government, these early Indians were allowed all the timber they wanted for fuel and baskets. They lived in tepees constructed of three poles covered with brush, bark, or blankets and they cooked their meals over the open fire.

Noteworthy facts of the early years include the assessed valuation of North Branch in 1856 which was \$62,000.00. The first township meeting was held at the home of Richard Beach with a total of 26 votes polled. In the year 1857 came the establishment of the first steam and water saw mills. The first physician, Dr. Armstrong, settled in 1858. In this same year, John Peasley built the first store on the site of the Village.

Settlers came faster after the end of the lumbering era. A cooper shop, wagon shop, and lumber business were started by 1860. Growth continued to bring business and professionals to the Village. The first lawyer, Phineas White, came in 1867 as did shoemaker, John Jamison. A flour mill was built in 1868.

North Branch hosted a fair with Burlington, Burnside, Deerfield and Rich Agricultural and Horticultural Society in 1870. This fair became an annual event until 1950 when the idea was permanently abandoned.

The Village boasted a newspaper in 1875 when the Weekly Observer was established by V.S. Miller. The only manufacturing venture in North Branch history began in 1879 when the steam saw mill was purchased. Employing about 25 men this business produced sashes, doors, blinds, circular hoops, and all types of household furniture.

Two major fires mark the history of North Branch. In 1871, and particularly in 1881, fire destroyed many parts of the town. These fires were a contributing factor in the change from Jefferson Street to Huron Street as the main thoroughfare. The other decisive factor was the arrival of the P&N Railway to the east end of the Village in 1882.

The Village was incorporated in 1881. The population of the Village in 1883 was about 900. The Town of North Branch is known as Township 9 North of Range 11 East and is bounded on the north by Burlington, on the east by Burnside, on the south by Arcadia, and on the west by Deerfield. The north branch of the Flint River flows through the Township and is the principal stream. During the 150-year history of this rural and mainly agricultural Township, nearly 200 individuals have served in Township Offices to assist with the growth and development of their community.

The year 1980, the Township's 125th anniversary, was a milestone in its history. The official dedication of the Township Administration Building and North Branch Area Ambulance Service was the climax of much effort by many. This building provides modern services to all citizens. In 2005, the Township celebrated its 150th anniversary.

Township Government

North Branch Township is legally organized as a General Law Township pursuant to Michigan Statutes. The elected officials include a supervisor, clerk, treasurer, and two trustees. Those five (5) officials constitute the Township Board. The supervisor, clerk and treasurer are administrative officials as well as Township Board Members. The statutes also provide for the appointment of subordinate boards such as the Planning Commission, Board of Zoning Appeals, and Board of Review. In addition, North Branch Township has an elected five (5) member Library Board.

The Township is responsible for property tax administration and assessing. The Township is authorized to levy a millage up to 3.352 mils of property taxation. This levy is divided up between 1.852 mils for general operating and 1.5 mils for the fire department. In addition, the Township receives a share of single business tax and sales tax revenues from the State of Michigan for general operating purposes.

The Village of North Branch is included within the Township. Village residents pay Township property taxes and vote for Township Officials. However, the Village also operates its own governmental structure and adopts its own Ordinances.

The Village has an active Downtown Development Authority (DDA). This nine-member Authority is responsible to plan for improvements within the commercial and public areas of the Village. Revenue is available by capturing the funds from increase in tax assessments within the development authority. Instead of these tax monies going to the usual taxing units, (county, Village, Township, etc.), the money is kept within the DDA District and spent for public improvements in that area.

The Township Planning Commission, appointed by the Township Board, is responsible for the development of the Township Zoning Ordinance and Master Plan. This six (6) member commission hears all rezoning requests and makes final decisions as to site plans and special approval land uses in the Township. The Township Board of Zoning Appeals, which is made up of three (3) members and two (2) alternates, hears variance requests for exceptions from the strict provisions of the Zoning Ordinance. The Village has its own zoning ordinance with a separate Planning Commission and Board of Zoning Appeals to regulate land within the Village.

As a general law Township, North Branch has the authority to establish and operate its own fire department, ambulance service, library, and other public services. The powers to zone, enforce ordinances, make public improvements, and provide public services give the Township government the ability to effectively implement its Plan for the future.

LAPEER COUNTY MASTER PLAN

The Plan - Goals and Objectives

The following is a partial list of the goals and objectives from the Lapeer County Comprehensive Development Plan. The statements below are those which most directly impact North Branch Township from a planning perspective.

■ Cooperation Between Local Communities and Agencies

Lapeer County seeks to improve communication and a sharing of data and information with all local levels of government and agencies that services the needs of the County residents.

Farmland Preservation

Lapeer County seeks to retain its farmlands and related industries as a viable and economic land use to further enhance the rural characteristics of the County

■ Economic Development

Lapeer County should promote the growth and expansion of a diversified commercial and industrial base in appropriate locations to meet the needs of the municipalities and the Townships.

Open Space and Natural Features Protection

Lapeer County promotes the preservation of open space, the protection of its natural features, and improvement of the physical environment for the health, safety, and welfare of all the residents.

Transportation Needs

Lapeer County recognizes the need for viable transportation system to move people, and to provide goods and services, to it residents.

Recreational Uses

Lapeer County recognizes that quality of life will be enhanced for its residents by utilizing and preserving natural features for recreational uses.

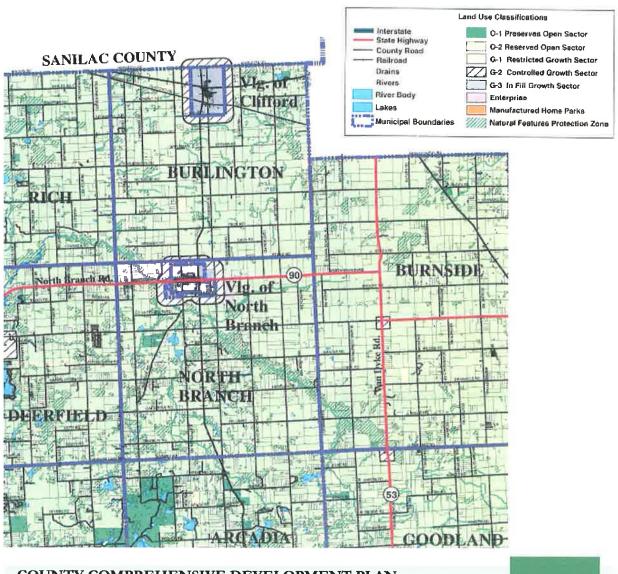
■ Efficient Government Service

Lapeer County seeks to offer quality services to the public through cost effective policies and exploration of revenue sources.

The Plan - Land Use Designations

Reserved Open Sector

The major future land use for the County is agriculture, this is also true for the majority of area of North Branch Township. Based on the County's Plan, agricultural land uses include farming (the production of crops, livestock, and related goods), orchards, nurseries, farmsteads, and other activities directly associated with agriculture. The Plan goes on further to indicate that agricultural land uses are fundamental to the County's effort to preserve the rural character established within Lapeer County. Finally that agricultural enterprises provide numerous benefits to the people residing in the County and it is the intent to promote the use and preservation of agricultural land uses.



COUNTY COMPREHENSIVE DEVELOPMENT PLAN

Illustration 1-2

The desired density within the agricultural land uses is planned for one dwelling unit per every 40 acres, or 0.025 du/acre. This density is necessary to ensure that parcels are large enough to contain agricultural uses that can be self-sustaining and economically viable. Based on the types of crops grown presently in the County, it is very difficult to operate an economically viable agricultural use on parcels less than 40 acres in size. A fundamental component in the preservation of agricultural land is to limit the impact of residential strip development along the major roads. Alternatives must be created that allow landowners the opportunity to obtain the best use of the land without jeopardizing the agricultural land.

Controlled Growth Sector

The Controlled Growth Sector is located where development is encouraged. This is the designation surrounding the Village. The Plan indicates that these areas are located around existing cities and villages and located at major intersections where infrastructure and facilities may be readily available and supportive of development.

Mixed uses, residential, and commercial uses are encouraged. This sector is similar to the County's "Low Density Residential" designation with density at 0.5 to 2.0 units per acre and the "Commercial" designation in the previous General Development Plan. These areas may be appropriate for Planned Unit Developments (PUD's) or clustered housing that preserves open space. PUD's can be developments that include a mixture of various types of residential uses in one project. Certain PUD's may also include nonresidential uses. Neo-traditional towns, a new development trend that attempts to recreate a neighborhood atmosphere, could be considered in these areas. Open space (or cluster) housing developments are another way to provide flexibility in site design with special attention to the integration of natural features.

The lower range of this category allows for low-density alternatives to single-family plat developments. These types of developments could include townhouses, duplexes, and apartments, in addition to small lot single-family homes. The higher density range is intended for suburban type developments. High-density development could be considered only when within utility service areas.

This sector will be the primary receiving zone for the Transfer of Development Rights (TDRs).

Natural Features Protection Zone

A fundamental component in the preservation of the rural character of a community is the preservation of the existing natural features. Woodlands and wetlands add to the unique physical characteristics of the community. Several small creeks and drains are the major watercourses through the County. The preservation of water quality and the adjacent natural features can help to insure that the County's most valuable natural amenities are preserved. A buffer should be on either side of all creeks, rivers, and drains within the County. Within this area, development should only occur in a manner that does not adversely impact the natural features adjacent to these watercourses. Within the 100-foot setback, the removal of any trees, shrubs, and brush should be discouraged. For agricultural land uses within the resource conservation area, filter strips should be utilized to minimize the impact that the agricultural activities have on water features. Development within the Natural Features Protection Zone should be restricted to minimize negative impacts on the environment.

LOCAL INFLUENCES

In developing a master land use plan, it is important to consider the surrounding community's Master Plans since the densities and land use types could impact decisions regarding the Township's own Master Plan. The planned designations are described for each of the surrounding communities.

Burlington Township

Burlington Township does not have an adopted Master Plan.

Burnside Township

The Burnside Township Master Plan was adopted in 1991 and was most recently amended as of 1997. Burnside sits directly to the east of North Branch. The mutual boundary between the two communities is Summers Road. The vast majority of this common boundary is Agricultural and Parks and Open Space. The Agricultural designation extends north of Hasslick Road. The Parks and Open Space designation extends south of Hasslick. Within the Agricultural designation, it is anticipated that the minimum lot size would be ten (10) acres. The Parks and Open Space designation is designed to provide protection to those areas of the Township which have extensive woodlands, wetlands and other natural features worthy of preservation.

Deerfield Township

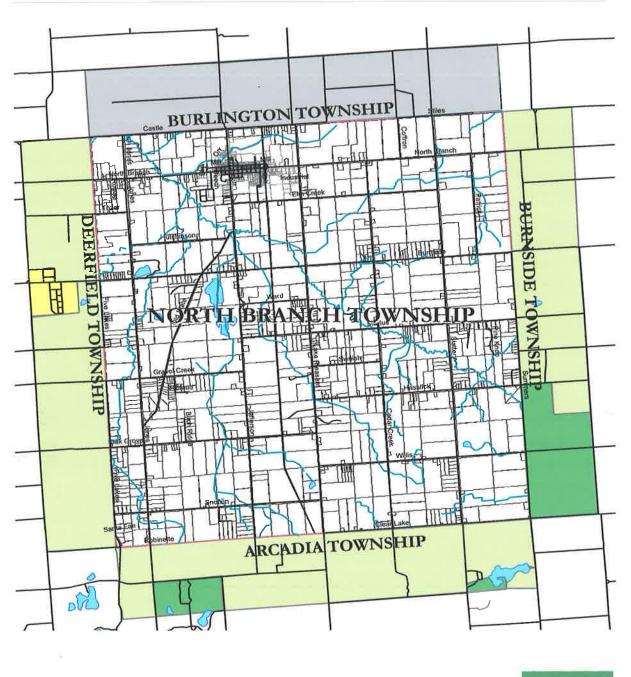
Deerfield Township lies immediately to the west of North Branch Township. Five Lakes Road, is the mutual boundary between the two Townships. Deerfield has a Master Plan which was adopted in 2002. This Plan indicates that those areas along the Townships' mutual boundary are planned primarily for Agricultural purposes. These areas where chosen as Agricultural areas after reviewing data from the Soil Conservation Service and the Lapeer County Cooperative. A small portion of the Township near the intersection of Fish Lake Road and Burnside Road is planned for Single Family Residential which anticipates residential subdivision development.

Arcadia Township

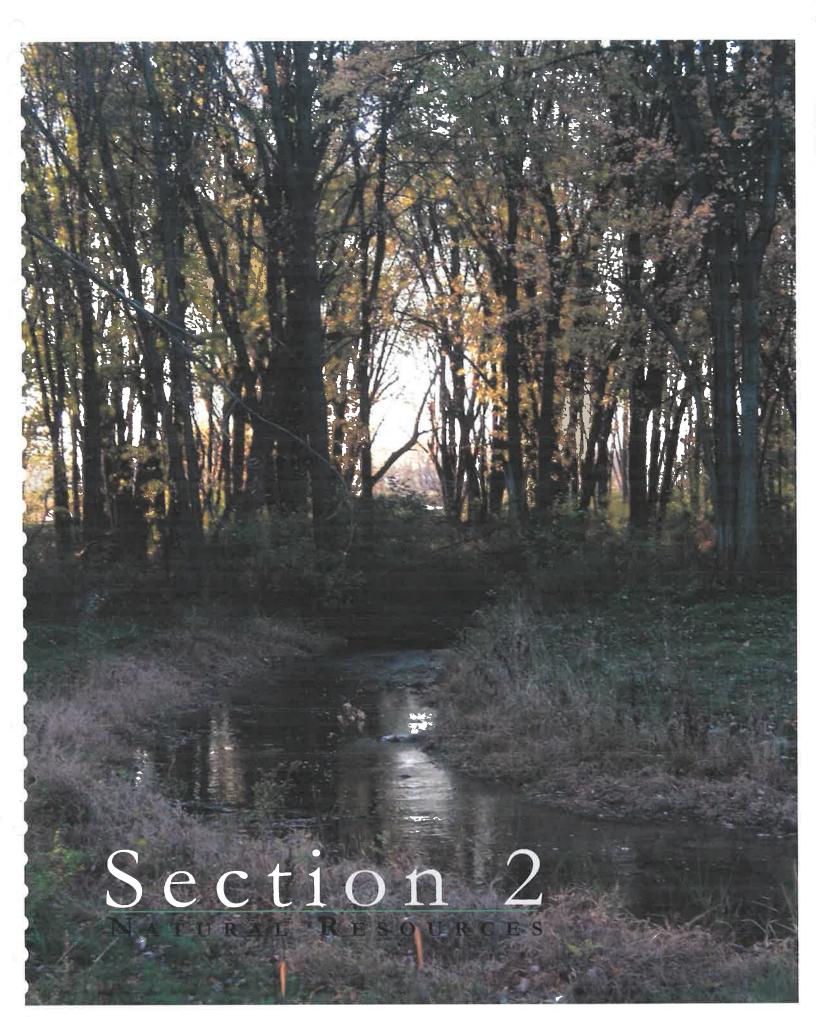
Arcadia Township lies directly to the south of North Branch Township. The community's mutual boundary is Clear Lake Road. The predominate land use pattern along the mutual boundary is Agricultural and Rural Residential. The only exceptions to this are the planned Recreational/ Conservation areas near the western boundary of the Township which include the Lapeer State Game Area. The Agricultural and Rural Residential designation envisions lot sizes of a minimum of two (2) acres and is intended for those persons who are either currently farming or wish to live within a rural environment.

Village of North Branch

North Branch Township completely surrounds the Village of North Branch. The planned uses and densities within the Village vary greatly depending on the boundary being reviewed. For instance, the north, northeast and a portion of the western boundary are all planned for agricultural purposes. To the northwest, southern and southeastern boundaries the Village has planned for residential. The southern boundary also contains substantial areas planned for institutional such as the school district buildings.



SURROUNDING MASTER PLANS AGRICULTURAL SINGLE FAMILY RESIDENTIAL OPEN SPACE / RECREATIONAL NO PLAN



INTRODUCTION

The purpose of this study is to discuss the inventory of physical features in North Branch Township that have the potential of influencing the location and character of development. Specific topics covered in this inventory include geology, topography, flood hazards, soils, water, woodlands and wetlands.

Existing physical features exert important influences in shaping the development of any specific area. They are nature's contribution to the Township's environment. Collectively, these features can determine the overall physical character of the community.

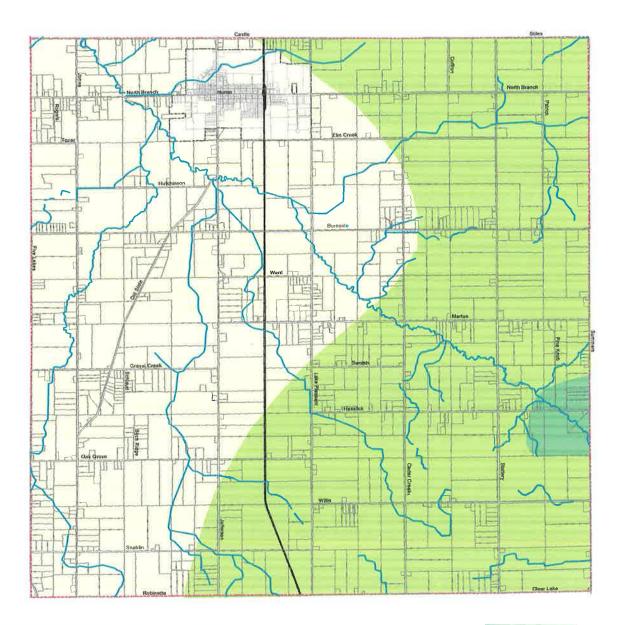
When integrated thoughtfully into development proposals, physical features serve to enhance the character and appearance of the constructed environment. Conversely, ignoring physical features, or misusing them, can have significant, long-term negative consequences for the immediate and overall environmental community. Some well-defined physical features serve as a barrier to development and may be difficult to overcome, except at considerable expense. It is usually better to design with nature than to attempt to substantially change an area's physical environment.

Bedrock

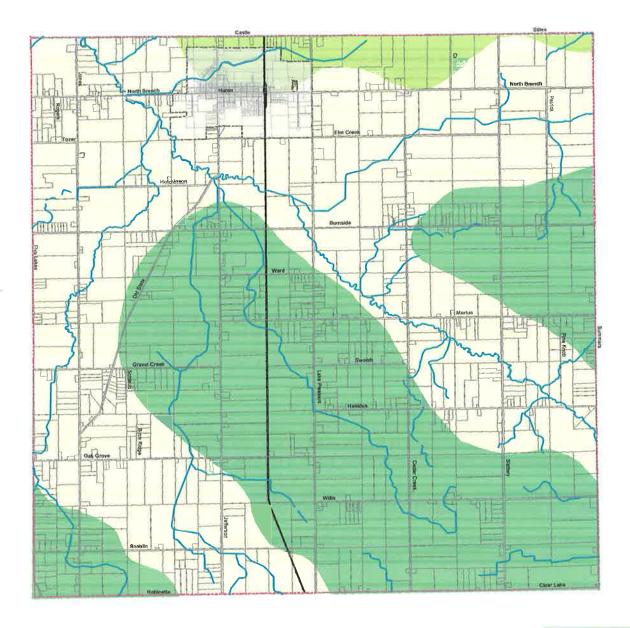
Michigan's physical setting, as we know it today, including the Great Lakes that surround the State, are the result of the interaction of glacial action on the bedrock formations that underlay the State. The bedrock formations of the State consist largely of sandstone, limestone and shale, which were particularly vulnerable to the weight and movement of the glaciers. The weight of the glaciers depressed the land mass surrounding Michigan, forming basins that would eventually become the Great Lakes.

Glacial movements, including the periodic advance and retreat of these large sheets of ice, are largely responsible for the surface land features across southeast Michigan. These glaciers sculpted the surface of the land as it moved. It also collected soil and rock fragments, which were used as erosion tools before depositing them further south. The fertile soils of southern Michigan are a direct consequence of this glacial action.

The characteristics of the surface features are related to the manner in which the glaciers retreated and melted. Where glaciers melted at a rate equal to their forward movement, the accumulated soils were deposited in a line parallel to the edge of the glacier, providing hilly areas known as moraines. If melting occurred while the glacier remained stationary, the result is a gently undulating glacial hill plain. Rapid melting of glacial ice resulted in short, broad, swift rivers flowing from the glacier. When this occurred, the material was spread out in front of the glacier as an outwash plain. Outwash plains are mainly gravelly and sandy. North Branch Township's terrain is characterized by gently sloping to strongly sloping, lake bed sand and moraine formations.









Topography

Topographic conditions can have a significant influence on land development patterns. Topography, for example, can impact the site location, orientation and design of buildings, roads and utilities. Where topography is extreme, slopes become an important consideration due to concerns relating to the ability of the land to bear the weight of buildings and the danger of erosion. Sometimes, topographic variations offer opportunities to appreciate the scenic environment. The absence of significant changes in topography can result in the need for man-made drainage improvements.

The Township drains generally from the southeast to the northwest along the branches of the Flint River. Topography ranges generally from over 950 feet to 720 feet. As with a number of farming communities there are a number of flat areas within the Township. These areas will likely have drainage issues unless physically improved.

Soils

Soil characteristics are an important determinant of land use potential. Not only do soils influence the suitability of land for agricultural purposes, they also help determine whether or not a parcel is suitable for more intense forms of urban development, including housing, roads, and utilities. The suitability of different soil classifications for the installation of on-site sewage disposal systems is particularly important for areas that are not served by municipal disposal systems.

Soil Associations

A soil association is a landscape that has a distinctive, proportional pattern of soils. It normally consists of one or more major soils and at least one minor soil, and it is named for the major soils. The soils in one association may occur in another, but in a different pattern.

McBride-Marlette Association – Gently sloping to strongly sloping, well drained and moderately well drained soils that have a sandy loam to clay loam subsoil; on till plains and moraines.

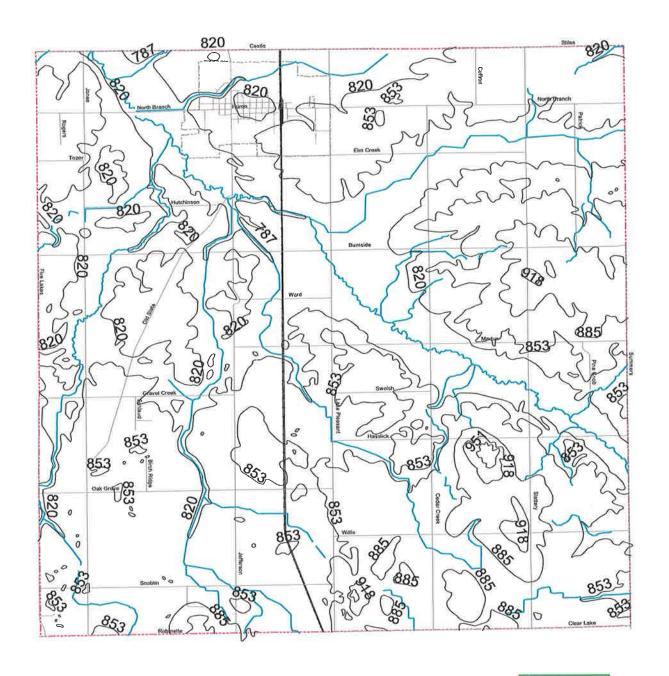
Fabius-Wasepi-Mussey-Gilford Association – Level to gently sloping, somewhat poorly drained soils that have a sandy loam to gravelly clay loam subsoil; on outwash plains and lake plains.

Boyer-Montclam-McBride Association – Gently sloping to very steep, dominantly well-drained soils that have a loamy sand to sandy clay loam subsoil; on outwash plains, till plains, and moraines.

Carlisle-Lupton-Tawas Association – Level, very poorly drained, peat and muck soil; on plains and in depressions.

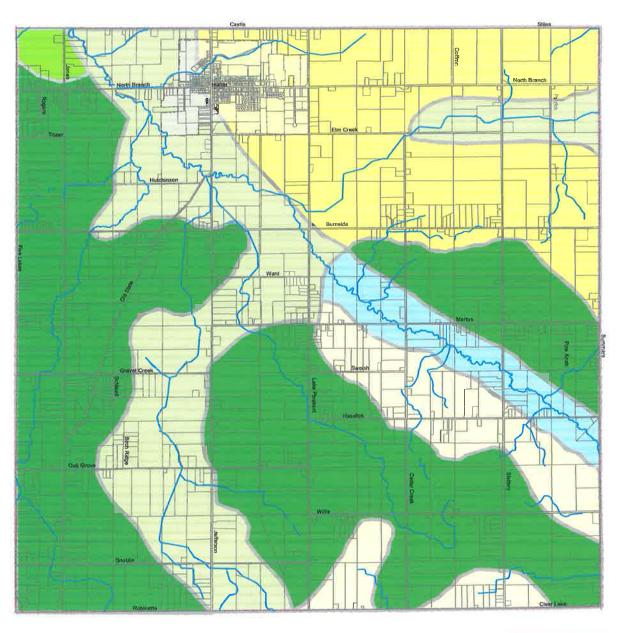
Capac-Belding-Brookston Association – Level to gently sloping, somewhat poorly drained and poorly drained soils that have a sandy loam to clay loam subsoil; on till plains.

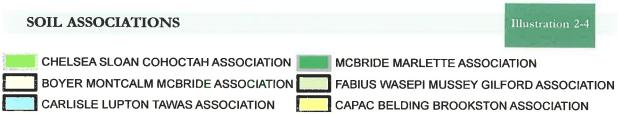
Chelsea-Sloan-Cohoctah Association – Level to undulating, well drained soils that have a sand and loamy sand subsoil, on outwash plains; and level, poorly drained soils that have a silt loam to fine sandy loam subsoil, on floodplains

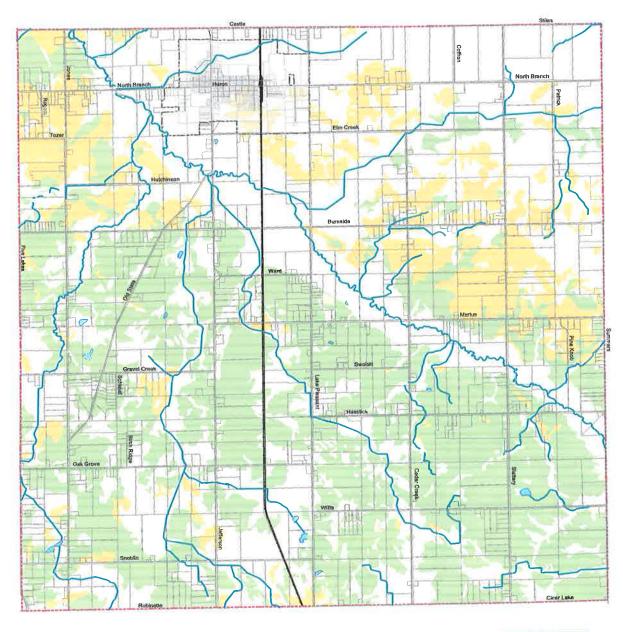


TOPOGRAPHY

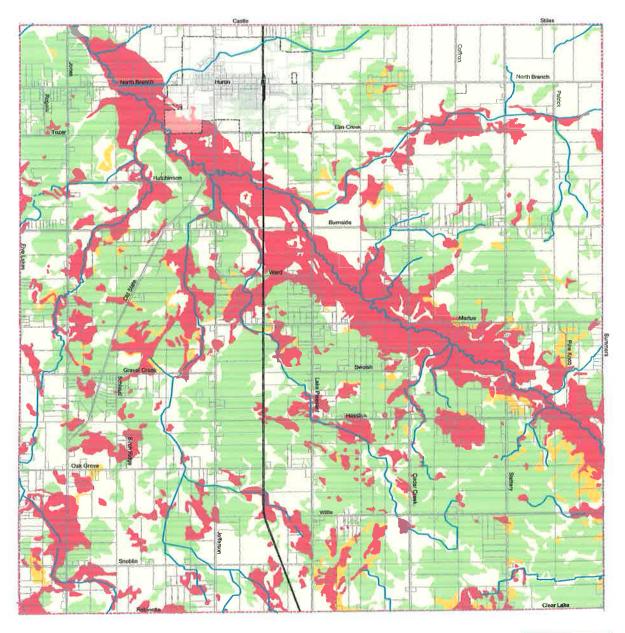
Illustration 2-3



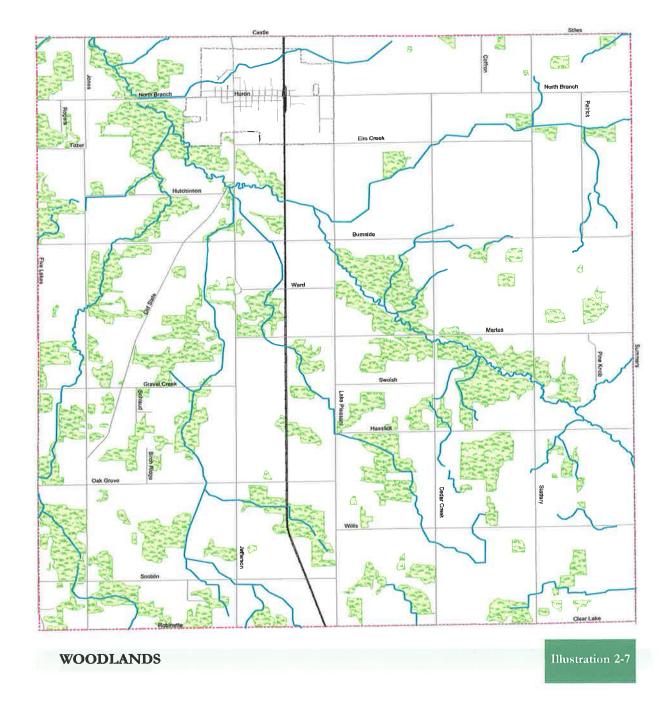


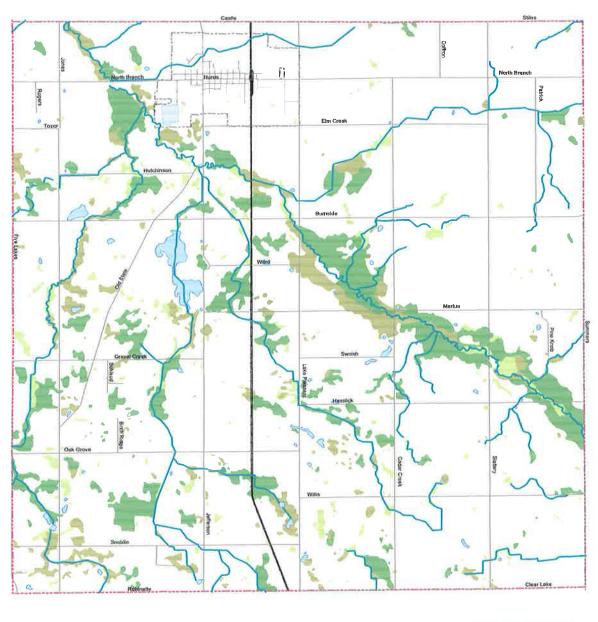




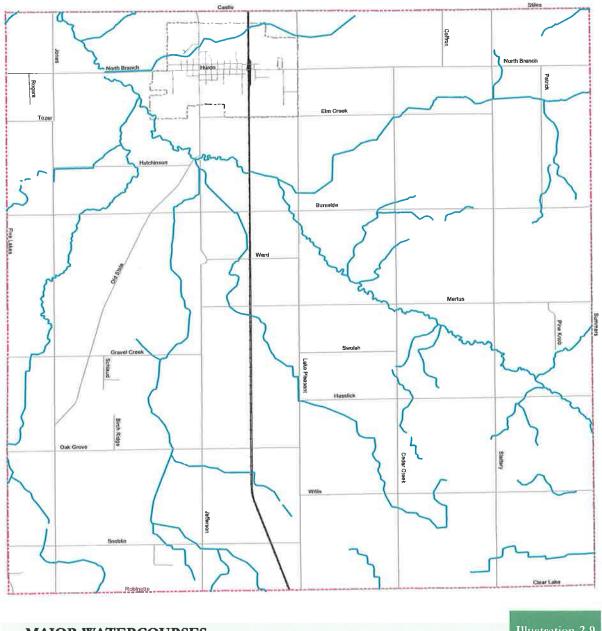




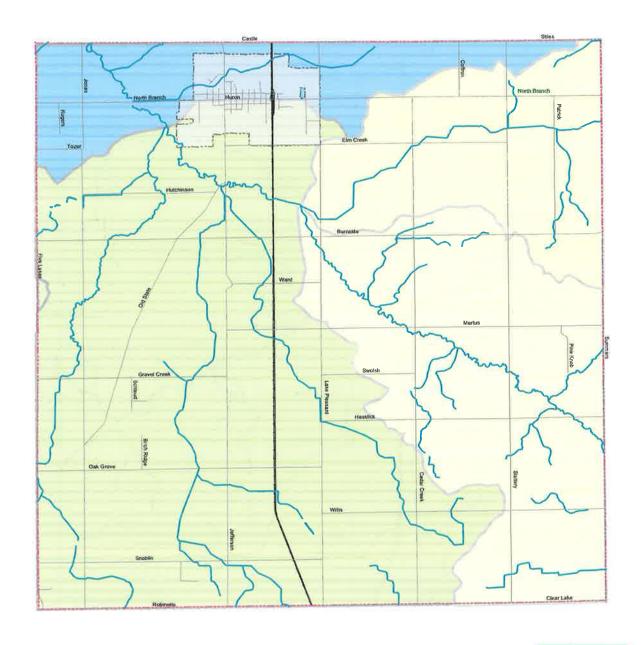








MAJOR WATERCOURSES



WATERSHEDS	Illustration 2-10
Cedar Creek	
Elm Creek	
N. Branch Flint River	
N. Fork Flint River	

Residential Capabilities

The majority of the Township contains soils which have limited restrictions on their ability to accommodate conventional or engineered septic systems. The areas generally to the southwest of the River have limited restrictions. Further, the areas to the far northwest corner as well as the general area northeast of the River contain soils which have a greater degree of limitation for septic systems.

Agricultural Capabilities

A large portion of the Township is deemed as being suited or well suited for agricultural purposes. Based on soil data for the Township the only areas not suited for agriculture are those along the North Branch of the Flint River, extending from the southwest corner of the Village to the Township's eastern boundary near Hasslick Road. The other smaller branches which feed into the North Branch also contain some soil types which are not deemed as being suitable for agricultural purposes.

Woodlands

At the time southeast Michigan was originally settled, the area was covered with dense hardwood forests. As the number of inhabitants increased, these forests were cleared for lumbering and farming purposes. Today, the quantity of land still occupied by mature vegetation has diminished. Where large contiguous woodlands remain, however, they provide benefits that need to be considered in the planning process.

Woodlands are frequently only considered valuable as a visual amenity enhancing the natural or constructed environment. Trees serve many other useful environmental purposes that should be recognized for planning purposes. These include the following:

- Slope stabilization and erosion control
- Conserving water quality
- Maintaining a microclimate
- Filtering pollution from the atmosphere
- Decreasing noise
- Providing a habitat for wildlife

Recognizing these important physical properties and integrating woodlands into future development can improve the community's overall environmental quality and enhance the visual character of the constructed environment. The information provided in the illustration is based on year 2004 aerial photography supplied by the County. Large wooded areas are distributed throughout North Branch Township, with a large portion of these woodlots located in interior section acreage.

The areas of the Township which are wooded largely conform to those same areas which have also been identified as wetlands. The wetlands section will note that the predominate wetland type found within the Township are forested wetlands. The majority of the wooded areas generally follow the drainage courses throughout the Township. Very few wooded areas are located in the northeastern section of the Township.

Wetlands

Wetlands are an important element of Michigan's landscape. Before experiencing settlement in the late 18th and early 19th centuries, Michigan was thought to contain over 11 million acres of wetlands. Like the extensive forests that once covered the State, the unique physical characteristics of many of these wetlands were permanently altered as a consequence of the settlement of the State. This change occurred as forests were logged and swamps drained for farming purposes. Between 25 and 50 percent of these original wetlands remain in Michigan today.

Wetlands are areas characterized by the presence of water that either saturate the soil or cover the land most or all of the year. Because of this characteristic, wetlands have the ability to support unique varieties of plants and animals. Not all wetlands are similar, however. Several categories of wetlands are found in Michigan. These varieties are the result of differences in climate, bedrock geology, soil characteristics and landforms that are unique to different portions of Michigan. The characteristics of wetland vegetation provide the basis for making a distinction between different types of wetlands. The two basic types of wetlands are forested and unforested. The largest share of remaining State wetlands are of the former variety. Many of these forested wetlands have soils that are seasonally saturated with water during seasonal periods. These wetlands are commonly referred to as swamps. Swamps differ from unforested wetlands more commonly known as marshes, wet prairies, wet meadows, fens and bogs.

Marshes are those areas that normally occur along the edges of lakes and streams. These areas are flooded for much of the year with average depths of under five (5) feet. Commonly occurring vegetation in marshes include emergent plants such as bulrushes, cattails, sedges, grasses and floating or underwater plants.

Wet prairies consist of land located between marshes and abutting farm land. Their existence is a result of fluctuating water levels and Indian fires, which prevented the establishment of more permanent vegetation, including trees and shrubs. Few of these unique wetlands exist today. Many of these areas have been absorbed into the adjoining agricultural acreage. Wet prairies are recognizable by the striking vegetation that inhabit these areas, such as asters, goldenrods, mints, rare milkweed, Indian plantain and assorted prairie grasses.

Fens are a common herbaceous wetland located in areas characterized by saturated, lime rich soils. Fens are commonly found at the bottom of ridges where poor drainage conditions exist resulting in mulch soils. Like wet prairies, farming has absorbed many of these wetlands.

The remaining category of non-forested wetlands are known as bogs. The most striking feature of a bog is the thick acidic peat mats that cover these areas. These are formed as a result of the decomposition of sphagnum mosses and sedges. Many bogs have been permanently changed as a consequence of peat mining activities, especially those located in the more populated portions of southeast Michigan.

In spite of these differing characteristics, wetlands share some common physical properties that have important consequences for planning purposes. Wetlands serve a number of necessary environmental functions. These include the following:

- Protecting downstream water supplies by providing clean ground water as a result of the nutrient retention and sediment removal. Wetland vegetation traps these sediments and pollutants, thereby preventing them from being deposited in surface water bodies.
- Functioning as effective natural storage basins for flood water. Wetlands may be considered sponges that absorb large quantities of seasonal precipitation, gradually releasing it when the receiving channels are able to accept it.
- Protecting the shoreline from erosion caused by wind and wave action and effectively serving as environmental shock absorbers.
- Providing a habitat for many types of plants and animals that thrive in the type of physical environment created by wetlands. These plants and animals provide an economic and recreational benefit as a result of hunting, fishing and other leisure activities.

Development in or around wetlands are regulated by several State statutes, the most prominent of which is Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994, PA 451, as amended. This Act regulates the development of wetlands if they meet one or more of the following criteria:

- Are contiguous to the Great Lakes or Lake St. Clair, an inland lake, pond, river or stream.
- Are not contiguous to one of the water features noted above, but are greater than five acres in area and are located in counties with populations exceeding 100,000 persons.
- Are less than five acres, not contiguous to any water feature, and are considered necessary to the preservation of the natural resources of the State from pollution, impairment or destruction.

Permits are required by this legislation for the following activities: 1) depositing or placing fill material in a wetland; 2) dredging or removing soil from a wetland; 3) constructing, operating or maintaining any use or development in a wetland; and 4) draining surface water from a wetland. Specific categories of activities are exempt from the requirements of the Wetland Protection Act.

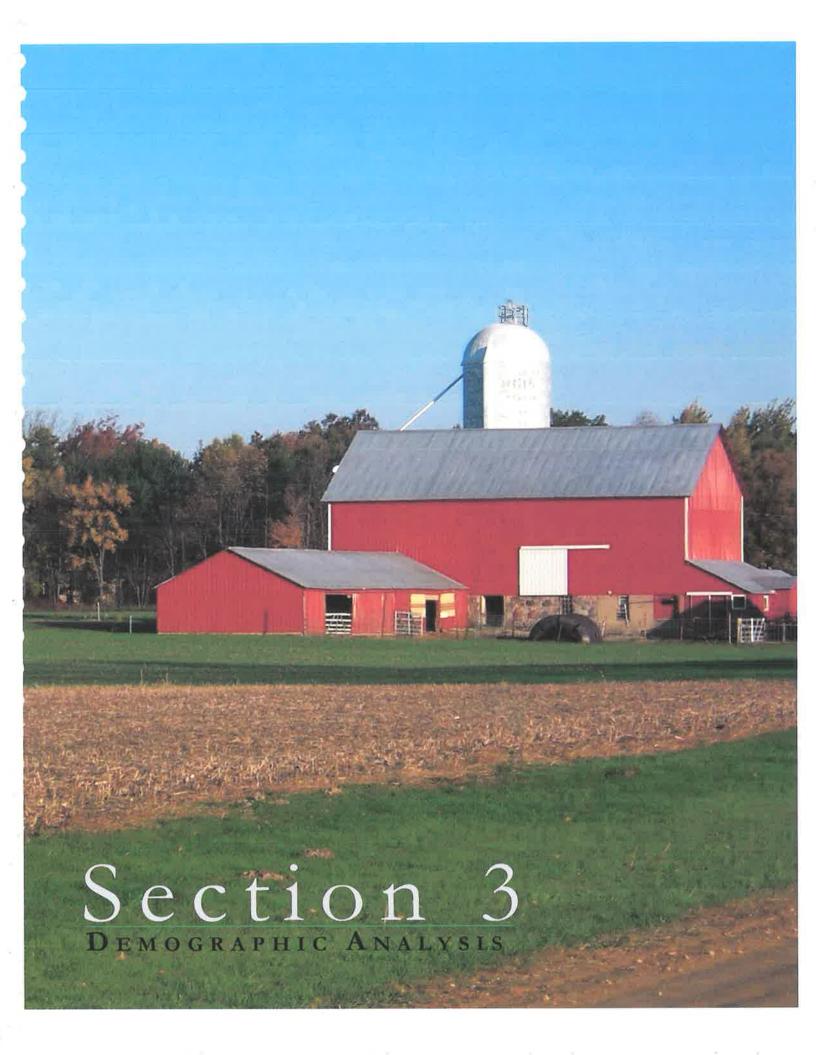
The vast majority of the Township's wetlands are forested wetlands. The largest concentration of these wetlands areas can be found along the North Branch of the Flint River. There are also a number of forested wetlands throughout the southwest corner of the Township. Sporadic emergent and shrub scrub wetlands are also found in this southwestern section. There are a minimal number of wetland areas within the northeastern section of the Township.

Watersheds

A watershed, also called a drainage basin, is the area in which all water, sediments, and dissolved materials flow or drain from the land into a common river, lake, ocean, or other body of water. A watershed-based approach to water and wetlands protection considers the whole system, including other resource management programs that address land, air, and water, to successfully manage problems for a given aquatic resource. The watershed approach thus includes not only the water resource, but also the surrounding land from which the water drains.

The Flint River provides the natural drainage system for North Branch Township. The Flint River also drains approximately sixty two (62) percent of the entire County. The Township is made up of four smaller subwatersheds including: the Elm Creek, Cedar Creek, North Branch of the Flint River and the North Fork of the Flint River. The largest subwatershed being the North Branch, followed by the Cedar Creek Subwatershed and then the Elm Creek and North Fork of the Flint River.

As the Township continues to develop over the next several years and revisions to the Master Plan are made, it may be appropriate to provide planning issues relative to each specific subwatershed area described herein. This will allow for a more customized plan for each area of the Township. At this time, the relative density of the Township does not truly warrant such detail.



POPULATION INTRODUCTION

The characteristics of a community's populations and housing are the key ingredients that require consideration in the long-range planning process. Historical and current population trends have several useful applications. They are especially relevant in identifying the need for various types of community facilities. Future land use and public utility demands are also related to demographic trends and characteristics.

The following section considers several pertinent demographic items, each which are important to more fully understand the characteristics of North Branch Township's total population. These individual items include the following:

- · Population and Population change over time
- Age Characteristics
- Household Characteristics
- Population Characteristics

The most current available population data for North Branch Township is employed in the examination of each topic listed above. Wherever possible or necessary, comparable data for Lapeer County is also included.

POPULATION CHANGE

Regional and Local Trends

With the exception of Wayne County, every county within the southeastern Michigan region experienced growth between the 1990 Census and the 2000 Census. According to the 2000 Census, the fastest growing county Livingston, increasing population by 35.7 percent. The second fastest growing County was Lapeer at 17.6 percent. The next fastest growing communities were Washtenaw, St. Clair and Oakland respectively. The region as whole including the eight (8) counties increased population by five and one half (5 1/2) percent from 1990 to 2000.

County	<u>1990</u>	2000	1990-2000 Percentage Change
Lapeer	74,768	87,904	17.6%
Livingston	115,645	156,951	35.7%
Macomb	717,400	788,149	9.9%
Monroe	133,600	145,945	9.2%
Oakland	1,083,592	1,194,156	10.2%
St. Clair	145,607	164,235	12.8%
Washtenaw	282,934	322,895	14.1%
Wayne	2,111,687	2,061,162	-2.4%
Total	4,665,233	4,921,397	5.5%

Regional Population Source: U.S. Census

Table 3-1

North Branch Township is similar to many of its surrounding communities located in northern Lapeer County. Based on an examination of the 1990 and 2000 Census, Arcadia Township experienced the largest percentage of growth (32.1%), followed by Rich Township, Goodland Township, North Branch Township respectively. Each of these communities experienced growth in excess of twenty (20) percent. Burlington

Community	<u>1990</u>	2000	1990-2000 Percentage Change
North Branch Township	2,952	3,595	21.8%
Burlington Township	1,474	1,402	-4.9%
Rich Township	1,145	1,412	23.3%
Deerfield Township	4,783	5,736	19.9%
Mayfield Township	6,944	7,659	10.3%
Arcadia Township	2,421	3,197	32.1%
Goodland Township	1,423	1,734	21.9%
Burnside Township	1,712	1,920	12.1%
Lapeer County	74,768	87,904	17.6%

Regional Population - Local Source: U.S. Census

Table 3-2

Township according to the 1990-2000 Census actually experienced negative growth. North Branch Township experienced slightly higher growth rates over the ten (10) year period than Lapeer County.

AGE

Age characteristics are among the more important demographic variables. They are useful as an indicator of anticipated demand for various types of municipal services and programs, including parks, employment needs, job training, day-care, schools, and various services for the elderly. A community's future land use requirements are also somewhat related to its age characteristics.

Median Age

The aging of the Nations population is among the more important trends dimensioned over the past fifty years. After reaching a low of 30.2 years of age in 1950, the median age for the Nation has increased to 35.3 in 2000. The aging of the baby boom populations over the last fifty (50) years is largely responsible for the increase in the Nations median age. The median age for North Branch Township in 2000 was 32.7 years of age, nearly three (3) years below that of the Nation. The State's median age in 2000 was 35.5 years of age while the County's was even higher at 35.9 years. The Township's median age in 1990 was 29.8.

Geographic Area	1990	2000
North Branch Township	29.8	32.7
Lapeer County	31.8	35.9
State of Michigan	32.6	35.5
United States	32.9	35.3

Median Age Source: U.S. Census

Table 3-3

Population by Age

By reviewing the various age categories that make up the Township's population, it is possible to determine how various segments of the population have changed over time and which groups made the largest contributions to North Branch Township's population increases.

The Township saw a significant increase in the total number of residents within the 45-54 year age group. This group saw an overall increase of nearly sixty three (63%) percent between 1990 and 2000. Further, in 1990 this age represented just under ten (10) percent of the population, while in 2000, this same age group represented over thirteen (13%)percent of the population.

	1	990		2000	
					<u>Percentage</u>
					Change 1990
Age	<u>Number</u>	<u>Percentage</u>	<u>Number</u>	<u>Percentage</u>	2000
Under 5	240	8.0%	281	7.8%	17.1%
5-17	762	25.3%	863	24.0%	13.3%
18-20	141	4.7%	184	5.1%	30.5%
21-24	141	4.7%	142	3.9%	0.7%
25-44	921	30.6%	1,033	28.7%	12.2%
45-54	295	9.8%	480	13.4%	62.7%
55-59	106	3.5%	154	4.3%	45.3%
60-64	113	3.8%	112	3.1%	-0.9%
65-74	167	5.6%	199	5.5%	19.2%
75+	120	4.0%	147	4.1%	22.5%
Total	3,006	100.0%	3,595	100.0%	

Under the age of forty five (45) the Township experienced declines in every age group

Population By Age Source: U.S. Census

Table 3-4

category with the exception of 18-20 year olds. This shift in population age corresponds with the Township's overall increase in median age.

Age by Life Cycle Category

A more meaningful picture of the Township population's age distribution is possible when the individual age categories shown on the previous table are combined into a smaller number of groups, which

more closely resemble identifiable stages of a normal human life cycle. Selected categories and the age intervals that they represent include: preschool (0-4), school (5-17), family formation (18-44), middle-age (45-64), and seniors (65+).

As shown, the makeup of the Township is approximately thirty eight (38) percent family formation, or ages 18-44. This is approximately two (2) percent less than the total in 1990. Another

Life Cycle	Number	Percentage
Pre School Under 5	281	7.8%
School (5-17)	863	24.0%
Family Formation (18-44)	1,359	37.8%
Middle Age (45-64)	746	20.8%
Seniors (65+)	346	9.6%

Age By Life Cycle Source: U.S. Census

Table 3-5

nearly thirty two (32) percent of the Township, in 2000 is of high school age or below. This is slightly lower than in 1990 where this number equalled approximately thirty three (33) percent. Finally, those that fall within the middle age and seniors makes up the remaining approximate thirty (30) percent. In 1990, those persons above the age of 45 consisted of only 26.7 percent, over three (3) percent less.

HOUSEHOLDS

Household Growth Trends

The U.S. Census Bureau has two categories that it uses to describe living arrangements: households and families. A household is one person or a group of persons occupying a housing unit. The number of households and occupied housing units are therefore identical. Families on the other hand consist of two or more person, related to each other, living in a household.

In the year 2000, the Township had a total of 1,189 households. In 1990 there were a total of 991. This represents an increase of nearly seventeen (17) percent over the decade. The County's household growth was less than that of the Township's at only fourteen (14) percent.

	Percentage				
	1990	2000	Change	Change	
North Branch Township	991	1,189	198	20.0%	
Lapeer County	24,659	34,470	9,811	39.8%	

Total Households Source: U.S. Census

Table 3-6

Household Size

The Township over the last twenty years (1980-2000) has seen a relatively stable number of persons per household. In 1980, the Township had an average of 3.19 persons per household while in 1990 this number declined modestly to 3.01 persons. According to the 2000 Census, the number of persons per household has decreased

Community	1980	1990	2000
North Branch Township	3.19	3.01	2.99
Lapeer County	3.30	3.03	2.88
State of Michigan	2.84	2.63	2.56

Persons Per Household Source: U.S. Census Table 3-7

to 2.99 persons for owner occupied dwellings. The County has an average of 2.88 persons per household according to the 2000 Census. The lower number of County as a whole is likely due to the lower number of persons per household in the Cities than that which are typical in a rural township such as North Branch.

The Census also indicates that renter-occupied dwellings contain approximately 2.56 persons per household, a decrease of 0.54 persons per household. This is typical due to housing type, income level and family configuration of those persons living within a renter occupied unit. The County average is even lower at 2.35 persons.

Household and Family Characteristics

A total of seventy nine (79) percent of the households within the Township were still considered to be "family" households. This in only slightly higher than the County average of 77.7 percent. For comparison, the family headed households for the United States as a whole is fifty five (55) percent. The Township's total percentage of family households has remained nearly identical from 1990, where just under seventy nine (79) percent of households were still considered to be family households.

HOUSING CHARACTERISTICS

Number of Units/Housing Type

Over the twenty (20) year period between 1980 and 2000 the Township's housing units grew by a total of three hundred and fifty one (351) units. In 1980 the Township had a total of 902 units, in 1990 that number rose to 1,012 and in 2000 the Township contained a total of 1,253. This represents a total growth of approximately twenty eight (28) percent over the twenty year period.

Unit Type	1980	1990	2000
Detached Units	763	793	1,015
Attached Units	91	146	177
Manufactured Homes	37	76	61

Total Housing Units Source: U.S. Census

Table 3-8

Of the total 1,253 units a total of 1,015 or eighty one (81) percent are detached single family residences. One hundred and seventy seven (177) units or approximately fourteen (14) percent are some form of attached or multiple family residential units and the remaining sixty one (61) units or slightly under five (5) percent are classified as mobile homes. The percent of detached single family homes is nearly identical to that of the County on a whole. The percentage of mobile homes within the County (8.7 percent) is substantially higher than that of the Township's.

Housing Tenure

A total of eighty and one half percent (80.5) percent of the Township's homes are owner occupied. This

represents an increase from the percentages depicted within the 1990 Census. This is also reflective of the increase in detached units, which are typically owner occupied, as shown above. In 1990 a total of approximately seventy five (75) percent of the homes within the Township were owner occupied. As compared, the County has an owner occupied rate of 84.9 percent.

1990		2000		
Туре	Number	Percentage	Number	Percentage
Owner Occupied	761	76.8%	957	80.5%
Renter Occupied	230	23.2%	232	19.5%
Total	991	100.0%	1189	100.0%

Housing Tenure Source: U.S. Census

Table 3-9

Vacancy Rates

Vacancy rates between three (3) and five (5) percent typically represent a relatively stable market. The Township's vacancy rate as of the year 2000 as at the high end of that number considered to be stable. A total of 64 units or 5.1 percent of the Township's housing units were considered vacant. These totals will obviously fluctuate with the trends of the current economic conditions. In 1990, the Township's vacancy rates were

slightly below four (4) percent. The vacancy rate for the County as of 2000 was 6.1 percent, slightly higher than that of the Township.

Housing Value

The median housing value within the Township was \$116,700 as of the 2000 Census. In 1990, the Township's median housing value was \$51,900 and in 1980, the median housing value was \$33,900. The County's median housing value was \$134,600. A total of nearly seventy two (72) percent of the housing units fell between the \$50,000 and \$150,000 range, while the Township did not report any homes with an estimated value over \$300,000.

Value	Number	Percentage
Less than \$50,000	22	3.4
\$50,000 to \$99,999	217	33.7
\$100,000 to \$149,999	246	38.2
\$150,000 to \$199,999	118	18.3
\$200,000 to \$299,999	41	6.4
\$300,000 to \$499,999	0	0
\$500,000 to \$999,999	0	0
\$1,000,000 or more	0	0
Median (dollars)	116,700	

Housing Value Source: U.S. Census

Table 3-10

Year Structure Was Built

The age of the Township's housing stock is dispersed rather evenly across all census categories for the year the structure was built. Approximately fifteen (15) percent of the housing stock is less than ten (10) years old, while slightly over twenty three (23) percent of the stock was built prior to 1939. The breakdown of when units were constructed also reflects the large housing boom experienced with over twenty two percent of the housing stock being built between 1990 and March of 2000.

V D:14	M	D
Year Built	Number	Percentage
1999 to March 2000	42	3.4%
1995 to 1998	146	11.7%
1990 to 1994	95	7.6%
1980 to 1989	169	13.5%
1970 to 1979	257	20.5%
1960 to 1969	80	6.4%
1940 to 1959	168	13.4%
1939 or Earlier	296	23.6%
Total	1253	100.0%

Occupation

As shown, the three main occupations for North Branch Township residents are Production. Transportation, and Material Moving, Sales and Office Occupations, and finally Management, Professional and other Related Occupations. These three categories represent approximately 28 percent, 23.5 percent and 21 percent of the total occupations respectively or a total of nearly seventy three (73) percent. The smallest occupation reported as of the 2000 Census was Farming, Fishing, and Forestry. occupational category only made up 1.7 percent of the occupations within the Township.

Year Structure Built Source: U.S. Census

Table 3-11

Occupation	Number	Percentage
Management, Professional, and Related		
Occupations	341	21.2
Service Occupations	215	13.4
Sales and Office Occupations	379	23.5
Farming, Fishing, and Forestry		
Occupations	27	1.7
Construction, Extraction, and		
Maintenance Occupations	196	12.2
Production, Transportation, and Material		
Moving Occupations	452	28.1

Occupations
Source: U.S. Census

Table 3-12

Median Income

Based on the 2000 Census, the median income for residents of North Branch Township was \$46,020. The median income for the County as a whole was \$51,717 in 1999 dollars, again based on the 2000 Census. The 2005 Census indicated that the median household income for the County dropped to \$50,703 in 2005 dollars.

The Township does have a large percentage of households however in the \$50,000 to \$74,999 income range. This large percentage however, is offset by a larger percentage of households which has an income of less than \$35,000.

Income In 1999	Number of	
Dollars	Households	Percentage
Less than \$10,000	69	5.8
\$10,000 to \$14,999	54	4.6
\$15,000 to \$24,999	133	11.3
\$25,000 to \$34,999	178	15.1
\$35,000 to \$49,999	224	19
\$50,000 to \$74,999	306	25.9
\$75,000 to \$99,999	128	10.8
\$100,000 to \$149,999	82	6.9
\$150,000 to \$199,999	4	0.3
\$200,000 or more	4	0.3
Median household		
income (dollars)	\$46,020	

Household Income Source: U.S. Census

Table 3-13

Industry of Employment

Based on the statistics for industry of employment, two predominate industries were noted based on the last Census. These include Manufacturing and Educational, Health and Social Services. These two categories represent 34.5 percent and 21.6 percent of the total number jobs per industry of employment. The remaining forty four (44) percent of the jobs are divided relatively equally between the remaining eleven (11) job categories.

Typical North Branch Township Resident

Below is simplified composite of a typical North Branch Township Resident. This composite is not intended to diminish the individual and unique statistics of all Township residents, however, provide a broad brush understanding of a "typical" resident

1	Number	Danagtaga
Industry	Number	Percentage
Agriculture, forestry, fishing		
and hunting, and mining	64	4
Construction	93	5.8
Manufacturing	555	34.5
Wholesale trade	16	1
Retail trade	159	9.9
Transportation and		
warehousing, and utilities	51	3.2
Information	31	1.9
Finance, insurance, real		
estate, and rental and		
leasing	56	3.5
Professional, scientific,		
management,		
administrative, and waste		
management services	64	4
Educational, health and		
social services	348	21.6
Arts, entertainment,		
recreation, accommodation		
and food services	57	3.5
Other services (except		
public administration)	78	4.8
Public administration	38	2.4

Industry of Employment Source: U.S. Census

Table 3-14

TYPICAL NORTH BRANCH TOWNSHIP RESIDENT

- Is a caucasian which is an average age of 32.7 years
- Is married and lives together with a family in a household with an average of three (3) persons (total)
- Has an education equivalent to a high school degree or higher
- Has lived in the same single family detached structure built prior to 1939 since 1995 and which has a median value of \$116,700 dollars
- Is currently employed in either a manufacturing or education job and has a mean commute time of 35.1 minutes
- The median household income is \$46,020 dollars a year

·**657**3· ecti

ECONOMIC BASE

Understanding the characteristics of a community's economy is important in the comprehensive planning process. The amount of land being used for economic generation purpose, its distribution within the community, and the characteristics of these uses have broad impacts on the future of the community. Customarily, these uses provide a source of jobs for local residents and a substantial portion of a community's overall tax base used to finance community facilities and services.

The purpose of studying North Branch Township's economy is to provide an understanding of the Township's economic characteristics and their relationship to the larger region within which it is located. Data available from the U.S. Census, as well as other sources, are reviewed to provide a perspective of North Branch Township's economy and its role in community planning.

CURRENT ECONOMIC TRENDS

Lapeer County had a total of 1,274 business establishments as of 2002

The 1,274 establishments in Lapeer County had a total of over \$2.3 billion dollars in total receipts or shipments.

The business establishments in Lapeer County had a combined annual payroll of over \$400 million dollars in 2002.

Lapeer County generates \$50,615,000 in agricultural sales

Three components of the Township's economy are considered: retail, industrial and labor force. The first portion of this chapter examines the Township's retail characteristics, including the number of establishments by type. Future retail demands are also estimated based on projected households and assumptions regarding their spending patterns. This analysis also considers the Township's relationship to available retail opportunities in adjacent communities. The industrial section considers the characteristics of the Township's existing industrial base, as well as the prospects for future industrial development. This examination occurs within the context of larger regional industrial growth patterns.

The concluding portion of this section of the Master Plan examines the characteristics of the Township's resident labor force, including industry of employment, occupational characteristics and labor force participation rates.

Trade Area

A trade area is the geographical area from which a single business or group of businesses draws most of its customers. This concept assumes that if all factors are equal, the customers will travel to the nearest business. Trade areas are frequently defined as a distance from the business measured as a radius. A community's trade area can be considered to be a sum of the trade areas of businesses located throughout the community.

Household income levels have an important influence on the quantity of retail development that a community can support. For example, household income offers an indication of the variety of housing that a community can afford, as well as the amount of money that is available to purchase other goods and services. Household income, therefore, is among the variables used to forecast the quantity of commercial development that a community may be able to support.

According to the 2000 Census, North Branch Township reported a median household income of \$51,378. Assuming that disposable income is equal to 60 percent of total household income, the Township's estimated disposable income for 2000 is \$30,826. Subsequent retail sales projections are based on constant 2000 dollars to allow for a comparison of anticipated changes in retail demand over time. The Township's estimate of total households for the years 2000 and at buildout are based on Census information and projections based on the development of the Township's Master Plan.

The next step in determining commercial sales potential involves allocating the Township's estimated disposable income into various retail categories that can be related to commercial land use. Information on total sales for Lapeer County for 2002 was broken down by percentage for twelve (12) categories. This percentage was then applied to the Township's disposable income of \$30,826 to indicate amount of sales by category.

The potential demand capable of being supported by the Township's existing and anticipated future households based on assumptions regarding disposable income and spending patterns is reflected in the tables provided.

The Township's estimated 2000 commercial need was approximately seventeen and one half (17.5) acres. Assuming increases in the number of households as projected, this demand can be expected to increase to nearly approximately one hundred and twenty nine (129) acres with the complete development of the community.

Existing commercial acreage in the Township satisfies the current estimated needs of the Township. The current commercial acreage however does not satisfy the projected commercial needs upon buildout of the community. However, this does not take into account the extensive commercial opportunities within the Village. With the Township's and Village's current working relationship and the goal to develop jointly, additional large commercial acreages will likely not be necessary within the Township. Further, the buildout of the community will obviously take decades to occur. As the community does develop, the Township should review development patterns and determine additional appropriate commercial nodes, if such are deemed necessary.

	Lapeer County Sales (\$)		North Branch Township Sales (\$)	
Category	(x1,000)	%	(per household)	
Manufacturing	1,007,045	43.1%	11,896	
Wholesale Trade	143,486	6.1%	1,695	
Retail Trade	847,715	36.3%	10,014	
Information	N/A	N/A	N/A	
Real Estate, Rental & Leasing	20,280	0.9%	240	
Professional, Scientific, & Technical Services	N/A	N/A	N/A	
Administrative & Support	66,996	2.9%	791	
Educational Services	N/A	N/A	N/A	
Health Care & Social Assistance	135,763	5.8%	1,604	
Arts, Entertainment & Recreation	11,599	0.5%	137	
Accommodation & Food Services	67,089	2.9%	793	
Other Services	37,419	1.6%	442	
Total	2,337,392	100.0%	27,612	

Estimate Spending by Category Source: U.S. Census

Table 4-1

Category	% of Sales	Sales from Study Area	Sales per Sq. Ft.	Sq. Ft. Supported by Study Area	Equivalent Commercial Acreage
Manufacturing	43.1%	14,144,344	200	70,722	8.1
Wholesale Trade	6.1%	2,015,355	200	10,077	1.2
Retail Trade	36.3%	11,906,646	237	50,239	5.8
Information	N/A		200		
Real Estate, Rental & Leasing Professional, Scientific, & Technical	0.9%	285,360	200	1,427	0.2
Services	N/A		200		
Administrative & Support	2.9%	940,499	200	4,702	0.5
Educational Services	N/A		200		
Health Care & Social Assistance	5.8%	1,907,156	200	9,536	1.1
Arts, Entertainment & Recreation	0.5%	162,893	200	814	0.1
Accommodation & Food Services	2.9%	942,877	282	3,344	0.4
Other Services	1.6%	525,538	200	2,628	0.3
Total	100%	32,830,668		153,488	17.6

Estimated Commercial Needs - Current Source: U.S. Census

Table 4-2

				Sq. Ft.	
			Sales	Supported	Equivalent
	% of	Sales from	per Sq.	by Study	Commercial
Cateogory	Sales	Study Area	Ft.	Area	Acreage
Manufacturing	43.1%	99,962,088	200	499,810	57.4
Wholesale Trade	6.1%	14,243,085	200	71,215	8.2
Retail Trade	36.3%	84,147,642	237	355,053	40.8
Information	N/A		200		
Real Estate, Rental & Leasing	0.9%	9,991,167	200	49,956	5.7
Professional, Scientific, & Technical					
Services	N/A		200		
Administrative & Support	2.9%	6,646,773	200	33,234	3.8
Educational Services	N/A		200		
Health Care & Social Assistance	5.8%	13,478,412	200	67,392	7.7
Arts, Entertainment & Recreation	0.5%	1,151,211	200	5,756	0.7
Accomodation & Food Services	2.9%	6,663,579	282	23,630	2.7
Other Services	1.6%	3,714,126	200	18,571	2.1
Total	100%	239,998,083		1,124,617	129.1

Estimated Commercial Needs - Buildout Source: U.S. Census

Table 4-3

INDUSTRIAL CHARACTERISTICS

To more fully understand the Township's local economic base, its relationship to the larger mid and southeast Michigan regional economy needs to be assessed. Economic activities within each of these communities collectively comprise the region's economic base. This larger regional economy transcends municipal boundaries and is the sum of many individual parts. This portion of the report examines North Branch Township's position within the regional economy. The relationship will be considered with respect to the region's major economic centers and the labor force characteristics of North Branch Township residents.

Industrial Land Potential

While North Branch Township is located outside of the region's identifiable economic activity centers, M-90 and Lake Pleasant Roads hold the potential for development as a smaller scale industrial development area. This is shown by the development of the Village's industrial park located at the southwest corner of these two roads. Paved access to M-53 (via M-90) to the east and I-69 (via Lake Pleasant Road) to the south provide the Township with regional access.

The desire for industrial land is frequently the result of two concerns that are common to most communities: 1) providing employment opportunities for local residents, and 2) achieving a balanced tax base structure. In most regions, a significant amount of commuting occurs across community boundaries for trips to and from work. For instance, the average commute for a Township resident is over thirty five (35) minutes. In this type of setting where jobs are available throughout the region, it is not realistic to expect that all or even the majority of North Branch Township's resident labor force will work at locations within the Township. However, because of the reciprocal nature of employment, job generation remains important. More important to community planning is the desirability of providing for industry as a source of taxes that support community facilities and services.

Based on acceptable planning standards for determining the amount of industrial land a community can support, North Branch Township could support up to three hundred acres of industrial property. This is based on a total of twelve (12) acres per 1,000 residents. Currently, however, the Township could only accommodate a total of approximately forty five (45) acres.

Municipal Benefit	Research Office Park		
	Office		
	High Rise		
	Senior Housing		
Municipal Nuetral			
	Open Space		
Municipal Loss	Retail Facilities		
	Townhouses		
	Single Family Housing		
	Apartments		
	Manufactured Housing		



As a matter of policy, the Master Plan should consider the appropriate long-range use of the land within the community. Existing trends suggest that the intersection near M-90 and Lake Pleasant Road is suited for some industrial use. The Plan should, therefore, show how the Township can best utilize this land for industrial activities.

Occupation

As noted within the population analysis section of the Plan, the three main occupations for North Branch Township residents are Production, Transportation, and Material Moving, Sales and Office Occupations, and finally Management, Professional and other Related Occupations. These three categories represent approximately 28 percent, 23.5 percent and 21 percent of the total occupations respectively or a total of nearly seventy three (73) percent. The smallest occupation reported as of the 2000 Census was Farming, Fishing, and Forestry. This occupational category only made up 1.7 percent of the occupations within the Township.

Industry of Employment

Further, based on the statistics for industry of employment, two predominate industries were noted based on the last Census. These include Manufacturing and Educational, Health and Social Services. These two categories represent 34.5 percent and 21.6 percent of the total number jobs per industry of employment. The remaining forty four (44) percent of the jobs are divided relatively equally between the remaining eleven (11) job categories.

4-8

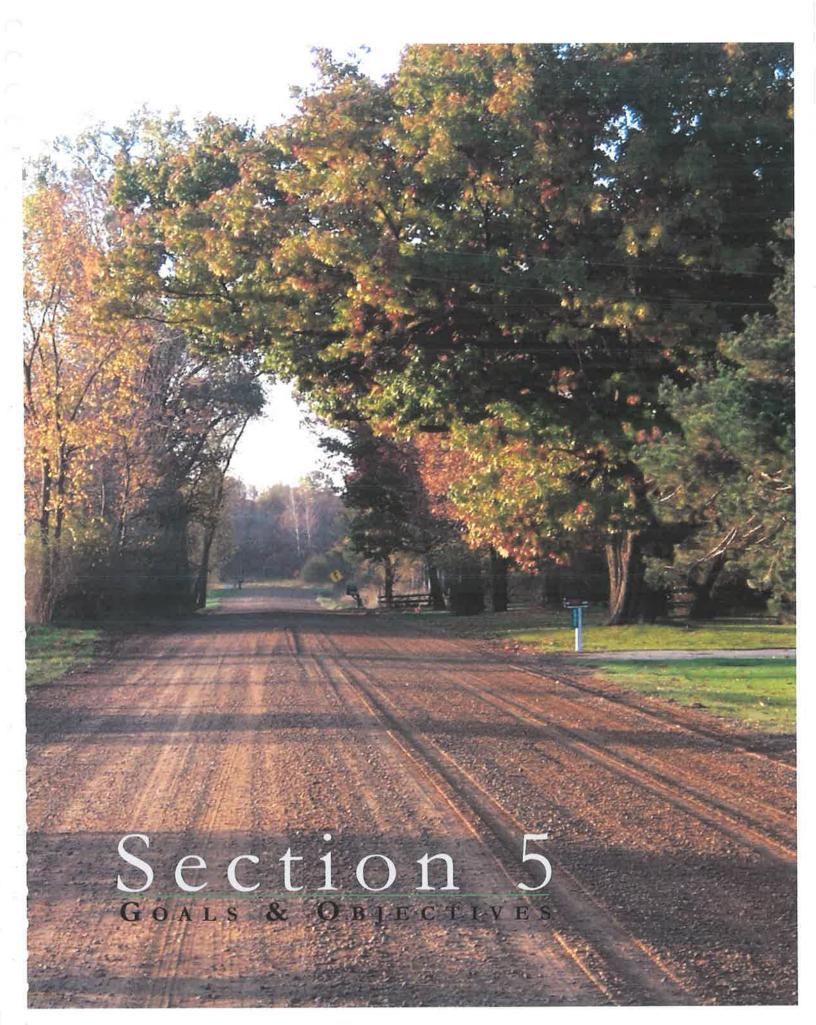
North Branch Township - Master Land Use Plan

·)

ر ر ر

ن

(ii)



INTRODUCTION

Goals formulated by the Township should be viewed as the cornerstone of the planning process. In theory, they are the framework for public decision making. They should be idealistic to the extent that they provide a desirable future to strive towards. However, in order to be reasonably capable of being achieved, the goals must be tempered by recognition of financial, social, and political realities.

Goals should be distinguished from objectives. Goals are generalized. Objectives are the specific targets to be achieved. The objectives are then implemented by the rules, laws, ordinances, administrative regulations, and practices which are adopted and enforced.

The function of the planning process is to identify and describe the problems which exist, to anticipate the problems which might emerge in the future, and to devise solutions. Accordingly, the Township Planning Commission has identified the following set of goals and objectives. These goals and objectives should be revised in the future as changes occur within the Township.

GENERAL DEVELOPMENT PATTERNS

Goal: Create a Master Plan which encourages and provides a mechanism to develop an

attractive, viable community in which to live.

Objective: Concentrate development in areas where community facilities, roadway infrastructure and

other necessary amenities exist or can most effectively and efficiently be provided.

Direct development to areas served by roads which are designed or planned for the traffic volume generated by such development.

- Protect those areas of the Township which are most suitable and productive for agriculture. Wherever possible, agricultural land should be retained for long term farming.
- Preserve the natural amenities of the Township, including topography, drainage, rivers, flood prone areas, soils and woodlands while still allowing for managed development.
- Encourage the separation of incompatible land uses through proper landscaping, screening and physical separation.
- Keep the natural and man-made environment in balance.
- Discourage sprawling and scattered development which consumes extensive land areas, creates excessive costs in providing community services, generates greater traffic problems, increases land speculation, and makes agricultural land preservation more difficult by encouraging development to occur proximate to the Village of North Branch.
- Plan along with the Village of North Branch as a "single" entity understanding the mutual benefits of a collective plan rather than individually and duplicating services and costs.
- Work with the Lapeer County Road Commission to develop a maintenance and roadway improvement program for the road network within the Township that will maintain the roads in a more traversable state.

AGRICULTURAL AREAS

Goal: Preserve the agricultural areas of the Township in order to maintain the economic

and social benefits of a strong rural community.

Objectives: Discourage nonfarm development in and adjacent to those areas of the Township

which have been designated as agricultural preservation areas in the Master Plan.

Promote traditional farmstands where agricultural produce which is grown onsite is sold.
 However, discourage the ancillary retail sales of commercial goods in additional to traditional crops.

- Encourage the continuation of farming activities where feasible and plan for managed growth in order to avoid the premature conversion of agricultural land. However, realize that farming is an evolving industry and may not always be as predominate as it is today. Therefore, the plan must stress the character that should be maintained as other types of development occur where farmland once was.
- Encourage large lot and open space or cluster development for single family housing in those areas where farming is present to minimize impacts on both residential housing and farming.
- Encourage business, industrial, recreational, and large scale residential development to locate in the proximity of the Village and M-90 away from agricultural lands.

RESIDENTIAL AREAS

Goal: Pursue and provide residential land uses which provide a diversity of housing types

and are quality in nature. .

Objectives: Encourage the development or redevelopment of planned residential areas

designated to provide a variety of residential use types and densities while

recognizing the limitations of infrastructure within the Township.

Provide a range of choices within the Township or in conjunction with the Village of single-family, multifamily and other residential types.

Guide the development of housing at densities which are consistent with the limitations of natural and environmental features.

- Maintain the overall existing low density of North Branch Township. This low density character is a result of the following:
 - the general knowledge that groundwater is limited,
 - that soils are not suitable for accommodating mass septic systems,
 - roadways within the community are not capable of accommodating the carrying capacities of a dense built environment,
 - the existing housing character within the community reflects large, open spaces as well as farmsteads, rather than small urban or suburban lots.
 - the existing housing development respects the sensitive environmental conditions of the Township such as wetlands, woodlands, riverbanks, etc.
- Plan for land uses based on the premise that the Township will be serviced mainly by gravel roadways. Therefore, land densities will need to be lower due to the inherently lower maximum daily traffic loads that can be accommodated.
- Remove all undesirable land uses from residential areas such as nonconforming commercial uses, while providing suitable buffers between existing and planned residential uses and nonresidential uses in an effort to maintain property values.

COMMERCIAL AREAS

Goal: Provide opportunities and attractive features for businesses at appropriate locations to handle various types of commercial needs.

Objectives: Encourage the concentration of commercial development only in those areas planned on the Township Master Plan.

- Encourage commercial facilities only where good road access and adequate parking can be assured which provides adequate controls on access, proper circulation and screening of parking areas.
- Encourage commercial facilities only where there is adequate draw from major roadways or region as a whole.
- Recognize many of the commercial uses necessary for Township residents can be found within the Village.
- Discourage spot commercial development while encouraging commercial uses to locate at major intersections within the Township.

INDUSTRIAL AREAS

Goal:

Provide North Branch Township with a realistic tax base and employment opportunities by encouraging diversity of industrial development as well as an environment which is conducive to industrial users.

Objectives:

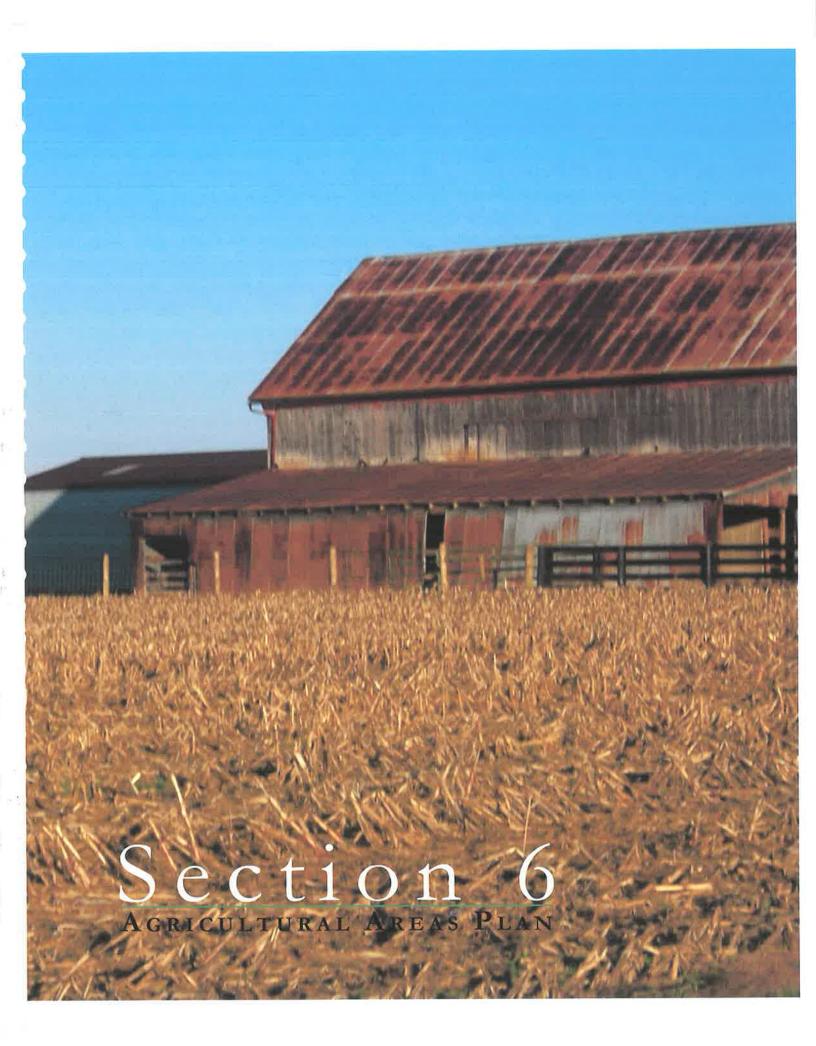
Preserve areas of sufficient size which have locational and service characteristics suitable for industrial development which include access to major transportation routes, public infrastructure, similar uses, etc.

- Ensure that proper facilities, programs and regulations are in place for attracting industrial users to the Township as well as the Village.
- Reserve areas exclusively for industrial use which can be served easily with transportation and essential public utilities as shown on the Township's Master Plan.
- Encourage the creation of planned industrial parks which will cluster like industrial uses.
- Locate industrial areas near other industrial or commercial uses rather than near residential or agricultural areas in an effort to provide adequate separation between uses as well as adequate transitional zones.

MASTER LAND USE PLAN

Planning is a process of preparing for the future. The Master Land Use Plan for North Branch Township is designed to cohesively implement community policies and physical development in a democratic fashion. This long-range plan enables the Township to establish goals, objectives, and policies so that daily, short-range actions will be facilitated in consideration of long-range goals.

This Master Plan is intended to serve as a guide for future development. Its goal is to improve the general welfare and environment of the people through orderly development. Periodic review, every two years, of the proposals contained in the Plan should be undertaken so as to assure that changing future conditions will not be overlooked.



INTRODUCTION

North Branch Township has traditionally been an agricultural community and still is to this day. This tradition is evident with the majority of the Township still being farmed. Further, the Township within this Plan and the previous Master Plan call for the long-term preservation of farmland as one of its main goals. The Township must derive new and innovative techniques to ensure that the goal of farmland preservation will be viable, while realizing that outside regional influences and growth pressures may have a direct impact on the feasibility of such a goal. The following two sections of the Master Plan, the Agricultural Areas Plan as well as the Residential Areas Plan must work in unity to provide a balance for residential growth and farmland preservation.

CURRENT FARMLAND TRENDS

Currently over fifty (50) percent of the County's farmland is enrolled in PA 116

Lapeer County has an approved Purchase of Development Rights Program

Lapeer County has a total of 1,187 Farms, totaling 189,264 acres, with a typical farm size of 79 acres (2002 Census)

Lapeer County generates \$50,615,000 in agricultural sales

MICHIGAN DEPARTMENT OF AGRICULTURE - Agricultural Preservation Fund Board

Minimum Purchase of Development Rights Program Requirements

- Farmland that has a productive capacity suited for the production of feed, food and fiber.
- Farmland that would complement and is part of a documented, long-range effort or plan for land preservation by the local unit of government in which the farmland is located.
- Farmland that is located within an area that complements other land protection efforts by creating a block of farmland that is subject to an agricultural conservation easement under this part or part 361, or a development rights agreement under part 361, or in which development rights have been acquired under part 361.
- Farmland in which a greater portion of matching funds or a larger percentage of the agricultural conservation easement value is provided by a local unit of government or sources other than the fund.
- Farmland that will help to enhance other local open space initiatives in the community such as connecting an open space or wildlife habitat corridor, or in preserving unique habitats/natural features that benefit local conservation efforts.

Local Master Plan Requirements

- The comprehensive land use plan has been adopted within the last 10 years and reviewed and/or updated within the last 5 years.
- The comprehensive land use plan of the applying entity contains an agricultural preservation component, consisting of:
 - A future land use map indicating the areas intended for agricultural preservation,
 - Text describing the strategies intended to be used in order to preserve the agricultural land, including Purchase of Development Rights (PDR) but should include other techniques.
 - Language indicating why farmland should be preserved in the community (cost of services studies, economic benefit to the community etc.)
 - A description of how and why the preservation area was selected.

ISSUES WITH FARMLAND PRESERVATION

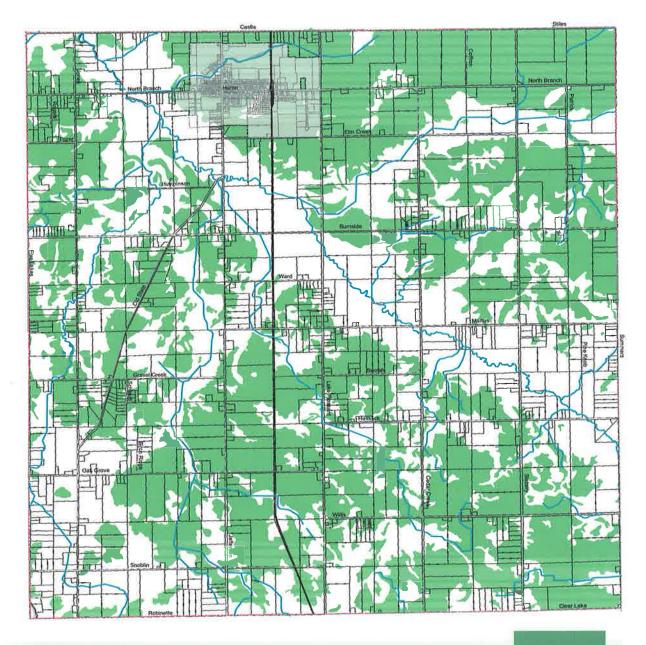
As growth in southeast and mid Michigan continues to spread outward from the traditional core communities and larger developed cities into the outlying townships, the issue of farmland preservation has moved to the forefront of rural township planning. North Branch Township must be proactive if farmland and open space is to be preserved in the Township over the next twenty (20) years.

Economic Issues - North Branch Township, being a rural township, has very few land uses outside of agriculture and residential. This includes very limited amounts of commercial or industrial land use. This lack of commercial and industrial land use provides the Township with very little tax base to provide an abundance of services to its residents. This is typically acceptable due to the limited number of people within a largely farming community.

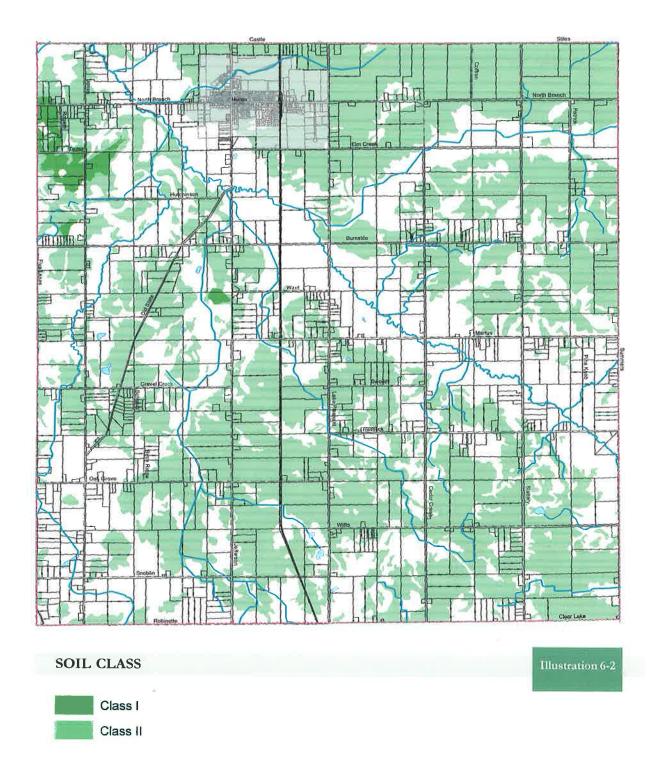
Past studies, including those from the American Farmland Trust, have shown that agricultural uses require far less services in terms of; dollars of service spent per dollar of tax collected than typical residential development require. These studies indicate that for each dollar in taxes collected from a farm, the farm only requires an average of \$0.34 to \$0.75 in services from the Township. In contrast, residential developments require on average \$1.04 to \$1.54 in services for each tax dollar collected. This difference was also noted in the Cost of Community Services Study (COCS) conducted in Calhoun County, Michigan. This Study specifically addressed costs in both Marshall and Newton Townships.

Therefore, the more farmland that North Branch Township can preserve, thereby reducing dollars of services required for residential housing, translates into a reduced need for further industrial and commercial properties which typically require far less in dollars spent for services than is collected in tax revenue, therefore providing a surplus of Township revenue. The limiting of commercial and industrial properties within the Township is consistent with the Township's goals and objectives.

Farming / Residential Conflict — One of the main factors in farmland loss is the introduction or continued development of residential housing in traditional farmland areas. This factor played a large role in the development of the Right to Farm Act and more recently the development of the State's Generally Accepted Agricultural Management Practices (GAAMPs). Generally speaking, these two documents provide protection for farmers from nuisance claims of adjacent or nearby residents. New home owners typically do not realize the equipment that is necessary, the schedules that are kept by farmers and the associated practices within the farming industry. These unrealized issues typically result in complaints, vandalism, or even court action against the farmer. But under the Right to Farm Act and the GAAMP's, the farmer is typically afforded protection. In an effort to eliminate or reduce the number of conflicts between residents and farmers, the simple solution is to isolate both entities. This furthers the idea that agriculture is an industry not merely a land use and therefore, typical planning principles of separating incompatible uses may apply.



PRIME FARMLAND



EXISTING CONDITIONS

Prime Agricultural Land

One of North Branch Township's most significant land use characteristic is the abundant quantity of existing farmland. Soil data is the principal source of information used by the U.S. Department of Agriculture Soil Conservation Service (SCS) to determine those areas of the Township and the County that have the greatest potential for long-term agricultural production.

Prime Farmland is typically defined as having:

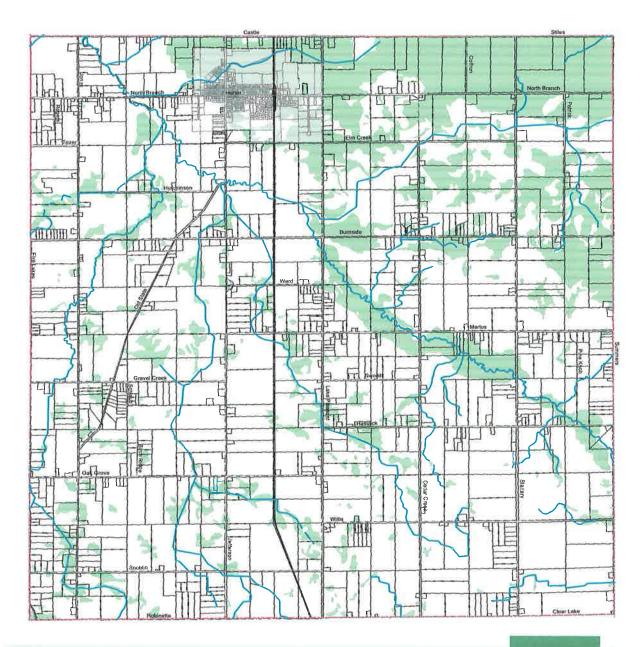
- Soils capable of providing yields of crops common to the area that are equal to or greater than yields from well managed, deep, well drained sandy loams.
- Soils quality, a growing season, and moisture conditions necessary to provide a high yield of crops economically if managed in accordance with modern farming methods.
- Slopes of less than six percent.
- Active rooting depth of at least 20 inches.
- Soils that are not waterlogged. Waterlogged soils are those that have standing water as much as six inches deep several times during the growing season.
- Soils that do not flood more than once every two years.
- Soils that present no particular difficulty in cultivating with large equipment (less than 10 percent is covered with course rock fragments.)
- Soils with the potential of being made private agriculture through economically justifiable investments and practices, including drainage, clearing, irrigation, etc.

Soil and Conservation Service mapped the locations of important farmlands in Lapeer County in 1974. As a consequence of the County's growth in recent years, large amounts of agricultural land are starting to be converted to other uses, mainly large lot single family residential via lot splits. This will likely continue to occur as populations continue to move outward from traditional cores.

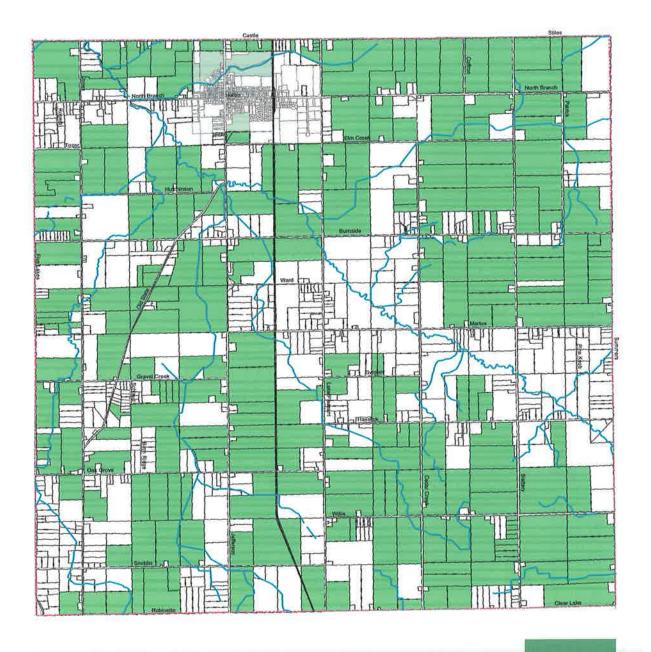
In general, land identified by the SCS as being well suited for farming is located throughout most of the Township. Large portions of the Township are considered to be prime farmland. However, the branches of the Flint River break these expanses of prime farmland. The soils along the Elm Creek, Cedar Creek and Bottom Creek are not conducive to farming based on the mapping provided by the Soil Conservation Service. These riverbed areas are contain the following soil associations; the Carlisle-Lupton-Tawas and the Fabious-Wasepi-Mussey-Gilford Associations. These soil associations are characterized by wetland type soils and outwash soils respectively. Neither is suitable for long term farming. Further, the very southwestern corner of the Township was not seen as being prime farmland.

Class II Soils

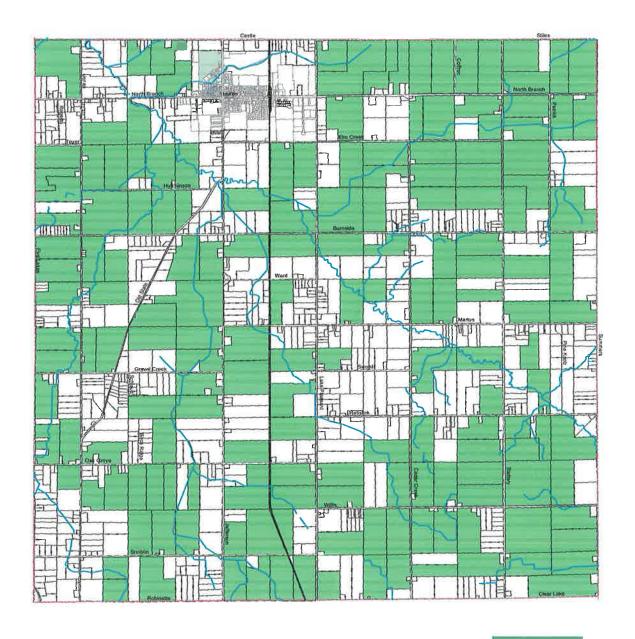
Class I and Class II soils are generally deemed the most suitable soils for agricultural use. As shown on the mapping, again the vast majority of the Township is made up of either Class I or Class II soils. Only one small area is classified as Class I. That area is immediately west of the Village along North Branch and Jones Road. The majority of the rest of the Township is classified as Class II soils.



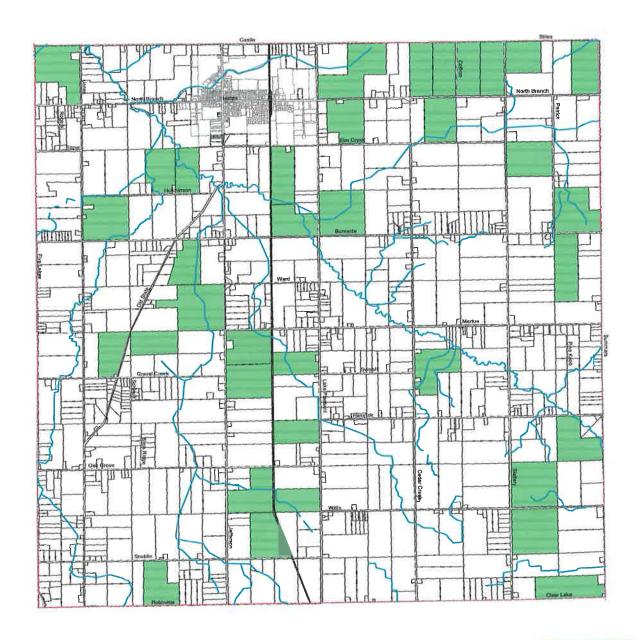
SOILS CAPABLEOF PRODUCING 100 BUSHELS OF CORN



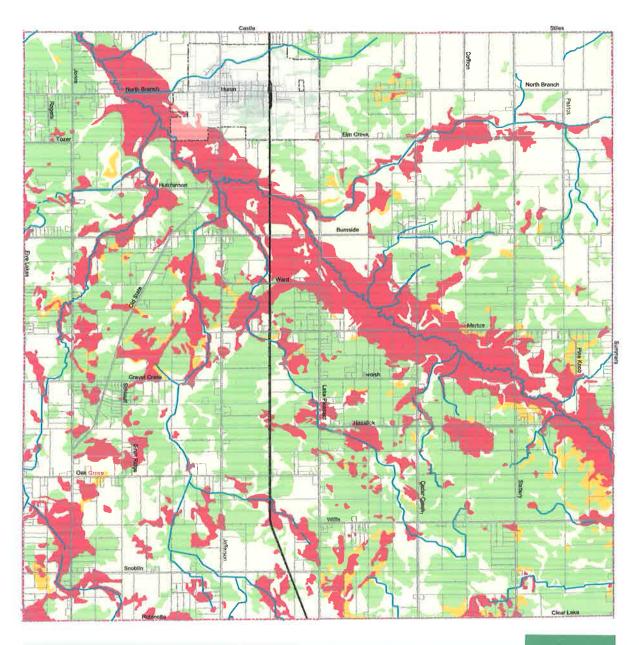
FARMED PROPERTIES



PROPERTIES OVER FORTY (40) ACRES

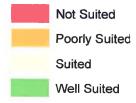


PROPERTIES OVER EIGHTY (80) ACRES

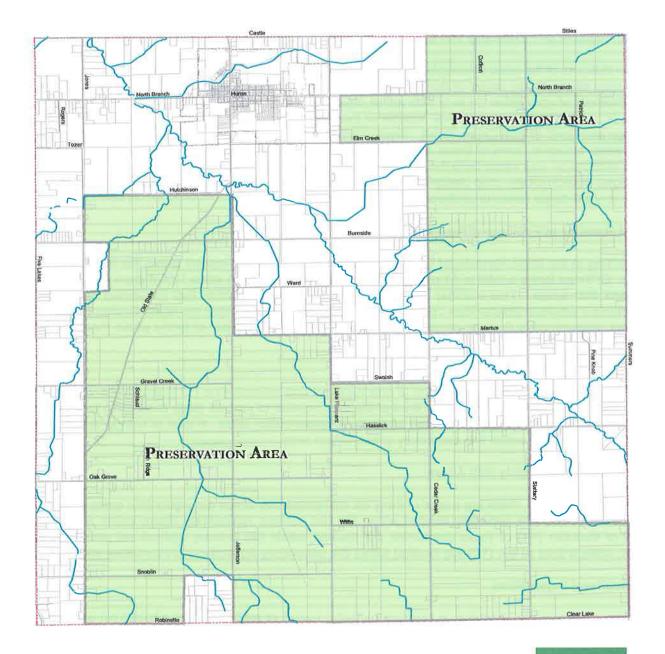


AGRICULTURAL CAPABILITIES

Illustration 6-7



6-12



AGRICULTURAL PRESERVATION AREAS

Illustration 6-8

Soils Capable of Producing 100 Bushels of Corn

As an indicator of the good farming land, the potential crop production of each soil type was examined. The map shows those areas of the Township which contains soils which are capable of producing 100 bushels of corn either as is or with some drainage modifications. The vast majority of this land area is contained in the northeast section of the Township. Generally the land area east of the Village and north of Elm Creek Road. Small pockets of high yielding soils are found throughout the Township, however, none of these areas produces a large tract of land. It should be noted that the yield production was taken from the original soil survey for the County conducted in 1974. With the changes in technology, crop yields have significantly increased, however, the relative ability of the soils to yield crops remains unchanged.

Total Number of Farms and Acreage

According to the 2002 Agricultural Census a total of 162 farms are located within the North Branch area. Of these farms a total of 51 of these farms are from 1-49 acres while 107 of them are between 50 and 999 acres. This number remains relatively unchanged from that presented within the Township's previous Master Plan (160). The total number of farms within the North Branch Township equals approximately thirteen percent (13) percent of the total number of farms within the County.

Properties Over Forty (40) Acres

Within the Township, there are a total of one hundred and seventy one (171) properties which are forty (40) acres or more. Nearly one third of the total number of parcels (sixty three (63)) forty acres or more are located within the primary agricultural preservation area. A total of twenty seven (27) parcels are located within the secondary preservation area.

Properties Over Eighty (80) Acres

Within the Township, there are a total of thirty six (36) properties which are eighty (80) acres or more. These properties are generally located within the two defined Agricultural Preservation Areas. A total of fourteen (14) of these properties are located within the primary agricultural preservation area, while a total of ten (10) are located within the secondary agricultural preservation area.

Agricultural Capabilities

A large portion of the Township is deemed as being suited or well suited for agricultural purposes. Based on soil data for the Township the only areas not suited for agriculture are those along the North Branch of the Flint River, extending from the southwest corner of the Village to the Township's eastern boundary near Hasslick Road. The other smaller branches which feed into the North Branch also contain some soil types which are not deemed as being suitable for agricultural purposes.

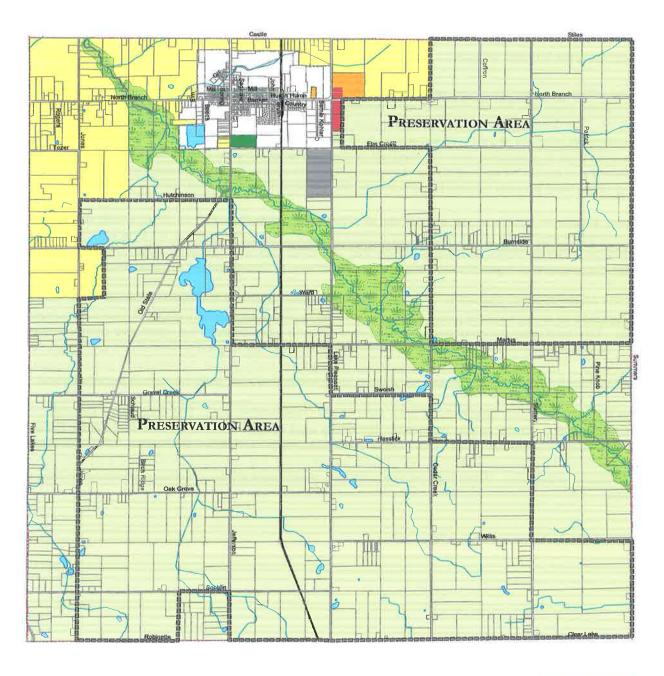
PRESERVATION PLAN

In an effort to establish those areas or blocks of farmland which are best suited for continued agricultural purposes, the aforementioned information was overlaid to create an Agricultural Preservation District. The district is the combination of areas that are made up of lands that are currently farmed, parcels over forty (40) acres in size, parcels over eighty (80) acres in size, Class 1 & II soils, soils that are conducive to producing over 100 bushels of corn per acre per year, properties which are deemed as being well suited for agricultural, and prime agricultural lands. The combination of these elements on a single farm provide a basis for which agricultural preservation is most likely to occur.

These blocks of farmland are developed in conjunction with P.A. 262 of 2000 which allows for Townships to designate areas which they believe are the most suitable areas for long term farmland operation. These blocks are areas where the Township can work together with farmers and the State Department of Agriculture in applying for Purchase of Development applications.

Within North Branch Township, the land area generally south of the North Branch have been designated as an agricultural preservation area. This is shown on the Agricultural Preservation Area Map. This land area encompasses over 9,300 acres and extends from the northwest corner of the Township (along the southern boundary of the North Branch) all the way to the Township's southeastern boundary. This designated area shows the Township's main focus for farmland preservation. Applications for preservation should be given priority within this area over the non-designated areas.

The Township has also depicted a smaller agricultural preservation area. The area being generally in the northeastern corner of the Township. Generally east of Lake Pleasant Road and Cedar Creek Road and north of Martus Road. This area encompasses approximately 4,200 acres. While not seen as the main area of concentration for agricultural preservation, the Township promotes the continuation of farmland in this area. If monies become available, grant applications would be considered in these areas.





RECOMMENDATIONS - ZONING ORDINANCE & REGULATORY ORDINANCE

Ordinance Recommendation: Develop a mandatory Open Space Development Ordinance for the Township's larger lot sizes. If future developments were to be developed in this fashion, the benefits in terms of open space and farmland preservation may be twofold. First, the development of open space areas throughout the development may allow further separation between existing farmland areas and the proposed residential development. The second benefit may be to allow the preserved open space areas to be utilized for farming purposes. In this instance, the potential impact to the residents of the specific development should be known at the time of an individual lot purchase. Theoretically, only those persons who desire to live next to a farm operation would purchase a home within the development.

This Ordinance requirement would likely be located within the Township's subdivision development standards. Therefore, the requirement would only apply to those lands being developed as a subdivision or a site condominium.

Zoning Recommendation: Work to develop a value added farming zoning regulation to help farmers evolve within a changing agricultural economy while protecting the long term interests of the Township. An ordinance of this nature may include the amount of "nonagricultural" material which can be sold on site, the types of ancillary activities which can occur as a part of the farm operation, as well as safety considerations for patrons of the farm market. These types of uses would need to be closely monitored to ensure that the original farming activity was maintained and is still the prominent use of the site.

Zoning Recommendation: Develop a zoning regulation for a required twenty-five (25) foot greenbelt along all natural drainage ways and other watercourses within the Township, ensuring such provision would also be applicable to farming activities.

RECOMMENDATIONS - PLANNING RELATED

Planning Recommendation: Participate with the County preservation officials to continue to develop farmland preservation options. This includes Township volunteer efforts with those officials, securing monies for operating and matching funds for any potential purchase of farmland (once the Township becomes available) as well as ensuring the Township is current with its planning and zoning efforts to ensure grant eligibility.

Planning efforts would include keeping farmland and open space preservation as one of the main goals of the Township Master Plan, providing text and mapping in the Master Plan that encourages farmland preservation and notes those areas where such should occur. Finally, limit the extension of public sewer and water infrastructure in those areas where farmland and open space preservation is most desirable.

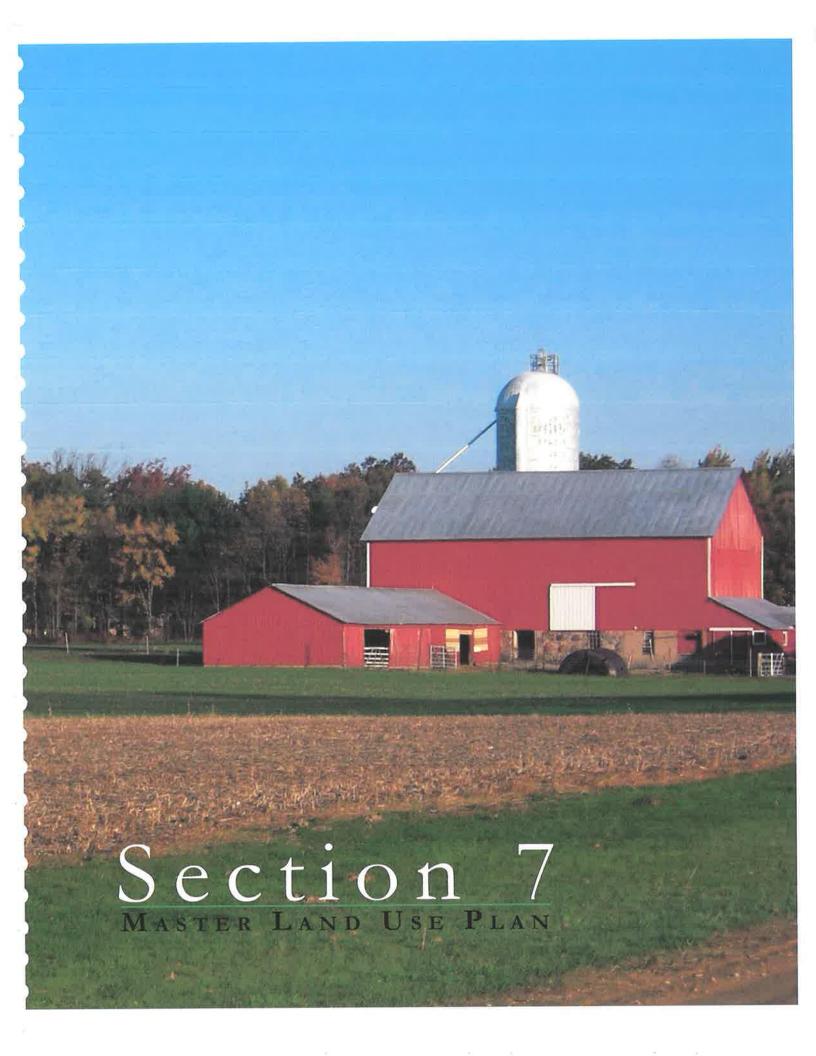
Planning Recommendation: Continue to refine the Agricultural Preservation Areas Plan to a point were parcels are prioritized in terms of desirability for farmland preservation. The prioritizing can be based on the information contained in this chapter of the Plan as well as other criteria which may be identified as being pertinent. This will address guidelines established by the Michigan Department of Agriculture - Agricultural Preservation Board.

Planning Recommendation: Consider developing a transfer of development rights plan for the Township if and when such option becomes available. This would allow density transfers from the agricultural preservation areas noted in this section of the Plan to other areas of the Township where public sewer and water infrastructure may be available and where transportation access is more suitable for higher densities. Again, this option is technically not permitted within the State at this time; however, the topic is being considered and may be available at a later date. However, the County's Comprehensive Plan suggests that development within the County be planned in a similar type of manner, by directing develop to the developed areas of the County and leaving the agricultural areas very low density.

Planning Recommendation: Work with the State of Michigan Department of Agriculture Preservation Fund Board to have the Township Master Plan qualified for the PDR Program. This must be done in conjunction with the development and adoption of a PDR Ordinance. Once both of these tasks are accomplished, the Township will be eligible to receive grants through the State for farmland preservation. This qualification would likely occur through the participation with the County's efforts to encourage farmland preservation.

Planning Recommendation: Work with local farmers to ensure that farms operate using the State's adopted GAAMP's for that particular type of farm. This information is readily available through the State's website but should also be readily available through the Township for ease of use for the local farmer. Further, encourage that farmers become certified under the State's MAEAP program (Michigan Agricultural Environmental Assurance Program) which assists farms in establishing environmentally sound agricultural practices. Farms that are certified under the MAEAP program may receive preferential treatment in the State's PDR program because environmentally sound agricultural practices will contribute to the sustainability of the agricultural operation.

Planning Recommendation: Work with local farmers to implement greenbelts or no-plant zones along drainage ways and other water courses. This will allow for soil, fertilizers, and other chemicals to be caught prior to entering the watercourse. The capture of these sediments and chemicals will increase water quality for rivers such as the North Branch of the Flint River. A typical greenbelt or no-till zone should be approximately twenty five (25) feet in width.



INTRODUCTION

The Master Plan strives to improve the quality of life within the Township by planning for the development of vacant land or the conversion of farmland as well as the redevelopment of existing sites. To achieve this, the Master Plan is comprehensive, long-range, and regional in scope.

A Land Use Plan will permit minor refinements as the Township and its property owners realize and decide on very specific courses of action such as individual site development or rezonings. Land Use and development decisions should be based on both the narrative, and graphic framework of the document. Therefore, it should not be deviated from without good and documentable cause. Such deviation lessens the validity of the Plan leaving the Township vulnerable to haphazard development. The Plan is more than just an agglomeration of maps, charts, and text. Within the graphics, mapping, and text are spatial distributions and logistical relationships aligned with the Township's existing physical and social conditions, as well as the Township's selected long-term vision of growth.

CURRENT LAND USE TRENDS

Residential rezonings and land divisions have eliminated over 18,000 acres of farmland over the last ten (10) years County wide.

A total of 189,264 acres of Lapeer County were documented as active farmland in 2002.

The vast majority of the County has been planned for densities consistent with one dwelling for each forty (40) acres of land (Lapeer County Comprehensive Development Plan)

Those areas surrounding cities and villages are planned for Controlled Growth Sector which plans for densities consistent with 0.5-2.0 dwelling units per

RESIDENTIAL PLANNING IMPLICATIONS

Development densities consistent with planned and existing

infrastructure – The availability of sanitary sewer and water, or lack thereof, places limitations on the number of housing units that the Township may be able to support. As identified in the soils mapping, the Township for the most part, does not maintain soils that are well suited for septic use. Because of this issue, larger lots are necessary to accommodate engineered septic fields along with required setbacks. This issue, along with an extensive gravel road network and an existing rural character, makes the majority of the land area away from the boundaries of the Village and to the north and south of North Branch Road, suitable for rural, large lot development.

Sanitary sewer and water services are planned only in those areas adjacent to the Village, where a mutually agreed upon boundary adjustment is feasible. Public utilities and a paved road infrastructure make this area of the Township ideally situated to accommodate higher density single-family.

Maintaining a Rural Atmosphere – The majority of North Branch Township is "rural" in character. Steps towards protecting that rural character should be made to preserve the lifestyle that so many North Branch Township residents have become accustomed to. Utilizing the appropriate buffers and intermediate land uses to transition between higher intensity areas and the rural portions of the Township should be considered.

Protection of environmentally sensitive areas — North Branch Township has a wealth of environmental resources due to its location along the branches of the Flint River. Its location within three (3) different watersheds makes it important for the Township to recognize the existing environmental resources and protect them to the greatest extent possible. Areas with significant amounts of wetlands/woodlands, or areas within the floodplain should be given special consideration when new housing or development is proposed. Any development that may occur on environmentally significant land should be designed in such a manner to minimize the impacts on the surrounding ecosystem.



AGRICULTURAL RESIDENTIAL

This Land Use Designation was created as a way of ensuring that the farming in certain areas of the Township was not further impacted by residential development. In addition, this designation is also found in those areas where septic systems are severely limited thereby requiring larger lot sizes to accommodate conventional or engineered septic systems and to help ensure that ground pollution does not occur. The permitted uses within the area would include farming and farm related activities, single family residential housing, and the like. A total of approximately 19,320 acres are planned as Agricultural Residential.

This planning designation is designed to correspond with the Township's current Agricultural Residential Zoning District as well as its past master planning practices. Minimum lot sizes of two (2) acres are anticipated with a maximum width to depth ratio of 1:4. Lot widths for properties in this in area would be required to meet the following scale:

Minimum Lot Width
165'
198'
295'
330'

For ease in describing the areas of the Township, the following descriptions are broken into two (2) main categories. These two (2) areas are generally split by the River, dividing the Township in half.

The land use characteristics, soil types and potential planning issues are better described using two main areas. However, the planned densities remain the same for the entire 19,320 acres of the Agricultural Residential area.

Agricultural Residential (North of the River)

Nearly the entire planning area is shown as having either severe or moderate limitations for residential septic systems, thereby suggesting the need for larger lot sizes. Further, the majority of the area is also noted as being suited for agricultural purposes.

As shown on the agricultural mapping, this area of the Township generally contains the most soils conducive to high production of crops (bushels per acre), the most Class I & II Soils (high production soils), prime farmland, as well as the most concentration of farmland currently being or recently farmed.

Based on the mapping provided by the Lapeer County Equalization Department, very few splits have been taken in this area of the Township. The vast majority of the properties in this area are acreage parcels. The exception is the road frontage along Burnside Road. These large lots, with a minimal number of homes further define this area of the Township.

This area generally does not appear to be impacted by wetlands. Several small sporadic areas are present throughout the planned area and one area of concentrated wetlands appears to be located near the center of Section 10.



1 ...

North Branch Township - Master Land Use Plan

This area is designed to be one of the Township's main agricultural preservation areas as defined on the Agricultural Preservation Areas Map. This area is designed to satisfy the requirements of Public Act 262, for Purchase of Development Rights.

Agricultural Residential (South of the River)

The majority of the planning area south and west of the river can be characterized by large, undivided farm properties. The exceptions to this are along Burnside Road, Lake Pleasant Road (near Burnside), as well as the southwest corner of the Township. These areas consist of lots generally of 2-10 acres split off along the road frontages.

Unlike the Primary Agricultural Residential Planning area, this designation will likely be impacted by wetlands. The Township's generalized wetland mapping shows a vast amount of potential wetlands throughout the planning area. The most predominate type of wetland is forested wetland. A majority of these areas are located along the main water courses and other small tributaries. A natural features setback provision contained within the Township Zoning Ordinance or as a separate regulatory ordinance would likely greatly benefit these areas, ensuring that both the wetlands and woodlands shown on the mapping will be protected.

Large expanses of this planning area are noted as being well suited for septic systems. However, there are significant areas throughout that have severe limitations in accommodating septic systems. The majority of this area is noted as being well suited for agricultural purposes. The exceptions being that those areas noted as wetlands are obviously poorly suited or not suited for agricultural purposes.

The soils mapping reveals that this area contains soils, much like those of the Primary Agricultural Residential planning designation. Class II soils as well as prime farmland soils are present throughout with the exception of the extreme southwest corner. This area does not contain a significant amount of soils characterized as being able to produce over 100 bushels of corn (current farming technology would likely yield much higher crop yields). Finally, as with the other agricultural area, the predominate land use in the area is active farmland.

The majority of this planning area corresponds with the Township's Primary Conservation Area as shown on the agricultural mapping. Again designed to meet the requirements of the Purchase of Development Rights Act, being Public Act 262.

Future Planning Issues - Agricultural Residential Designation

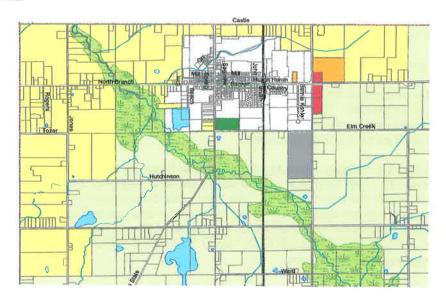
The Planning Commission during the review of the land use plan section discussed overall lot size throughout the Township. Of particular concern were the general lot sizes within the Agricultural Residential sections. As noted previously, the Township has planned and zoned the majority of the Township for essentially two (2) acre lots. Some discussion took place as to whether the Township should increase lot sizes in the northeastern half of the Township. The intent being to limit the number of residents within an area planned for long term farming, further, this area of the Township currently has the largest number of undivided tracts of land, being farmed.

If amendments are undertaken, further correspondence with the Lapeer County Health Department should be undertaken to coordinate lot size and density with the soil types found within the Township and the ability of such to accommodate onsite septic systems.

If this area is ever converted to larger lot size, the Township should undertake a Master Plan amendment to delineate the extent of the density change. As a part of the implementation of the Master Plan, the Township would need to develop a new zoning district which established the minimum lot size requirements, lot width, setbacks and the like. Finally, once created, the Township would need to adopt a new zoning map and rezone the properties as depicted on the amended land use plan.

SINGLE FAMILY RESIDENTIAL

The Single Family Residential designation is designed to provide single family homes on smaller lots sizes in an effort to provide different residential opportunities within the Township. This designation is designed to correspond with the Township's current single family residential zoning district or lot sized consistent with one (1) acre lot sizes. The single family designation is located along the Township's northern boundary, north of the Village as well as to the Township's western most boundary. A total of approximately 2,165 acres are designated for single family residential purposes.



A large portion of the land area north of the Village is currently zoned for single family purposes. The zoning designation contains all parcels which abut Castle Road to a depth of approximately one eighth (1/8) of a mile. The Master Plan proposes to extend that single family designation further to the south to encompass several of the larger properties near the northwestern edge of the Village. This corresponds to a greater degree to the depth of the single family zoning already in place along Jones Road.

The single family residential designation abuts the Natural Resource Conservation designation in the area immediately west of the Village. For the most part wetlands should not impact the development of single family homes on the planned smaller lots in this area. Larger impacts may occur based on the potential presence of flood plains.

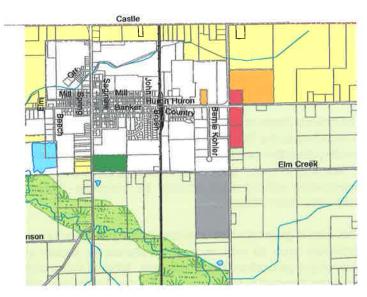
The western most area along Jones Road, North Branch Road, Five Lakes Road and Castle Road for the most part is currently zoned for Single Family Residential purposes. The Master Plan designation extends further to the south into Section 7 as well as the northern section of Section 18. This encompasses the area already developed

as a part of Rogers Road and to the south. The Single Family Residential designation terminates at the half section line of Section 18. With the exception of two larger parcels, one at the northwest comer of Tozer Road and Jones Road and the second being the western side of Jones Road north of North Branch Road, the area north of Tozer Road is largely split for single family purposes. The area south of Tozer Road is made up of larger, undivided parcels which are candidates for future splits or other forms of single family development. Improvements to Jones Road will likely be necessary to accommodate the additional traffic from the planned single family residential areas.



MULTIPLE FAMILY RESIDENTIAL

The land areas immediately to the east of Lake Pleasant Road, north of North Branch Road is planned for multiple family residential. A total of approximately 45 acres of multiple family is planned for this corner. This corner was chosen due to the proximity of high density development already within the Village on the west side of Lake Pleasant. Further, the site has direct access to two (2) of the main arterials in the Township, being North Branch Road and Lake Pleasant Road. therefore, the site has the ability to provide two access points, one on each road to help alleviate traffic congestion and help with turning movements.



Based on the Township's generalized wetlands mapping, the site should not be impacted by any wetlands, therefore allowing the property to be fully developed. Further, a watercourse does traverse the area to the north of the site. This watercourse would likely serve as the discharge point for the development for stormwater retention/ detention.

The Township, not having municipal sewer service or municipal water service will impact the development potential of any multiple family properties. Therefore, two alternatives exist to service a property of this nature. The first is an extension of municipal services from the Village to this property. The property currently does adjoin the Village limits which are on the west side of Lake Pleasant Road.

The second alternative would be to develop a package treatment plant. Through the planning process it was determined that the development of package treatment plants throughout the Township was undesirable. A proliferation of these plants could impact the waters of the Flint (tributaries) tremendously from discharges or potential overflows. Further, the location of this site to the Village's system does not make the construction and capitol cost of such a plant a logical alternative.

It is anticipated that this development in some form will share a drive(s) with the planned commercial area at the immediate corner. This will allow the driveways for the commercial property to provide ample separation between the drive and the intersection of Lake Pleasant and North Branch Roads.

Some form of screening will be necessary between the surrounding farmland and residential properties as the multiple family development is constructed. Being a similar but not like use allows for a milder method of screening. Intense landscaping would likely provide a sufficient enough buffer between such these uses.

MANUFACTURED HOUSING COMMUNITY

The Township has not planned for any additional land area for Manufactured Housing based on the availability of units within the current community located within the Village near the intersection of M-90 and Lake Pleasant Road.

NATURAL RESOURCE CONSERVATION

The Natural Resource Conservation designation was developed in response to the Township's long-standing concerns relative to flooding along the main tributary within the Township. The permitting of housing in close proximity to such a potential hazard is undesirable without close scrutiny by Township, County and potentially State Officials.

This area is generally characterized by the presence of potential floodplain area as well as major wetlands as shown on the Township's general wetlands mapping. Most of these wetlands are either forested or shrub scrub wetlands. This is also reflected in the Township's generalized woodland mapping. Therefore, the preservation of the woodlands in this area is also important to maintain the character of the existing wetland system.

Within the Natural Resource Conservation designation permitted uses would consist of low impact uses such as farming (use of best management practices for water quality are encouraged), parks, and the like. It is anticipated that the development of single family homes would be permissible after special land use approval



in those areas designated as Natural Resource Conservation. This would allow the Township discretion in reviewing how any structure or residence would impact the potential floodplain and likely wetland area.

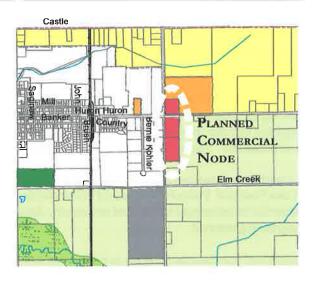
COMMERCIAL & INDUSTRIAL PLANNING IMPLICATIONS

Nonresidential land uses encompass a relatively small percentage of land in the Township, while playing an important role in the local economy. Access to jobs, services and other retail opportunities are all issues that the Township must consider when reviewing potential locations for nonresidential uses, while also considering the Township's ability to provide services for those uses. The rural character of the Township must also be weighed heavily. This is reflective of the relatively small scale of the planned commercial areas. Finally, residents of a rural Township are typically more willing to travel further for access to goods and services, typically to the Village of North Branch or other adjacent Townships.

Planning for a responsible amount of commercial acreage — The development of commercial uses in the Township is dependent on a number of factors, the most important of which is the availability of a sufficient amount of land zoned for commercial purposes. In some instances, municipalities, in their zeal for tax base, zone more land than can be absorbed for retail use. This excess of zoned retail land over reasonable anticipated demand is commonly termed overzoning. It is worthwhile to analyze how projected commercial acreage demands compare with existing commercially zoned acreage totals. Currently, only a minimal amount of commercial property is necessary in addition to the Village's commercial core.

Planning for access management – Access management strategies should be implemented wherever possible throughout the Township. In particular, North Branch Road and Lake Pleasant Road are the two areas where most nonresidential development may occur. As the limited amount of new development occurs, consideration should be given to the location of driveways and curb cuts in relation to other drives and roadways. Cross access agreements and stub drives between sites should also be secured to further increase connectivity and reduce unnecessary turning movements onto main thoroughfares in the Township.

Minimize impact of commercial/industrial sites on residential properties - The location of both commercial and industrial areas must take into



account the intensity and the potential for nuisances that may be associated with particular use types. The Plan should strive to minimize or mitigate any potential compatibility problems that may appear wherever residential and nonresidential uses share a common boundary. Where these situations exist, careful attention should be directed to site plan review to mitigate any potential nuisances through careful building placement, appropriate setbacks, and the provision of buffering and screening. This issue is most prominent on the west side of the planned industrial area on Lake Pleasant Road where nonresidential development will abut residential land uses.

Limit access to major thoroughfares – Access for planned industrial areas should be limited to major thoroughfares which have the ability to accommodate the traffic which is typically generated by an industrial park. This includes both vehicular traffic as well as major truck traffic. Consideration must also be given to how the turning movements as well as hours of traffic will impact adjacent non-like land uses.

COMMERCIAL

The Township has only planned several modest areas for commercial use. A total of approximately 25 acres are planned for commercial purposes. This includes both sides of North Branch Road on the east side of Lake Pleasant Road. Again, these are the two major roadways within the Township and would provide the most pass by traffic for a commercial venture. The total number of households within the Township as well as the Village suggests that only a small amount of commercial land use is necessary in the overall area. With the presence of a functional downtown as well as the outlying office and commercial uses within the Village on North Branch Road, others areas of commercial land use were not deemed necessary. As the Township continues to grow, future plans will likely need to incorporate additional commercial areas within the southern portion of the Township.

The intent of the commercial node located at the northeast corner of North Branch Road and Lake Pleasant Road is for a lower intensity commercial development to be constructed. It is not the intent to have a high traffic or high noise generating type of use. This will minimize impacts on the surrounding planned multiple family development. The site should not be impacted by wetlands. However, the soils depicted on the site indicate that the limitations for septic systems are severe.

The access for the commercial site on the north side of the North Branch Road should be coordinated with the access to the surrounding multiple family site. This would allow for an acceptable separation between Lake Pleasant Road and the entrance to the development as well as from North Branch Road to the north. If developed separately, cross access and joint access easements will be necessary.

As the development of the commercial and multiple family site occurs on the north side of North Branch Road buffering between the two uses will be necessary. If developed jointly, the design for screening should be integrated into the overall site design. If developed separately, the screening will need to be provided on the commercial site. This would consist of heavy evergreen plantings within a designated greenbelt.

As a part of the development/redevelopment of the site located on the south side of North Branch Road and east of Lake Pleasant, it should be ensured that screening and buffering is provided which is adequate for any future residential development to the east and south. Again, this could consist of heavy evergreen plantings within a designated greenbelt.

If additional commercial acreage is necessary, several small parcels exist on the east side of Lake Pleasant Road, immediately north of Elm Creek. These properties would be across from the existing industrial park and adjacent to the remainder of the planned commercial area to the north.

The existing commercial site located on the west side of the Village is surrounded by the Natural Resource Conservation designation which should limit the future impacts of the area. The surrounding area is potentially wetland and floodplain area. The expansion of the site further to the west is not foreseen.

INDUSTRIAL

The Township has planned a total of approximately eighty (80) acres of land for industrial purposes. This land is currently vacant, but does lie just to the south of the Village's current industrial park.

The land area, being vacant should be developed as a planned industrial park with a common drive which provides access to Lake Pleasant Road and potentially Elm Creek Road. The primary access however, should be to Lake Pleasant. This would be similar to the Village's industrial park. Individual access from each lot to either of the exterior roadways should be limited. This will increase roadway efficiency as well as decrease the potential for traffic incident. The main drives/roadways should provide appropriate acceleration and deceleration lanes as well as bypass lanes (as appropriate).

The soil conditions for the area indicate that for conventional septic systems the limitations are moderate to severe. However, most industrial users require a minimal amount of septic/sewer capacity. This fluctuates depending on the exact type of industrial user however. The site should not be impacted by wetlands or other areas prone to flooding. The generalized mapping does not indicate the presence of any wetlands on either site.

The planned industrial park is adjacent to municipal services on the north side of Elm Creek. If necessary, the utilities could be extended to the south side of Elm Creek to service the planned industrial park in an effort to provide additional tax base for both municipalities. Extensions outside of the planned industrial park should be limited or not permitted.

Along the southern and western property lines, major screening should be provided which will shield any future residential users of the Agricultural Residential property or the Natural Resource Conservation property to the south from impacts of the industrial use. This should consist of a major greenbelt of at least 20-25 feet, with a berm of at least 3-4 feet in height. In addition, evergreen tree plantings atop the berm planted at a height of six feet would also help buffer, potential impacts.

A natural extension of the planned industrial park, if necessary, would be to the west, between the planned park and the former railroad tracks. This would provide an additional eighty (80) acres of industrial property. This additional acreage should only be considered if the majority of the planned park at Lake Pleasant and Elm Creek is filled, or if a large user(s) need additional acreage for expansion or development.

Outdoor storage for any of the users should be generally screened from both the adjacent public thoroughfare as well as any adjacent residents either current or planned. The screening noted above should provide adequate screening along the western and southern property lines. Landscaping along the exterior roadways should also be provided which not only provides an aesthetic view from the road, but also acts as a buffer from outdoor storage areas.

PUBLIC

The Township has planned one area for public purposes. The public designation is located on Elm Creek Road along the southern boundary of the Village. This property is currently the site for expansion of the North Branch School District and will be utilized for school building purposes. This area entails approximately 19 acres of property. As developed, this property may be petitioned for annexation into the Village.

This property is intended to be developed or maintained for public properties. Private property shall not be included within this designation. It is anticipated that the schools will provide the Township with site plan review ability in a cooperative effort, even though full review is not required based on State Statue.

VILLAGE OF NORTH BRANCH

In a joint planning effort, the Township along with the Village of North Branch have determined that the vast majority of the commercial and high density residential development necessary for the area should be directed to the Village. This includes the immediate downtown core as well as those areas of the Township immediately adjacent to the Village along North Branch Road. If necessary, these areas may be available for a mutual annexation or other boundary/service agreement between the Village and Township to provide municipal services such as sewer and water to help accommodate the needs of each business.

Each individual request for municipal service will need to be reviewed by the Township to ensure that the needs and boundaries of the Township are maintained in an acceptable manner. It is anticipated that some form of revenue sharing will be provided to the Township for allowing a such a property transfer or agreement. Further, the overall density and land use should also be acceptable to the Township. This can be entered into any agreement for transfer or service.

Further, in terms of all land areas adjacent to the Village, the Township understands that some uses and land densities will require sewer and water infrastructure and may need to receive these amenities from the Village. Therefore, the Township understands that a mutually agreed upon service agreement in those areas immediately adjacent to the Village may be necessary.

At this time, the capacity of the Village's sewer system is limited. Therefore, any extension or further service of properties within the Township will need to be accompanied by improvements to the overall sewer system. The current system is a lagoon system and any additions to the existing lagoons will need to meet the standards for an L2 Lagoon as well as receive proper discharge permits from the State. The Village does have additional land for such improvements and/or expansion. The Village's existing water system does appear to have capacity to service properties within the Township.

It should be noted that sewer or water infrastructure should not be extended into areas planned for Primary or Secondary Agricultural Residential Areas. This will help preserve the large lot and agricultural character of the area. Further, the extension of services should not be utilized to achieve increased residential densities regardless of location. The extension of infrastructure shall only be utilized to service the existing planned densities.

BUILD OUT ANALYSIS

The following section provides a estimation of the total number of homes which may be expected upon complete buildout of the Township. These estimations are based on a simple buildout analysis which assumes a development density factor of 0.7. This allows for land area dedicated for roadways, stormwater retention systems, wetlands and floodplains and other land constraints. The estimations due not take into account the market preferences or extreme constraints for development. Therefore, the actual buildout of the Township will likely be much less than that depicted.

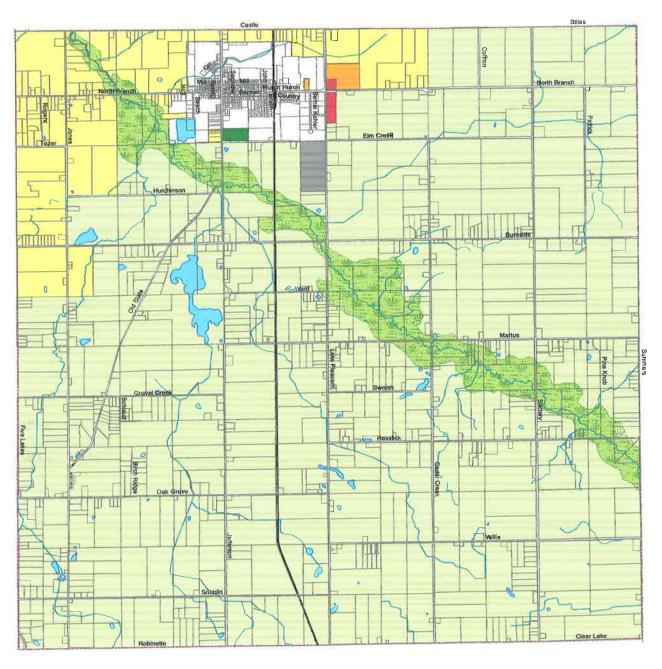
Master Plan Designation	Total Number of Acres	Planned Density	Development Density Factor	Total Number of Dwellings
Single Family Residential	2,165	1.0	0.7	1.516
Agricultural Residential	19,318	0.5	0.7	6.761
Total	21,483			8,277

The Plan depicts two (2) major land use categories. These include; Single Family Residential and Agricultural Residential. These densities range from one (1) unit per acre in the Single Family Residential designation to two (2) acres in the Agricultural Residential designation. The chart indicates the total number of acres in each Master Plan designation, the expected density, the development density factor, and the likely maximum number of dwelling units within each designation.

Based on these estimations, it can be expected that if the Township were to be completely developed, a total of 8,277 dwellings could be expected. Assuming a general family size of approximately three (3) persons per dwelling, it could be expected that a total of 24,831 persons would occupy the Township within the two (2) single family residential designations.

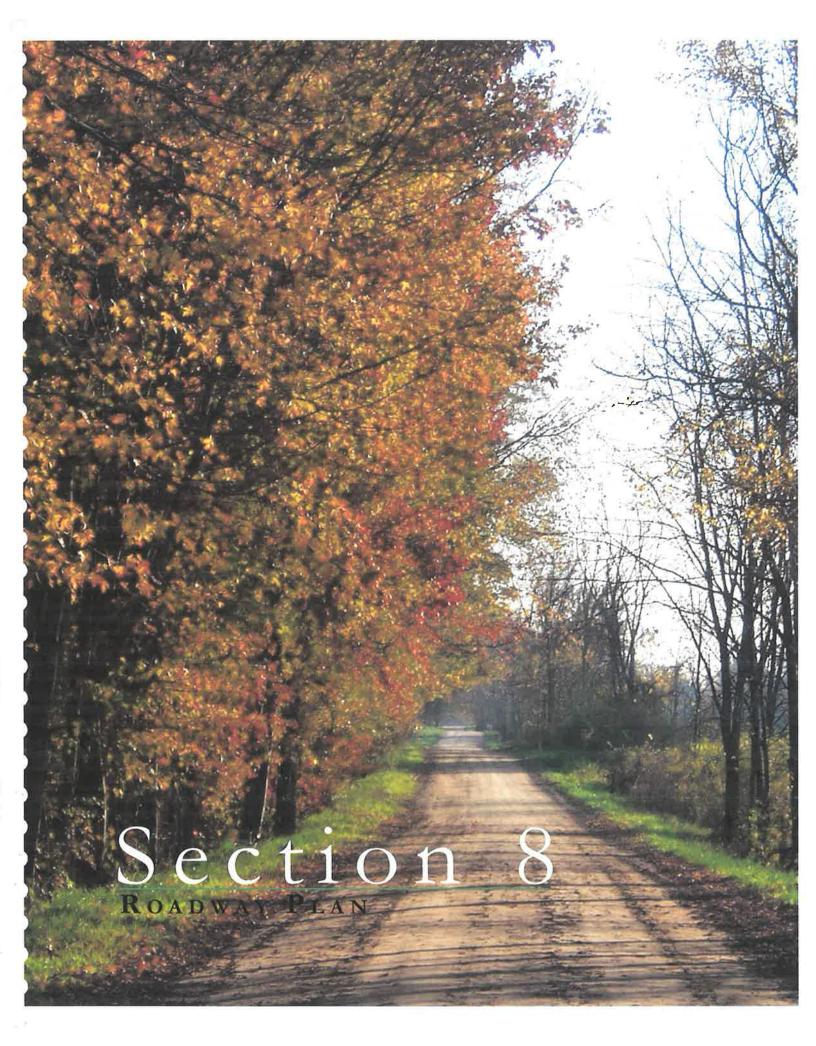
The Township has also planned a small area for multiple family residential. This area occupies a total of approximately forty five (45) acres. Assuming a development density of four to five (4-5) dwellings per acre, a total of approximately 180 to 225 dwellings could be developed. Assuming an average family size of two and one half (2.5) persons per multiple family dwelling an additional 450 to 560 persons could be expected.

^{*}Density as referred to in this Plan, does not guarantee any specific number of lots from any individual parcel or group of parcels. Rather, density refers to the number of lots which can be split or platted on a given parcel; while meeting all of the criteria and regulations applicable to a conventional split or subdivision development. Such density calculations will likely exclude rights-of-way, lakes, rivers, streams, floodplains, protected environmental resources, and any other site feature which preclude residential lot development. The shape and size of parcel, the availability of access, and land assembly problems may also reduce the allowable density on a parcel or tract of land. Density can only truly be determined on a parcel of land once a conventional split development or subdivision has been accepted.





-			
x			20
			()
×			n n
			(3)
			7
			()
			*) :) : ()
5)			1
41			
			(*)
			6.1
			6.5
			6.5
			()
			1,3
			(-)
·			. (0)
			()
			J.
			1
•			



INTRODUCTION

Preparation of a Thoroughfare Plan has several practical applications that have important consequences for the community's ultimate development pattern. Through the identification of future right-of-way locations and standards, a community establishes the system of roads that will provide access for current and future development. Furthermore, the cost of acquiring future road right-of-way can be significantly reduced if the necessary reservation is done well in advance of future road construction.

Establishing right-of-way locations and standards through the Master Plan process provides the community with some authority to request right-of-way reservations through the land development process. Designating right-of-way widths also helps a community establish consistent setback requirements, which are accomplished through the administration of a Zoning Ordinance. This minimizes the potential of having to acquire homes or businesses when road widening becomes necessary.

CURRENT ROADWAY TRENDS

The two (2) main north / south arterials for the County are M-53 and M-24.

The two (2) main east / west arterials for the County are I-69 and M-90.

The County has a total of fourteen (14) Class Λ designated roads.

The County has a total of thirty nine (39) roadway segments with County restrictions.

The Thoroughfare Plan provides the community with an opportunity to coordinate local transportation planning activities with those occurring on a regional or State-wide basis. Roads are the physical improvements that link communities together. Coordinating the planning associated with the regional transportation system offers some opportunities to consider mutually compatible land use policies relating to these needs. Finally, roads make a significant contribution to the community's image and identity.

Three topics are considered in this report. The first of these is an identification of thoroughfare planning concepts. Broadly accepted concepts are offered as a way of providing a common basis of understanding or vocabulary. The next section describes the characteristics of North Branch Township's local road system. The report concludes with a description of the Thoroughfare Plan. Major proposals and recommendations for the future are also offered.

TRANSPORTATION PLANNING CONCEPTS

Roads are grouped into a number of different classifications necessary for administrative, design and planning purposes. Most classification systems make a distinction based on the intended purpose of the road and the geographic areas it is intended to serve. Common road classifications include major thoroughfares, collectors and local roads. Each classification carries with it suggested minimum design standards.

The benefit of a classification system extends beyond providing a common understanding or transportation planning vocabulary. Such a system establishes a functional system, permitting a community to relate categories of streets to various land use activities that they are best suited to serve.

Classification systems should reflect the specific category and intensity of land use that they are designed to serve. In applying a classification system, the through-traffic movements and the access requirements of abutting property should be considered. A commonly accepted classification system prepared by the National Committee on Urban Transportation is identified on the following page.

Major Thoroughfare - This class of road brings traffic to and from regional connections and serves those major movements of traffic within or through the Township that are not served by regional connectors. Major Thoroughfares interconnect the principal traffic generators within the community, as well as important rural routes. Major Thoroughfares handle trips between different areas of the community and should form a reasonably integrated system. The length of the typical trip on the system typically exceeds one (1) mile.

Collector - This class of streets serves internal traffic movements within an area of the community, such as a subdivision, and connects this area with the arterial system. Collectors do not handle long through-trips and are not, of necessity, continuous for any great length. In gridiron road patterns, like Township section line roads, however, a road of several miles in length may serve as a collector, rather than a major thoroughfare, if the predominant use is to reach the next junction with an arterial and turn at that point.

Local - The sole function of local streets is to provide access to adjacent land. These streets make up a large percentage of the total street mileage of a developed township, in non-developed Township's many roads are typically designated as major thoroughfares. In many instances local roadways carry daily volumes of 1,000 or less.

STANDARDS

Standards for road development vary by the type of road and the level of government that has jurisdiction over the development and maintenance of the road. In Lapeer County, this responsibility is shared by the Michigan

Department of Transportation (MDOT) and the Lapeer County Road Commission (LCRC). A summary of relevant road right-of-way and pavement requirements for Lapeer County Roads is included in the adjacent Table and Illustration.

Road Classification	R.O.W. (1)	Pavement
Major thoroughfares	150 feet	19
Section line roads	120 feet	-
Half-mile/Quarter-section or Collector roads	86 feet	36 feet
Residential subdivision streets	66/80 feet	30/24 feet
Cul-de-sacs	75-foot radius	56-foot radius

⁽¹⁾ Right-of-way refers to a strip of land within which the road surface, shoulders, drainage structures, sidewalks and utilities are located.

ROADWAY PLANNING IMPLICATIONS

Development of roadways and roadway improvements must be consistent with planned densities—
There is a direct relationship between the need for roadway connectivity and roadway improvements with the density or intensity of land use. The area of the Village and the planned densities surrounding the Village within the Township would suggest that roadway improvements should be concentrated around the Village area as well as those areas planned for single family residential. Further, planned roadway configurations in this area should also contemplate right of ways sufficient for additional lane construction or at a minimum acceleration, deceleration and bypass lanes as appropriate.

Maintaining a Rural Atmosphere – The majority of North Branch Township is "rural" in character. The land use plan stresses the fact that this character should be maintained. This is also a key point in roadway section of the plan. In addition to land use, roadways provide a passerby with an impression of the overall community. Therefore, roadways within the Township should be maintained in an appropriate condition, however, careful attention should be given to limit clearly of trees and brush along roadways, extensive roadway improvements which alter the nature of an area and finally that the planning densities planned for the majority of the Township should allow for the roadways to remain as gravel.

Ensure as new development does occur that proper spacing, improvements, and sight distances are maintained - Inevitably, development will occur within the Township in the form of lot splits, small subdivisions, commercial and industrial sites, etc. As each development comes forward, reviews of the driveway/roadway spacing, acceleration/deceleration lanes, etc. must be reviewed. This will allow for a safe and efficient traffic flow to be maintained.



SURFACE RATING - LAPEER COUNTY ROAD COMMISSION

The Lapeer County Road Commission prepares surface ratings for a number of roadways within the County. This includes several roadways within the Township. These includes Burnside Road, Lake Pleasant Road, Jefferson Road, Clear Lake Road and Elm Creek. Based on the information provided by the County, Elm Creek Road (between Lake Pleasant and Jefferson Road), Lake Pleasant Road (between M-90 and Burnside and between Martus and Clear Lake Road), and Jefferson Road (between the Village boundary and Burnside Road) are all rated as either good or excellent and only require routine maintenance.

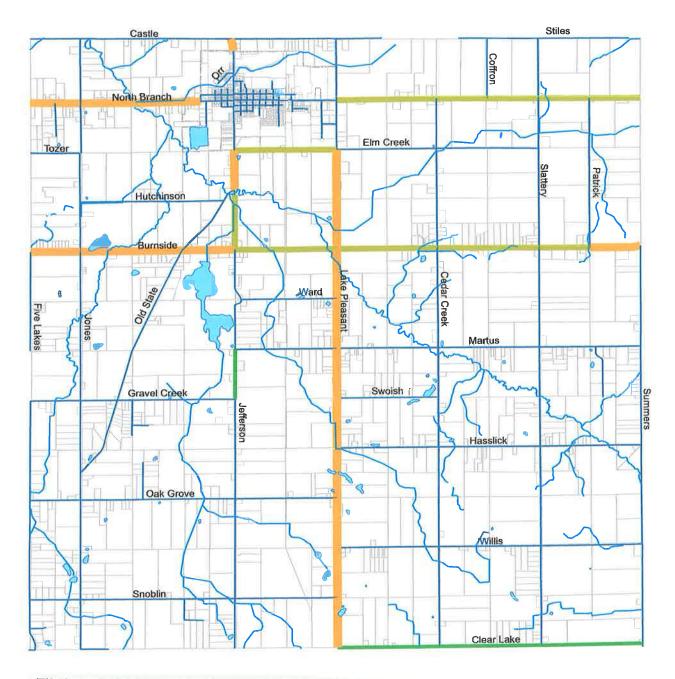
Burnside Road (between Five Lakes and Summers), Clear Lake (between Lake Pleasant and Summers) and Lake Pleasant (between Burnside and Martus) are rated as fair and may require capital preventative maintenance.

No roads within the Township were officially rated as being poor and in need of structural improvements.

TRAFFIC COUNTS - LAPEER COUNTY ROAD COMMISSION

The County Road Commission has also collected road counts for the majority of the roadways within the Township. The largest traveled roadways are Burnside Road, Lake Pleasant Road, M-90, Jefferson (north of Burnside), and Clear Lake Road. The majority of Lake Pleasant Road has traffic counts in excess of 3,000 vehicles per day. Traffic counts on Burnside Road range from 1,771 and 3,864 vehicles per day. Traffic counts on Clear Lake Road are approaching 1,000 vehicles per day.

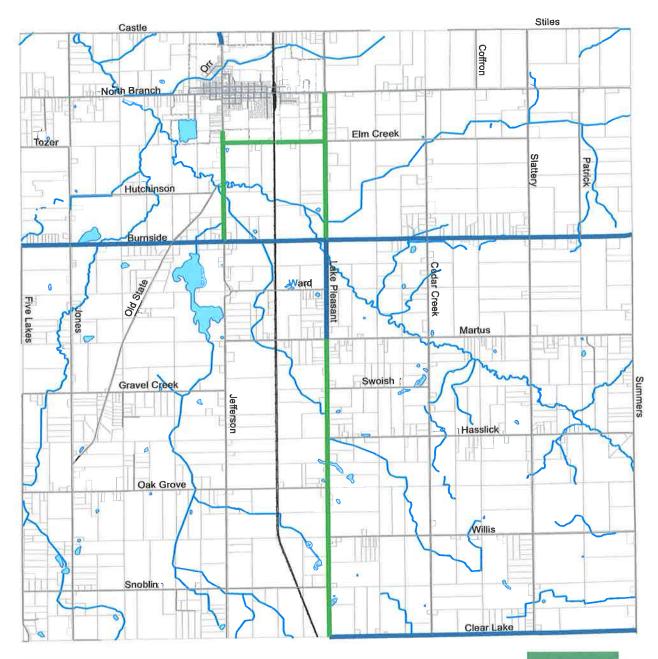
The remainder of the roadways within the Township have a substantial less amount of traffic traveling on them on a daily basis. Typical ranges are from double digit counts to several hundred vehicles. Typically, a traffic count of over two thousand vehicles per day is seen as the maximum traffic load that a gravel roadway can accommodate without major breakdown.



TRAFFIC COUNTS-LAPEER COUNTY ROAD COMMISSION Vehicles Per Day —— 0 - 500

Vehicles Per Day 0 - 500 501 - 1000 1001 - 2500 2501 - 5000





SURFACE RATING - LAPEER COUNTY ROAD COMMISSION Illustration 8-2

8-10 Good Excellent (Routine Maintenance)

5-7 Fair (Capital Preventative Maintenance)

THOROUGHFARE PLAN

The Thoroughfare Plan incorporates the visions and strategies outlined in this plan, along with the inventory information and concepts and standards introduced in this section. Major proposed improvements needed to support the land use and community facility elements of the Plan are identified on the following pages.

Traffic Planning Principles

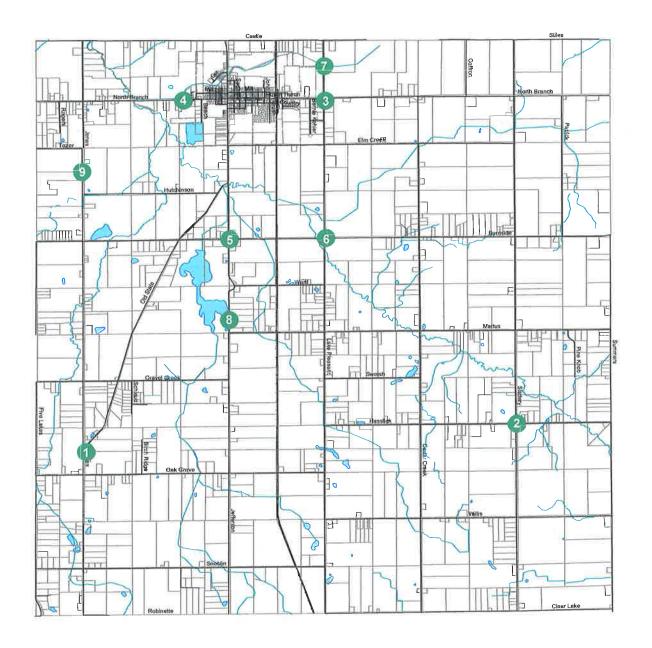
Certain general principles have been recognized by planners and traffic engineers as conducive to sound transportation planning for urbanizing communities. These principles may be summarized as follows:

- 1. There must be coordination between the Thoroughfare Plan and existing and proposed land usage in order to achieve a trafficway system that may efficiently service the land use patterns.
- 2. Because of its permanency, the existing road system must form the basis for long-range transportation planning, with modifications in the system made, where necessary, to accommodate future needs.
- 3. Existing and anticipated traffic volumes must be considered and provisions made to accommodate the increased traffic and changing trip movements generated by population growth.
- 4. There must be correlation between the Thoroughfare Plan and residential neighborhoods so that the Plan will provide for adequate service to the neighborhoods but, wherever feasible, not bisect them with heavily traveled routes.
- 5. A comprehensive network of direct, continuous routes must unite all parts of the Township insofar as is compatible with geography and land use so that improvement is achieved in the overall traffic flow and trip time in the Township.
- 6. Modern design standards must be utilized in planning width of right-of-way and pavement and other development characteristics of the roads.
- 7. The Plan must consider the proposals of road planning agencies throughout the region in order to achieve a complete and functional road system.

PLANNED IMPROVEMENTS

- Improve alignment of Old State and Jones Road This intersection comes together at nearly a forty five (45) degree angle. Currently traffic counts are relatively low on both of these roads (approximately 224 on Old State Road and 36 on Jones Road, immediately north of the intersection). As traffic increases and issues caused by the undesirable intersection angle will be amplified. Additional right of way in this area may allow for the realignment of Old State Road to intersect with Jones Road at a right angle. The additional right of way will need to be purchased from the adjacent land owners in conjunction with the Road Commission.
- Improve alignment of Hasslick and Slattery Currently the alignment of Slattery as it crosses Hasslick is misaligned by approximately fifty (50) feet. Generally, the goal of traffic planning is to either align intersections or separate them as far as possible. Within the current and proposed right of way for these two (2) roads, Slattery could likely be realigned to provide a straightened intersection which would not require a traffic shift through the intersection. Traffic counts at this intersection are still rather low, much like the improvement described previously, the effects of the alignment will likely be greater.

- Traffic signal at the intersection of M-90 and Lake Pleasant Road Currently the intersection of M-90 and Lake Pleasant Road is a non-signalized intersection with through traffic on M-90 and stop traffic on Lake Pleasant Road, traveling north and south. Improvements to the intersection to help notify travelers that cross traffic does not stop have been added to the intersection. With existing and planned growth at this intersection it has been determined that additional warrant studies should be done at this intersection in an effort to have a full traffic signal placed at the intersection to manage traffic.
- Replacement and relocation of existing speed limit signs on M-90 come into and out of the Village As part of the planning process it was noted that the speed limit signs placed at the west and east ends of the Village to reduce traffic speed coming into the Village were actually placed too far into the actual Village limits. It was determined that if the signs were placed approximately two hundred to two hundred and fifty feet further to the west and east accordingly (into the Township) that actual vehicle speeds would be reduced at the actual boundaries of the Village and along M-90.
- Traffic signal at the intersection of Burnside and Jefferson Roads These two roads are two of the highest traveled roadways within the Township, likely due to the roads being paved. As traffic continues to increase, additional studies should be performed to determine if a traffic signal is warranted at this intersection.
- Increased notification of intersection at Burnside and Lake Pleasant Roads As a part of the planning process, it was noted that the current intersection notification for Burnside and Lake Pleasant Road needs to provide additional notification in terms of distance and visibility. This additional notification will likely reduce the number of vehicles which cannot adequately stop and run through the intersection.
- Pave Lake Pleasant north of M-90 In conjunction with any development of the northeast corner of M-90 and Lake Pleasant roads, designated on the Master Plan, Lake Pleasant Road should be paved north of M-90. The paving of this road section will allow for increased carrying capacity of the road to accommodate the additional traffic generated by the additional planned density.
- Pave Jefferson south of Burnside As one of the main arterials running north and south through the Township, the Master Plan calls for the paving of Jefferson, south of Burnside. This will allow those residents traveling to and from the Village a paved access road to the south.
- Pave Jones south of M-90 to Burnside In an effort to provide another alternative route traveling around the Village, the paving of Jones Road would allow a traveler to utilize roads such as Jones, Burnside, and Lake Pleasant to bypass the Village.
- Improve maintenance of gravel roadways throughout the Township The Township has taken the issue of gravel road maintenance on their own shoulders by passing a bond issue to improve the overall condition of the roads within the Township by providing additional grading and graveling of roads. In the future, additional millages or bonding may be necessary to maintain the roads as desired by the Township and the residents. Any effort to do so will be seen as meeting one of the Township Master Plan goals.



THOROUGHFARE PLAN - MASTER PLAN PLANNED IMPROVEMENTS

Illustration 8-3

RIGHT-OF-WAY ALLOCATION

Major Thoroughfare

As noted previously, these roadways within the Township would have a planned right-of-way of one hundred and twenty (120) feet. These roadways are typically section line roadways and have been designated as those roadways which carry traffic through the community to destinations outside the Township. A major roadway designation suggests that additional roadway improvements are necessary which may include additional paving, lanes, turn lanes, bypass lanes, etc. The need for additional lanes would likely not be necessary within the timeframe of the Master Plan.

- Burnside
- Castle
- Clear Lake
- Elm Creek (Between Jefferson and Lake Pleasant)
- Jefferson
- Jones
- Lake Pleasant
- North Branch
- Oak Grove
- Slattery

Collector Roadway

Collector Roadways are those roadways which are typically half section line roads or those roadways which connect to major roadways and have a planned right of way of eighty six (86) feet. Typically, a collector roadway will not have improvements beyond a two lane configuration. Again, these types of improvements in the case of North Branch would be extremely long term.

- Elm Creek (between Lake Pleasant and Slatery)
- Old State

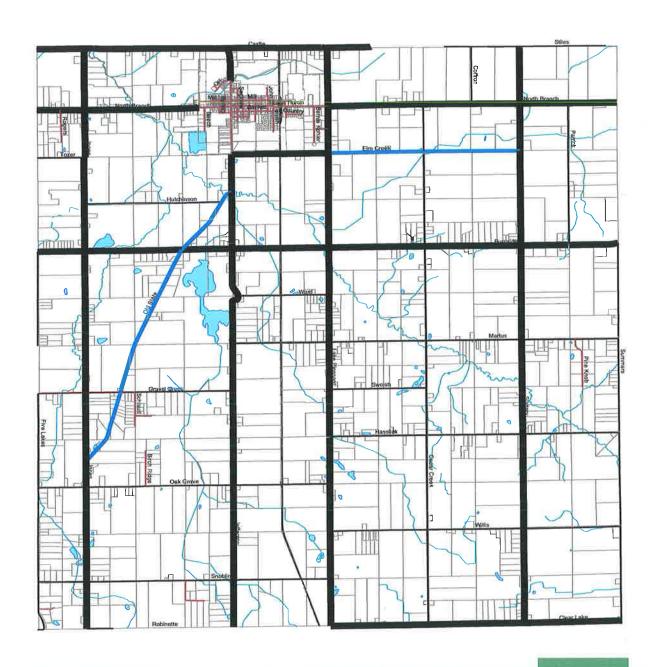
Local Roadway - Connector

The remainder of the of main County road system which has not been designated as either a major roadway or as a collector roadway will remain as a local roadway. These roadways will maintain their sixty six (66) foot road right of way. Future improvements beyond a two lane capacity are not foreseen.

-	Cedar Creek	Patrick
	Coffron	Snoblin
	Five Lakes	Stiles
	Gravel Creek	Summers
	Hasslick	Swoish
	Hutchinson	 Ward
	Martus	 Willis

Local Roadway

All subdivision and development roads



FUTURE ROADWAY PLAN

Illustration 8-4

Major Thoroghfare

Collector Roadway

Local Roadway - Connector

---- Local Roadway

COORDINATION WITH OTHER AGENCIES

North Branch Township does not have any direct control over the maintenance or improvement of the road system serving the community. The principal control over local roads rests with the Lapeer County Road Commission.

In spite of the lack of control over the major road system, the Township can directly influence the amount of traffic generated on these roads through careful land use planning. With its extensive gravel road system, North Branch Township, through the Master Plan process aims to limit densities in areas of the community where the existing road infrastructure would become unduly burdened by added traffic. Efforts to maintain a minimum Level of Service (LOS) of "C" on all roads will allow residents to move freely throughout the Township, without the worry of traffic congestion.

The Township can also influence the road improvement process by maintaining an ongoing relationship with those agencies responsible for transportation issues, including the Road Commission, the appropriate regional planning agencies, etc. which coordinate the regional transportation planning process. Sharing local planning issues with officials at these agencies assists them in their efforts to allocate funding for existing or anticipated transportation needs.

North Branch Township shall require, in their continuing planning and implementing ordinances, sufficient setbacks so that additional right-of-way requirements can be met clear of obstruction. The Township's proposed future right-of-way plan is provided at the end of this Section. Commercial and industrial uses should be closely regulated with respect to turning movements, number and location of curb cuts, bypass lanes, parking, setbacks, signs and displays. To implement the Plan successfully, the Township must rigidly enforce these and other requirements necessary to protect the public health, safety and welfare of its residents.

ACCESS MANAGEMENT

Access management and internal circulation are critical elements in creating a safe and efficient roadway system. The capacity of a regional or major thoroughfare can be enhanced, and its useful life extended, by careful attention to access controls and circulation between adjacent sites. This coordination and review will also likely reduce the total number of access drives as well as the total number of conflict points. The Township has the ability to implement access management standards which will allow for the proper planning and placement of access drives in the Township. If not implemented as new development occurs, the Township will be faced with the difficult task of eliminating access drives on a piecemeal basis.

The concept of access management is based on granting owners of property along a specified roadway, specifically those owning commercial, office or industrial, access to their property, but not unlimited access. There are many access management standards which can be implemented within the Township. These include driveway spacing, limiting the number of access drives, and shared drives. As part of the Master Plan, the Township has noted the following objectives for access management.

Joint Access Easement

One method of reducing the need for access drives onto major thoroughfares is to provide joint or cross access easements between sites. During the site planning process, consideration should be given to the alignment of parking lot maneuvering lanes which would allow for continuous and safe travel between parking lots. Joint access easements allowing for such travel should be required prior to site plan approval. These documents will require review by the Township Attorney, as well as the Township Engineer.

Maximizing Corner Clearance

Curb cuts for properties located on a corner parcel require special attention. Access drives and curb cuts should provide the maximum amount of spacing possible from the intersection to the curb cut. Further, in most cases, the access drive should be limited to the secondary roadway rather than the primary. This will help in channeling vehicles to a common intersection rather than creating new turning areas.

Maximize Clear Vision

Particular attention should be given to the areas of the Township where commercial access drives would be located on curves or portions of roadways with varying topographic height. Clear vision for motorists in this area should be reviewed carefully due to potential blind spots. If possible, access drives should be located in such a manner where clear vision in both directions is maximized.

Maximize Drive Offset

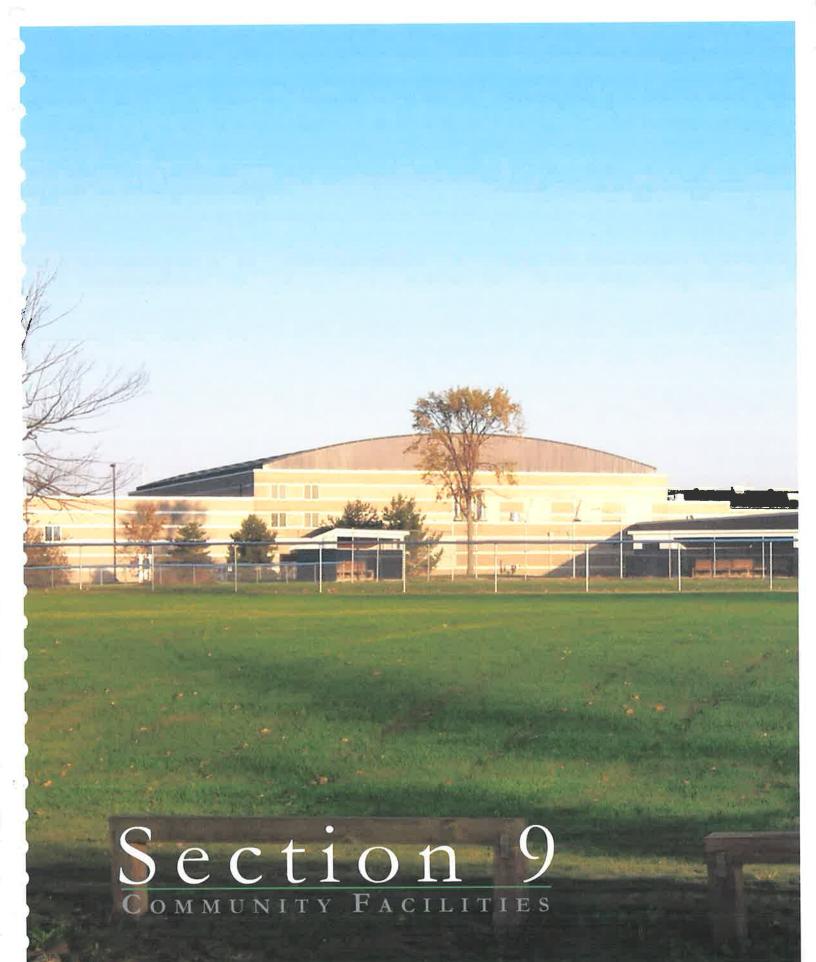
The Planning Commission, in their review of site plans, needs to pay particular attention to driveway offsets. Driveways and roadways on opposite sides of the road can increase the potential for conflict. Therefore, if drives cannot be aligned across a street, the distance between driveway centerlines should be maximized.

Interior Parking Lot Review

The Planning Commission must give attention to interior parking lot configuration. Review of parking lot efficiency and safety will allow for traffic to move onto the site quickly, without generating traffic backups onto the adjacent roadway. Particular attention should be given to maneuvering lanes which cross the main access drive. This may cause conflict or the need for slowing or stopping.

Coordinated Review Process

The Township should establish an open line of communication between itself and the Lapeer County Road Commission. The Township does not grant driveway permits and therefore, if particular attention is to be given to a section of roadway or area of the Township, the appropriate road agency must be made aware of the goals and objectives of the Township.



INTRODUCTION

Community facilities are an important part of a municipality's overall development and, consequently, need to be considered in the preparation of the Master Plan. Those community facilities considered in this report include schools, parks, utilities, protective services, libraries, and other municipal buildings. Each of these facilities has an impact on the community's future land use pattern and are important to the operation of a community. These facilities also make a significant contribution to a community's overall identity. Often, the impression created by a particular community is directly related to its municipal buildings, schools, parks, libraries and other public buildings. This is particularly true for those suburban communities where development is dispersed over a large geographic setting, as compared to the more compact physical form of many older cities.

CURRENT COMMUNITY FACILITIES

The County currently has a number of park facilities such as General Squier Park (80 acres in Dryden Township), the Polly Ann Trail (20 miles), and Torzewski County Park (65 acres west of Lapeer)

A total of eight (8) public sanitary sewer systems exist in Lapeer County.

The County District Library System has a total of seven (7) branches while a total of four (4) libraries within the County are not, including the North Branch Library.

The Lapeer County EMS maintains a total of four stations, two (2) in Lapeer, one (1) in Imlay City and one (1) at the North Branch Fire Hall.

PARKS AND RECREATION

North Branch Township does not maintain any parks within the boundaries of the Township, nor does it have a parks and recreation department. Currently the School District provides most of the recreational opportunities for residents of both the Village and the Township. However, the Village does have a small pocket park located on the north side of M-90, east of downtown. The acquisition of additional parkland within the Township is not foreseen within the timeframe of the Master Plan. The Agricultural Areas Plan does promote the long term preservation of farmland within the Township which may also include open space preservation. The provision of park areas and recreational opportunities will be left with either the Village or the School District.

The installation of pathways within the Township is not foreseen within the timeframe of the Master Plan. The Township however, does promote the installation of sidewalks and/or pathways throughout the Village, especially along M-90 within the Village limits. The opportunity to convert the railroad right of way into a rails-trails trailway is not possible since the property has been transferred back to the adjacent land owners.

The Township's Master Plan does promote the concept of joint applications with the Village of North Branch for grant opportunities for recreational improvements, whether within the Township or within the Village boundaries.

Finally, the Master Plan does not envision the creation of a parks and recreation department to facilitate recreation programming. As the Township grows and the need for such a department is expressed by the residents, the Township should formally create a department or a recreation commission to appropriate plan for parks and recreation opportunities.

TOWNSHIP HALL

The North Branch Township Hall is located on the north side of M-90, west of the immediate downtown of North Branch. The Township Hall serves as the offices and meeting hall for all Township functions. This includes office space for the administration, such as the Supervisor, the Clerk, assessing, and general day to day operation.

Based on the size and current usage of the Township Hall, it is not foreseen that any expansions or significant renovations of the building will be necessary over the timeframe of the Master Plan. As the Township continues to grow and the Master Plan is implemented and the need for additional employees and office space arise, the Township will need to undertake a needs assessment study for potential future expansion of the Hall as to appropriate location of such expansion as well as the size.

FIRE DEPARTMENT

The Township Fire Department is located immediately behind the Township Hall. This facility appears to adequately house the fire equipment operated by North Branch and therefore any expansion of the facility is not foreseen within the timeframe of the Master Plan. Again, as the need arises due to growth, the Township will need to undertake a needs assessment which should include the appropriateness of either expanding the current Fire Hall or constructing a second hall, likely located in the southern portion of the Township.

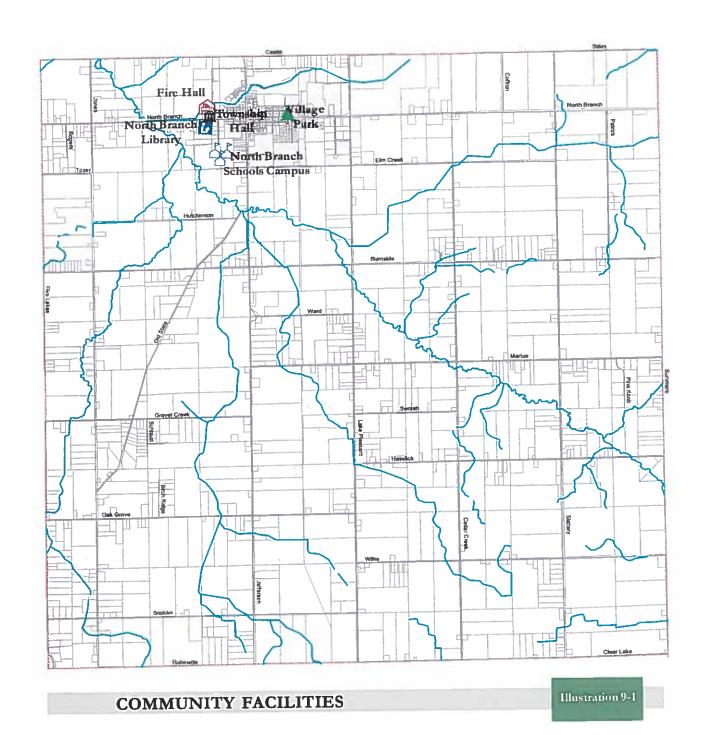
Further, the Fire Hall is also home to a satellite station for the Lapeer County EMS. When the Fire Hall was last expanded adequate space was built into the facility to provide space for the housing of rigs and offices.

POLICE PROTECTION

The Village of North Branch maintains a police force which includes a total of six (6) employees including full and part time personal. This includes a Police Chief, one (1) full time officer, one (1) full time officer, one (1) full time officer, one (1) full time officers. The police department maintains two (2) police time school liaison, and three (3) part time officers. The police department maintains two (2) police vehicles. The Village Police are only available to Township residents as first responders. General patrol or enforcement is the responsibility of the Lapeer County Sheriff and the Michigan State Police. As the Township continues to grow, consideration will need to be given to increasing patrols within the Township through either increased contract responsibilities with the County Sheriff or the establishing of a contract for services with the Village.

TOWNSHIP LIBRARY

The North Branch Library is located on the south side of M-90 to the west of the Village. The library is generally open six days a week and maintains several days for late hours. The library is operated under a Board of Trustees which consists of six (6) residents of the community. The Board holds regularly scheduled monthly meetings. The library does offer online services such as online catalog, book reserve and book recheck out. Some of the events held at the library include; an annual Easter egg coloring contest, gingerbread house decorating, author visits, story time, summer reading programs and interaction with leader dogs. For planning purposes, no major expansions of the programs are foreseen as a result of the implementation of the Master Plan over the next five (5) years.



North Branch Township - Master Land Use Plan

9-5

SEWER AND WATER INFRASTRUCTURE

The Township does not maintain its own sewer and water infrastructure system. Properties within the Township are serviced by groundwater wells and septic systems. Based on the planned land uses and densities, the introduction of Township owned and operated sewer and water infrastructure is not anticipated within the timeframe of the Master Plan. Any discussion relative to the introduction of sewer infrastructure should only be conducted as a part of a thorough examination of the Township Master Plan to help determine appropriate locations, densities and land use types among others. Any land use within the Township which requires or desires sewer and water infrastructure is currently addressed with the Township and the Village.

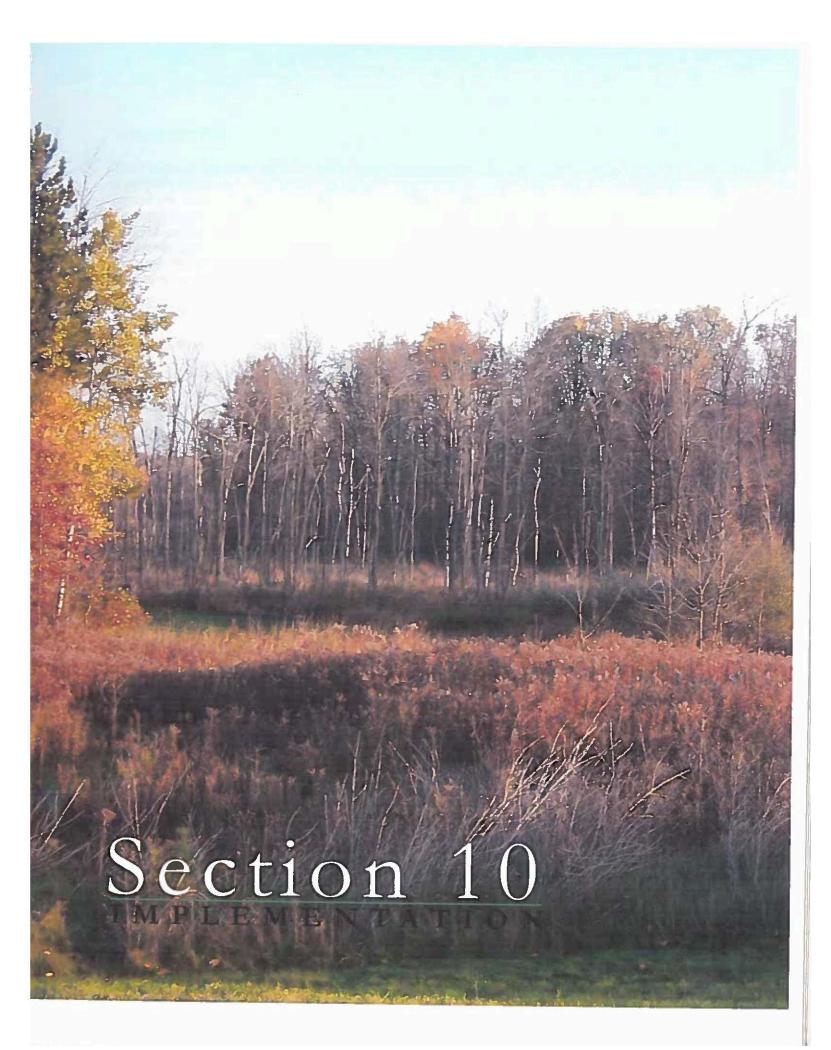
ANNEXATION / UTILITY EXTENSION

As noted within the Land Use Plan Section, the Township has planned for certain uses which may require public infrastructure to be located within close proximity of the Village. This has been done with the realization that the necessary utilities would be extended from the Village to service these properties if necessary, therefore not requiring the Township to develop its own sewer and water infrastructure at this time.

As a part of the extension, the Village's past practice has been to annex the property into the Village limits. While the Township is not completely opposed to such a process, the Township must protect its interest in that overall density, development character, and the like are all acceptable to both the Township and the Village. These issues at times can become conflictive between the Township and Village, therefore the Master Plan encourages long range policies be set for potential annexation properties.

As a part of the Master Plan implementation it may be appropriate to develop a long standing committee specific to annexation and boundary adjustments. This would allow the committee members to become acutely aware of issues relative to the transfer of property between the Township and Village and be able to provide representation to the Township Planning Commission and Township Board in such discussions.

This committee would likely consist of two smaller subcommittees (one for the Township, one for the Village) which would only come together to meet if annexation was proposed or on a yearly basis whichever is greater. The committee would likely include a Township Board Member, a Planning Commission member, or any other official or resident as deemed necessary by the Supervisor and the Township Board, and potentially a School Board member.



INTRODUCTION

The Planning Commission's thoughtful preparation and adoption of any plan would be for not without a program of implementation strategies to bring the Plan to life. The following implementation techniques permit the Township to turn potential issues or concerns into opportunities. The following section attempts to identify each specific plan recommendation with an appropriate implementation techniques and the parties involved to facilitate that recommendation. These techniques should be referred to frequently and used systematically so that the outcome is a consistent program of implementation over the life-span of the Master Plan. This "checklist" can be viewed as just that, a checklist for Township use on a day to day basis.

IMPLEMENTATION TOOLS

Following is a brief discussion of several key implementation tools available to the Township.

Zoning Ordinance Amendments

The Township's most effective tool to implement the land use arrangement of the Master Plan are zoning standards and zoning districts. A zoning ordinance is meant to be a fluid document, catering to the ideals and needs of the community. The experiences communities undergo in the application of their zoning rules and the review of unusual new land uses constantly change the body of professional knowledge related to planning and zoning standards. Periodic review of the zoning ordinance will result in the application of the most up-to-date standards in the design of new uses and the maintenance of existing developments. Review sessions may be appropriate at least annually, unless otherwise needed throughout the year.

Special Design Plans and Functional Plans

Much like the Zoning Ordinance, the Master Plan needs to be constantly reviewed. Further, sometimes a Master Plan must be followed by more detailed data or design studies in order to further identify issues, provide data for decisions making or to illustrate specific concepts that can only be covered briefly in the plan. These smaller, more specific plans can also help to implement certain ideals outlined in the Plan.

Subdivision and Condominium Regulations

Subdivision Regulations and Condominium Regulations Ordinances are valuable tools in achieving the type of residential development desired by the Township since the vast majority of the Township is planned for residential development. These ordinances should be periodically reviewed and updated to incorporate effective standards that will result in high quality, attractive residential developments.

Site Plan, Special Land Use, Planned Development, and Rezoning Approval

Many essential components of the Plan will be the subject of a site plan or special land use application, perhaps preceded by an application for rezoning or submitted as a combined "planned development." Now is the appropriate time to review the community's site plan and special land use approval processes and standards. The standards should clearly set forth the ideals and preferences of the Township. Once these standards are in place, the Planning Commission must adhere to them consistently when reviewing development proposals. The implementation of the Plan could take 20 years or longer. In order to maintain the vision, consistent application of the Ordinance standards will be essential.

Re-Evaluation and Adjustment of the Plan

The final – and sometimes most difficult – step in the planning process is the last one: reevaluation and adjustment. The process is never really finished. A community's population, economic status, goals, land uses, land use problems, and political climate are constantly changing. It is important to assess how well the Plan is addressing the present land use issues in the community, and whether amendments should be made to keep the Plan relevant and make it the most appropriate guide for the community's future land use. If the Plan no longer reflects the vision of the community, the Planning Commission can then begin the planning process again. Based on State Statute, the Plan must be reviewed every five (5) years to ensure the Plan is up to date and reflects current policy.

Category	Implementation	Responsible Party	Timeframe
Land Use	Review lot sizes within the northeast section of the Township	Planning Commission	Ongoing
Luna doo	Work with the Lapeer County Health Department in reviewing	Planning Commission / Lapeer County	
Land Use	potential lot sizes	Health Department	Ongoing
	Draft new zoning districts to implement revised lot sizes as		
Land Use	necessary	Planning Commission / Township Board	Ongoing
	Draft new zoning regulations for the preservation of areas	·	
Land Use	designated on the Master Plan	Planning Commission / Township Board	Short Term
	Draft new zoning regulations pertaining to access management		
Land Use	and driveway spacing	Planning Commission / Township Board	Mid Term
	Review screening and buffering standards between non-		
Land Use	residential and residential uses	Planning Commission	Short Term
Land Use	Review overall commercial acreage within the Township	Planning Commission	Ongoing
	Draft two separate commercial districts, providing a local and		
Land Use	general commercial classification	Planning Commission / Township Board	Short Term
	Review development of industrial properties to determine		
Land Use	necessity of industrial expansion south of Elm Creek	Planning Commission	Long Term
	Review industrial uses within the Township Zoning Ordinance		
Land Use	for appropriateness	Planning Commission	Short Term
	Draft a new regulation mandating open space preservation for		
Land Use	any residential development within the Township	Planning Commission / Township Board	Short Term
Land Use	Review the necessity for a "value added" farming ordinance	Planning Commission	Short Term
	Continue to refine agricultural preservation areas to prioritize		
Land Use	properties for preservation	Planning Commission	Ongoing
	Draft a new zoning regulation for the maintenance of a 25 foot	17.5	
Land Use	wide greenbelt along natural features	Planning Commission / Township Board	Short Term
	Develop a transfer of development rights plan in coordination	Planning Commission / Village Planning	
Land Use	with the Village	Commission	Long Term
	Qualify the Township Master Plan with the State Agricultural		
Land Use	Preservation Board	Planning Commission / Administration	Short Term
	Draft a private wastewater treatment ordinance and special land		L
Land Use	use standards for the construction of such systems	Planning Commission / Township Board	Mid Term
	Work with the County to provide Township input on future		
Land Use	revisions to the County Comprehensive Development Plan.	Planning Commission / Administration	Ongoing
	Encourage the use of open space design concepts for all		
Land Use	residential subdivison development	Planning Commission	Ongoing
	Draft a new zoning regulation for the requirement of a needs		1
	assessment to be provided for all rezoning requests over 5	L	L
Land Use	acres or for those which are inconsistent with the Master Plan	Planning Commission / Township Board	Short Term
	Work with the School District to review site plans for proposed		
	school facilities and additions which are to be located within the	Discourse Commission (Administrative	
Land Use	Township to ensure such facilities meet Township regulations.	Planning Commission / Administration	Ongoing

			â
	Develop a standing committee for the review of potential		
Administrative	annexation properties	Township Board	Ongoing
	Review appropriateness of requested annexations against		
Administrative	Township policies and Master Plan	Planning Commission / Administration	Ongoing
	Participate with the County preservation officials to develop		
Administrative	preservation options	Township Administration	Ongoing
Administrative	Work with farmers to utilize GAAMPS	Township Administration	Ongoing
	Work with farmers to utilize greenbelts and no plant areas to		
Administrative	preserve water quality	Township Administration	Ongoing
		Township Board / Lapeer County Road	
Roadways	Improve alignment of Old State and Jones Road	Commission	Long Term
		Township Board / Lapeer County Road	
Roadways	Improve alignment of Hasslick and Slattery	Commission	Long Term
		Township Board / Lapeer County Road	
Roadways	Install traffic signal at M-90 and Lake Pleasant Road	Commission	Short Term
	Replacement and relocation of existing speed limit signs on M-	Township Board / Village Council /	
Roadways	90	Lapeer County Road Commission	Short Term
		Township Board / Lapeer County Road	
Roadways	Install traffic signal at Burnside and Jefferson	Commission	Mid Term
	Install additional signage at intersection of Burnside and Lake	Township Board / Lapeer County Road	
Roadways	Pleasant	Commission	Short Term
		Township Board / Lapeer County Road	
Roadways	Pave Lake Pleasant Road north of M-90	Commission	Long Term
		Township Board / Lapeer County Road	
Roadways	Improve maintenance of gravel roadways throughout Township	Commission	Ongoing

Community Planning & Management, P.C. 43260 Garfield, Suite 230 Clinton Township, MI 48038 www.cpmpc.com

