

2015



CHARTER TOWNSHIP OF ORION MASTER PLAN

September, 2015

ACKNOWLEDGEMENTS

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Adopted By Charter Township Of Orion Planning Commission

September 16th, 2015

Accepted By Charter Township Of Orion Township Board

October 5th, 2015

Assisted by

Carlisle/Wortman Associates, Inc.
Community Planners and Landscape Architects
Ann Arbor, Michigan

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EXECUTIVE SUMMARY

The 2015 Charter Township of Orion Master Plan provides a comprehensive long-range guide to managing growth, development, redevelopment, and public investments within the community. The Master Plan identifies goals, policies, strategies and actions in which the Township, its partners, and its residents wish to pursue. The Plan was developed under the authority of the Michigan Planning Enabling Act, PA 33 of 2008. Per State statute, the Master Plan must be evaluated, and amended if needed, at least every five (5) years.

The 2015 Master Plan represents an update from the 2009 Plan; while many of the former policies remain relevant, this update addresses changing conditions and issues occurring within the Township as well as in adjacent communities. This update places a greater emphasis on growth management and provides new policy recommendations for preserving open space, maintaining a diversity of lot sizes, and establishing a greater relationship between infrastructure and land use. In addition to these changes, the 2015 Master Plan update includes:

- Updates to the Township's social and physical profile, including revised data on demographics, employment, land use, development patterns and natural resources;
- Revised data on the Township's transportation networks, including traffic counts and crash data, planned road improvements and the safety path network;
- New public input methods;
- Revised goals, objectives and policies including new strategies for economic development, residential areas and growth management;
- A modified Future Land Use Plan, including new classifications, sub area plans, and additional strategies for growth management and placemaking; and
- A modified Zoning and Implementation plan, featuring new land use and zoning correlations and implementation actions.

The Master Plan includes analysis, recommendations and proposals for Orion Township's population, housing, economy, transportation systems, community facilities, natural resources and land use. The Plan focuses on the physical layout of various land uses and their compatibility with one another. The recommendations provided within this Plan provide a sound basis for any subsequent Township regulations, policies and programs (such as zoning) and should guide policy makers in their decisions regarding proposed developments, rezonings, land divisions, and other factors relating to community development.

DOCUMENT ORGANIZATION

The Master Plan begins with a brief overview of the plan as well as a description of the planning process. The Plan is organized into seven (7) chapters:

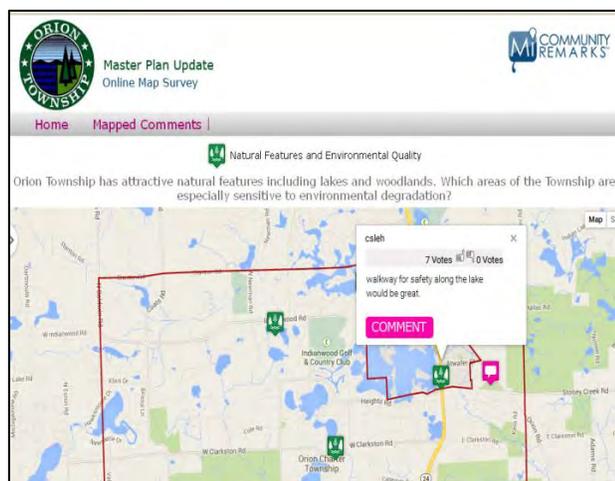
1. Introduction
2. Social Profile
3. Physical Profile
4. Transportation and Thoroughfares
5. Community Input and Goals
6. Future Land Use Plan
7. Zoning Plan and Implementation

PUBLIC INPUT

In keeping with the Township's longstanding planning philosophy, officials turned to Township residents and the business community to help shape the Master Plan's goals and objectives. In addition to an open house-style workshop, two unique online tools were used to gather public comments regarding land use and related issues:

1. [Online Master Plan Survey \(Survey Monkey\)](#): Contained questions regarding residential development, road improvements, natural resources, non-motorized transportation, and public facilities.
2. [Online Mapping Tool \(MiCommunity Remarks\)](#): Allowed users to conveniently post their ideas, comments and concerns, and related them to a specific geographic location.

The comments received through the public input methods served as the foundation for the development of the Master Plan's goals and objectives.



MiCommunity Remarks.

GOALS

Community-wide goals were developed with input from residents, property and business owners, the Planning Commission, the Township Board of Trustees, and other officials. The key goals developed throughout the Master Planning process include, but are not limited to:

- **Economic Development:** Provide jobs for existing and future residents in a sustainable manner;
- **Environmental Resources:** Preserve the Township's natural resources and open spaces and provide requirements for environmentally-sustainable developments;
- **Transportation and Thoroughfares:** Provide for a safe and efficient traffic circulation system and continue to develop and maintain non-motorized transportation links;
- **Growth Management:** Guide growth within the Township in a rational manner in order to avoid patterns of sprawl and "leapfrog" development;
- **Residential Areas:** Provide for a variety of high-quality housing types at a range of densities and lot sizes;
- **Commercial Areas:** Provide for the proper distribution of commercial land uses, improve the appearance of commercial areas and provide mechanisms for traffic and access management; and
- **Industrial Areas:** Provide for industrial and research development in a manner that increases the community's tax base and results in proper land use relationships and high-quality design.

FUTURE LAND USE

The Future Land Use Plan chapter details the envisioned future land use arrangement within the Township and describes the intent and desired land uses for each category. This chapter combines both narrative and graphic forms to define specific land use designations, their intended use and density, and to illustrate where they are recommended to occur within the Township. The Future Land Use Plan is based on existing land use patterns, transportation networks, availability of public utilities and services, natural features and open space preservation, market trends and community goals.

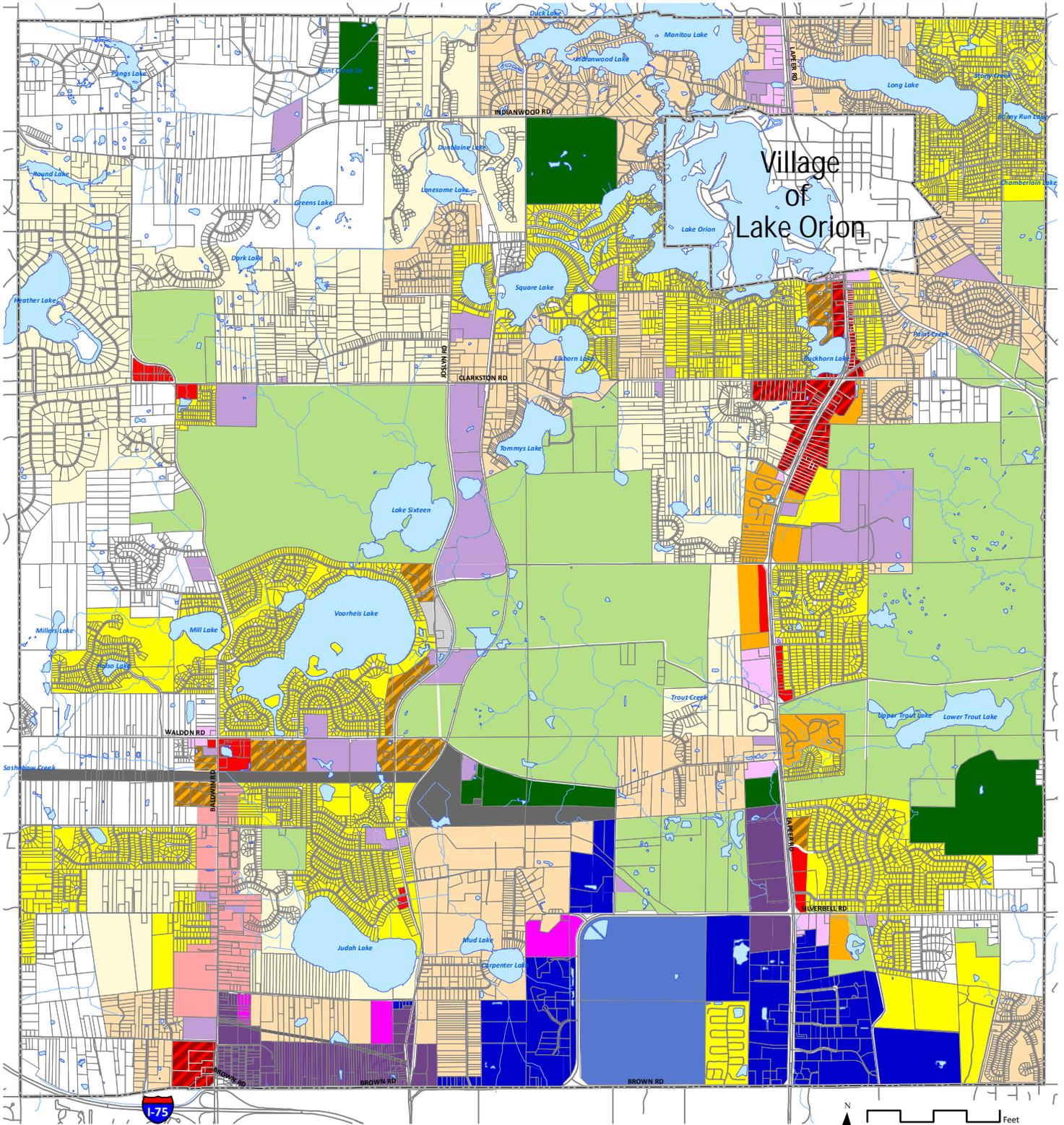
The Future Land Use Plan chapter includes

- Descriptions of land use designations;
- A future land use map that illustrates the locations of these designations within the Township (as shown on the following page); the future land use map is also included in the Future Land Use chapter.
- Sub Area Plans which provide more detailed analyses and land use considerations for specific areas of the Township;
- Detailed residential, office, commercial, industrial, and recreational plans;
- Growth management strategies; and
- Additional factors that go beyond the land use designations.

IMPLEMENTATION

A Master Plan is not a zoning ordinance or a set of regulations. However, the recommendations formulated in the Master Plan provide the foundation for zoning and other Township development ordinances. The Plan is intended to be a guide that is flexible to new information, trends and opportunities. In this regard, the Master Plan includes specific implementation tasks to provide opportunities to implement the Plan, enhance the Township's vitality and achieve long-term sustainability. The Zoning Plan and Implementation chapter contains recommendations for updating the Zoning Ordinance in order to implement the visions and goals of the Master Plan.

A Master Plan remains useful only if it is implemented and consulted when making land use decisions. As such, the Plan should be a key factor when deciding on development and rezoning requests. The Township may deviate from the Plan when appropriate. However, such deviations should only be made after very careful discussion and consideration. By statute, the Master Plan must be reviewed every five (5) years to determine if it should be updated or replaced.



- Single Family Low Density
- Single Family Medium Low Density
- Single Family Medium Density
- Single Family Medium High Density
- Multiple Family Low Density
- Multiple Family Medium Density
- General Office
- Office Research
- Neighborhood Commercial
- General Commercial

- Village Center
- Industrial/Commercial/Residential Mixed Use
- Research/Light Industrial
- Heavy Industrial
- Institutional
- Private Recreation
- Recreation
- Special Purpose
- Utility Owned
- Water

Future Land Use Plan

Charter Township of Orion
Oakland County

Source: Oakland County Planning & Economic Development Services, 2013

June 5, 2015
Carlisle / Wortman Associates, Inc.

INTRODUCTION

Planning is a process that involves the conscious selection of policy choices relating to land use, growth, and physical development of the community. The purpose of the Charter Township of Orion Master Plan is to state the goals and identify the objectives and strategies regarding land use and development that the Township will pursue to attain those goals.

WHAT IS PLANNING?

Planning is a process which involves the conscious selection of policy choices relating to land use, growth and development in the community. The Master Plan is the primary official Township document which sets forth growth and development policies for the future of the community. The Township derives its authority for the preparation of a Master Plan from Public Act 33 of 2008, as amended. MCL 125.3833 Sec. 33 states:

A master plan shall address land use and infrastructure issues and may project 20 years or more into the future. A master plan shall include maps, plats, charts, and descriptive, explanatory, and other related matter and shall show the Planning Commission's recommendations for the physical development of the planning jurisdiction.

HOW IS THE PLAN TO BE USED?

The Master Plan is used in a variety of ways:

1. Most important, the Plan is a general statement of the Township's goals and policies and provides a single, comprehensive view of the community's desires for the future.
2. The Plan serves as an aid in daily decision-making. The goals and policies outlined in the Plan guide the Planning Commission, Township Board and other Township bodies in their deliberations on zoning, subdivision, capital improvements and other matters related to land use and development.

3. The Plan provides the statutory basis upon which zoning decisions are made. The Michigan Planning Enabling Act (P.A. 33 of 2008, as amended) requires that the zoning ordinance be based upon a plan designed to promote the public health, safety and general welfare. It is important to note that the Master Plan and accompanying maps do not replace other Township Ordinances, specifically the Zoning Ordinance and Map.
4. The Plan attempts to coordinate public improvements and private development supported by coordinated capital improvements. For example, public investments such as road or sewer and water improvements should be located in areas identified in the Plan as resulting in the greatest benefit to the Township and its residents.
5. Finally, the Plan serves as an educational tool and gives citizens, property owners, developers and adjacent communities a clear indication of the Township's direction for the future.

In summary, the Orion Township Master Plan is the primary officially adopted document that sets forth an agenda for the achievement of goals and policies. It is a long-range statement of general goals and policies aimed at the unified and coordinated development of the Township that complements the goals of nearby governmental units, wherever possible. It helps develop a balance of orderly change in a deliberate and controlled manner that permits controlled growth. As such, it provides the basis upon which zoning and land use decisions are made.

HISTORIC CONTEXT

This document represents an update to the Orion Township Master Plan adopted by the Township Board in December of 2009. Because communities are constantly changing, the information contained in a plan becomes outdated in time. As the conditions change, so do opportunities and expectations for the future. It is therefore essential to periodically update the information contained in the Master Plan as well as re-evaluate its basic vision and implementation programs. Current state legislation requires a review of a Master Plan every five (5) years.

THE PLANNING PROCESS

The process to update the Plan consists of six (6) phases: community profile; public participation; community vision, goals, and objectives; future land use plan; action plan for implementation; and adoption. Many factors that exist must be taken into account when formulating plans for the future. This process is illustrated in the diagram below.

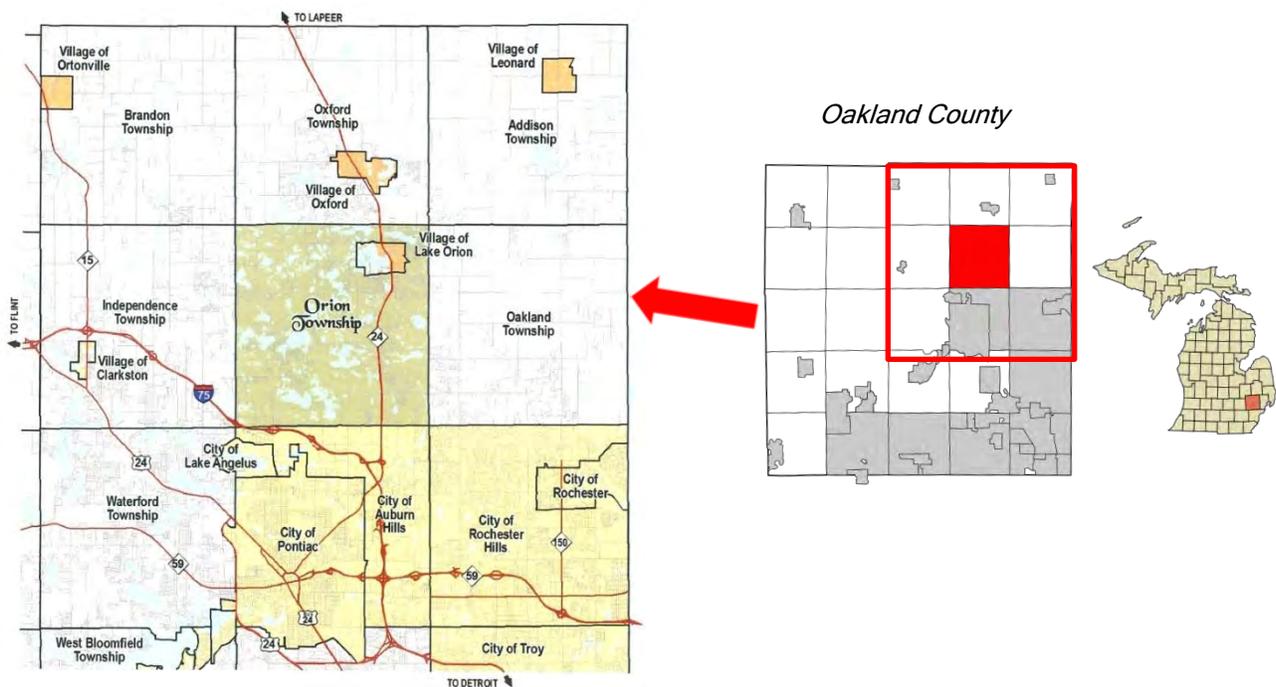
Figure 1. – The Planning Process



PLANNING AREA AND REGIONAL SETTING

The planning area for this Master Plan is all land located within the Township boundary except for the Village of Lake Orion, which has its own Master Plan. The Charter Township of Orion is located in north-east/central Oakland County, Michigan as illustrated in **Map 1** below. The Township is approximately thirty five (35) square miles in area, excluding the Village of Lake Orion. The Township is bordered by Independence Township to the west, Oxford Township to the north, Oakland Township to the east and the City of Auburn Hills to the south. Downtown Detroit is located approximately thirty-five (35) miles to the southeast of Orion Township. Other nearby urban centers include Pontiac (10 miles) and Flint (35 miles).

Map 1. – Regional Setting



Source: Charter Township of Orion Parks and Recreation and Open Space Master Plan, 2008-2012

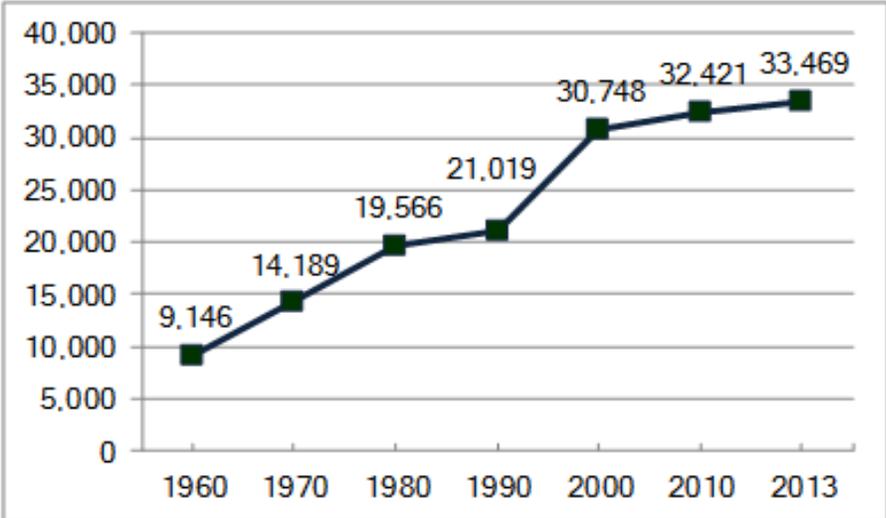
SOCIAL PROFILE

A key concern in the preparation of a Master Plan is the preservation and creation of a living environment that is desirable to all members of the community. Familiarity with past trends, current demographics and characteristics, and future expectations of the population is essential to recognize and address physical development trends, land use patterns and infrastructure, community facilities, and housing needs. The primary sources used in compiling this data include the 2010 U.S. Census, the Southeast Michigan Council of Governments (SEMCOG), and the American Community Survey (ACS).

POPULATION CHARACTERISTICS

POPULATION – Between 1990 and 2000, Orion Township experienced substantial population growth, increasing from 21,047 to 30,748– a 46.1% increase. Between 2000 and 2013, Orion Township's growth rate slowed to an 8.8%; In December 2013, SEMCOG reported Orion Township's population as 33,469. **Figure 2**, below, illustrates Orion Township's population trends over the past In comparison, adjacent communities such as Oakland Township and Oxford Township experienced a fairly high growth rate in this same period, as shown in **Table 1** on the following page.

Figure 2. – Population Trends, 1960 -2013



Source: SEMCOG Community Profiles and U.S. Census Bureau

Despite Orion Township's moderate population growth rate, its population trends exceed that of Oakland County as a whole. The reduction in Orion Township's population growth rate may be attributed to a few factors, including a slight decline in household size, an aging population, and a drop in the number of issued residential building permits.

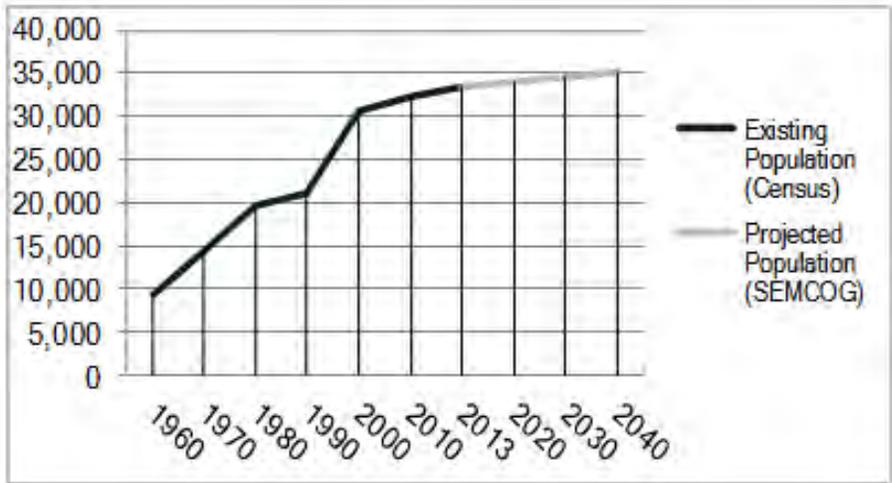
Table 1. – Population Trends, 2000-2013

Community	2000 Census	2010 Census	SEMCOG Dec. 2013	% Change 2000-2013
ORION TWP.	30,748	32,421	33,469	8.8%
Village of Lake Orion	2,715	2,973	3,129	15.2%
Oakland Twp.	13,071	16,779	17,681	35.3%
Pontiac (City)	67,506	59,515	59,283	-12.2%
Independence Twp.	32,581	34,681	36,600	12.3%
Oxford Twp.	12,485	17,090	17,526	40.4%
Village of Oxford	3,540	3,436	3,533	-0.2%
Auburn Hills (City)	19,837	21,412	22,109	11.5%
Oakland County	1,194,156	1,202,362	1,236,970	3.6%

Source: SEMCOG Community Profiles and U.S. Census Bureau

In 2012, the Southeast Michigan Council of Governments (SEMCOG) prepared its 2040 Population Forecast. This projection combines data from the 2010 Census and the American Community Survey with local trends related to land availability and land use to project future population, housing and employment counts for each community in Southeast Michigan. As demonstrated in **Figure 3**, SEMCOG predicts that Orion Township will experience moderate, but constant population growth until 2040.

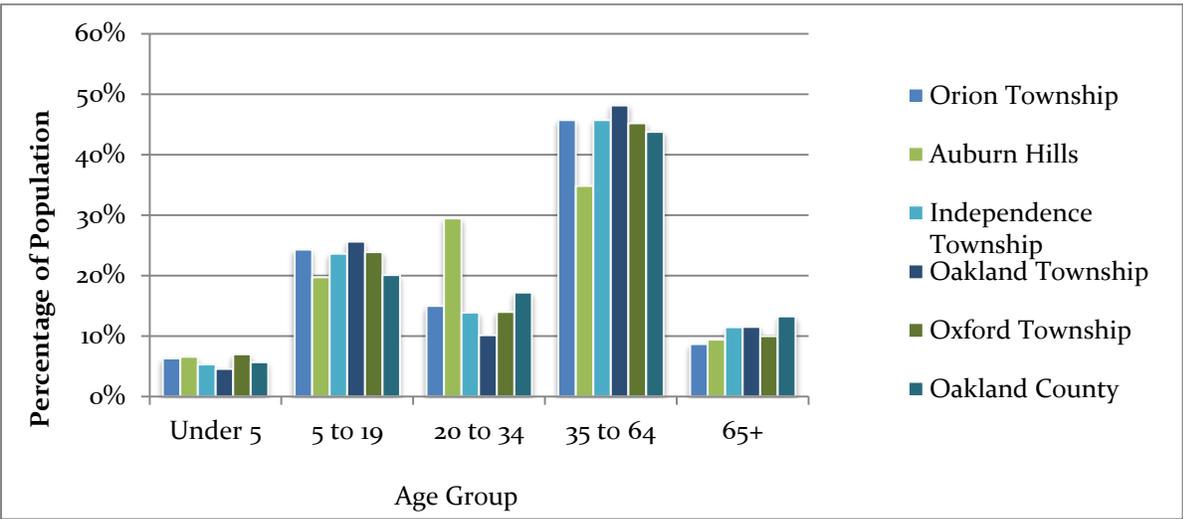
Figure 3. – Orion Township Population Trends and Projections, 1960-2040



Source: SEMCOG Community Profiles and U.S. Census Bureau

AGE - The 2010 Census reported Orion Township's median age at 38.4, up from the median age of 33.9 reported in 2000. **Figure 4** depicts the population of Orion Township, adjacent communities, and Oakland County by age group, while **Table 2** compares Orion Township to Oakland County. The graph illustrates that all of the identified communities have the greatest percentage of population (between 40% and 50%) in the 35 to 64 age category. With the exception of Auburn Hills which has a fairly young population, Orion Township, the surrounding communities and Oakland County all have a fairly similar age distribution.

Figure 4. – Percentage of Population by Age, 2010



Source: SEMCOG Community Profiles and U.S. Census Bureau

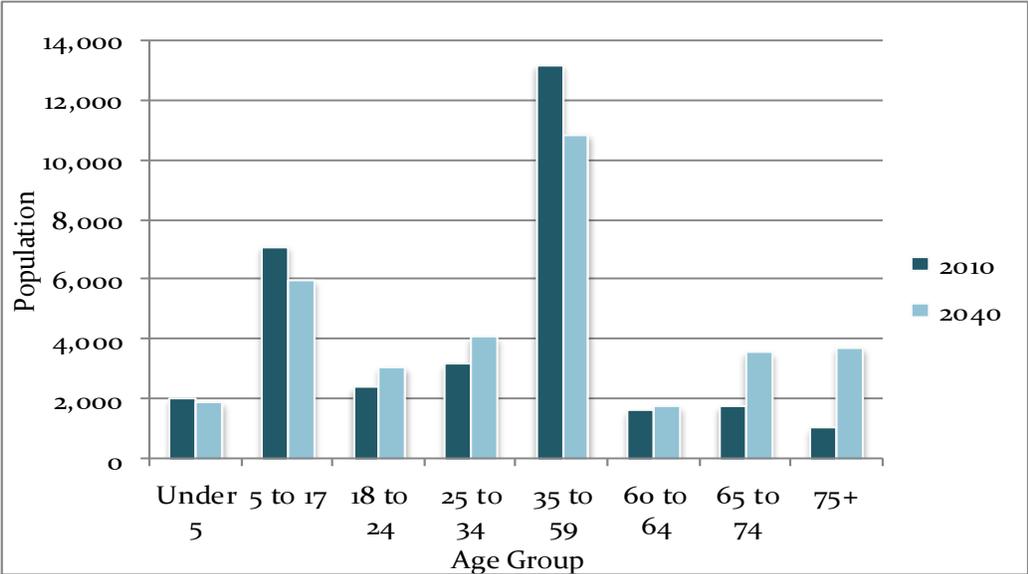
Table 2. – Age Group Comparison, 2010

Age Group	Oakland County		Orion Township	
	Number	Percent	Number	Percent
Under 5	68,506	5.7%	2,049	6.3%
5-17	213,599	17.8%	7,121	22.0%
18-24	91,384	7.6%	2,414	7.4%
25-34	143,387	11.9%	3,204	9.9%
35-59	454,661	37.8%	13,195	40.7%
60-64	71,701	6.0%	1,626	5.0%
65-74	84,103	7.0%	1,766	5.4%
75+	75,021	6.2%	1,046	3.2%
TOTAL	1,202,362	100.0%	32,421	100.0%

Source: SEMCOG Community Profiles and U.S. Census Bureau

As an element of their population forecast, SEMCOG breaks down their projected population by age group. This projection generates a forecast for each age group's growth trends over the next 30 years. **Figure 5** demonstrates the projected shifts in the population by age. The 35 to 59 age group is projected to see the largest decrease. The school-aged group (5 to 17) is projected to see a mild decrease, along with the Under 5 group. All other groups, however, are projected to remain steady or increase in population.

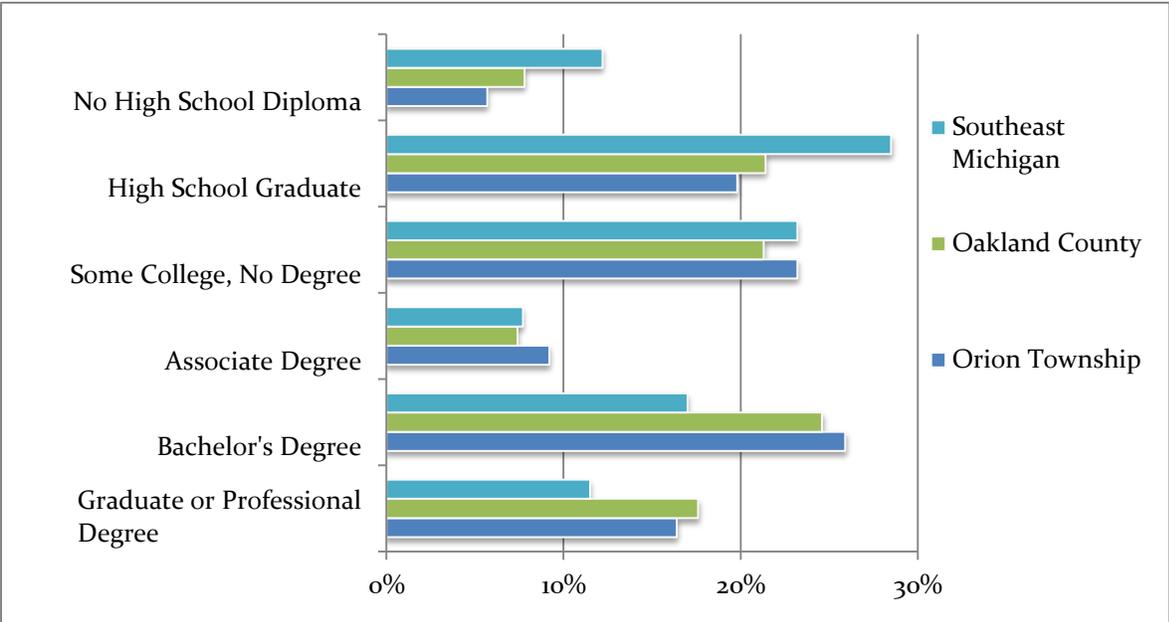
Figure 5. – Projected Population by Age.



Source: SEMCOG Community Profiles and U.S. Census Bureau

EDUCATION – Orion Township residents are well educated. Figure 6 illustrates a comparison of the educational attainment of individuals age 25 and older in the Charter Township of Orion, Oakland County, and Southeast Michigan. According to the American Community Survey, 42 percent of the population above age 25 held a bachelor’s degree or higher in 2010. This exceeds the SEMCOG area at 29 percent and is comparable to Oakland County at 42 percent.

Figure 6. – Educational Attainment, 2010



Source: SEMCOG Community Profiles and U.S. Census Bureau

ECONOMIC CHARACTERISTICS

Labor Force – In 2000, the Decennial Census reported that Orion Township had a total of 17,900 employed civilians aged sixteen and over. The 2008 – 2012 American Community Survey estimates that the current number of employed civilians has decreased to 17,193, a decline of 4 percent from the 2000 estimates. Additionally, the American Community Survey reveals that the unemployment rate has risen from 3.3% in 2000 to 9.7% in 2010. While the reported unemployment rate is fairly high, the current numbers were likely skewed by the economic downturn of 2008. The unemployment rate as of December, 2013 was reported at 6.2% (www.homefacts.com). Table 3 illustrates a record of Orion Township's unemployment rate between 2000 and 2010 compared to those of Oakland County and the State of Michigan.

Table 3. – Unemployment Rates, 2000 - 2010

	2000	2010	Percent Change
Orion Township	3.3%	9.7%	6.4%
Oakland County	3.7%	10.2%	6.5%
Michigan	5.8%	12.6%	6.8%

Source: 2000 U.S. Census and 2008-2012 American Community Survey

EMPLOYMENT – **Table 4** breaks down employment of Township residents by occupation as reported in the 2000 Decennial Census and the 2008-2012 American Community Survey. The 2000 Decennial Census and 2008-2012 American Community Survey break down the employment of Township residents by occupation. As shown in **Table 4**, five out of Orion Township's top six largest occupation sectors decreased in number between 2000 and 2012. The only occupation to gain employees in this period was the Office and administrative support sector, up 9% from 2000. The Construction, extraction and maintenance occupation saw the biggest drop in numbers, declining by 35% from the 2000 numbers.

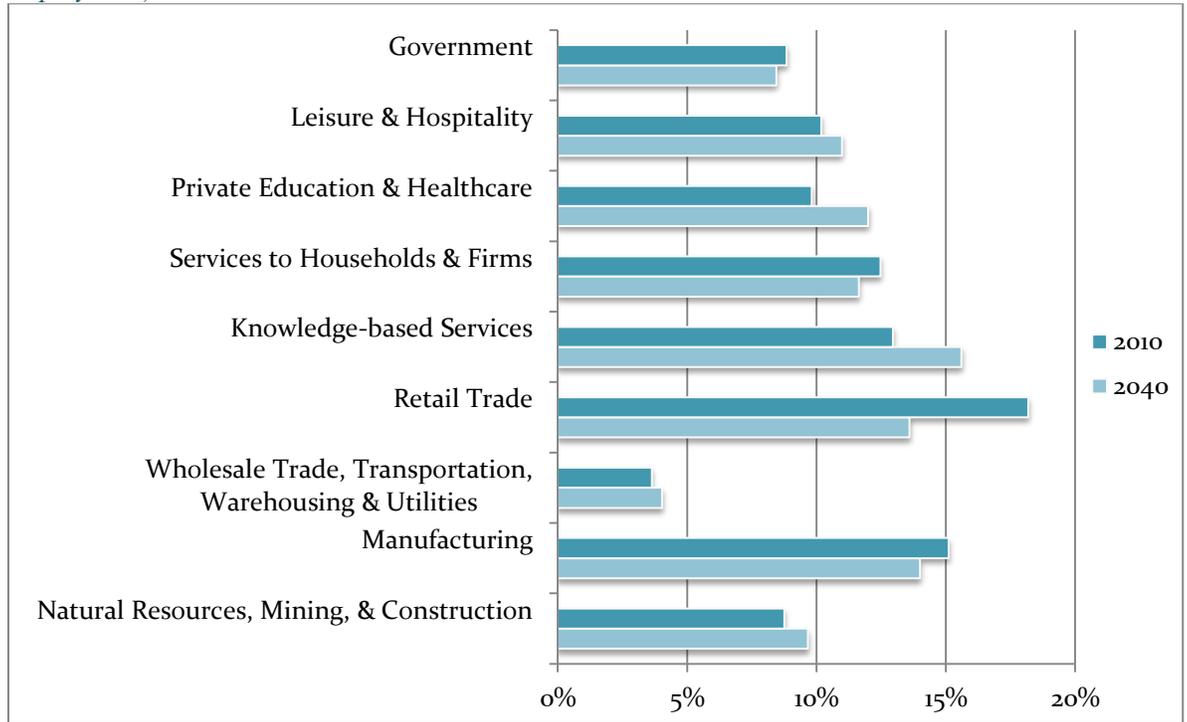
Table 4. – Employment by Occupation, 2000-2012

Occupation	2000	2012	Change	
			#	%
Professional and related occupations	4,679	4,667	-12	-1%
Management, business, and financial operations	3,542	3,068	-474	-13%
Sales and related occupations	2,058	1,957	-101	-5%
Office and administrative support	2,109	2,305	196	9%
Construction, extraction and maintenance	1,373	892	-481	-35%
Production	1,529	1,106	-423	-28%
Total (including other occupations)	17,900	17,193	-707	-4%

Source: 2000 U.S. Census and 2008-2012 American Community Survey

Although the total of number of employed civilians within Orion Township has declined over the last decade, the number of jobs located within the Township is projected to increase. **Figure 7** on the following page depicts the percentage of existing and projected jobs by industry within Orion Township as a share of total jobs. The share of knowledge-based service and private education & healthcare jobs is projected to see the largest increase within the next thirty years, while the share of manufacturing and retail trade jobs is projected to decline. The total number of jobs within Orion Township is projected to increase from 9,467 in 2010 to 10,905 in 2040.

Figure 7. – Existing and Projected Employment by Industry (as a percentage of total employment), 2010 and 2040



Source: SEMCOG Community Profiles and U.S. Census Bureau

SEMCOG INDUSTRIAL SECTORS

SEMCOG built the nine industrial sectors listed in Figure 7 above from the North American Industrial Classification System (NAICS). The sectors are grouped by similar economic and land use activities. Following is a brief description of each sector:

- **NATURAL RESOURCES, MINING & CONSTRUCTION:** Agricultural production and support activities; mining natural resources; construction of buildings and infrastructure.
- **MANUFACTURING:** All manufacturing activities including the production of durable and nondurable goods.
- **WHOLESALE TRADE, TRANSPORTATION, WAREHOUSING & UTILITIES:** Wholesaling of merchandise; transportation of people and goods; storage; provision of utility services.
- **RETAIL TRADE:** All retail activity, where goods are sold to the general public.
- **KNOWLEDGE-BASED SERVICES:** Information; Finance and Insurance; Real Estate, Rental, and Leasing; Professional, Scientific, and Technical Services; Management of Companies and Enterprises.
- **SERVICES TO HOUSEHOLDS & FIRMS:** Employers who provide services to firms and general services to households. Administrative, Support, and Waste Management and Remediation Services.
- **PRIVATE EDUCATION & HEALTHCARE:** Employers who provide private education, as well as, private healthcare, including hospitals, medical centers, and nursing homes.
- **LEISURE & HOSPITALITY:** All employers who provide arts, entertainment and recreational services, private lodging and eating and drinking services.
- **GOVERNMENT:** All government-provided services at all levels (federal, state and local). Public administration, public education, and public health.

INCOME AND POVERTY - **Table 5** indicates median household income and per capita income for Orion Township, Oakland County and Southeast Michigan. Although Median Household Income (MHI) fell between 2000 and 2010, Orion Township's MHI of \$78,037 is still higher than that of both Oakland County and Southeast Michigan. The Township's per capita income of \$33,490 is higher than that of Southeast Michigan, but lower than Oakland County as a whole.

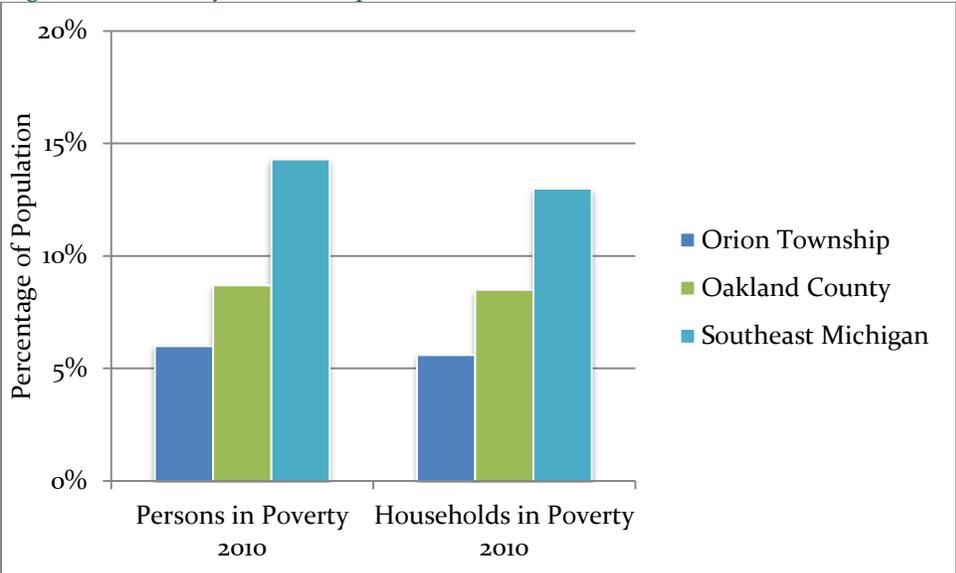
Table 5. – Per Capita Income and Median Household Income, 2000 and 2010 (2010 dollars)

	Per Capita Income		% Change	Household Income		% Change
	2000	2010		2000	2010	
Orion Township	\$39,846	\$33,490	-16%	\$96,535	\$78,037	-19.2%
Oakland County	\$42,582	\$36,138	-15.1%	\$81,028	\$66,390	-18.1%
Southeast Michigan	\$32,350	\$27,637	-14.6%	\$65,415	\$53,242	-18.6%

Source: SEMCOG Community Profiles and U.S. Census Bureau

Orion Township continues to have a lower percentage of both persons and households living below the poverty line than Oakland County and Southeast Michigan, as demonstrated in **Figure 8**, below.

Figure 8. – Poverty Level Comparison, 2010



Source: SEMCOG Community Profiles and U.S. Census Bureau

TAX BASE – The Township tax base remains primarily residential, with 82% of the 2013 real property valuations stemming from residential properties. This is an increase of approximately 3% in comparison to the 2008 valuations. Residential value maintains relative predominance over all other land classifications.

Commercial and industrial properties combined to compose 18% of the real property tax base in 2013, down 17% for commercial uses and down 70% for industrial uses since 2008. The total Township real estate valuations have decreased 30% since 2000, or about 4% annually. This is almost equal to the decrease seen for all of Oakland County over the same period.

In 2000, Orion Township's total State Equalized Value (SEV) represented 2.6% of the total County SEV. In 2008, it represented 2.7%, and in 2013, 2.6%. Orion Township is less reliant upon commercial land assessments than the County as a whole, but slightly more reliant upon industrial assessments. The total SEV increased 47% from 2000 to 2008, but decreased 30% from 2008 to 2013. The 2000, 2008 and 2014 Orion Township tax assessments are shown in **Table 6**, below.

Table 6. – Comparative Real Estate Equalized Value for Orion Township, 2000-2013

Classification	Total Real SEV			% of Total		
	2000	2008	2013	2000	2008	2013
Agriculture	\$6,235,650	\$0	\$0	1%	0%	0%
Commercial	\$133,458,060	\$221,946,280	\$182,098,190	10%	12%	13.8%
Industrial	\$125,603,960	\$172,949,190	\$51,192,210	10%	9%	3.9%
Residential	\$1,014,725,700	\$1,483,818,690	\$1,081,025,860	79%	79%	82.3%
TOTAL	\$1,280,023,370	\$1,878,714,160	\$1,314,316,260	100%	100%	100%

Source: Oakland County Planning & Economic Development Department

HOUSEHOLDS AND HOUSING CHARACTERISTICS

HOUSEHOLDS – The 2010 Census reported 11,673 households within Orion Township, representing a 5.7% increase from the numbers reported in 2000. Seventy-three percent (73%) of households within the Township are categorized as “family households,” meaning that they consist of a householder and one or more other persons related to the householder by birth, marriage or adoption. Conversely, “non-family households” consist of people living alone or households which do not have any members related to the householder. **Table 7** below depicts household demographic information for the Charter Township of Orion.

Table 7. – Household Demographics

	Orion Township		
	2000	2010	% Change
Number of Households	11,048	11,673	5.7%
Percent Family Households	73.3%	73.3%	0%
Percent Non-Family Households	26.7%	26.7%	0%
Average Household Size	2.77	2.77	0%
Average Family Size	3.19	3.18	0%

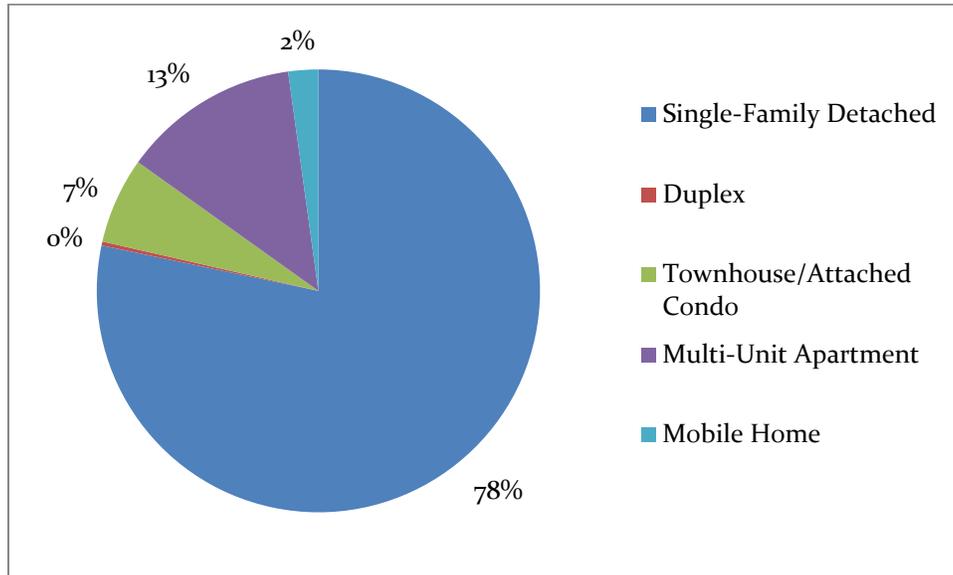
Source: 2000 and 2010 U.S. Census

The average household size remained constant at 2.76 persons per household between 2000 and 2010. However, SEMCOG predicts that household size will decrease to 2.73 by 2040. Orion Township's average household size is higher than that of Oakland County (2.46), Auburn Hills (2.24) and the Village of Lake Orion (2.19), but similar to that of Independence Township (2.69), Oxford Township (2.8) and Oakland Township (2.86).

HOUSING TENURE – The tenure of household in Orion Township is primarily owner-occupied (76.%); however, this is a decrease from 2000 when 81 % of units were owner occupied. Renter-occupied units comprised 16.6 % of the total number of units in 2010; this is an increase from 2000, where 15% of units were renter-occupied. The number of renter-occupied units in Orion Township increased from 1,734 in 2000 to 2,081 in 2010.

TYPE OF STRUCTURE - The most basic measure of housing in a community is the type of structure (i.e. whether a housing unit is a single-family home, apartment, townhome, etc.). **Figure 9** shows the distribution of housing unit types for the Township.

Figure 9. – *Housing Type as a Percentage of Overall Housing Stock, 2010*

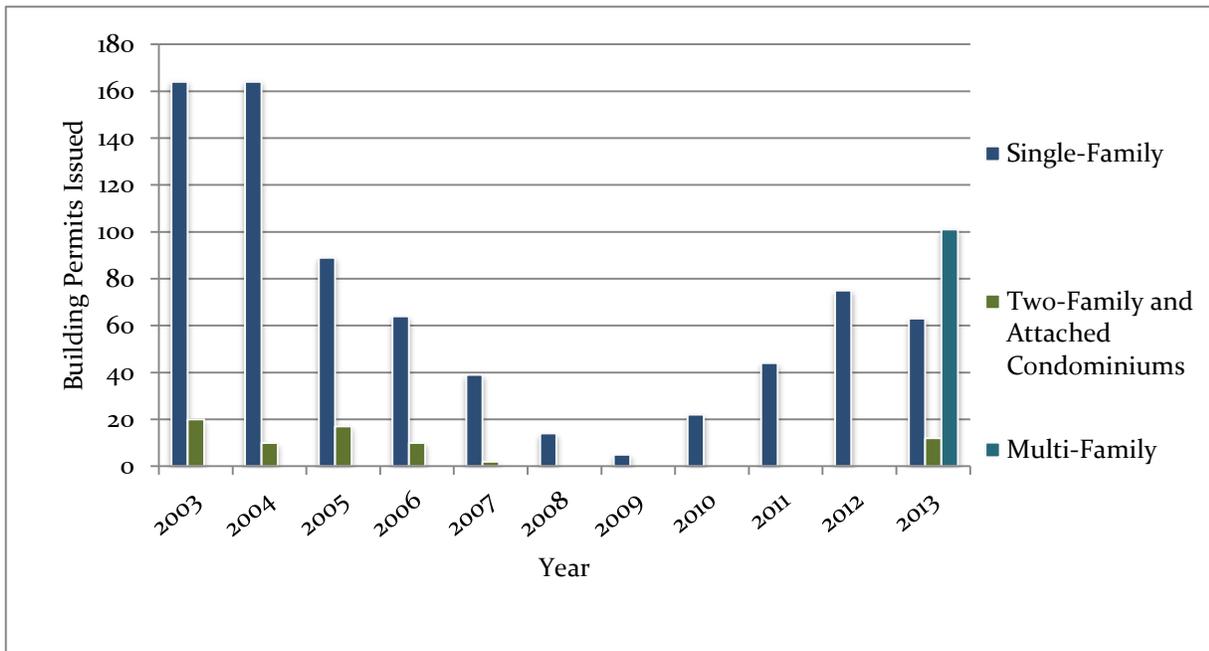


Source: SEMCOG Residential Building Permits, 2013

The majority of the Township's housing stock – approximately 78 percent (9,604 units) - is comprised of single-family detached dwelling units. Multi-unit apartments make up approximately 13 percent of the Township's housing stock, while townhouses/attached condos make up approximately 7 percent. Mobile homes comprise less than 1 percent of the housing stock.

NEW RESIDENTIAL DEVELOPMENT – Between 2000 and 2013, the Charter Township of Orion issued building permits for a total of 1,145 single-family units, 215 two-family/attached condominium units, and 109 multi-family units. In 2013, the Township issued more building permits for attached condos and multi-family units than it did for single-family units. **Figure 10** on the following page demonstrates single-family, attached condominium and multi-family building permits in Orion Township from 2000 to 2013.

Figure 10. – Residential Building Permits, 2000-2013



Source: SEMCOG Residential Building Permits, 2013

HOUSING COST – In 2000, the median housing value within Orion Township was \$253,860. By 2010, this value fell to \$218,900 – a decrease of 13.8%. In the same period, median gross rent decreased 14.9% from \$980 (2010 dollars) to \$834. **Table 8** demonstrates the decline of housing value from 2000 to 2010 in Orion Township, Oakland County and Southeast Michigan. The decrease in Orion Township's median gross rent is significantly larger than that of Oakland County and Southeast Michigan as a whole. This may be explained by the increase in the supply of multi-family/attached units over the past decade, thus decreasing demand for such units.

Table 8. – Housing Value and Median Gross Rent, 2000 and 2010 (2010 dollars)

	Median Housing Value		Percent Change (%)	Median Gross Rent		Percent Change (%)
	2000	2010		2000	2010	
Orion Township	\$253,860	\$218,900	-13.8	\$980	\$834	-14.9
Oakland County	\$229,318	\$204,300	-10.9	\$933	\$871	-6.6
Southeast Michigan	\$174,166	\$160,544	-7.8	\$782	\$793	1.4

Source: SEMCOG Community Profile

CONCLUSIONS

The Following conclusions can be derived from recent census data:

- In December 2013, SEMCOG reported Orion Township's population as 33,469.
- The Township saw moderate population growth between 2000 and 2013.
- SEMCOG predicts that Orion Township will experience moderate, but constant population growth until 2040.
- The 35 to 59 age group is projected to see the largest decrease over the next few decades
- The rapid projected growth in the 65 and up age groups is of particular importance.
- The share of knowledge-based service and private education & healthcare jobs is projected to see the largest increase within the next thirty years, while the share of manufacturing and retail trade jobs is projected to decline.
- Orion Township continues to have a lower percentage of both persons and households living below the poverty line than Oakland County and Southeast Michigan.
- The average household size remained constant at 2.76 persons per household between 2000 and 2010. SEMCOG predicts that household size will decrease to 2.73 by 2040.
- Single-family detached dwelling units make up 78 percent of the Township's housing stock.
- In 2013, the Township issued more building permits for attached condos and multi-family units than it did for single-family units.
- Residential properties make up over 80 percent of Orion Township's total state equalized value (SEV).

PHYSICAL PROFILE

A number of studies were conducted to determine existing and predicted future conditions in the Charter Township of Orion. The preparation of background information serves as the technical basis for the Master Plan. Existing land use and community facilities and services were inventoried and their adequacy assessed. Information regarding various natural resource characteristics, such as flood plains, wetlands and soils suitable for septic systems, was collected, mapped and evaluated. Additionally, information regarding Orion Township's architecturally historic sites were mapped and analyzed.

EARLY HISTORY¹

Historically, Orion Township was settled for agriculture and forestry. The Village of Lake Orion, on the other hand, served as the center of commerce and as a resort community. The first land was purchased in 1819 in the midwest portion of the Township in section 19 by Judah Church and John Wetmore who purchased the land to harvest its timber. This area was once known as "The Big Pinery" because of its abundance of large trees. However, most early development occurred in sections 24 and 25 in the southeast portion of the Township. Jesse Decker was the first to locate in the area and it became commonly known as the "Decker Settlement." The Decker Settlement was generally a collection of farms cut from the woods that once covered the area. Consequently, the Township's first sawmill was constructed in section 25.

The construction of the Detroit and Bay City Railroad was a pivotal event in the history of the Township. The section of the railroad that passed through the northeast portion of the Township was constructed in 1872, and thereafter changed and shaped future events. To begin with, there was some speculation as to its route. However, due largely to the diligence of John Carpenter, one of Orion Township's earliest settlers, a route through Orion and Oxford was chosen. The tracks were laid upon what was once a trail created and used by Indians that followed the Paint Creek. The opening of this railroad facilitated trade, ensuring that agricultural products of the Township could reach larger markets, while at the same time providing needed goods to Township residents. As a result, the Village of Lake Orion was reinforced as the seat of commerce for the Township.

¹ History of Oakland County, Michigan, L.H. Everts and Company, 1877 and Oakland County Book of History, 1820 to 1970, Arthur H. Hagman, Editor.

Lake Orion, once called Lake Canandaigua, is for the most part "man-made." Prior to 1936, the lake was small, with the Paint Creek serving as an outlet. To provide adequate flow for the use of water-powered mills, a dam was constructed. Over the years, a number of different dams were constructed, as previous ones failed. When the dams failed, the mills that were constructed, along with the Paint Creek were often destroyed. The route of the railroad ran adjacent to the lake, thus it was necessary to construct a new dam to ensure that the railroad grade would be stable. Because the new dam was higher and longer than those previously constructed, Lake Orion covered a wider area than it had in the past. Furthermore, with better flow and less risk, the use of water-driven mills became more practical. The availability of the mills was of great benefit to the lumber and agricultural industries of the Township.

An unforeseen benefit of the railroad has been the preservation of what is now known as the Paint Creek Trail. At one time, Indian trails criss-crossed the Michigan landscape. Many of these later became roads, but many faded away from lack of use or fragmentation, as the land was developed for other purposes. It is unlikely that the Paint Creek Trail would exist today if its ownership hadn't been consolidated by the railroad.

Lake Orion's popularity as a resort was strengthened by the construction of the inter-urban at the turn of the century. This passenger rail system linked the City of Detroit and a surprising number of small suburban towns, including the cities of Northville, Luna Pier, Farmington and Oxford. The resort nature of the area gave rise to the development of dense cottage subdivisions in Lake Orion and the northeast portion of the Township. This reinforced the agricultural base of the Township, as farmers found the resort industry created a sound market for their goods.

EXISTING LAND USE

A basic element in planning the future of the Charter Township of Orion is the consideration of existing land use types and patterns. Previous existing land use data and maps were compiled by Oakland County Planning and Economic Development for Orion Township in 2013. The results of this mapping are presented in **Map 2**.

CLASSIFICATIONS

The following land use classifications were used by Oakland County in updating the Township Existing Land Use. The classifications are based upon the Oakland County Equalization use codes, which in some cases have been combined into a single land use category, and/or in the case of public institutions, schools, parks and churches, have been split into multiple land use categories.

Vacant – Areas of vacant land not used for any purpose are assigned to this broad classification. However, in some cases, the vacant land may actually be a conservation/preservation area associated with an adjacent residential development.

Single Family – Areas of improved land having one (1) residential unit per building. There are eight classifications of Single Family that are based on the parcel size (density), ranging from less than 8,000 sq. ft. to ten acres or greater.

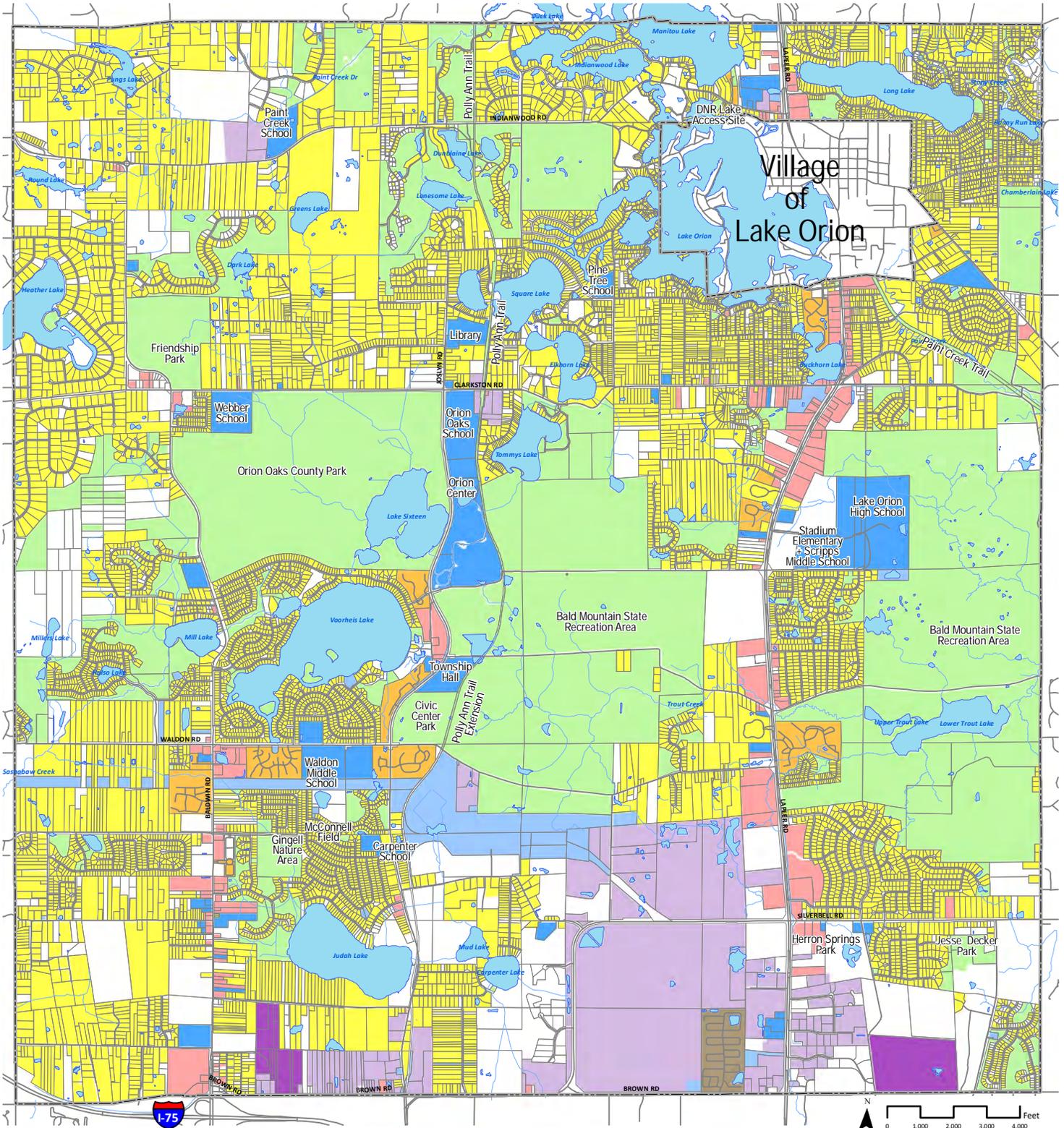
Multiple Family – Areas of improved land having four (4) or more residential units per building, including apartments, condominiums and townhouses plus any streets, service drives and community areas such as yards, clubhouses, and pools.

Mobile Home Park – Areas of improved land having multiple mobile home structures that are in the nature of a community or “mobile home park” plus any streets, service drives, and community areas such as yards, clubhouses, and pools.

Commercial/Office – All areas used for wholesale, retail, office, entertainment, or services, plus contiguous accessory uses such as parking areas and service drives.

Industrial – Areas of improved land used predominantly for manufacturing or on which materials or articles are processed or semi-processed, but not retailed, including related storage areas and warehousing. This classification excludes mining processing or gravel, stone, minerals, ores, peat mines, etc., plus commercial waste disposal sites, land fill operations and junkyards, which are classified as “extractive.” land uses.

Public/Institutional – Land areas and facilities that are held in the public interest and are usually exempt from real property taxation plus any service drives or roads inside the actual parcels. Examples of this classification include churches, educational facilities, governmental offices, and cemeteries.



Map 2
2013 Existing Land Use

Charter Township of Orion
 Oakland County

Source: Oakland County Planning &
 Economic Development Services, 2013

April 27, 2015
 Carlisle / Wortman Associates, Inc. 

- | | |
|---|--|
|  Vacant |  Industrial |
|  Single Family |  Extractive |
|  Multiple Family |  Recreation/Conservation |
|  Mobile Home Park |  Public/Institutional |
|  Commercial/Office |  Transportation/Utility/
Communication |

Recreation and Conservation – Lands for which the primary purpose is for outdoor recreation or natural area conservation. This classification includes public or private-owned parks, golf courses, or areas of which the primary purpose is preservation and conservation of undeveloped natural areas.

Transportation, Utility and Communications – Improved land containing above or below-ground utility or communication facilities, including transmission lines, booster and transformer stations, county drains, detention/retention basins, and railroad yards.

The land use area contained within each of the classifications is noted in the following table along with the resulting changes since the 2008 Master Plan update. Acreage estimates are from Oakland County GIS data. While the actual existing vacant land acreage is lower than noted below (based upon spot field investigations and per Township staff), the chart is intended to generalize the types of land uses found within the Township, along with the approximate break down by use category since the 2008 land use survey. Therefore, **Table 9** is to be used only as a guide.

Table 9. – Orion Township Land Use Comparison (2009-2013)

Use Category	2008	2013**	2008-2013 Change (Acres)	2013 % of Total Land Area
Agricultural	15	15	0	<1%
Vacant*	2,572	2,704	132	12.2%
Single Family	7,627	7,450	-177	33.6%
Multiple Family	265	270	5	1.2%
Mobile Home Park	72	72	0	<1%
Commercial/Office	523	487	-36	2.2%
Industrial	1,350	1,385	35	6.2%
Public/Institutional	617	632	15	2.9%
Recreation & Conservation	5,419	5,440	21	24.5%
Transportation, Utility & Communication	348	349	1	1.6%
Water Area	1,699	1,699	0	7.7%
Road & Railroad Right-of-Way	1,670	1,674	4	7.5%
TOTAL	21,177	22,177	0	100%

* As land is developed, it is removed from "vacant" and placed in another use category.

** Total acreage amounts are slightly inconsistent between 2008 and 2013 due to changing data collection methods.

DEVELOPMENT PATTERNS

The earliest concentration of development in Orion Township occurred in the northeast quadrant, along Lapeer Road (M-24) and in the vicinity of Lake Orion and Long Lake. The Village of Lake Orion served as a center of commerce and government activity for residents living in the Village, around nearby lakes, and on farms throughout the Township. The lakes were focal points of summer recreation activity. The densely developed cottage subdivisions that developed around the lakes increased the seasonal population substantially, but many of these small cottage homes in Lake Orion and in the Bunny Run Subdivision have been converted into permanent residences over the years. Much of the oldest housing in the Township is concentrated in and around the Village.

M-24/Lapeer Road is the central axis along which most development has occurred on the east side of the Township. On the west side, Baldwin Road is the thoroughfare along which most development has occurred. A small settlement known as Gingellville, consisting of a few homes and businesses, was developed in the vicinity of Baldwin and Gregory Roads. A total of 188 homes in the southwest quadrant were built in 1949 or earlier.

Prior to 1950, eighty (80) percent of all housing was concentrated in and around the Village or in the southwest quadrant of the Township. Scattered residential development did occur around Tommy's Lake and at the north end of the Township, west of M-24. A discontinuous area of industrial uses developed along the Township's southern border, along Clarkston Road at the railroad tracks, and in the northwest quadrant along Indianwood Road. Another important land use, the Indianwood Golf and Country Club, was built in 1925.

Until very recently, the built-upon portions of the Township accounted for a very small proportion of the total land area. Agriculture was, at one time, one of the most predominant land uses. As recently as 1979, a land use survey completed by the Oakland County Planning Division recorded agricultural use on 4,962 acres: about 22% of all land. Most agriculture has ceased in Orion Township, although the 2013 land use survey revealed that about 15 acres are still farmed. Empty barns and silos remain on scattered sites throughout the Township as reminders of the Township's history when thousands of acres were used for agricultural production. Other large portions of the Township had only marginal value as agricultural lands, and were never built upon. Much of this land is heavily wooded or is wetlands, providing an ideal habitat for wildlife. These large expanses of unspoiled lands help to impart the rural image that residents consider so appealing. Over 5,400 acres of these lands are now protected

for the benefit of all residents within the Oakland County parks system and a State park known as the Bald Mountain Recreation Area.

In the last two decades, growth in the region has moved northward, resulting in major changes in land use in Orion Township. Orion Township is now considered to be on the northern fringe of a major concentration of economic activity centered near the I-75/M-59 interchange.

The following land use trends have been observed since the adoption of the 1992 Master Plan:

Vacant – Orion Township has seen a striking decrease in the amount of vacant land since the 1989 land use survey, which is commensurate with the increase in the amount of residential acreage within the Township. Prior to 1980, agricultural land accounted for approximately 22% of all land in the Township. By 1989, farmed agricultural land had been reduced to approximately 650 acres. In 2013, most farmlands remain fallow or on the verge of transition, with only 15 acres of agricultural land remaining.

Single Family – In 1989, most of the higher concentrations of residential development were situated on Long, Orion, Indianwood, Square, Elkhorn, Tommy's, Mill, Long, Lake Orion, and Voorheis Lakes, with concentrations of development within the northeast, concentrated around the Village of Lake Orion, and within the southwest quadrant. Most of these residential dwellings were originally used as lake front cottage homes, but since have been transformed into permanent dwellings. As residential land uses have increased, this pattern of residential distribution has remained true to form. With a large conglomeration of lakes traversing the Township in a southwest to northeast direction, the land surrounding these lakes, not utilized as open space, has quickly become the residential focus within the Township.



Single-family residential is the most predominant land use in Orion Township.

Multiple Family – Since the 1989 existing land use study, several multiple family developments have been constructed. The 5-year American Community survey estimates that Orion Township contains approximately 2,360 multi-family dwellings (including apartments, townhomes and attached condos), representing about 20% of the Township's total housing stock. The locations of these developments are scattered throughout the Township.



Multi-family Townhomes at Heron Springs.

Mobile Home Parks – There is one Mobile Home Park in the Charter Township of Orion. The Chateau Orion Mobile Home Park is located along the Township's southern border, consisting of 72 acres, within which 423 mobile home sites are located. Just over 90% of the mobile homes in the Township are located within the Chateau Orion Mobile Home Park.

Commercial/Office – Commercial uses, consisting primarily of local convenience businesses, service stations, and restaurants, are scattered in individual locations mainly along the Baldwin and M-24 corridors. The largest concentration of commercial uses generally follows the residential pattern for the Township, with many commercial businesses along Lapeer Road just south of the Village of Orion, and along Baldwin Road, south of Voorheis Lake. Along these corridors, these commercial uses are extremely accessible to Township residents as well as neighboring Townships.



Retail uses at Orion Village Crossing

Office uses are primarily located along the three main north/south arterials within the Township – Baldwin, Joslyn, and Lapeer Roads. Along Baldwin Road, small office nodes can be found at the intersections with Maybee Road and with Waldon Road, while the Township Hall offices are located centrally within the Township along Joslyn Road, adjacent to Civic Center Park. The largest concentration of office uses, however, can be found along Lapeer Road (M-24), in small pockets, spanning the length of the Township.

Industrial – Industrial uses have been limited to the southern regions of the Township, with General Motors, located at Giddings and Silverbell, being a major employer for the Township and surrounding areas. A concentration of industrial uses can be found on Brown Road between Baldwin and Joslyn Roads. The Township created and adopted a unique zoning district for the Brown Road industrial area in 2011, called the Brown Road Innovation Zone (BIZ). The BIZ District encourages mixed industrial and commercial development, energy-efficient design, and provides an attractive transition between residential and non-residential properties. The Lapeer Road Overlay District was adopted in 2014 to allow a greater range of land use options to complement the primary office and industrial function of the south Lapeer Road area.

Recreation and Conservation – A dominant feature of existing land use within the Township is the large amount of land devoted to public recreation. The State-owned Bald Mountain Recreation Area occupies much of the central and eastern portions of the Charter Township of Orion. Additionally, a large portion of land in the central and western portions of the Township is home to the Orion Oaks County Park. Altogether, recreational land accounts for nearly 6,000 acres of Township land or roughly 27% of land in the Township.

Public/Institutional – The largest institutional use in the Township is the Lake Orion Community Schools system. The remainder of public uses includes those associated with the Township Hall, located at 2525 Joslyn Road. Numerous churches are also located in the Township.



The Wildwood Amphitheater at Civic Center Park hosts outdoor concerts during the summer.

NEIGHBORING COMMUNITIES

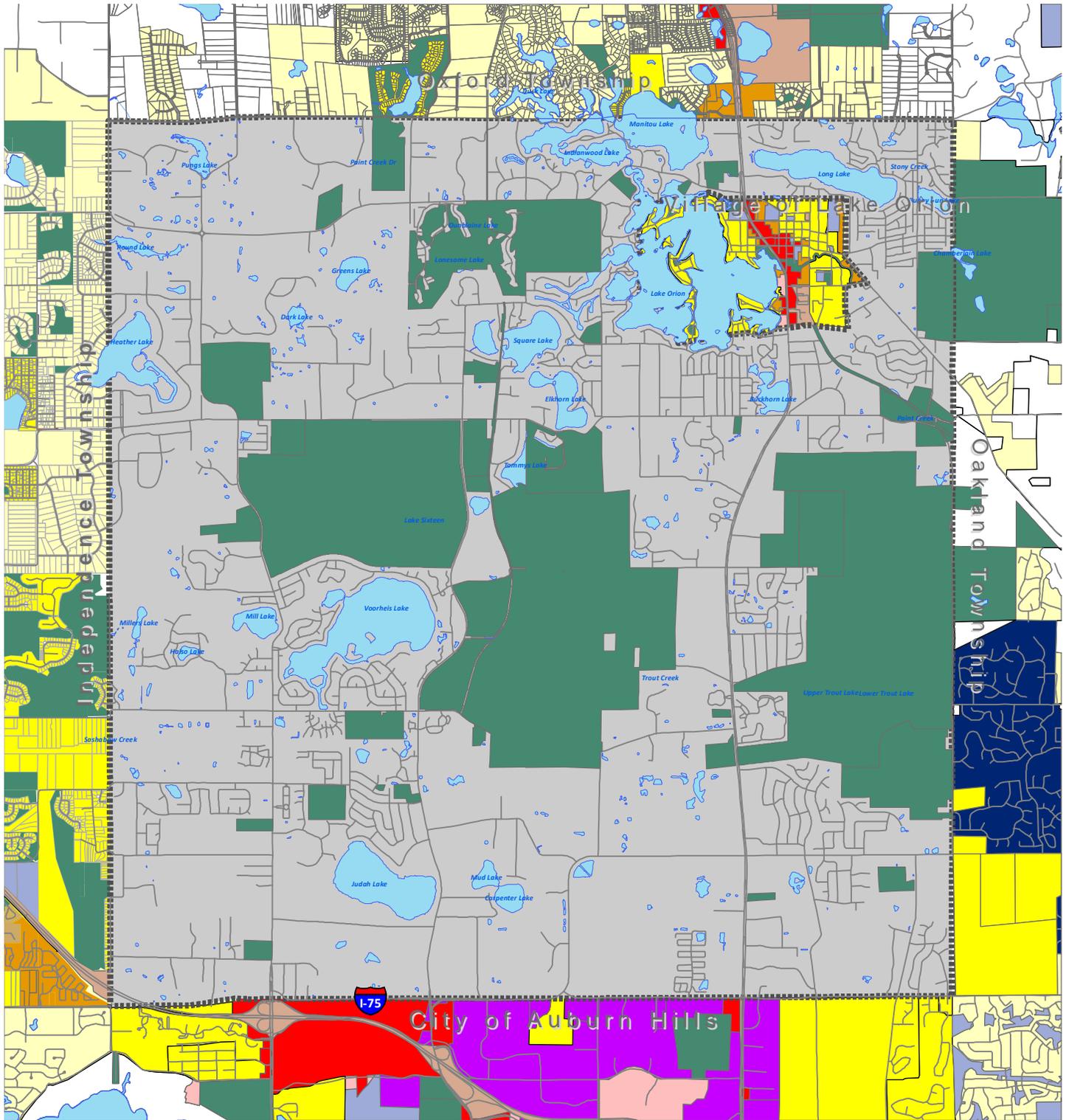
While the Future Land Use Plan chapter addresses anticipated and envisioned land uses *within* Orion Township, the Township is not an island unto itself; existing and planned land uses in adjacent communities can influence development patterns within the Township. Therefore, Orion Township's policy makers should be informed of the future land use plans of neighboring communities and how they can impact development within the Township. The map on the following page illustrates a generalized version of the various planned uses for the communities that border Orion Township. These planned development patterns are described below:

Oxford Township (north): The border between Orion Township and Oxford Township is delineated by Stanton Road and Indian Lake Road. The southern boundary of Oxford Township is generally planned for residential uses at a variety of densities. Low-density and rural residential uses are planned for the southeast and southwest corners of the Township, while higher-density residential uses are planned around the Township's lakes.

Oakland Township (east): The border between Orion Township and Oakland Township is generally defined by Kern Road. The southwestern area of Oakland Township is planned for medium-density residential development, while the western and northwestern areas are anticipated to remain as agricultural residential and open space land.

Auburn Hills (south): The border between Orion Township and Auburn Hills is generally delineated by Brown Road. The northwest and northeast areas of the City are planned for medium-density residential, while the north-central areas are planned for a mix of industrial and commercial uses. The south side of Brown Road is generally defined by large-scale industrial uses and big-box stores.

Independence Township (west): The border between Orion Township and Independence Township is not delineated by a street. The eastern and northeastern areas of Independence Township are planned for low-density residential uses, while the southeastern areas of the Township are planned for a mixture of medium-density residential uses and open space.



- | | |
|--------------------------------|------------------------------------|
| Agricultural/Rural Residential | Mixed Use |
| Low Density Residential | Office |
| Medium Density Residential | Institutional/Public/Quasi Public |
| High Density Residential | Industrial |
| Commercial | Open Space/Conservation |
| | Planned Unit Development/Other Use |

Map 3
Neighboring Future Land Uses
 Charter Township of Orion
 Oakland County

Source: SEMCOG data

COMMUNITY FACILITIES

The responsibility of providing public services to residents of Orion Township is shared by several public entities, including the Township government itself, various Oakland County departments, various State offices, the Lake Orion Community School District, and others. The adequacy of public facilities has a direct influence on the Township's ability to attract new residents, businesses, and industries. Often the impression created by a particular community is directly related to its schools, parks, libraries, public buildings, public utilities and police and fire facilities. This chapter will concentrate on public facilities over which the Township has control, with the recognition that these facilities are supplemented by private facilities and other public bodies such as the Lake Orion Community School District and the County. Note that transportation facilities and infrastructure is addressed in the following chapter – **Transportation and Thoroughfares.**

TOWNSHIP ADMINISTRATIVE SERVICES

The existing Township Hall located at 2525 Joslyn Road was put into use in February of 1977. The Hall has 5,060 square feet of floor space on each of the two (2) levels. Township administrative offices are located on the upper level; space for general meetings, storage, and a kitchenette are located on the lower level.

The Township Hall is well-situated on an 82-acre site in Section 21, almost at the center of the Township. Over the years, the site and adjacent property has been developed as a civic center that includes the Township hall, the Department of Public Works building, and the Civic Center Park.

Prior to the 1992 Master Plan, the Township completed an assessment of the adequacy of the existing Township Hall and recommendations for expansion needs of the facility.² This was accomplished by determining the space requirements of the existing Township departments including supervisor, clerk, treasurer, building and planning, building and grounds, public works, assessor, fire chief, and common use areas, and for a parks and recreation department. The need for counter space to provide necessary public access to departments was also a major consideration.

² Ford & Earl Associates Inc., memo dated October 10, 1988 and "Report and Recommendations for Renovation and Expansion of Township Offices," Minoru Yamasaki Associates, September 22, 1989.

PUBLIC SAFETY

Providing essential police and fire services is a fundamental governmental service and the foundation of a thriving and safe community.

Police Services

Orion Township has contracted with the Oakland County Sheriff's Office since 1952 for effective and efficient police services. Currently, Orion Township contracts with the Oakland County Sheriff's Department for 24/7 police protection with a set three-year contract. The Township contracts twenty-seven (27) full-time certified Deputies who currently work out of the Orion Township Substation located at the Orion Township Hall. The contract further provides Orion Township residents with the advanced services of the Oakland County Sheriff's Office Regional Dispatch Operations Center which is nationally accredited and certified as a Michigan Safety Communication System (MPSCS), Emergency Medical Dispatch (EMD), Emergency Police Dispatch (EPD), and Emergency Fire Dispatch (EFD).

In addition to the dedicated Uniform Patrols, Detectives, K-9 Patrol and School Liaison Deputy, Orion Township uses the Oakland County Sheriff's Office shared Regional Special Team Services, which include: Volunteer Reserve Unit, Marine Unit, Crime Scene Unit – Forensic Lab, Computer Crimes Unit, Fugitive Unit (FAT), Narcotic Enforcement Team (NET), Auto Theft Unit, Arson Unit, Special Investigation Unit, Violent Crimes Task Force, Special Weapons & Tactics Unit (SWAT), Dive Team, Aviation Unit and Emergency Preparedness and Training Division.

Currently, Police Services in Orion Township are completely funded with two dedicated police fund millages of 1.9832 and 1.0168 for a total of 3 mills.

Fire Protection Services

Currently, fire protection in Orion Township is provided by a combination of eighteen (18) full-time firefighters and forty-two (42) paid-on-call volunteers that operate out of four (4) fire stations. The Fire Department is funded through 3 separate mileages levied through property taxes. Fire station locations include:

- Station No. 1: 93 S. Anderson St;
Built in 1980
- Station No. 2: 3801 Giddings Rd;
Built in 2014
- Station No. 3: 3365 Gregory Rd.;
Built in 2011
- Station No. 4: 465 S. Baldwin Rd.;
Built in 2005



Station No. 4 is one of Orion Township's newest fire stations.

MUTUAL AID AGREEMENTS/ASSESSING

As part of Orion Township's arrangement with the Oakland County Fire Chief Association, a mutual aid agreement was signed with surrounding communities to provide necessary services for fire protection. The mutual aid agreement, known as Mutual Aid Box Alarm Society (MABUS 320) provides for specific responses based on needs and alarm priorities. This mutual aid pact allows for Orion Township to receive and render aid in emergency situations when resources have been placed at their maximum. In the event of serious structure fires or other emergencies, Orion Township will be provided with the necessary aid from all adjacent communities and receive resources from County, State and Federal sources.

Orion Township relies upon the Oakland County Equalization Department for assessing and assistance regarding property taxes.

SENIOR SERVICES

Orion Township offers a number of services and resources for its seniors. Services include free transportation via the North Oakland Transportation Authority (NOTA), senior sports & fitness programs, trips, and senior clubs. Many senior programs are run out of the Orion Center, located at 1335 Joslyn Road. The Orion Center, built in 2011, is home to the Community Programs Department which encompasses general recreation programming and senior services. The building incorporates a variety of recreation facilities, including a senior fitness room, yoga room, and arts and crafts room. The Orion Center also features a wellness center and a branch of the Orion Township Public Library.



The Orion Center offers a number of amenities aimed towards seniors, including recreational facilities and a wellness center.

PUBLIC WATER AND SANITARY SEWER SERVICES

Currently, the Township is served by the Detroit Water System. The Detroit Water System has been extended along M-24 to a point north of Indianwood Road and along Brown Road to serve the General Motors plant and the industrial sector in the southeast and south-central part of the Township. The Detroit Water System also extends along Brown Road to Baldwin Road, then north on Baldwin Road just north of Clarkston Road.

Existing and planned water service areas are depicted on Map 5 on the next page. A large main was recently installed along Baldwin Road that loops to Indianwood Road. The intent of the loop is to provide alternatives in case of a service disruption, thereby providing for the health, safety and welfare of Township residents and businesses. The Township has extended Detroit Water westerly in a loop that follows along Giddings, Silverbell, Joslyn, and Brown Roads. This loop relieves the community well system that did serve the Keatington and Judah Lake subdivisions. An additional loop is planned for Miller, Conklin and Indian Lake Roads.

The accompanying Sanitary Sewers map (Map 6) depicts the areas served in the Township and distinguishes between the Paint Creek Interceptor and the Oakland-Orion system. The existing sanitary sewer area in Orion Township covers some residential subdivisions, including the Keatington and Judah Lake subdivisions, the Heather Lake area, and subdivisions surrounding the Village of Lake Orion, the industrial sector in the southeast part of the Township and sparsely developed residential areas along M-24 and Waldon Road.

DRAINAGE

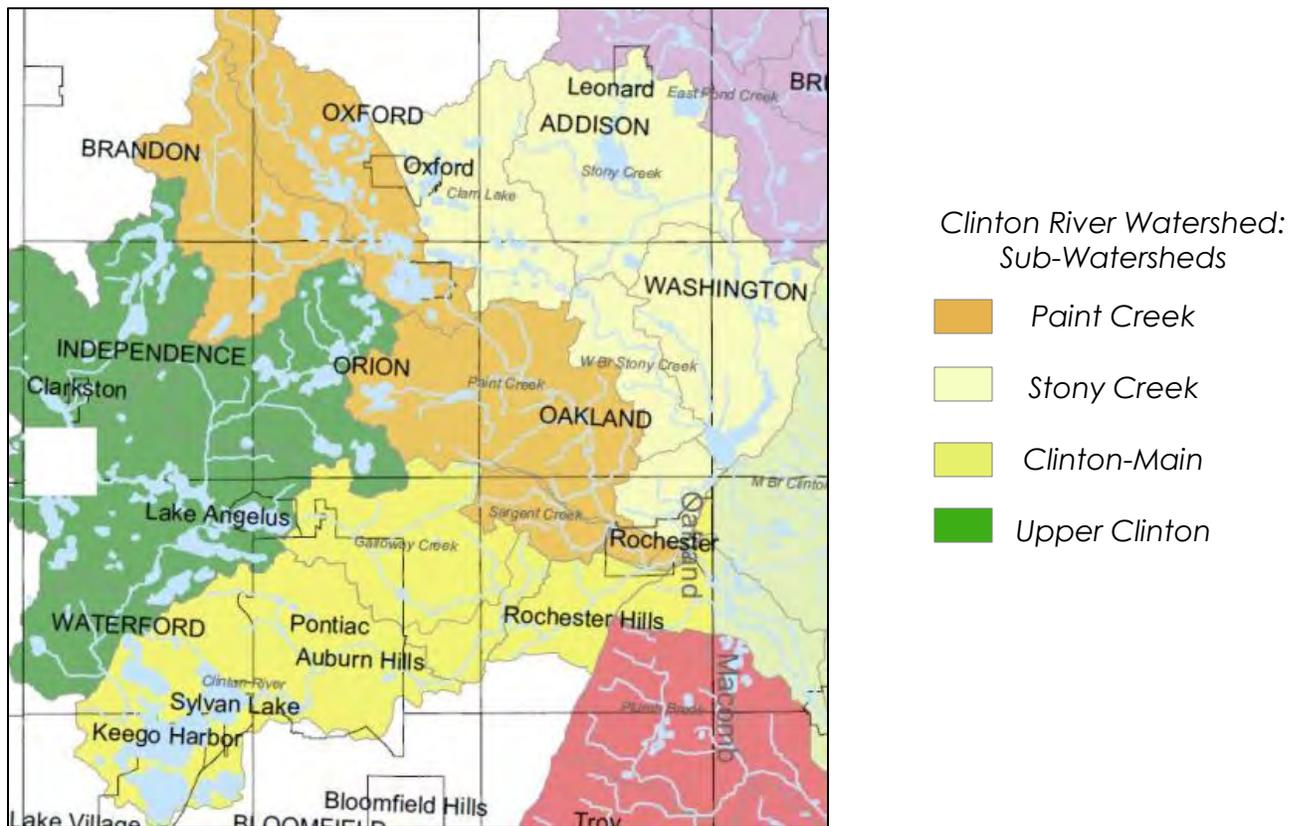
Orion Township lies within the Clinton River Watershed; therefore all surface water eventually works its way to the Clinton River. However, the community is divided into several sub-watersheds. The major sub-watersheds include the Paint Creek and the Main-Clinton, while the Stony Creek covers a small portion of the northeastern corner of the Township. Several smaller sub-watersheds are also located within the Township and include the following: Sashabaw Creek, Trout Creek, Lake Angelus, Galloway Creek and Galloway Ditch.

There are several Oakland County Drain Water Resources Commission drains (enclosed and open ditch) that serve Orion Township, including: Brown Drain, Dry Run Drain, Reid & Branch Drain, Paint Creek Drain, Axford Drain, Osgood Drain, and the Ballard Drain (see Map 7). There are several other small streams that serve as tributaries to the Township's major drains.

Drainage for the most of Orion Township is private or non-governmental, and the individual property owners in the Township are typically responsible for their own storm water drainage. The Township's Stormwater Management Ordinance, No. 92, is one of the primary tools in controlling impacts of new developments, as well as providing for other benefits

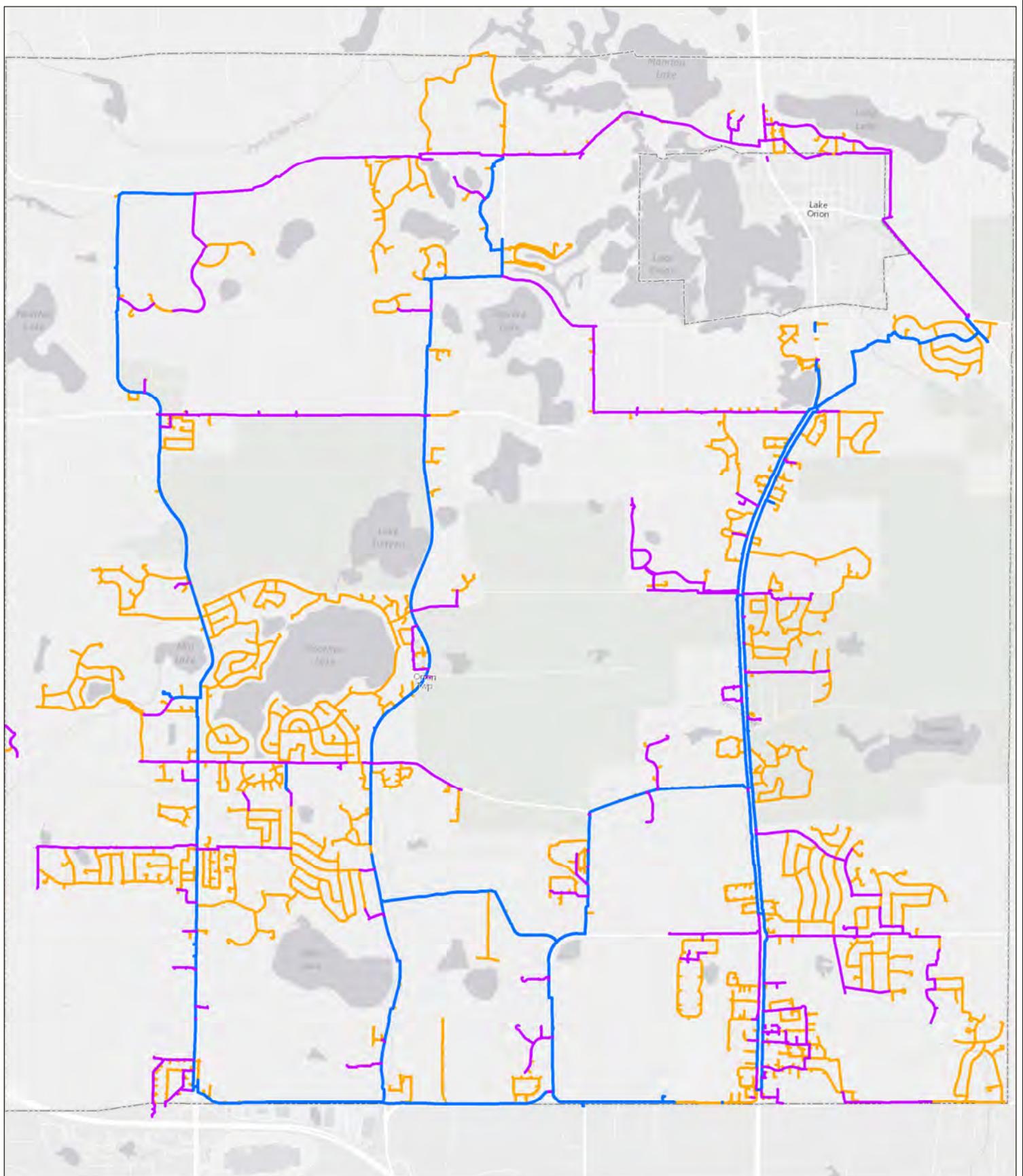
It is expected that, as Orion Township continues to develop, active maintenance of the Township's creeks and County drains will be increasingly important to the prevention of future flooding and drainage concerns. While already in place, Orion Township must continuously monitor and update its ordinances and policies to ensure that they meet Federal Clean Water Act requirements.

Map 4. – Clinton River Watershed



Source: <https://redrundrain.files.wordpress.com>

Orion Township is located within the Clinton River Watershed. The major sub-watersheds include Paint Creek, Stony Creek, Clinton-Main and Upper Clinton.



Map 5 Water Distribution System

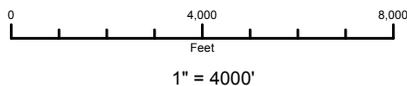
Water Main

— >= 8"

— 12"

— 16"-24"

□ Orion Township



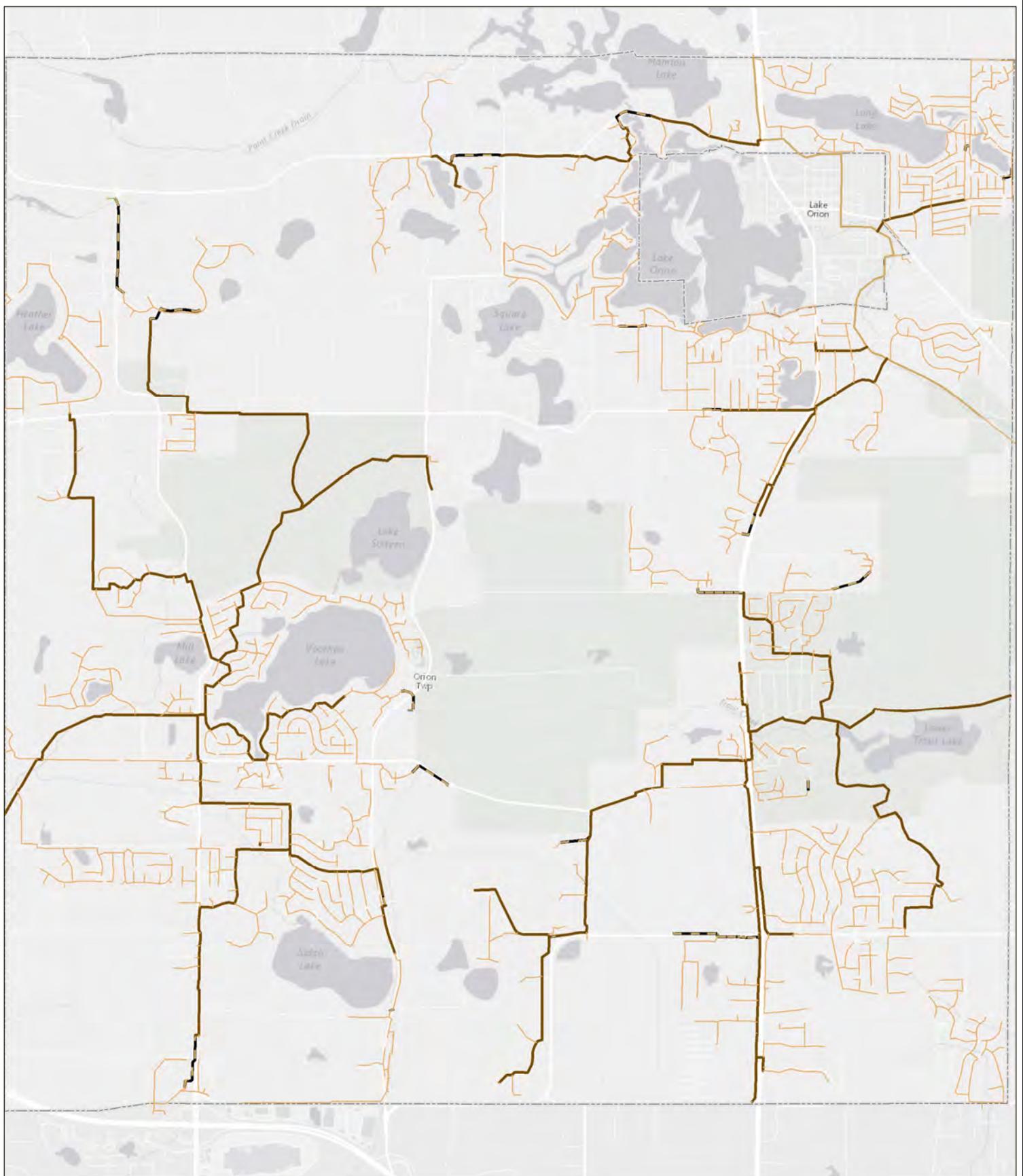
Source: Data provided by Oakland County and Charter Township of Orion. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl

Map Published: January 6, 2015

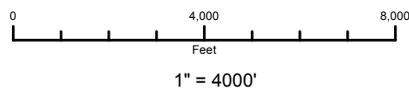


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Map 6 Sanitary Collection System

- Sanitary Sewer**
- Collector
 - Interceptor
 - Trunk
 - Forced
 - Orion Township



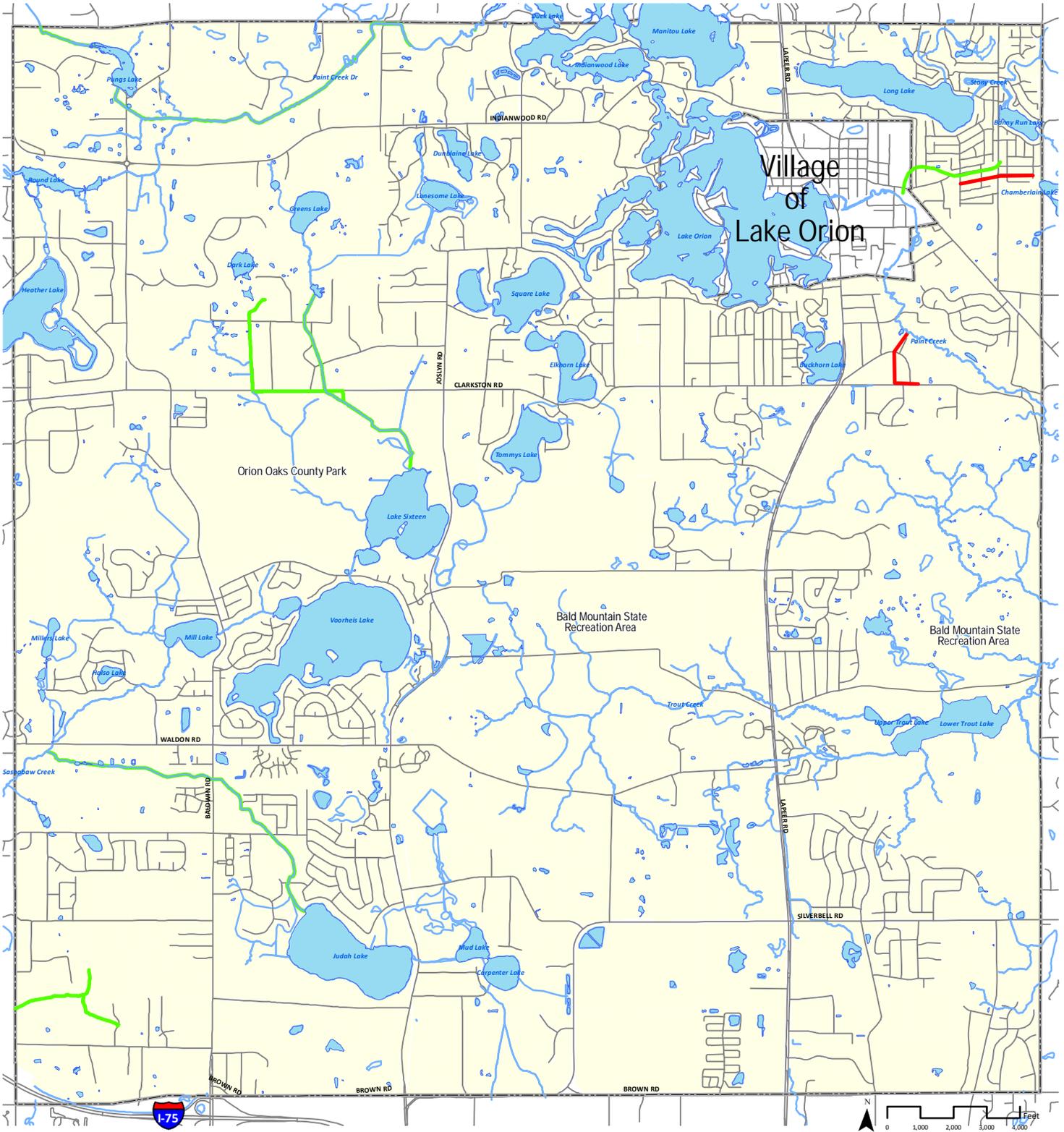
Source: Data provided by Oakland County and Charter Township of Orion. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl

Map Published: January 6, 2015



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- Enclosed Drain
- Open Ditch Drain
- Streams and Creeks

Map 7

Drains

Charter Township of Orion
Oakland County



LANDFILLS

Waste Management owns and operates the Eagle Valley Landfill in Orion Township. The landfill, which occupies approximately 280 acres in the southwest portion of the Township, is a Type II solid waste disposal facility and recycling drop-off center that also creates renewable energy. The landfill has been in operation for several decades and manages the solid waste needs of Oakland County residents and businesses.

Currently, the General Motors Orion Assembly plant, located to the south of the landfill, utilizes Eagle Valley's landfill gas to power a portion of their operations. The landfill also provides energy to DTE through a renewable energy plant that converts landfill gas into electricity.

Eagle Valley operates in compliance with regulations under the Natural Resources and Environmental Protection Act (P.A. 451 of 1994) and is licensed by the Michigan Department of Environmental Quality (MDEQ). In addition to operating under various solid waste disposal, soil erosion, stormwater, and industrial discharge permits, Eagle Valley is required to maintain numerous monitoring and pollution prevention plans.³

Map 8 – Location of Eagle Valley Landfill



The Eagle Valley Landfill is located at the northeast corner of Silverbell Road and Giddings Road (denoted on the map by the yellow shading).

³ "Eagle Valley Landfill." *Eagle Valley Landfill*. Waste Management, <<http://eaglevalleylandfill.wm.com/index.jsp>>.

PARKS AND RECREATION

The most recent Parks and Recreation Master Plan was adopted in 2014 by the Township Board to guide future parks and recreation planning and management efforts of the Charter Township of Orion. The Plan is the official document used by the Parks and Recreation Advisory Committee and the Township Board to guide decisions regarding the community's parks and recreation facilities and programs. The most recent Plan provides the Township with a roadmap and a guide to develop the parks and recreation system through the year 2018 and beyond. The Plan considers existing facilities in and around the Township, as well as the demand for additional or improved park facilities and recreation programs. The Parks and Recreation Master Plan culminates with the formulation of goals and objectives as well as a specific five-year action program and design guidelines for the parks.

The Parks and Recreation Master Plan follows the format suggested by the Michigan Department of Natural Resources and meets state standards for community recreation planning that are necessary to gain eligibility for grant programs. The Plan provides a community description, describes the Township's administrative structure, and provides a detailed inventory of parks, recreation and pathways. The Plan's needs assessment consisted of an analysis of the Township's parks, pathways and recreation system to determine recreation deficiencies and needs. Once needs were identified, goals, objectives and a realistic action program were established.

Parks and recreation services are important to Orion Township residents and an integral part of the community's Master Plan. The following narrative is a summary of the 2014 adopted Parks and Recreation Master Plan for Orion Township. It highlights the recreation inventory and outlines the Plan's goals and objectives. A detailed table of the Master Plan's action program can be found in the appendix.

PARKS AND RECREATION PLAN

The full Parks and Recreation Master Plan, as well as additional information regarding Orion Township's parks, trails, and recreational services and programs, can be found online at:

<http://oriontownship.org/ParksPrograms/Parks&Trails.aspx>

RECREATION INVENTORY

The residents of Orion Township have a variety of available regional and local park and recreation resources. There is a total of approximately 380 acres of Township-owned developed park land and properties and about 3,770 acres of County or State-owned park land in Orion Township. In addition, there is an extensive amount of regional parks and recreation areas around Orion Township. County and state-owned parkland along with Huron-Clinton Metroparks are considered regional recreation facilities.

Most regional facilities provide opportunities such as camping, swimming, boating, hiking and hunting. Local recreational resources, on the other hand, focus on meeting the recreation needs of the community. In Orion Township, local recreational facilities include the Township-owned parks, Village of Lake Orion parks, Lake Orion Community School facilities, and non-motorized trails and safety paths. These facilities vary widely in size and include a broad range of activities such as playgrounds, picnic areas, trails, areas for athletic events and community events.

Regional Park and Recreational Facilities around Orion Township

There are over 30,000 acres of state-owned parks and recreation areas, 13,700 acres of Huron Clinton Metropolitan Authority (HCMA) metroparks and over 17,000 acres of county-owned parks and recreation areas in communities adjacent to Orion Township. These regional facilities incorporate large areas and provide recreation opportunities such as swimming, boating, hiking, hunting, camping and golfing. These facilities include Bald Mountain Recreation Area, Ortonville Recreation Area, Pontiac Lake Recreation Area, Addison Oaks County Park, Independence Oaks County Park, Waterford Oaks County Park; and Stony Creek Metropark.

Park and Recreational Facilities within Orion Township

The State of Michigan and Oakland County own a large amount of regional parkland within the Township, including nearly 4,000 acres of the state-owned Bald Mountain Recreation Areas, 3 acres owned by the Department of Natural Resources (DNR) at the Lake Orion access site, and 874 acres of the County-owned Orion Oaks County Park. Bald Mountain Recreation Area offers a wide array of recreation opportunities, including hiking, picnicking, playgrounds, boating, swimming and hunting. The DNR access site provides a boat launch on the north side of Lake Orion, while Orion Oaks County Park is an open space preserve containing a dog park, fishing opportunities and trails.

The Township owns and operates nine (9) municipal parks and properties that total 243 acres of developed park land and 77 acres of undeveloped park land. Township-owned parks include Civic Center Park, Friendship Park, Jesse Decker Park, McConnell Field, Gingell Nature Area, the Orion Center, and the recently acquired Herron Springs park property. Additionally, the Township recently purchased the Camp Agawam boy scout camp, adding nearly 140 acres to the Township's inventory. In addition to these properties, the Township owns and manages over 45 miles of safety path and its share of approximately 5 miles of trails, including the Paint Creek Trail, the Polly Ann Trail and the Polly Ann Trail Extension.

The table on the following page describes parks and recreation facilities within Orion Township. Map 9 illustrates the locations of these recreational and other facilities located within the Township.

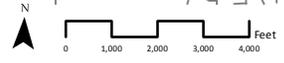
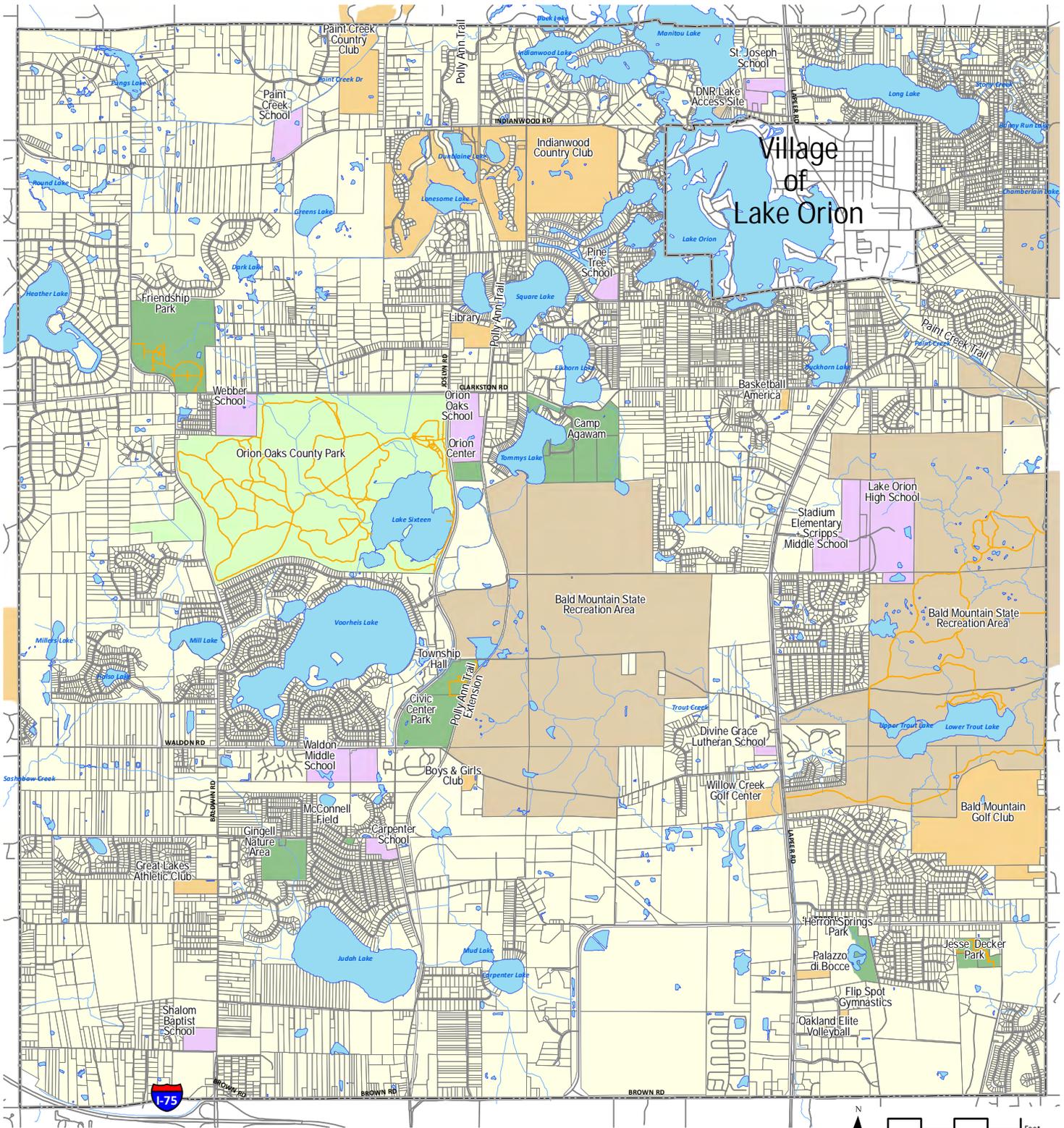


Orion Township offers a wide array of recreational facilities and programs.

Table 10. – Park and Recreation Facilities

		State Recreation Areas						HCMA Metroparks				Oakland County Parks						
		Bald Mountain Rec Area - 4,637 Ac.	Highland Rec Area - 5,903 Acres	Holly Rec Area - 7,817 Acres	Ortonville Rec Area - 5,400 Acres	Pontiac Rec Area - 3,745 Acres	Proud Lake Rec Area - 4,700 Acres	Seven Lakes State Park - 1,434 Ac.	Indian Springs Metropark - 2,215 Ac	Kensington Metropark - 4,486 Acres	Stony Creek Metropark - 4,461 Ac.	Wolcott Mill Metropark - 2,625 Ac.	Addison Oaks - 1,140 Acres	Groveland Oaks - 362 Acres	Independence Oaks - 1,276 Acres	Orion Oaks - 916 Acres	Springfield Oaks - 332 Acres	Waterford Oaks - 185 Acres
Passive	Picnicking	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Playground	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Trails	Nature/Hiking Trail	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Paved Trail	●						●	●	●		●	●	●			●	
	Mountain Biking Trail	●	●	●	●	●	●	●			●		●		●			
	Equestrian Trail		●		●	●	●	●	●	●		●						
	Cross-country skiing	●	●	●	●	●	●	●	●	●	●	●	●		●	●		
	Snowmobiling	●	●	●	●	●	●	●										
Water Activities	Swimming Beach	●	●	●	●	●	●		●	●			●	●	●			
	Swimming Pool																●	
	Boat Launch	●	●	●	●	●	●	●	●	●				●				
	Boat Rental			●			●	●	●	●		●	●	●	●			
	Canoeing/Kayaking	●	●	●	●		●	●		●	●		●	●	●			
	Shore/Boat Fishing	●	●	●	●	●	●		●				●		●			
	Dock Fishing	●	●	●		●				●					●	●		
Winter & Seasonal Activities	Ice Fishing	●	●	●		●						●		●	●			
	Ice Skating								●	●				●				
	Sledding							●	●	●							●	
	Hunting	●	●	●	●	●	●	●				●			●			
Interpretive Facilities	Nature Center							●	●	●				●				
	Farm/Learning Center								●		●					●		
	Garden															●		
Court & Turf Games	Ball Field											●		●				
	Sand Volleyball		●				●	●		●		●	●	●			●	
	Horseshoe Pit		●		●		●	●				●	●	●			●	
	Table Tennis																●	
	Disk Golf			●						●	●	●	●					
	Golf Course/Driving Range								●	●	●	●				●		
Misc.	Dog Park		●												●			
	Banquet/Event Facility									●		●				●	●	
	Skate Park/Motorcross												●				●	
	Shooting Range	●			●													
	Horse Stable		●									●				●		
Camping	Rustic Campsite	●	●		●	●												
	Modern Campsite			●		●	●					●	●					
	Cabin/Lodge	●	●	●			●					●	●					
	Group Camping	●	●	●		●	●		●		●	●	●					

Source: Orion Township Parks and Recreation Master Plan



Map 9

Community Facilities

Charter Township of Orion
Oakland County

- Township Parks/Properties
- County Park
- State Recreation Area
- Schools
- Private Recreation Facilities
- Park Paths

May 13, 2015
Carlisle / Wortman Associates, Inc.

Source: Oakland County Planning & Economic Development Services, 2013

Orion Township also has a diverse mix of privately-owned recreation facilities. These facilities include golf courses, camps, fitness and sports centers, Boys and Girls Club, Great Lakes Athletic Club, Indianwood Golf and Country Club, Paint Creek Country Club, Willow Creek Golf Center and Basketball America.

A wealth of recreation programs are available to residents of Orion Township from a variety of recreation providers. While Orion Township Parks and Recreation provides the majority of recreation programming in the Township, other programs are offered through the Orion Center, the Village of Lake Orion, Lake Orion Community School District, Oakland County Parks and private sports organizations.

PARKS AND RECREATION GOALS, OBJECTIVES AND ACTIONS

The current Parks and Recreation Master Plan outlines an action program to maintain, expand and improve recreation opportunities within the community over the next five years. Goal statements were developed with a set of objectives or guidelines. The full set of goals, objectives and policies can be found in the Community Input and Goals chapter of the Master Plan. The goals, as stated within the Plan, are as follows:

- **Park Maintenance:** Maintain and renovate existing park facilities to provide clean, safe, attractive and functional environments.
- **Park Development:** Develop financially sustainable park facilities that respond to residents' recreational needs.
- **Non-motorized System:** Continue to develop and maintain the Township-wide non-motorized transportation system.
- **Parks, Recreation and Senior Programs and Services:** Maintain and enhance the quality of parks, recreation and senior programming and services.
- **Administration and Operation:** Provide for sustainable parks, recreation and senior services with fiscally sound administrative and operational strategies.

An action program within the Plan details the manner in which the goals and objectives will be met. The program includes a list of desired improvements which can be considered as long-term projects to be accomplished for each park or activity. It also provides a reasonable capital improvement schedule focusing on projects to be accomplished within the next five years. The full capital improvement schedule can be found in the appendix. The basic actions listed within the Plan are as follows:

- Maintain and upgrade existing park facilities;
- Maintain and improve Friendship Park;
- Maintain and improve Civic Center Park;
- Maintain and improve Jesse Decker Park;
- Maintain and improve the Orion Center;
- Maintain and improve McConnell Field and Gingell Nature Area;
- Maintain and improve the Township-wide safety path system;
- Continue to assess opportunities for future park land acquisition;
- Maintain and enhance high quality parks, recreation and senior programs and services, and;
- Provide for the efficient administration of parks, recreation and senior services.

ENVIRONMENTAL RESOURCES

Many residents have settled in Orion Township because they have been attracted by its natural features, such as lakes, wetlands, woodlands, rolling topography, and open spaces. These features are significant not only because of their strong appeal to residents, but also because they constitute a functioning ecosystem that has been largely unspoiled by human activity. While there are many opportunities for enjoyment and utilization of the natural resource base, particular features of the natural environment are incapable of supporting development or are of sufficient significance to be preserved. It is helpful to examine the various natural resource factors in detail to determine the opportunities and constraints for development, as well as to weigh the value of preservation. Sound land use depends on a keen awareness of the Township's natural features. Accordingly, key natural features are highlighted in the text and maps which are included within this document.

TOPOGRAPHIC FEATURES

Orion Township is considered to be in the "Thumb Upland" physiographic area of Michigan. Its basic topography is gentle, rolling hills, with the direction of flow generally to the southeast and southwest from the center of the Township. The Township's average elevation is approximately 1,000 feet above sea level. The topography and soils in Orion Township were formed largely as a result of glacial activity 10,000 to 12,000 years ago. The Township has bedrock formations of limestone, shale and sandstone, a clay subordinate, and surface formations of sand and gravel. The gravel and sand were deposited by running water from melting glaciers.

The underlying forces that shaped the Township's topography produced steep slopes in a few areas of the Township. Many of these steep-sloped areas are among the most visually attractive locations in the Township. Viewed from the road, the slopes often frame a wooded vista or provide a backdrop for an open area or lowland brush area.

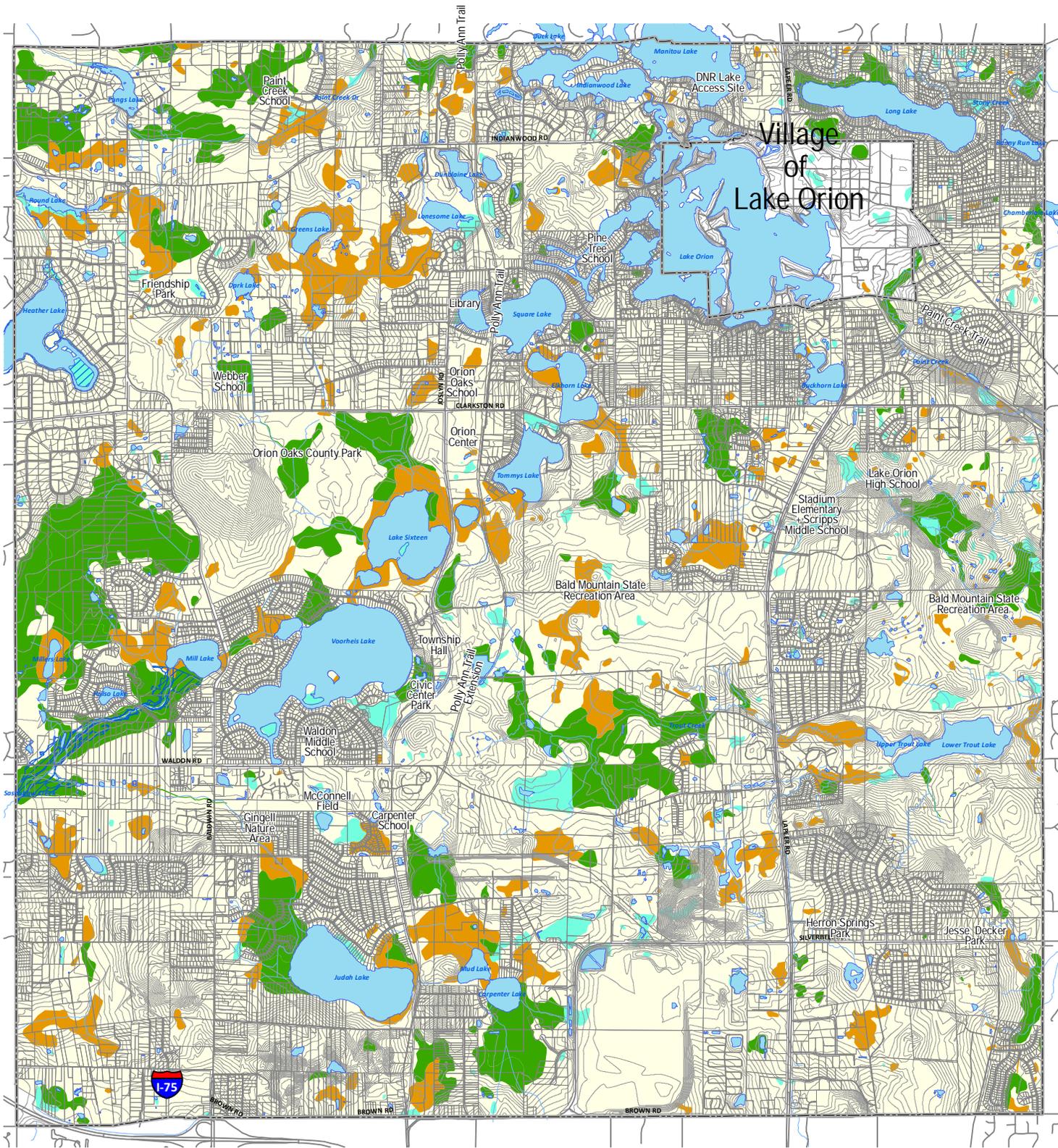
Map 10 indicates areas of the Township where steep slopes are prevalent. Slopes exceeding an eight (8%) percent gradient are located immediately north of the Hi-Hill Subdivision, on the east side of M-24 north of Silverbell Road. The sloping land on the east side of Lapeer Road extends northward to Clarkston Road. Near Clarkston and Kern Roads, there is a serene, unspoiled wooded area with steep banks down to the rushing waters of the Paint Creek. Much of the sloping land on the east side of Lapeer Road lies within the Bald Mountain Recreation Area.

Another general area of steeply sloping land is in the northwest part of the Township, particularly around the Baldwin Road/Clarkston Road intersection. The view from Baldwin Road at certain points is striking, with folds and cuts in hills accented by large tree stands which frame views of more distant hills. Steeply sloping land is also prevalent in the southwest part of the Township near both Gregory and Judah Roads. Hills along Judah and Joslyn Roads provide a particularly scenic view of Lake Judah.

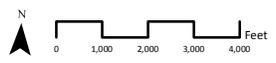
SOILS

An understanding of soil characteristics is essential to the development of a community in a manner that minimizes construction costs, risks to public health, and environmental impact. This is especially critical in Orion Township, because of the limitations of many soil types found there.

Soil types within the Township are identified in the Oakland County Soil Survey prepared by the U.S. Natural Resource Conservation Service (formerly the U.S. Soil Conservation Service). Detailed soils maps are available through the Oakland County Planning Department or the Natural Resource Conservation Service. Two (2) soil characteristics that are most important to Orion Township are: 1) suitability for septic systems and 2) susceptibility to wetness and flooding. The latter characteristic is typically associated with low-lying wetland and floodplain areas, both of which are discussed in another section of this document.



- Forested Wetlands
- Scrub-Shrub Wetlands
- Emergent Wetlands
- Floodplain
- 5-Foot Contour Elevations



Map 10

Natural Features

Charter Township of Orion
Oakland County

Source: Michigan Geographic Data Library Data,
Land Cover/Use - MIRIS

January 6, 2015
Carlisle / Wortman Associates, Inc.



There are many areas within the Township that exhibit severe limitations for septic systems. Such limitations are associated with slow permeability, high water table, or excessive slope. In some cases, limitations may be overcome with a more sophisticated and costly system or municipal sanitary sewers. In cases where severe septic limitations are associated with a susceptibility to flooding, development should be sited in more suitable areas.

WATER RESOURCES

Over the years, the prime residential developments in Orion Township have been built around the Township's many lakes. Most residents appreciate the recreational or scenic value of the lakes. However, the lakes represent only one component of the community's extensive, inter-connected water system that also includes streams, wetlands and groundwater. The water system provides significant benefits for current and future residents of the Township, such as a source of drinking water, stormwater attenuation, water filtration and storage, and aesthetic and recreational benefits.

Watersheds

Orion Township is wholly located within the Clinton River Watershed. The Township's entire land area ultimately drains to the Clinton River, which subsequently drains into Lake St. Clair. Within the Township, the Clinton River Watershed is broken down into stream-based watersheds, which include the Upper Clinton Watershed, the Stony/Paint Watershed, and the Clinton-Main Watershed. The watershed divisions were created to facilitate the work the Township has been doing to comply with the Clean Water Act's Phase II requirements for regulating stormwater.

The largest part of the Township is in the Stony/Paint Watershed, which covers over 1,200 acres (or 54% of the Township). The second largest watershed area in the Township is the Upper Clinton Watershed, covering 9,244 acres (40%). The remaining acreage (1,356 acres or 6%) in the Township drains to the Clinton-Main Watershed on the southern border.

Since 2002, the Township has participated in watershed planning activities to obtain a stormwater permit from the state through the National Pollutant Discharge Elimination System (NPDES). Because Orion Township is located in three stream watersheds, they participate in three watershed groups to draft and implement watershed management plans for each. While each plan is unique, an analysis of the various watersheds revealed similar conclusions:

- 1) In general, the streams and lakes within Orion Township have fairly good water quality and support aquatic organisms typically found within urbanizing areas.
- 2) There are several areas of concern:
 - a. Square Lake (in the Upper Clinton Watershed, has problems with excessive algae and other plant growth. This may be due to fertilizers washing from lawns into the lake, water fowl feces, or failing septic systems.
 - b. Many streams and lakes are impacted by sediments flowing in from gravel roads, construction sites, or “flashy flows” that deposit sediments due to streambank erosion.
 - c. Streams are becoming more “flashy,” or experiencing increased stream flows following storms. This is due to more development that keeps stormwater from naturally infiltrating the ground. Therefore, more water is reaching the streams (increased volume, runoff), faster.

Impervious Surfaces

Because development replaces pervious ground with impervious pavement and buildings, water runs off the surface rather than permeating naturally through the ground. This, in turn, degrades streams and water quality unless managed in an ecologically-sound manner.

As stormwater drains across pavement, it picks up pollutants such as automobile fluids, fertilizers, and sediment and conveys them into a stormdrain. If a stormdrain is directly connected to a creek, the creek receives polluted water which, in turn, can degrade water quality and wildlife habitat. Portions of southeast Michigan receive their drinking water from surface water sources. Because stormwater heats up the longer it sits on hot, impervious surfaces, it can also impact aquatic organisms that depend on cool or cold water habitats. Lastly, water volume is greater for surface stormwater; Therefore, it reaches the stream much faster. The increased volume and speed erodes stream banks and impairs the stream's ability to support aquatic vegetation and wildlife.

ORION TOWNSHIP WATERSHEDS

Additional information regarding watersheds located within Orion Township, as well as the individual watershed management plans, can be found online at:

http://www.oakgov.com/water/Pages/services/ws_overview.aspx

An impervious surface analysis was conducted as part of the Upper Clinton and Stony/Paint Watershed Management Plans. This analysis classifies the quality of streams based on the percentage of impervious cover (IC) in their watersheds. The framework classifies streams as sensitive (0-11% IC), impacted (11-25% IC), and non-supporting (>25% IC), as detailed in Table 11.

The Stony/Paint results showed that, as of 2000, all of the streams in this watershed passing through Orion Township were classified as “sensitive,” with impervious cover at less than 11% (average 7.3% IC). However, the model estimates that this watershed will develop to the “impacted” classification (average 11.2% IC), unless low impact development techniques are used. It is estimated that these techniques could reduce impervious cover in this watershed by almost 4%, and maintain “sensitive” streams.

The Upper Clinton results show streams that are impacted to a greater level by development. The average IC score for 2000 land cover is 16.6% in the Township, placing the streams in this watershed in the “impacted” category. Future development will push these streams almost to the “non-supporting” classification with an average IC estimate of 23%. The model also estimates that low impact development techniques (such as pervious pavements, green roofs, natural feature protection, etc.) could bring IC down by 5%, which would better maintain current conditions.

Table 11. – Stream Attributes According to the IC Model

SENSITIVE STREAM 0-10%	IMPACTED STREAM 11-25%	NON-SUPPORTING STREAM >25%
High quality; stable flow regime	Signs of degradation; flow regime destabilizes	Low quality; stream is essentially a conduit for conveying stormwater
Stable channels are in stable equilibrium	Altered stream geometry	Severely eroded and incised stream channel
Excellent habitat structure	Degraded physical habitat in the stream	Structure needed to sustain fish is diminished or eliminated
Excellent water quality	Water quality degraded; contact recreation becomes an issue	Water contact recreation is no longer possible
Diverse communities of both fish and aquatic insects	Many sensitive fish and aquatic insects disappearing from the stream	Stream cannot support any but the most tolerant life forms
Do not experience frequent flooding	Flooding becomes a more serious problem	Flooding becomes a serious problem requiring drastic engineering solutions.

Source: Schueler, 1994

Stormwater Management

The Township's existing water features play an important role in managing stormwater. Map 10 illustrates the vast area within the Township covered by lakes and wetlands. There are twenty-seven (27) natural lakes, covering about 8% (1,700 acres) of the total area of the Township. Many of the lakes are large enough for boating, fishing, swimming, and other water-oriented activities. Most of the major lakes are surrounded by residentially-developed land. Certain lakes have public access, including Lake Orion and Lower Trout Lake, which is located in the Bald Mountain Recreation Area. Lake Sixteen, located within the Orion Oaks County Park, has restricted access from Joslyn Road and from within the park itself.

Orion Township's lakes serve an important function as a natural stormwater detention system. It is vital that channel connections between lakes are maintained in order to allow reasonable water flows out of the lakes and to ensure future storage capacity. Creeks and streams are another link in the water resources system. Several creeks and streams meander through the Township, connecting lakes and wetlands with each other, and then conveying storm water run-off. As described in the referenced watershed management plans, the most prominent streams in the Township are Paint Creek, Clear Creek, Trout Creek and Sashabaw Creek. These creeks have flowing water throughout most of the year and are valued because of their ecological, aesthetic and recreational benefits.

WETLANDS AND FLOODPLAINS

Wetlands are another significant component in the water resources system. The term "wetlands" encompasses a variety of ecosystem types, which are classified by the depth of the water and the typical vegetation that grows in each. Examples in the Township include inland marshes, wet meadows, mudflats, ponds, bogs, bottomland hardwood forests, and wooded swamps. The Township contains approximately 500 acres of emergent wetlands (marshes), over 2,000 acres of forested wetlands, and almost 1,5000 acres of scrub-shrub wetlands, for a total of 17% of the Township's land area. Most of these wetlands are adjacent to lakes or streams.

Wetlands play an important role in controlling flooding and treating polluted stormwater runoff to improve water quality. During storm events, wetlands hold runoff and release it slowly to adjacent streams and lakes, which helps to reduce "flashy flows" and reduce stream bank erosion. During wet periods, the wetlands absorb water, thereby reducing shoreline flooding around lakes. During dry periods, the wetlands release water to the lakes to help maintain lake levels. Wetlands also help to

maintain water quality by filtering sediment and pollutants before they reach the lakes and streams.

Wetlands contribute significantly to the rural character of the community by providing critical wildlife habitat. Wetlands attract and retain many species of animals, birds, and other wildlife by providing a source of water, nesting, and feeding habitat. In turn, residents often identify the vegetation and animal life characteristically found in wetland areas as bringing a rural feeling to the community. Certain wetlands are unique, "high-value" ecological areas that should be identified and preserved. Excess stormwater flows should not be directed toward such wetlands that have special ecological significance. In addition, any wetland that is used for stormwater detention should only receive treated stormwater, and not in volumes greater than it receives under predevelopment conditions.



Wetlands play an important role in controlling flooding and treating polluted stormwater runoff to improve water quality.

Invasive Species (Phragmites)

Phragmites australis, is an invasive wetland grass that can grow up to fifteen (15) feet in height and spread between thirty (30) and fifty (50) feet per year. The invasive species has spread rapidly throughout Michigan's coastal and interior wetlands, threatening ecological health and reducing property values. Due to their aggressive growth rate and height, phragmites crowd out native wetland plants, reduce access to recreational areas, and block lakefront views. In addition, dry phragmites material is highly flammable and can create fire hazards.

While difficult to remove, invasive phragmites can be controlled through combined management techniques including the use of herbicides, mowing and prescribed fires. However, an MDEQ permit is required to treat phragmites using herbicides for most inland lakes and wetlands. Clear steps must be taken to properly rid an area of phragmites; improper removal techniques can actually increase the invasive species' rate of growth.

Several Michigan communities have recently enacted phragmites ordinances that address the control and removal of the invasive plant. Many of the example phragmites ordinances focus on removing the invasive plant along the shores of Lake Michigan. However, there are limited examples of ordinances that address the removal of phragmites from inland lakes and wetlands. Therefore, Orion Township could set a precedent for the southeast Michigan region by developing a phragmites ordinance that addresses the control and removal of phragmites from inland lakes, wetlands and drainage areas.



Due to their aggressive growth rate and height, the invasive species phragmites can crowd out native wetland plants, reduce access to recreational areas, and block lakefront views.

Wetland and Floodplain Regulations

Several State statutes exist that provide protection for wetlands, floodplains and other water resources. In addition, the Township adopted its own Wetlands Ordinance (No. 107) in 1980. Together, the controls instituted by these legislative policies are used to implement the goals of preserving the natural resources of the Township and protecting the Rural-Suburban Concept that are guiding principles of the Master Plan. These controls include the following:

- Orion Township's Wetlands Ordinance No. 107. was enacted to protect the wetlands, floodplains and water courses of Orion Township and is administered by the Township Building Department. The Planning Commission reviews applications for projects that fall under the jurisdiction of the Ordinance and grants permit approvals.
- Michigan Natural Resource and Environmental Protection Act [Public Act (P.A.) 451 of 1994], formerly known as the Michigan Environmental Protection Act, P.A. 127 of 1970, was enacted to protect the environment and natural resources of the State by codifying, revising, consolidating, and classifying related laws. The Act also regulates the discharge of certain substances into the environment by regulating the use of certain lands, water and other natural resources through prescribed powers and duties of State and local agencies/officials, which includes assessing certain charges and fees for permits and penalties. The law contains the following specific sections:
 - Part 31 [formerly known as the Floodplain Regulatory Authority (P.A. 167 of 1968)] regulates activity within the 100-year floodplain and floodways of watercourses containing a drainage area of greater than two (2) square miles. Wetlands are often found in floodplain areas due to the topography and inundation of water at certain times of the year.
 - Part 301 [formerly known as the Inland Lakes and Streams Act (P.A. 346 of 1972)] regulates dredging, filling and construction, in, over, and below the ordinary high water mark of State waters. This typically includes adjacent shorelands and contiguous wetlands.
 - Part 303 [formerly known as the Goemaere-Anderson Wetland Protection Act (P.A. 203 of 1979)] provides for the preservation and proper management of wetlands and is administered by the Department of Natural Resources. Permit applications are required for alterations in wetlands that fall under the jurisdiction of the Act.

WOODLANDS

Tree stands and woodlands are another important component in Orion Township's natural resource inventory. Significant tree stands predominantly consist of hardwoods, evergreens, or lowland brush. Many of the significant tree stands are found in conjunction with other natural resource features, such as wetlands or steep slopes. For example, approximately 50% (2,000 acres) of the Township's wetlands are wooded. The Bald Mountain Recreation Area and Orion Oaks County Park contain hundreds of acres of heavily wooded land. The Township's two (2) designated Natural Beauty Roads, Clarkston Road and Kern Road, on the east side of the Township, intersect a densely forested area.

Citizen interest and concern about tree preservation and woodland protection has resulted in a development process that protects these assets and an ordinance amendment that promotes their protection. *Section 27.12, Tree and Woodlands Protection*, in the Zoning Ordinance, ensures that woodlands are protected during the development process or replacement requirements will be applied. There is also a growing appreciation of the contribution of wildlife to the overall quality of life. The following are among the values secured or enhanced by the above noted woodlands protection ordinance:

Energy Conservation – The contribution made by trees to cooling of homes and other buildings and parking areas, roads and walkways in summer, while protecting against harsh winds, snow and ice in winter, has become increasingly recognized.

Improvement in Air Quality – In addition to the indirect effects on air quality achieved by reduction in emissions resulting from the decreased use of heating and cooling, trees use carbon dioxide and emit oxygen in their own growth process.

Erosion Control – Preserving (or planting) trees and shrubs stabilizes soils, especially when slopes and steep grades are involved, preventing erosion.

Wildlife Habitat – Trees and shrubs provide homes and protection for birds and other forms of wildlife; many provide food for these creatures, as well.

Aesthetic Values – The growing appreciation of natural beauty has heightened citizen awareness of tree buds, fruits and foliage. The value of trees and shrubs, especially those of the evergreen type, in screening, is inestimable. Properly designed greenbelts also protect against noise.

The importance of local ordinances in protecting existing trees and woodlands, and stipulating their replacement or addition when necessary, is well-established and increasingly accepted by all segments of the community.



Bald Mountain Recreation Area and Orion Oaks County park contain hundreds of acres of heavily wooded land, which promotes energy conservation, wildlife, and air quality.

MICHIGAN NATURAL FEATURES INVENTORY

The Michigan Natural Features Inventory (MNFI) maintains a continuously updated information base, of Michigan's endangered, threatened, or special concern plant and animal species, natural communities and other natural features. MNFI has responsibility for inventorying and tracking the State's rarest species and exceptional examples of the whole array of natural communities. MNFI also provides information to resource managers for many types of permit application regarding these elements of diversity. In July of 2002, the Oakland County Planning and Economic Development Services Department worked with MNFI to identify potential conservation/natural areas within the County. The conclusions of the study were the identification of high, medium and low ranking areas within each municipality. These rankings are based upon a set of criteria that include size, core area, street corridor, landscape connectivity, restorability and element occurrence. Based upon the study, Orion Township has five (5) areas identified as priority one (highest ranking), numerous smaller areas ranked as priority two (medium ranking) and the open water/wetland areas identified as priority three (lowest ranking) (see Map 11). Portions of this area may be lost to development, but the preservation of the remaining areas and their associated links to other natural resource sites may be preserved through various land use controls and preservation plan alternatives. To implement the green infrastructure plan, and better integrate ecological systems into development, the following techniques should be considered:

1. Encourage the use of the cluster development technique on parcels where sensitive ecosystems exist. This technique places roads, lots, and other development on land that is most capable of supporting it, and places the sensitive natural features in commonly-owned open space.
2. Create a detailed program to implement the green infrastructure plan, including goals and policies, priorities, action items, schedule, and funding mechanisms.
3. Adopt an impervious surface reduction/infiltration enhancement ordinance that describes site development standards and guides developers and individuals doing site plan review to find opportunities for less impervious surface and more water infiltration.
4. Enhance the natural feature setback/buffer regulations by allowing a flexible width buffer (larger for more sensitive features, smaller for less sensitive features) rather than a standard distance to help manage development near stream corridors and provide floodplain protection.

- Adopt native vegetation guidelines that preserve native plants and encourage the use of native plants in landscaping. These plants are particularly helpful in riparian buffers to treat stormwater runoff and provide wildlife corridor links within the Township's green infrastructure system. These guidelines could be enhanced by an ordinance that prohibits the use of exotic invasive plant species in landscaping, and supplemented by additional invasive species ordinances, such as a phragmites ordinance. These plants tend to take over natural areas and outcompete native species.

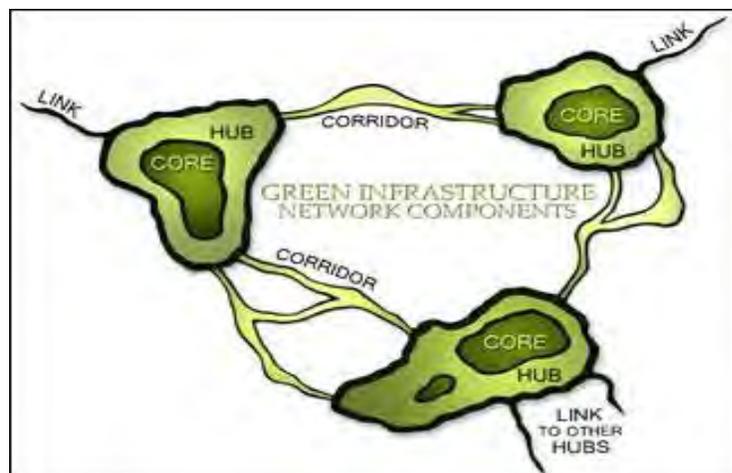
GREEN INFRASTRUCTURE

The natural resources across the Township make up the community's "green infrastructure," or an interconnected network of open spaces, natural areas and waterways. This special type of infrastructure supports native plant and animal species, sustains natural ecological processes, maintains air and water resources, and contributes to residents' health and quality of life.

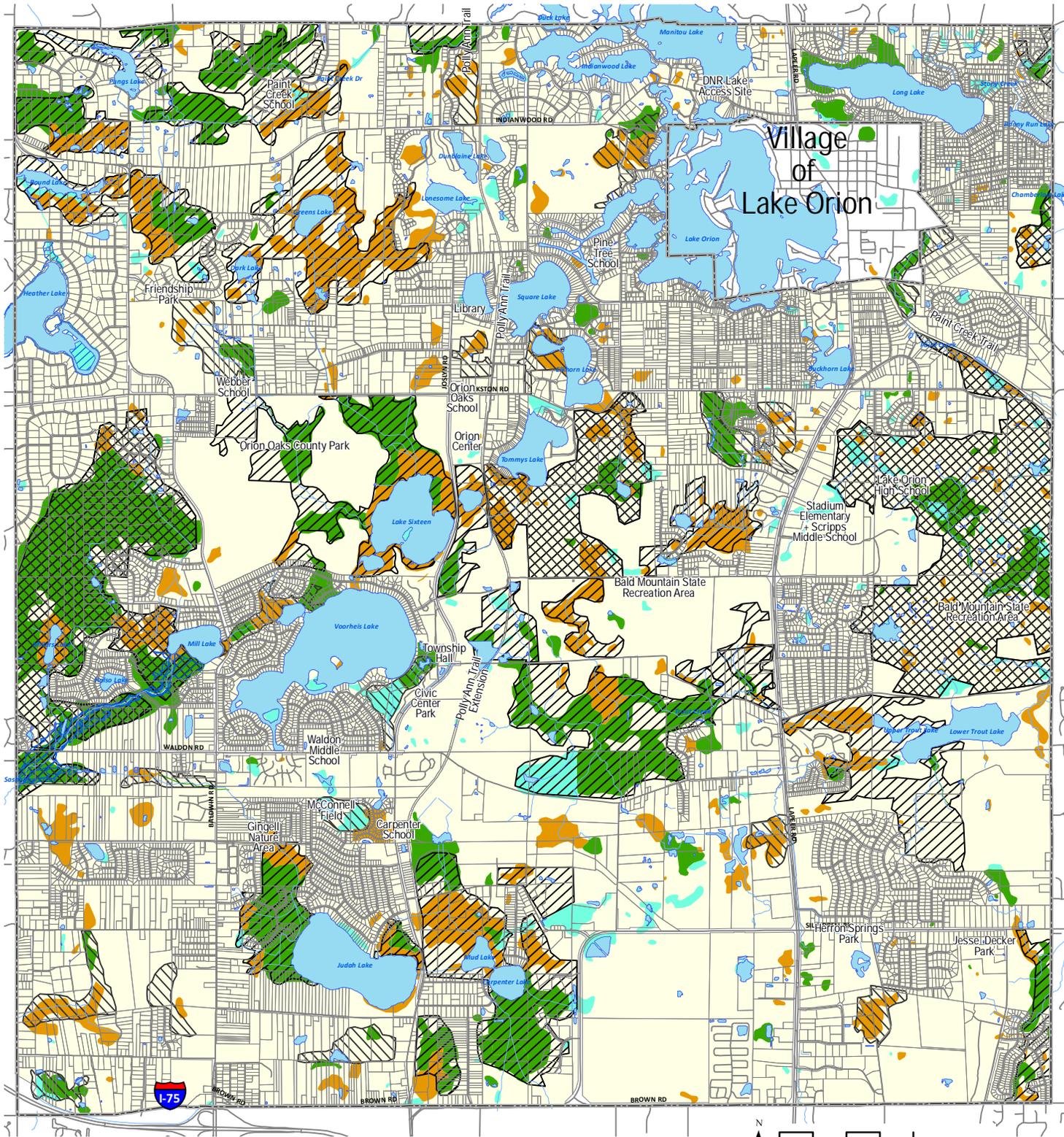
The green infrastructure system (Figure 11 and Map 12) is made up of "hubs," "sites," and "links.":

- A **hub** is an anchor for the network and provides an origin or destination for wildlife.
- A **site** is a smaller ecological landscape feature that serves as a point of origin and destination, and includes less ecologically important areas.
- Links/Corridors** are the connections that hold the network together, and enable it to function. Links/corridors facilitate movement between hubs and sites.

Figure 11. – Green Infrastructure Diagram



Source: www.togethernorthjersey.com



Map 11

Michigan Natural Features Inventory Priority Conservation Areas

Charter Township of Orion
Oakland County

Source: Oakland County Potential Conservation/Natural Areas Report,
Michigan Natural Features Inventory, MDNR + MSU, 2004

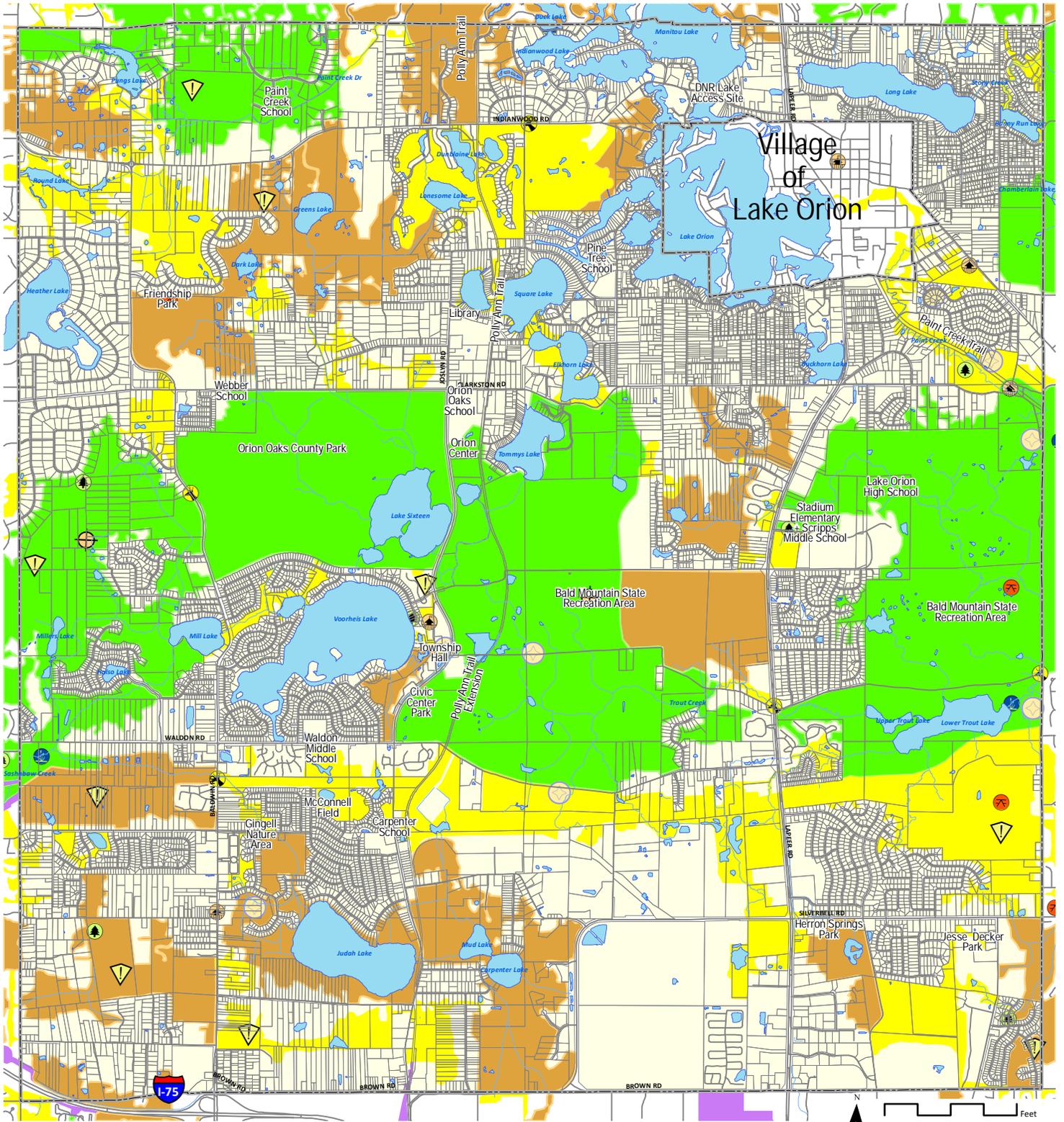
January 6, 2015
Carlisle / Wortman Associates, Inc.



- | | |
|--|--|
|  Forested Wetlands |  Priority One |
|  Scrub-Shrub Wetlands |  Priority Two |
|  Emergent Wetlands |  Priority Three |
|  Floodplain | |

The green infrastructure plan, shown in Map 12 on the following page, was created through a partnership between the Township and Oakland County Planning and Economic Development Services (OPEDS). Staff from OPEDS provided a series of maps showing the existing environmental, cultural, and historic resources throughout the Township. The Map shows hubs and sites, links, as well as these other features:

- **Other Restoration Links:** Areas in the community that could be considered for vegetation restoration or improved vegetation management such as railroad corridors, old farm fields, retention ponds, road right-of-ways or golf courses.
- **Acquisition Target:** A parcel that could be acquired by the community for parkland or open space.
- **Cultural/Historical:** A structure or a site that is historically or culturally significant.
- **Priority Road Bounded Area:** An area surrounded by major roads that could be examined in greater detail.
- **Priority Waterbody:** Significant body of water in the community that is valued for recreational opportunities, waterfowl, aquatic species, scenic beauty, habitat and/or community character.
- **Recreation Hub:** A significant park, town center, school, or nature center that provides major recreational opportunities for the community.
- **Riparian Corridor:** Important areas bordering lakes, rivers, and other watercourses.
- **Special Place:** Areas in the community that may have unique features, plants, or animals.
- **Wildlife Crossing:** A portion of the roadway where high numbers of deer and other wildlife have been observed crossing and pose a potential danger to motorists.
- **Potential Conservation Easement:** A parcel/development rights that could be acquired by a local land conservancy for open space.



- Hub
- Site
- Link
- Other Restoration Link

- Acquisition Target
- Cultural/Historical
- Priority Road Bounded Area
- Priority Waterbody
- Recreation Hub
- Riparian Corridor
- Special Place
- Wildlife Crossing
- Potential Conservation Easement

Map 12

Green Infrastructure

Charter Township of Orion
Oakland County

Source: Oakland County Green Infrastructure Vision,
Oakland County Planning & Economic
Development Services, 2005

May 15, 2015

HISTORIC PRESERVATION

The Charter Township of Orion is blessed with a number of historic architectural resources that are key elements in the Township's visual character and unique identity. The basic purpose of including Historic Preservation in the Master Plan is to bring significant historic architecture and other cultural resources into the Township's planning process so that they are recognized in the decision making processes that may affect their future.

The Township's culturally significant historical and architectural resources are irreplaceable. They continue to provide information about the past that can be useful in the future. Combined with the rich natural environment, they provide a distinct sense of place. Without maintaining this sense of place, the Township would lose its unique identity. Historical architecture and other cultural resources recall the contributions of early settlers and past residents, who, through hard work and determination, helped make Orion Township the attractive living environment which it is today.

Field analysis shows that there are significant examples of the following architectural styles within the Township: Greek Revival, Italianate, Early Victorian Vernacular, Gothic Revival, Late Victorian, Queen Anne, French Second Empire, Dutch Colonial Revival, English Tudor Revival, Bungalow, Grand Bungalow, Collegiate Gothic, Early Twentieth Century Vernacular, and others. There are also some fine examples of carriage houses, barns, and other outbuildings from throughout the nineteenth and early twentieth century. Careful consideration should be given to all culturally significant historical and architectural resources whenever ownership, development, or maintenance threaten their future.



Orion Township contains a number of culturally significant historical and architectural resources.

The Michigan Register, the State Register of Historic Sites, was established under P.A. 10 of 1955, MCL 399.151. The Michigan Historical Commission, a lay body appointed by the Governor, reviews applications for the State Register and Historic Marker programs. These programs are honorary, placing no restrictions on property owners, and designation offers no tangible benefits. The Act does provide for State grants to preserve and restore certain State Register properties, but no money has been allocated for this purpose since 1980.

The National Historic Preservation Act also requires each state to prepare and implement a comprehensive statewide historic preservation plan. Michigan's historic preservation plan (Local Historic Districts Act, P.A. 169) was first prepared in 1970 and then updated in 1985 and 1992 to reflect the new directions in historic preservation policy. In Orion Township, the preservation, restoration, rehabilitation or adaptive reuse of every historical architecture example in the Township is not realistic because there are hundreds of structures more than fifty (50) years of age. The significant examples of historic architecture are those that are eligible for State and National Register listing as individual Historic Structures or as contributing elements to Historic Districts.

In October 2006, the Charter Township of Orion contracted with The Mannik & Smith Group, Inc. (MSG) to conduct a reconnaissance-level survey of the 200 most significant and well-preserved historic resources within the Township. The goal of this project was to create a permanent record of historic properties in Orion Township that would serve as a baseline for future planning, preservation, compliance and public education efforts. The survey focused on buildings, structures and sites within Township boundaries that were over 50 years of age, and was performed in accordance with the Michigan State Historic Preservation Office's *Manual for Historic and Architectural Surveys in Michigan* and the Secretary of the Interior's Standards and Guidelines.

Using data from the Township's geographic information system, MSG compiled a list of approximately 2,500 buildings within the Township boundaries (excluding properties in the Lake Orion Historic District and the Bald Mountain State Recreation Area) that were constructed prior to 1957. In the spring of 2007, the listed properties were field-checked. The sites that maintained a high level of physical integrity and possessed features of architectural or historical interest were recorded in the field. The location of these historic structures are illustrated in Map 13.

With the help of the Orion Historical Society, the project team prepared a context report to establish a broader overview of Township history. Major themes identified through research included architecture, agriculture, settlement, community planning, transportation, recreation, religion, and education. With the context of the report as a framework, and using the results of the field studies, MSG evaluated the historical

significance of the surveyed sites for the purpose of determining their eligibility for national, state or local historic designation. Of the 197 properties surveyed (comprising 215 individual buildings or sites), twenty-seven are recommended as potentially eligible for landmark status.

Historic sites and buildings are irreplaceable resources that serve to physically show the evolution of the Township's early development. They are more important as key elements of the Township's visual identity and unique character. While many represent specific architectural styles and historical periods, they each have their own distinct character variations and setting. Their continued use and maintenance will play a major role in protecting the atmosphere that has given the Township its identity. These values, if not properly protected or planned for, can be seriously eroded as development patterns change. Local coordination and cooperation between preservation advocates, citizens and Township government can successfully preserve these valuable resources for future generations of Orion Township residents.

PROPERTIES ELIGIBLE FOR LISTING ON THE NATIONAL REGISTER

Based upon the research and investigations conducted in the *Reconnaissance Survey of Historic Architectural Resources* conducted by The Mannik & Smith Group, 27 properties appear to meet the criteria for listing in the National Register of Historic Places. Each property listed below has one or more of the following characteristics: a demonstrated association with people, events, or trends significant in Orion Township history; an outstanding example of an architectural style or type; or part of a larger collection of buildings or sites that tell a cohesive story about some aspect of the community's history.

118 S. Andrews*	3740 Joslyn	468 S. Broadway*
124 S. Andrews*	910 Longpointe*	618 Detroit*
501 Baldwin	910 Pine Tree	850 Heights
2130 Baldwin	512 E. Silverbell	740 Indianwood
120 Bellevue*	670 Victoria Island (boathouse)	2340 Indianwood
468 S. Broadway*	121 S. Andrews*	3200 Kern
460 Cushing	520 Atwater	560 Longpointe*
609 E. Flint*	990 Baldwin	546 Shady Oaks
730 Indianwood	2600 Baldwin	
1081 Indianwood	302 S. Broadway*	

* Located within the Village of Lake Orion

CONCLUSIONS

Since the last Master Plan update, the Charter Township of Orion has experienced significant changes in its population and land use characteristics. As a result of these changes, the Township faces new pressures and concerns with regards to its social and physical infrastructure, natural resources and historic elements. The following conclusions can be derived from the analysis of the Township's physical resources:

EXISTING LAND USE

- Single-Family Residential is the largest land use classification within Orion Township, making up nearly 34% of all land within the Township.
- The Township saw a slight growth in the amount of land dedicated to multiple-family residential.
- Orion Township is on the northern fringe of a major concentration of economic activity centered near the I-75/M-59 interchange and is influenced by the growth of the Oakland County "Automation Alley."
- Office uses are primarily located along the three main north/south arterials within the Township, with the largest concentration along Lapeer Road. However, Baldwin Road is experiencing a large number of commercial and office developments.
- The largest concentrations of commercial uses are in proximity to residential developments along the Lapeer Road and Baldwin Road corridors.
- Industrial growth has concentrated in the southern portions of the Township, and includes a number of industrial parks. Since the last Master Plan update, the Brown Road Innovation District and Lapeer Road Overlay District were adopted to encourage a flexible mix of uses within these industrial areas.
- A large amount of land in the Township is devoted to recreation and conservation, which in total accounts for approximately 5,440 acres of land, including the State-owned Bald Mountain Recreation Area.

COMMUNITY FACILITIES

- The Township's Stormwater Management Ordinance (No. 139) is one of the primary tools in controlling the impacts of new developments.
- Maintenance of creeks and drains will be increasingly important to the prevention of future flooding and drainage concerns.
- The maintenance and adequacy of the Township's community facilities, such as the Orion Center, library, police/fire facilities and Township parks, is vital in increasing quality of life for all residents.

PARKS AND RECREATION

- The current Parks and Recreation Master Plan, adopted in 2014, outlines an action program to maintain, expand and improve recreation opportunities within Orion Township over the next five years, which addresses the following goals:
 - Park maintenance;
 - Park development;
 - Non-motorized systems;
 - Parks, recreation and senior programs and services; and
 - Administration and operation.
- There are a total of 380 acres (9 parks) of Township-owned developed park land and about 3,770 acres of County or State-owned recreation areas within Orion Township.
- Township-owned parks include Civic Center Park, Jesse Decker Park, Friendship Park, the Gingell Nature Area, and Camp Agawam.
- Oakland County and State-owned park facilities within Orion Township include Bald Mountain Recreation Area and Orion Oaks County Park.

ENVIRONMENTAL RESOURCES

- The Township has a vast natural resource system of lakes, wetlands, woodlands, rolling hills, and open spaces, the majority of which are contained within State and County lands.
- Many of the soils found within the Township present limitations for development, including lack of suitability for septic systems and susceptibility to wetness and flooding.
- Water quality degradation of the lakes within the Township (approximately 8% of the land cover) is of concern due to the attractiveness for residential development and the connection to the Clinton River, Paint Creek, Clear Creek, Trout Creek and Sashabaw Creek.
- The Township contains thousands of acres of wetlands, mostly adjacent to lakes and streams, all of which play an important role in stormwater management, the control of water quality, and the provision for critical wildlife habitat and transportation corridors. Therefore, the type of land use in proximity to these ecosystems is critical to their preservation. Also critical are the development techniques used to reduce impacts on these systems, such as stormwater management and natural feature buffers.
- The woodlands protection provisions of the Zoning Ordinance are a good first step in protecting the Township's woodlands. Woodlands provide important ecological and climatic benefits and need to be better preserved through low impact development techniques.

HISTORIC PRESERVATION

- The Township's historical and architectural resources are irreplaceable and, as a result of the recent developments within the community, these resources are potentially going to be lost.
- Careful consideration should be given to all culturally significant historical and architectural resources whenever ownership, development, or maintenance threaten their future.

TRANSPORTATION AND THOROUGHFARES

The provision of a safe and efficient transportation system is essential to commerce and daily activities and is a major consideration in a community's development. In the years since the previous master plan update, Orion Township has experienced moderate population growth which is expected to continue in the future. Major transportation routes for Orion Township include interstate 75 to the south, Lapeer Road (M-24), and several major thoroughfares including Baldwin, Joslyn, Clarkston and Waldon Roads. As a growing community with an abundance of natural features, future improvements in the township will need to coordinate land use development and transportation planning. From a transportation perspective, future planning must include:

- Maintaining the existing transportation infrastructure with a focus on best use of existing rights-of-way;
- Improving the connectivity of the road network;
- Improving safety for all modes of travel, including non-motorized transportation;
- Providing mobility and access through transportation choices; and
- Incorporating environmental considerations into every decision to enhance the quality of life in the township.

It must be noted the purview of roads within the Township falls under either the Michigan Department of Transportation (MDOT) or the Road Commission for Oakland County (RCOC). However, the transportation element of this master plan still serves a variety of useful purposes. The Transportation and Thoroughfares Chapter:

- Serves as a reference guide regarding the transportation system within the Township.
- Sets a vision for future motorized and non-motorized transportation needs within the Township.
- Promotes a better understanding of the strong relationship between transportation and land development patterns and how planning can be better integrated.
- Identifies opportunities for change, including: access management techniques, traffic calming, complete streets and creating corridor improvement authorities.

ROADWAY CLASSIFICATION AND RESPONSIBILITY

Roadway classifications are often confusing because planning agencies use the classifications for different purposes. Administrative jurisdictions identify roads in terms of governmental responsibility for construction and maintenance. Roadway classifications are also used to determine eligibility for state funding and federal aid. Functional classifications are used to group streets and highways into classes, or systems, according to the character of traffic service they are intended to provide.

ADMINISTRATIVE JURISDICTION

Act 51 of the Public Acts of 1951, as amended, creates the Michigan Transportation Fund (MTF) into which specific transportation taxes are deposited, sets priorities for the use of transportation revenues, and charges county road commissions with the responsibility of classifying county primary and local roads. The classifications developed by the county road commissions are subject to Michigan Department of Transportation (MDOT) approval. Roads designated as primary roads must be of "the greatest importance". This determination is based on traffic volumes, primary generators of traffic served and other factors.

MDOT and the Road Commission for Oakland County (RCOC) share responsibility for the operation and maintenance of the roadway network within the Township. MDOT is responsible for maintenance and improvement of Lapeer Road (M-24), while the RCOC has jurisdiction over all other public roads within the Township.

NATIONAL FUNCTIONAL CLASSIFICATION

The Transportation Plan presented on the following page lists the hierarchy of transportation routes based upon the National Functional Classification (NFC) System. NFC is a planning tool which has been used by federal, state and local transportation agencies since the late 1960's. Functional classifications are used to group streets and highways into classes, or systems, according to the character of traffic service they are intended to provide. The NFC designation also determines whether a road is eligible for federal funds, either as part of the National Highway System (usually limited to principal arterials) or through the Surface Transportation Program. Federal-aid roads are, collectively: all principal arterials, all minor arterials, all urban collectors and all rural major collectors. (Source: MDOT)

Principal Arterials

These roadways are at the top of the classification hierarchy. The primary function of such roadways is to carry relatively long distance, through-travel movements. Examples include interstates and other freeways as well as state routes between larger cities.

Minor Arterials

Minor Arterials tend to accommodate slightly shorter trips than principal arterials. There is some emphasis on land access and they may carry local bus routes and provide intra-community continuity, but do not penetrate neighborhoods.

Major Collectors

Major collectors provide access and mobility within residential, commercial, or industrial use and connect local roads to arterials. Major collectors generally carry more traffic than minor collectors.

Minor Collectors

Minor collectors also provide access amongst varying land uses, but generally have less traffic than Major Collectors.

Local Roads

Local Roads provide access to individual properties and typically have moderate to low speeds. The majority of Township roads are classified as local roads.

ROADWAY CLASSIFICATIONS WITHIN THE TOWNSHIP

In Orion Township, the road network is a hierarchy based upon the function each road serves. The four road classifications that are defined below include [major thoroughfares](#), [minor thoroughfares](#), [collector roads](#), and [local streets or roads](#). These roads are depicted on Map 14. With the understanding that public roads within Orion Township are controlled and maintained by either MDOT or RCOC, the intent of this chapter is to provide guidance and recommendations regarding the allocation of future road improvement dollars. For example, it makes little sense to improve a collector road that empties onto a major thoroughfare in a state of disrepair. No attempt is made to propose costly road relocations or alter basic road patterns that have been established for years. In addition, no attempt is made to identify specific improvement projects.

Major Thoroughfares

The function of major thoroughfares is to carry larger volumes of traffic either between activity areas within the Township or through the Township. They also provide access to the expressways that serve the Township. The improvement of major thoroughfares rate the highest priority within the Township.

Minor Thoroughfares

The function of minor thoroughfares are much the same as major thoroughfares, although more moderate volumes of traffic are carried. The improvement of minor thoroughfares rate the second highest priority within the Township.

Collector Roads

The function of collector roads are to collect traffic from residential areas and carry it to major or minor thoroughfares. Traffic volumes are typically low. The improvement of collector roads rate the third highest priority within the Township.

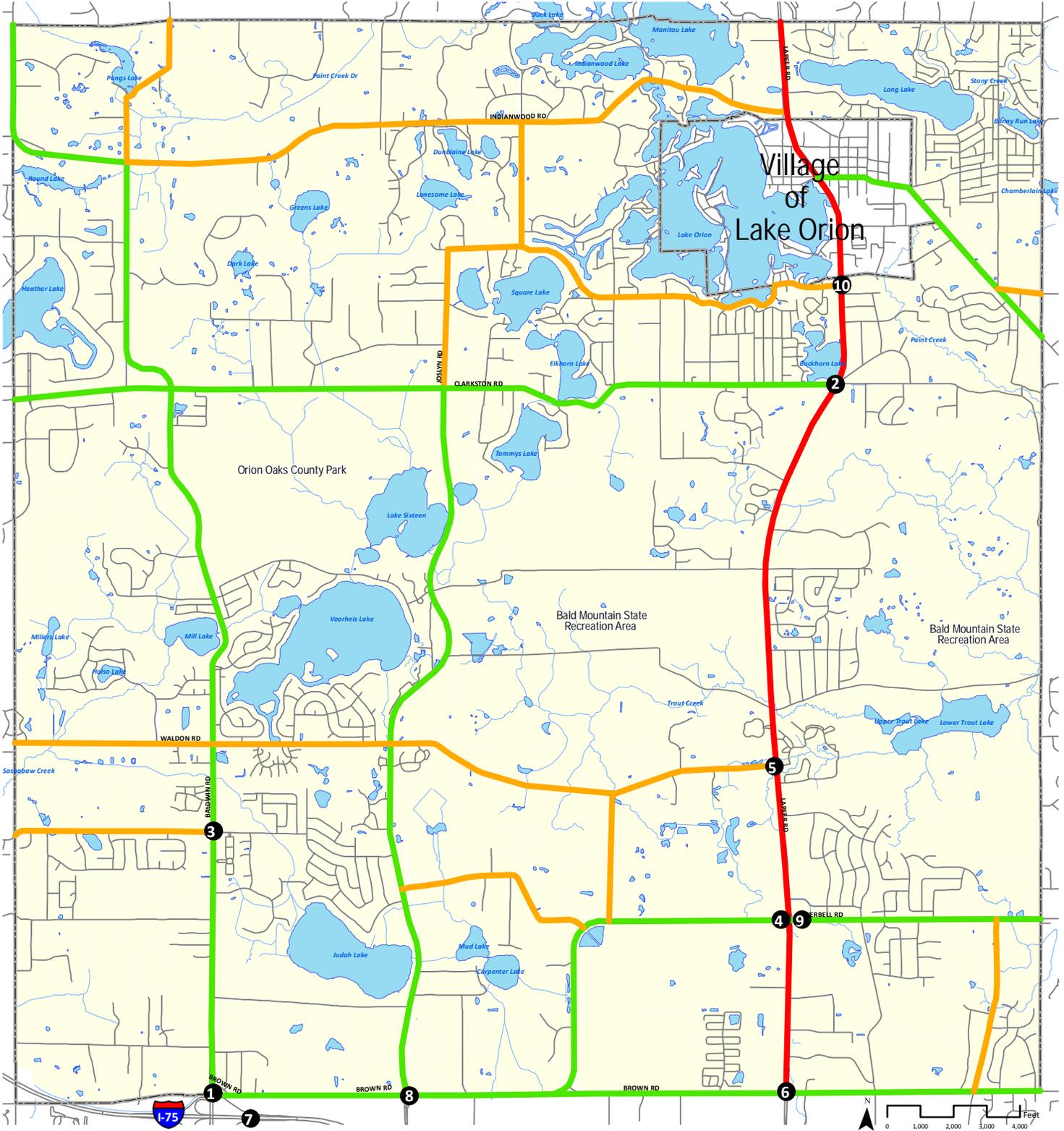
Local Streets or Roads

The function of local streets or roads are to provide direct access from individual properties. Traffic volumes are very low. The improvement of local streets or roads rate the lowest priority within the Township.

Road classifications are also important with regards to land use patterns in the Township. Subdivision regulations set forth standards that relate to the various road classifications. In addition, the Zoning Ordinance limits some uses to locations that have access to various levels of streets. In order to limit congestion and reduce the risk of crashes, some intensive land uses should not be permitted adjacent to low-volume streets or roads.



Lapeer Road (M-24) is classified as a Major Thoroughfare, and has the capacity to accommodate a variety of land uses.



- Major Arterial
- Minor Arterial
- Major Collector
- Local Road
- 1** High Crash Intersection

Map 14

Transportation

Charter Township of Orion
Oakland County

Source: MDOT National Functional Classification map
& SEMCOG data



NATURAL BEAUTY ROADS

Certain roads in Orion Township are classified as Natural Beauty Roads, in accordance with Michigan Act 150 of 1970. The goal of the Natural Beauty Roads Act is to identify and preserve designated roads in a natural, essentially undisturbed condition. Roads considered eligible for this designation are federal local roads that have unusual or outstanding natural beauty by virtue of native vegetation or other natural features. Widening, mowing, spraying and other maintenance or improvement activities may be restricted or prohibited on designated Natural Beauty Roads. Natural Beauty Roads in Orion Township include:

- Kern Road from Orion Road south to Clarkston Road.
- Clarkston Road from 1,000 feet west of the south leg of Kern Road to the north leg of Kern Road.
- Nakomis Road north of Cayuga, almost to the Township line.
- Greenshield Road.



NATURAL BEAUTY ROADS

The Department of Natural Resources and the County Road Association have developed a list of guidelines and criteria for designating natural beauty roads. The criteria for designation, available on the Michigan DNR website (<http://michigan.gov/dnr/>), include:

1. **Character of Road:** Must have outstanding natural features along its borders, including native trees, shrubs, wildflowers, grasses, or natural vistas.
2. **Length:** Normally a minimum of one-half mile.
3. **Roadside Development:** Should have little to no development along them.
4. **Road Bed:** May be dirt, gravel or hard surface.
5. **Function of the Road:** Should function as a local access road.
6. **Speed:** Intended to be low speed roads (25-35 mph).

Source: *Guidelines for Designation of Natural Beauty Roads*
(<http://www.michigan.gov/dnr/>)

The right-of-way plan consists of a map that indicates the existing or desired right-of-way widths for roads in Orion Township. Right-of-way widths are established based on research that indicates the required road specifications to provide various levels of service. The functional road classification indicates the desired level of service; In turn, the Master Right-of-Way Plan published by the Road Commission for Oakland County provides an indication of the type of road that is needed to achieve that level of service. While the Road Commission publishes this Master Right-of-Way Plan, Orion Township does not endorse all future right-of-way widths and believes that further study may be required to justify the additional width proposed for some of the right-of-ways designations.

The right-of-way plan is an important planning document because setbacks and other development standards should be established in relationship to the existing or future right-of-way width. The Master Right-of-Way Plan also sets forth distinct classifications based on right-of-way width.

The Right-of-Way Plan Map specifies the classifications of the road and the planned application of these classifications. Orion Township roads are classified as follows:

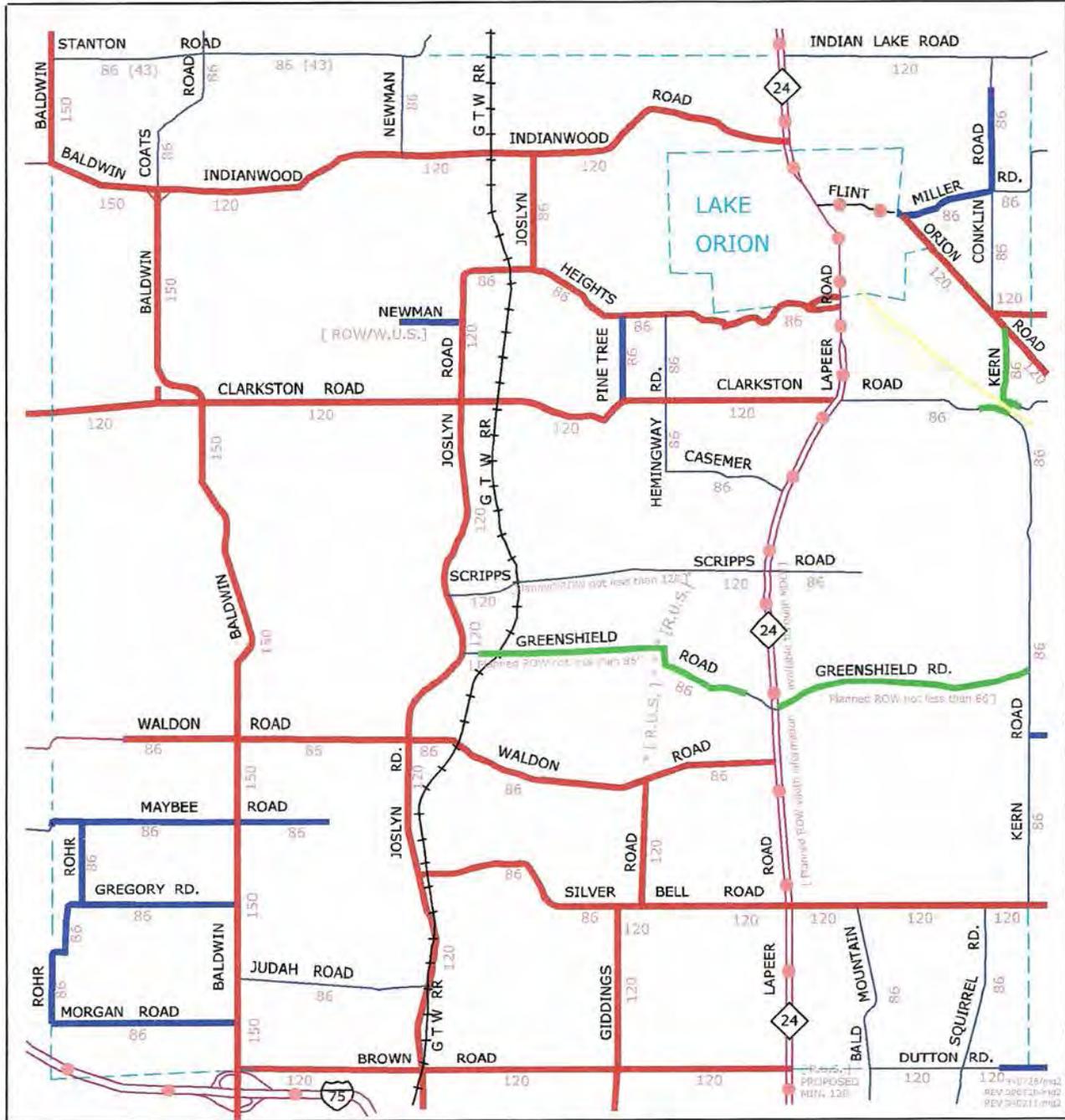
Table 12. – Right-of-Way Plan Classifications

State/Federal	Paved County Primary	Paved County Local	Gravel County Local	Natural Beauty Roads
Lapeer Rd. (M-24)	Baldwin Rd.	Maybee	Scripps (portion)	Greenshield Rd.
	Brown Rd.	Pine Tree	Judah	Kern Rd. (portion)
	Orion Rd.	Rohr	Hemingway	Clarkston Rd. (portion)
	Clarkston Rd. (portion)	Gregory	Conklin	Nakomis Rd. (portion)
	Giddings Rd.	Morgan	Coats	
	Heights	Newman	Casemer	
	Indianwood Rd.	Scripps (portion)	Clarkston (portion)	
	Joslyn Rd.	Miller		
	Silverbell Rd.			

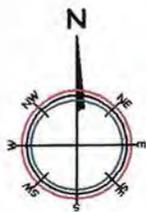
Source: Planning & Development Department – Road Commission for Oakland County

Map 15

MASTER RIGHT-OF-WAY PLAN FOR COUNTY ROADS



ORION TOWNSHIP VILLAGE OF LAKE ORION



- PAVED COUNTY PRIMARY
- GRAVEL COUNTY PRIMARY
- PAVED COUNTY LOCAL
- GRAVEL COUNTY LOCAL
- NATURAL BEAUTY ROAD
- [R.U.S.] ROUTE UNDER STUDY
- [ROW/WUS] ROUTE WIDTH UNDER STUDY

- STATE / FEDERAL HIGHWAY
- LOCAL JURISDICTION (NON-COUNTY)
- - - - POLITICAL BOUNDARY (C-V-T)
- PLANNED RIGHT-OF-WAY
- NATURE TRAIL

PRODUCED BY:
PLANNING & DEVELOPMENT DEPARTMENT
ROAD COMMISSION FOR OAKLAND COUNTY

Dutton Rd. set to 120' ROW by Twp recommendation and staff determination.

TRAFFIC COUNTS AND CRASH LOCATIONS

There are approximately 220 road miles and four bridges within Orion Township. **Table 13** indicates the intersections with the greatest number of crashes. The top two locations are located at the intersections of Baldwin Road South at Brown Road and Lapeer Road and Clarkston Road West.

Table 13. – High Crash Intersections, 2009-2013

Local Rank	County Rank	Intersection Name	2009-2013	Annual Avg. 2009-2013	2013
1	57	Baldwin Rd. S @ Brown Rd.	148	30	37
2	97	Lapeer Rd. @ Clarkston Rd. W	131	26	33
3	199	Baldwin Rd. S @ Maybee Rd.	91	18	17
4	235	Lapeer Rd. @ Silverbell Rd. W	85	17	25
5	239	Lapeer Rd. @ Waldon Rd.	77	15	12
6	299	Lapeer Rd. @ Brown Rd.	72	14	15
7	315	N-I-75/Baldwin Ramp	62	12	8
8	341	Brown Rd @ Joslyn Rd.	62	12	11
9	370	Lapeer Rd. @ Dutton Rd.	62	12	12
10	370	Broadway St. S @ Heights Rd.	65	13	12

Source: SEMCOG Community Profiles



With a total of 37 reported crashes in 2013, the corner of Baldwin and Brown is ranked the most dangerous intersection in Orion Township.

Source: Google Maps

ROAD IMPROVEMENTS AND TRAFFIC STUDIES

According to SEMCOG's 2040 Regional Transportation Plan and 2014-2017 Transportation Improvement Program, a number of roadway improvements are planned or are being studied for Orion Township. These are shown in Table 14 below. In addition, a number of traffic studies have been conducted since the last Master Plan update in conjunction with recent commercial and mixed-use developments. Some of these traffic studies include:

- Pomeroy Living (Scripps Rd. and Lapeer Rd.)
- Orion Commons PUD (Scripps Rd. and Lapeer Rd.)
- Kroger Gas Station (Baldwin Rd. and Waldon Rd.)
- Kensington Community Church (S. Lapeer Rd.)

Other traffic studies have been completed in conjunction with proposed projects that provide detailed information on the following intersections:

- Kern Rd./Silverbell Rd.
- Silverbell Rd./Squirrel Rd.
- Baldwin Rd./Maybee Rd.
- Lapeer Rd./Silverbell Rd.

The Lapeer Road/Silverbell Road traffic study is a component of the planned 2016 Lapeer Road rehabilitation project. The Baldwin Road reconstruction project will take place in two phases, and includes widening the road from two to four lanes and constructing five roundabouts. Phase I of the Baldwin Road project is illustrated in Figure 12 on the following page.

Table 14. – Planned Roadway Improvements in Orion Township

RTP/TIP	Project	Project Limits	Proposed Work	Agency	Year(s)
RTP	Lapeer Rd. (M-24)	Harmon to Goldengate	Rehabilitate Roadway	MDOT	2016
RTP	Baldwin Rd.	Morgan to Gregory	Widen from 2 to 4 lanes; New roundabouts	RCOC	2017
RTP	Baldwin Rd.	Gregory to Waldon	Widen from 2 to 4 lanes; New Roundabouts	RCOC	2018
RTP	Silverbell Rd.	M-24 to Adams	Study widening from 2 to 5 lanes	RCOC	2026-2030

Source: SEMCOG Regional Transportation Plan and 2014-2017 Transportation Improvement Plan

Figure 12. - Baldwin Road Redevelopment Project (Phase I)



Source: OHM, 2013

SAFETY PATHS

In Orion Township, there is a need to accommodate pedestrians, bicyclists and other non-motorized modes of transportation. This can be accomplished through construction of safety paths in the road right-of-way, near the property line. Typically, such paths have been considered chiefly for their recreational benefits. In Orion Township, however, safety paths help to increase public safety and provide an alternative transportation option.

Safety path development requires a two-fold approach. First, as already required by the Zoning Ordinance, all developers must install safety paths in conjunction with new construction located on a designated road, and in accordance with the Township Safety Path Plan (see Map 16). Second, the Township should become directly involved in the installation of safety paths in locations where:

- Pedestrian/bicyclist/vehicle conflicts are prevalent.
- It would be beneficial to provide access to a key center of community activity, such as the parks, schools, library, or commercial centers.
- It is necessary to complete missing links in an area where much of the path system has already been installed.

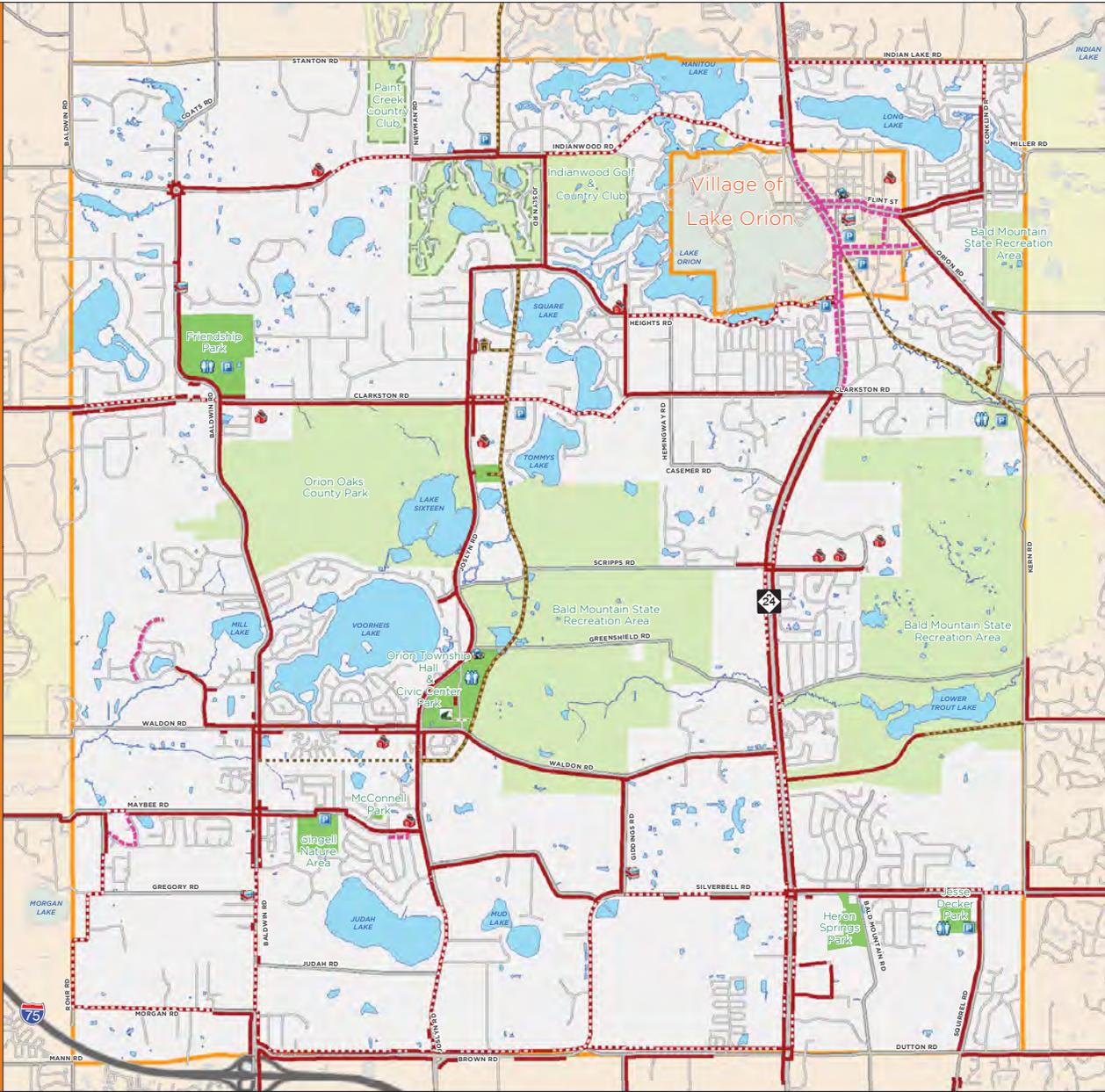
The Township should also encourage developers to provide connections to these safety paths via internal sidewalk systems. Internal sidewalks can help complete the missing pedestrian link in some areas and provide a public benefit to neighborhood residents.



Orion Township's safety path network links residential areas with schools, recreation areas, commercial districts and other destinations.

Map 16 - Safety Path Map

SAFETY PATH MAP



Paint Creek Trail

This 8.5 mile trail begins in the Lake Orion area and runs through Orion and Oakland Township to Rochester Hills and Rochester. It is perfect for hiking, jogging, riding a bike, horseback riding and observing nature. For the fisherman in your family, the trail follows the Paint Creek which is a designated trout stream. For more information call (248) 651-9260 or visit their website at:

www.paintcreektrail.org

Polly Ann Trail

The Polly Ann Trail is another of the beautiful and unique Rail to Trail paths that have over 32 miles of trail from Orion Township to Lapeer. For more information call (248) 969-8660

www.pollyanntailway.org

Safety Paths

Orion Township Safety Paths are an intricate network of paths providing safe, designated areas for walking, running, cycling, sightseeing and more. Established merely as a plan in 1978, Safety Paths have grown to over 45-miles of a valuable and highly used pathway system.

Places

- Amphitheater
- Fire Station
- Free Parking
- Library
- Police Station
- School
- Toilet Facility

Water Bodies and Boundaries

- Lakes & Rivers
- Township Boundary
- Golf Course
- State/County Park
- Township Park

Paths, Trails, and Streets

- Safety Path
- Sidewalk
- Trail
- Proposed Safety Path
- Proposed Trail
- I-75
- Major Streets
- Minor Streets

Map Published: October 30, 2014

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Architects, Engineers and Planners
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Livonia, Michigan



OPPORTUNITIES FOR CHANGE

Orion Township is in the position to influence road agency policy and furthermore has authority over land use decisions, which are often inseparable from transportation. This section highlights a number of ways the Township can influence the function and character of its roadways.

Several areas in which the Township can influence transportation are described in the following subsections.

ACCESS MANAGEMENT

Access management is the process or development of a program intended to ensure that the major arterials, intersections and freeway systems serving a community or region operate safely and efficiently while adequately meeting the access needs of the abutting land uses (FHWA, ITE, 2004). Implementing access management techniques can help increase roadway capacity, manage congestion and reduce crashes. Examples of less obvious benefits, in the case of businesses, include: reduction in maintenance and other costs by utilizing shared driveways or eliminating entrance/exit points and increased road frontage and improved aesthetics as a result of eliminating driveways.

There are a number of physical design and policy-related tools and techniques that can be used to achieve access management. Some of the basic design principles that are used to achieve access management are described below:

- **Provide a specialized road system** — It is important to design and manage roadways according to the function they are intended to provide.
- **Limit direct access to major roadways** — Access control is needed to preserve the traffic function of higher volume roads serving regional thru traffic. Local and collector roadways require more frequent and direct property access.
- **Promote intersection hierarchy** — A roadway network should transition from one classification of roadway to another and intersection types should also reflect roadway hierarchy. In concept, for example, two major arterials would form a junction as would a driveway and a local street.

- **Locate signals to favor through movements** — Proper placement of signals allows for better coordination of signals, continuous movement of traffic at the desired speed and reduces delays.
- **Preserve the functional areas of intersections and interchanges** — The “functional area” refers to the area where motorists respond to the intersection or interchange, decelerate, accelerate, or complete turns. This area is required for safety and efficiency. Access points too close to intersections or interchange ramps should be avoided since they can result in increased congestion and safety issues.
- **Limit the number of conflict points** — More collisions and mistakes occur when the driving environment is complex. Simplifying the driving environment by limiting the number of conflict points among vehicles, pedestrians, bicyclists and transit helps improve safety.
- **Separate conflict areas** — Traffic conflicts can also be reduced by separating conflict areas. Effective ways include minimum distances between intersections and driveways, corner clearance standards that separate driveways from critical approach areas of intersections and encouraging shared driveways. These types of techniques permit less cluttered sight distance for the motorist, thus allowing longer reaction time and improving safety.
- **Remove turning vehicles from through traffic lanes** — Vehicles typically slow prior to turning. When turning vehicles are removed from through traffic lanes, better traffic flow is maintained, roadway capacity is better preserved and safety is improved.
- **Use non-traversable medians to manage left-turn movements** — Research shows the majority of access-related crashes involve left turns. The use of medians to channel turning movements to controlled locations is effective in improving safety.
- **Provide a supporting street system and circulation system** — Well-planned communities with a supporting network of local and collector streets, unified property access and circulation systems are better able to accommodate development. Furthermore, interconnected street and circulation systems better support alternative forms of transportation. For example, a commercial strip development with separate driveways for each business forces short trips onto arterial roadways, thereby reducing safety and mobility. However,

unified property access with a well-developed circulation system for the same commercial strip development would help prevent unnecessary trips and improve access. (TRB Access Management Manual, 2003)

TRAFFIC CALMING

Traffic calming techniques use physical and visual cues to encourage drivers to travel at slower speeds. Traffic calming is intended to be self-enforcing, with the design of the roadway providing the desired effect. When implemented correctly, traffic calming has been shown to reduce traffic speeds, reduce the number and severity of crashes and reduce noise levels. Other benefits of traffic calming are less measurable and can include aspects such as improving community livability. There are numerous devices and techniques that communities have successfully used for "traffic calming". In some cases a single device may be implemented, while in others, a combination of techniques achieves the desired outcome. Some typical traffic calming measures are as follows:

- **Gateways / Entryways.** A special entrance feature or gateway has the effect of narrowing a street at the entryway into a neighborhood. It helps create identity to a neighborhood and increases driver awareness of common neighborhood elements, like pedestrians and children crossing the street.
- **Speed Bumps / Speed Tables.** Speed bumps are mounds of paving material placed across a roadway for the purpose of causing drivers to reduce their speed. Speed tables are similar to bumps, but are constructed with a flat table in the center portion. Both speed bumps and tables reduce speed and may reduce traffic volume by discouraging cut-through traffic.
- **Alternative Pavement Surfaces.** Alternative pavement surfaces, such as pavers or cobblestone, have the effect of increasing driver perception of a change in driving environment. Alternative surfaces can be used for the entire street or just for sections of the street.
- **Curvilinear Roads.** Straight roads increase speed. Curves break up the driver's line of sight and require the driver to drive more alertly. This technique increases the potential for reduced traffic speed and volume, thereby increasing safety on the road.
- **Roundabouts / Traffic Circles.** A roundabout is a circular barrier placed in the middle of an intersection to restrict the movement of traffic through

that intersection. This tool tends to reduce driver speed by interrupting the direct flow of traffic and requiring turning movements. Traffic circles can also discourage cut-through traffic. Circles can be landscaped to reduce road impervious surface.



Traffic Calming Techniques – Neighborhood traffic circles (left) and center island narrowing (right) require drivers to slow when reaching residential areas. Both can be nicely landscaped and provide a visual amenity. (Source: ITE)

COMPLETE STREETS

On August 1, 2010, the State of Michigan legislature signed into law the Complete Streets amendments to the State Trunkline Highway System Act (Act 51 of 1951) and the Planning Enabling Act (Act 33 of 2008). The law provides an approach to transportation planning and design that considers *all* street users – vehicles, pedestrians and bicyclists of all ages and abilities – during the various planning and design stages of a transportation project. It also requires that the Michigan Department of Transportation (MDOT) and local road commissions consider the community's goals and desires for road projects within their boundaries.

Complete Streets provide facilities that allow all users, irrespective of their age or abilities, to use the street as a mode of transportation. A Complete Street allows pedestrians, bicyclists, transit users and those with disabilities to easily and safely use roads in their community. Communities with Complete Streets policies help to ensure that engineers and planners design roadways to accommodate all users, not just motorists.

Facilities that make a street "complete" depend on the existing conditions and the intended users. It's never a "one-size-fits-all" scenario. Examples include curb ramps, audible or tactile signals for blind pedestrians, longer crossing times, smooth sidewalks

and bike lanes that are free of obstacles, and transit stops that can be easily boarded. Several examples of complete streets measures, adapted from the Road Commission for Oakland County's *Complete Streets – General Guidelines* report, are provided below:

Bicycle Facilities

Bicyclists need a complete interconnected transportation network, with a relatively clean, smooth surface to ride on. Clearly marked on-street bike lanes help facilitate non-motorized travel. Bicycle trails that are totally separated from the roadway allow safe non-motorized transportation with minimal conflicts with traffic. Shared-lane arrows (*sharrows*) can be used on roads under 35 mph and indicate proper positioning for bicyclists on roadways.



Pedestrian Facilities

Pedestrian crossings should be clearly visible, either by marked crosswalks or a change in pavement material. Refuge islands and medians are helpful to pedestrians on streets with wide cross-sections or at mid-block. In some cases, a push button can be installed at crosswalks that signal vehicles to slow and stop. When not lit, it does not impede traffic flow.



Streetscape Improvements

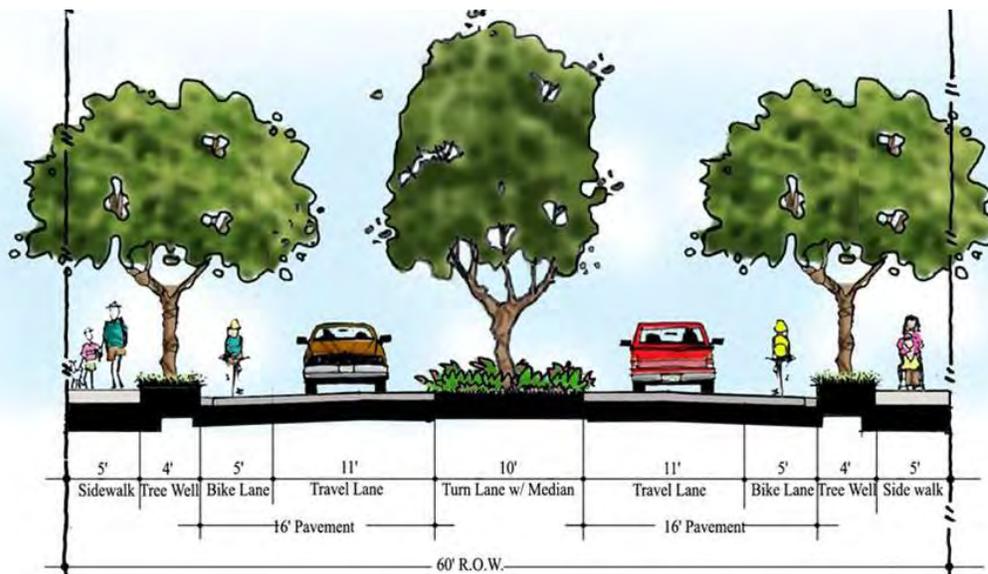
Streetscape improvements, such as landscaping, pedestrian-scaled lighting, benches, artwork, are a critical component of complete streets policies. Such elements can facilitate non-motorized transportation (such as walking and biking) by making them more enjoyable.



Benefits of Complete Streets

Complete Streets provide numerous benefits, including:

- Improved safety for all users, including pedestrians, bicyclists, transit riders and drivers.
- Improved human health by encouraging walking and bicycling.
- Decreased car traffic, reducing dependence on gasoline and petroleum products, and improved air quality.
- Provides more transportation options.
- Fosters livable communities.



The figure above shows a general cross-section of a road with complete street elements, such as sidewalks, bike lanes, and landscaping.

Source: usa.streetsblog.org

COMPLETE STREETS COALITION

The Michigan Complete Streets Coalition works to promote statewide Complete Streets policies and support local communities' initiatives. The Coalition began in 2009, and now represents over 100 businesses, organizations and individuals. The Coalition offers a variety of complete streets resources, including policy examples, presentations, and fact sheets.

Additional information regarding the Michigan Complete Streets Coalition can be found online at: <http://michigancompletestreets.wordpress.com/resource/>

CONCLUSIONS

As a result of the recent population growth and developments along the major Township thoroughfares, the pressure on the existing road network and safety paths is immense. The following conclusions can be derived from the earlier analyses:

- Many of the existing major thoroughfares in the Township currently operate at a lower than desirable level of service. New developments may exacerbate existing traffic conditions.
- Most traffic in the Township moves in a north-south direction along three primary corridors that intersect with I-75, while there are limited east-west corridors.
- All of the public roads in Orion Township are under the jurisdiction of the Road Commission for Oakland County, with the exception of M-24 which is under the jurisdiction of the Michigan Department of Transportation. Therefore, the Township has adopted the Master Right-of-Way Plan prepared by the County, with revisions, as a means to control land use intensity in the Township.
- Because many of the roads do not function as intended for the current level of traffic, there are a number of necessary road improvements. The improvements are intended to address both current and expected levels of traffic and are based upon an analysis of traffic volume data, accident data, road deficiencies identified by residents, road classifications, the future right-of-way map and other data.
- While the residents of the Township use the existing safety path network extensively, there are a number of missing links that are essential to connecting various elements of the Township.
- Due to the existing traffic volumes and the expanse of asphalt along thoroughfares such as M-24, the ability for pedestrian and cyclist to maneuver within these facilities is near impossible.
- Access management, traffic calming and complete streets measures are key in making all modes of transportation safer.

COMMUNITY INPUT AND GOALS

The adoption of community goals and objectives is a vital step in the master planning process. The desires and needs of Orion Township residents, property owners and business owners must be properly interpreted so that workable solutions can be achieved. The Master Plan therefore requires careful analysis of the various factors that characterize Orion Township and the specific problems to be faced.

COMMUNITY INPUT

Community input is the core of any planning effort. In order for the goals of the plan to be achievable, general consensus regarding the vital issues to the community must be reached. Many techniques exist which facilitate the gathering of public input, and Orion Township has had the opportunity to utilize three different methods in this Master Planning endeavor:

1. Open House
2. Online Master Plan Survey (SurveyMonkey)
3. Online Mapping Tool (MiCommunity Remarks)

Each of these three public input methods is described below. The appendix contains a full list of the comments obtained during these processes.

OPEN HOUSE

The first method utilized to collect public input was a Master Plan Open House. The goal of conducting the Open House was to attempt to gather citizen input on a variety of topics and to encourage conceptualization of a desired future for the community. At the open house, participants were asked to indicate their preferences, concerns and suggestions on a variety of community topics, answer questions, and provide additional comments

The Township's Master Plan Open House took place on November 12, 2014 at the Orion Center. Roughly thirty (30) residents attended the Open House, along with Township Board Members and Planning Commissioners. The event included five topic "stations," each of which contained an informational display about the topic along with a brief questionnaire and comment sheet to guide discussion. Open house attendees were encouraged to visit each one of the stations and provide comments

to the facilitators, who consisted of Planning Commissioners. A detailed map of the Township, along with a zoning map and Land Use Plan were also provided; Attendees were encouraged to identify locations on these maps that were of specific importance or concern.

The topic stations included:

1. Transportation and Road Improvements;
2. Shopping/Entertainment/Retail Services and Growth;
3. Natural Features and Environmental Quality;
4. Residential Growth and Housing Types; and
5. Economic Growth and Office/Research/Industrial Land Uses.

Open house attendees provided nearly 70 comments regarding various land use issues facing the Township. In general, participants expressed a desire for continued enhancement to the natural, residential and non-residential areas of the Township. General comments included a desire for preserved open space, additional options for senior housing, and increased pedestrian access while concern was expressed over traffic and appropriate siting for commercial and residential land uses. The results of the Open House made it clear that Orion Township residents place considerable value on neighborhood character and the preservation of quality residential areas and parkland for the Township. Several central themes were the preservation of open space and concerns regarding traffic congestion. The full list of comments received during the Open House can be found in the appendix.



At the Master Plan Open House, participants were encouraged to provide comments and concerns on a variety of community topics.

ONLINE MASTER PLAN SURVEY (SURVEYMONKEY)

The second public input method was a traditional opinion survey, which was provided online at the Township's website via SurveyMonkey. The survey was available online for public comment for the duration of the Master Planning Process, starting in September of 2014. The survey contained questions regarding residential development, road improvements, natural resources, non-motorized transportation, and public facilities, among others. Nearly 550 respondents participated in the survey, the results of which can be found in the appendix.

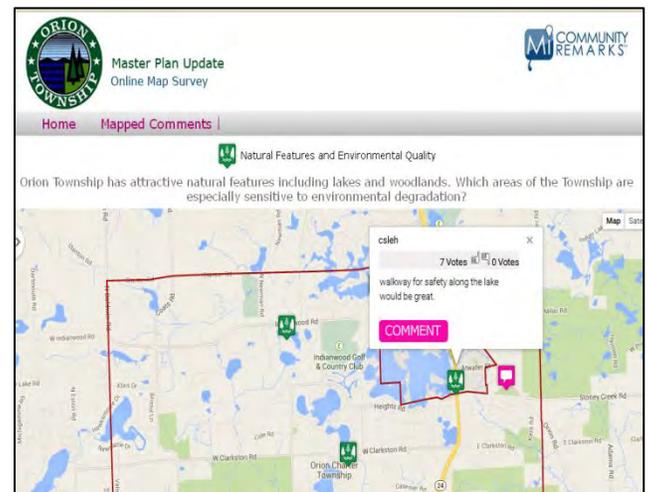
ONLINE MAPPING TOOL (MICOmmUNITY REMARKS)

For the third public input method, Orion Township residents were invited to provide ideas and suggestions for the Township's future growth through an online mapping tool available from the Township's website. The map-based tool, known as MiCommunity Remarks, was designed to solicit feedback on a broad spectrum of topics for the community. The tool allowed people to conveniently post their ideas, comments and concerns, and relate those comments to a specific geographic location. It offered residents the advantage of convenience – residents had the freedom to post a comment when it best suits them. In addition, the tool gave users the opportunity to view what others were saying and weight in on their comments.

More than 100 comments were received and tabulated. Six topics were provided along with questions and factual information about each topic. The topics included:

1. Road Improvements;
2. Shopping, Entertainment, Retail Services and Growth;
3. Natural Features and Environmental Quality;
4. Residential Growth and Housing Types; and
5. Economic Growth and Office, Research and Industrial Land Uses

A summary of the comments received from the online mapping survey are outlined in the appendix.



The MiCommunity Remarks tool enabled Orion Township residents to relate comments and concerns to a geographic location on a map.

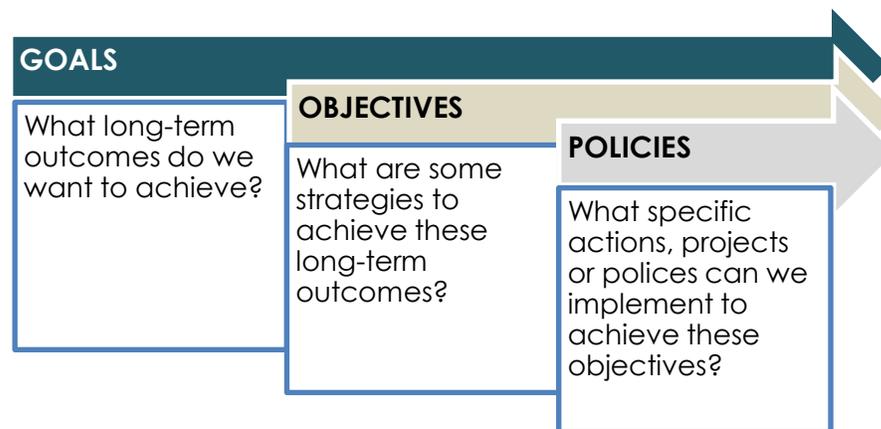
GOALS, OBJECTIVES AND POLICIES

In terms relevant to community planning, **goals**, **objectives** and **policies** give the Master Plan the philosophical guidance it needs to address the present issues and advance plans into the future. They are defined as follows:

Goals are overall broad statements that provide a focus for future discussions.

Objectives are more specific planning statements used to qualify the goals and provide more detailed direction for planning efforts.

Policies are very specific, action-oriented statements that would help achieve the goals and objectives. Policy statements provide justification to revise or draft new ordinances or regulations or finance specific capital improvements.



The goals, objectives and policies addressed within this section reflect the community's comments and concerns which emerged through the public input process. Ultimately, the policies identified within this section will give direction to private property owners regarding the physical environment, provide direction for more detailed analysis and eventual changes in existing regulations, and establish a framework to assist governing bodies and staff in assessing the impact of their planning and zoning decisions.

Goals, objectives and policies are organized into the following eleven (11) categories:

1. Economic Development
2. Community Facilities
3. Recreation Facilities
4. Environmental Resources
5. Historic Preservation
6. Transportation & Thoroughfares
7. Growth Management
8. Residential Areas
9. Office Areas
10. Commercial Areas
11. Industrial Areas

I. ECONOMIC DEVELOPMENT

GOAL A: To provide jobs for existing and future residents of the Township.

OBJECTIVE I: To implement the incentive programs available through Oakland County and the State of Michigan regarding the emerging employment sectors.

POLICIES

1. Continue partnership alliances with Oakland County, Auburn Hills, and the Chamber of Commerce, to market the region based upon the emerging employment sectors.
2. Maintain streamlined development review process for users within the emerging employment sectors.
3. Base an expeditious review procedure on the number of jobs created and positive impacts on tax base.

GOAL B: To provide economically sustainable developments.

OBJECTIVE I: To provide developments that can serve multiple purposes and reuse the existing buildings within the Township.

POLICIES

1. Incentivize the reuse of existing buildings through such things as fee waivers/reductions and expedited review procedures.
2. Monitor a business development, retention, and expansion plan.
3. Consider a business improvement district, brownfield redevelopment authority, or a local development finance authority. These financing tools can assist in the installation of infrastructure necessary to support desired development.
4. Consider Township participation in the costs of roads or infrastructure for selected areas of the Township as a means to induce/stimulate economic development.
5. Identify uses that are compatible with existing residential neighborhoods and develop an attraction plan to encourage their location in the community.
6. Work with the County on the emerging technology of health and medical facilities and research as prime economic indicators.

GOAL C: To streamline the development review process.

OBJECTIVE I: To assist with economic development, continue the development review procedures to encourage development providing it complies with the characteristics and needs of the community.

POLICIES

1. Adjust zoning districts in a manner which is consistent with established development patterns.
2. Promote the redevelopment of Gingellville.
3. Dis-incentive building new structures when vacant, similarly situated structures are available.
4. Work with business organizations to market vacant buildings.

II. COMMUNITY FACILITIES

GOAL A: To locate adequate office and meeting facilities within the Township Civic Center to serve the residents of the Township.

OBJECTIVE I: Continue to develop the Civic Center for all Township administrative offices and other public uses appropriate to a community campus.

OBJECTIVE II: Encourage public-private partnerships during the private development to promote the installation and/or completion of needed community facilities.

GOAL B: To provide for adequate sanitary sewer, public water, and stormwater management service in a manner consistent with the development policies of the Township.

OBJECTIVE I: To provide sewer, water, and stormwater management facilities in a manner that will not be disruptive to natural attributes.

POLICIES

1. Public utility extensions for water and sanitary sewers shall be permitted only if consistent with the Township's goals concerning protection of the natural environment, and planned residential development. All such expansions or enhancements should also parallel the growth corridors of the Township and shall not encourage unnecessary development or sprawl.

2. Prepare and adopt a Capital Improvement Plan for development and maintenance of public water and sanitary sewer systems. This Plan shall be updated periodically.
3. Extension of sewer or water should not be encouraged into undeveloped rural suburban areas unless necessary to protect the health and welfare of the community or surrounding communities, and to preserve the existing natural resources (i.e. lakes, creeks, streams, and wetlands).
4. All new development shall be reviewed in terms of compliance with the Stormwater Management Policy and Program Plan, as well as State and Federal requirements. The Plan describes the Township's water resources system, which consists of 27 natural lakes, connecting creeks and streams, and numerous wetlands. Future developments should be planned to preserve the natural drainage functions of this water resources system.
5. Continue full participation in regional sanitary sewer and public water systems as the best way to serve the Township.

OBJECTIVE II: To Ensure that new development will occur where adequate services are provided and proposed.

POLICIES

1. Public utility extensions shall be permitted only if consistent with the Township's goals concerning protection of the natural environment and planned residential development.
2. New developments that require extension of, or improvement to, the public water or sanitary sewer system should be required to install or help pay for installation of the new utility services.
3. Consider utility service districts with distinct boundaries.

GOAL C: To provide for the maintenance of storm drainage systems along roadways and within developments.

OBJECTIVE I: To protect the quality of the existing storm drainage system which flows into abutting lakes, streams and wetlands.

POLICIES

1. Incentivize the use of Low Impact Development (LID) planning and engineering techniques to encourage infiltration and minimize the amount of storm water runoff from roadways and developments into surface waters. Example techniques include preservation of woodlands and wetlands (natural infiltration areas), and use of bio retention areas, porous pavers, and rain gardens among others.
2. Work with Oakland County and others to identify, design, and implement retrofit projects that install LID techniques into existing stormwater management

systems. Retrofit projects will encourage infiltration of stormwater and minimize runoff reaching natural water bodies.

3. Work with Oakland County and/or Michigan Department of Environmental Quality to maintain the existing drains within the Township.
4. Work with the Clinton River Watershed Council to identify, design, and implement streambank restoration projects within the Township.

GOAL D: To cooperatively plan and locate school facilities with the local school district through the application of local and state standards.

OBJECTIVE I: To plan coordinated facilities to avoid duplication of public investment.

OBJECTIVE II: To provide for future population growth.

GOAL E: To provide adequate police and fire protection for Township residents and property owners.

OBJECTIVE I: To adopt service areas and distance standards for the location of police and fire facilities.

POLICIES

1. Police and fire protection facilities shall be re-evaluated on a regular basis, as new development occurs to determine if modifications or additions to facilities are needed to keep pace with new developments.

OBJECTIVE II: To promote a public water system that will provide adequate firefighting pressures.

POLICIES

1. Public water system shall be re-evaluated on a regular basis as new development occurs to determine if modifications or additions to the system are needed to protect the health and welfare of the community or surrounding communities.

GOAL F: To encourage the location of appropriate health care facilities in the community

OBJECTIVE I: To work with health-planning agencies to effectuate coordination in location and design considerations.

POLICIES

1. To attempt to locate such facilities where maximum service to existing and anticipated population concentrations are evidenced.

2. Consider the Brown Road area as a future location for office/medical uses.

GOAL G: To improve the energy efficiency of Township buildings and other facilities.

OBJECTIVE I: To work with Township staff and determine ways in which all Township-owned facilities can conserve energy and become more energy efficient.

POLICIES

1. Evaluate energy uses within the Township to determine areas where energy conservation and savings could be realized.
2. Establish goals for future energy conservation, particularly in new construction of Township municipal and park facilities.
3. Implement energy saving initiatives in building management, Township fleet and machinery operation, and landscape and park management.
4. Investigate and apply for State or Federal energy grants.

III. RECREATION FACILITIES

The following goals and objectives are adopted from the 2014 Parks and Recreation Master Plan. Note that the P & R Master Plan does not explicitly list policies. Therefore, we have combined objectives and policies below.

GOAL A: Maintain and renovate existing park facilities to provide clean, safe, attractive and functional environments.

OBJECTIVES/POLICIES

1. Ensure park facilities and equipment are clean.
2. Replace/upgrade aging park equipment as needed.
3. Ensure safety surfaces under playground equipment regulated depth and fall zones.
4. Remove barriers to universal access.
5. Refurbish athletic fields as needed.
6. Refurbish parking and trail pavement surfaces.

7. Remove/control invasive plant species.
8. Provide appropriate directional signage.
9. Plant trees and shrubs to create shade and supplement wooded areas.
10. Maintain park maintenance equipment and keep storage areas in good condition.
11. Continue general park upkeep and stewardship.

GOAL B: Develop park facilities that respond to residents recreational needs and are financially stable.

OBJECTIVES/POLICIES

1. Ensure that capital project expenditures maximize return on investment.
2. Develop support facilities as needed such as restrooms, picnic pavilions, playgrounds, benches and signage.
3. Improve active recreation opportunities in the parks with additional athletic fields and other amenities.
4. Improve passive recreation opportunities with additional nature trails and other path and trail support amenities.
5. Consider park land acquisition and donations.

GOAL C: Continue to develop and maintain the Township-wide non-motorized transportation system.

OBJECTIVES/POLICIES

1. Work with the Township Board and the Planning Commission to continue to develop the Township-wide non-motorized transportation system.
2. Continue to coordinate with the Polly Ann Trail, Paint Creek Trail, Road Commission for Oakland County, railroad companies, adjacent communities and other stakeholders.
3. Continue to require developers to dedicate and construct pathways in new developments in cooperation with the Planning Commission and Township Board of Trustees.
4. Add site amenities at regular pathway access points to include maps, trash receptacles, mile markers and direction signage.
5. Continue to maintain the system to a high quality standard.

GOAL D: Maintain and enhance the quality of parks, recreation and senior programming and services.

OBJECTIVES/POLICIES

1. Encourage healthy and active lifestyles.
2. Continue to provide programs and events that build community.
3. Continue to broaden the variety of activities offered while ensuring that programs are financially self-sustaining.
4. Monitor and evaluate recreation programs to assess gaps in the provision of services.
5. Expand the use of web-based communication tools such as dedicated website, e-mail blasts, Facebook, etc.
6. Provide more opportunities for volunteers and community stewardship projects.

GOAL E: Provide for sustainable parks, recreation and senior services with fiscally sound administrative and operational strategies.

OBJECTIVES/POLICIES

1. Increase staffing and maintenance equipment as needed to support additional services.
2. Continue monitoring fees and direct/indirect costs for recreation programs and services.
3. Establish a cost recovery policy for each category of programs offered based on the desired level of community subsidy as well as the direct and indirect costs of providing recreation programs.
4. Work to increase revenues generated from rental fees and recreation programs by, for example, offering more profit-making programs or increasing non-resident fees.
5. Develop a maintenance plan and schedule for each park to include daily custodial work, routine and preventative maintenance tasks, scheduled improvements, and emergency repairs.
6. Maintain existing partnerships with public and private recreation providers that support efficient and effective service and program delivery.
7. Increase public awareness of Orion Township parks, recreation and senior services through additional communication and education.

8. Build a “Friends of the Parks” group which could be active in providing additional support for park projects and funding.
9. Continue to aggressively pursue grants for park land development and trail acquisition and development.

IV. ENVIRONMENTAL RESOURCES

GOAL A: To preserve the natural resources of Orion Township.

OBJECTIVE I: To utilize the Township’s Wetlands Protection Ordinance to ensure that development will minimize disruption to valuable wetland areas.

POLICIES

1. Review the Wetlands Protection Ordinance to ensure its compliance with new State and Federal Stormwater Management requirements.
2. Avoid using high-quality wetlands as detention basins for development sites. Any wetlands used for stormwater storage of developed sites should only receive filtered stormwater and not in volumes greater than it received under pre-development conditions.
3. Use Low Impact Development (LID) techniques to filter pollutants and sediments from stormwater runoff before it reaches wetlands, and minimize runoff volumes.
4. Prepare an informational packet and/or presentation for the local access channel which will educate residents on how they can help protect the existing wetland features. Incorporate fertilizer regulations into the ordinance to minimize the levels of phosphorus runoff into the wetlands.
5. Incorporate fertilizer regulations into the ordinance to minimize the levels of phosphorus runoff into the wetlands.

OBJECTIVE II: To utilize the Township Stormwater Management and Erosion Control Ordinance to ensure that development will not adversely impact natural resources and surrounding property.

POLICIES

1. Review and re-evaluate the Stormwater Management and Erosion Control Ordinance to ensure its compliance with new State and Federal Stormwater Management requirements.
2. Evaluate effectiveness of current soil erosion control practices and oversight at construction sites in light of sediment deposition in streams and drains.

OBJECTIVE III: Enforce the Township Woodland Protection Ordinance in order to minimize tree loss and disruption of valuable wooded areas.

POLICIES

1. Review and re-evaluate the Woodlands Ordinance to coordinate protective measures with green infrastructure initiatives. Protective mechanism should be implemented to preserve wooded areas containing endangered, threatened and special concern plant and animal species.

OBJECTIVE IV: To study, draft, and consider adoption of new plans, guidelines, and regulations that protect natural features and the functions that they provide to the community.

POLICIES

1. Draft a Green Infrastructure Plan that can be used during the site plan review process which outlines goals, policies, priorities and actions, scheduling and funding options for protection of the Township's green infrastructure system.
2. Establish zoning standards, such as an overlay district, that requires a higher level of protection for priority one Michigan Natural Features Inventory (MNFI) areas that contain endangered, threatened or special concern plants and animal species.
3. Establish an impervious surface reduction/infiltration ordinance to minimize stormwater runoff volume, protecting stream banks from "flashy flows" and erosion.
4. Establish an enhanced natural feature setback/buffer regulation for stream corridors, wetlands, and floodplains.
5. Establish native vegetation guidelines that preserve existing native vegetation and encourage the use of native plants in landscaping.
6. In the event the State or County proposes to sell recreational property, the Township should request that they be given the opportunity to acquire the property through donation, grant or outright purchase.
7. Control invasive species including Phragmites and manage their impact on wetlands and lakefront areas.

GOAL B: To provide environmentally sustainable developments.

OBJECTIVE I: To implement low-impact development (LID) techniques to accommodate development while preserving existing natural features.

POLICIES

1. Establish zoning design standards by which LID techniques can be evaluated.

2. Incentivize the use of LID standards.
3. Consider incorporating the SEMCOG LID manual into the Township's zoning ordinance and engineering design standards.
4. Work with local gardening groups, the Clinton River Watershed Council, land conservancies, and others to establish demonstration projects such as community gardens, rain gardens, no mow zones, roadway bioswales, use of native vegetation etc.
5. Prepare a presentation for the local access channel, or an informational workshop or packet which explains the use of sustainable products/techniques for the built environment and future development.

V. HISTORIC PRESERVATION

GOAL A: To preserve and maintain structures or significant historical and architectural value which are key elements in the unique identity and community character of the Township.

OBJECTIVE I: To preserve the inherent architectural character of individual historical architecture resources throughout the Township.

POLICIES

1. Recognize the need to seek alternate uses for structures that are no longer suitable for their original purpose.
2. Monitor historical and architectural resources and promote methods to ensure their preservations.
3. Where possible, encourage names associated with the Township's historic past for new streets and developments.
4. Continue preservation efforts to restore and maintain important historical structures that need immediate attention.
5. Work with local historical preservation groups to identify pressing resources.
6. Utilize the 2006-2007 Reconnaissance Survey of Historic Architectural Resources conducted by Mannik & Smith Group, Inc. to further investigate the properties eligible for designation on the National Register of Historic Places.

VI. TRANSPORTATION AND THOROUGHFARES

Note that roads within Orion Township are under the purview of the Michigan Department of Transportation (MDOT) and Road Commission for Oakland County (RCOC); the Township is in a supportive role with regards to transportation and thoroughfares.

GOAL A: To provide a traffic circulation system that safely and efficiently serves residents and businesses located within the Township.

OBJECTIVE I: To obtain needed right-of-way dedications and traffic safety improvements.

POLICIES

1. All new structures and signs shall be set back from the road right-of-way as determined by the Road Commission for Oakland County (RCOC) and/or Michigan Department of Transportation (MDOT).
2. New commercial developments on Baldwin or Lapeer Roads shall be accompanied with roadway or driveway improvements to support growth.
3. Improve intersections, including the additional turning lanes, to ensure proper turning movements for safety and efficiency.
4. Correct or avoid hazardous and unsafe areas by improving street alignments.
5. The major north-south corridors of the Township, such as Baldwin and Lapeer Roads, are experiencing significant traffic flow deficiencies. The Township and the RCOC should continue to develop improvement plans to accommodate high volume traffic through road widening, intersection improvements and other design remedies.

OBJECTIVE II: To Improve the aesthetics of the thoroughfare approaches to the Township.

POLICIES

1. Promote The improvement of Baldwin Road and encourage development of a system of roundabouts or other necessary improvements on Brown Road and Waldon Rd.

OBJECTIVE III: To adopt design standards for private roads that are not under the jurisdiction of the Road Commission for Oakland County (RCOC).

POLICIES

1. Design standards should be compatible with those of RCOC and Michigan Department of Transportation (MDOT).

2. Review of new private road proposals or improvements should encourage preservation of natural features and should meet minimum roadway standards as adopted in the Zoning Ordinance and Private Road Ordinance.
3. Incorporate Low Impact Development Standards (LID) into road designs in order to minimize environmental impacts.

OBJECTIVE IV: To encourage improved roadway aesthetics.

POLICIES

1. Roadways should be visually pleasing to motorists, pedestrians, and persons who view the roads from adjoining land.
2. The proliferation of private signs should be prohibited along roadways, attractive signs should be encouraged.
3. Pursue federal Transportation Alternatives Program (TAP) and other grant programs to fund non-motorized transportation improvements along roadways
4. Review greenbelt landscaping standards along roadways and ensure quality landscape treatments for commercial and industrial areas.
5. Pursue MDOT grants and other grant sources.
6. Promote "Adopt a Road" program by local organizations for beautification.

OBJECTIVE V: To discourage development within future road rights-of-way, as depicted on the Right-of-Way Plan.

POLICIES

1. Policies that recognize the needs of future rights-of-way should be maintained by discouraging physical improvements within these right-of-way areas.
2. Safety paths should be located in relationship to the future rights-of-way.
3. Setbacks for structures and signs shall be measured from the future rights-of-way.
4. The dedication of future rights-of-way at the time of land development will be encouraged. Dedication of right-of-way with the approval of plats will be required.
5. Periodically update the Township's Master Right-of-Way Plan.

OBJECTIVE VI: To strive toward a balanced relationship between the transportation system and the overall land use pattern.

POLICIES

1. There should be an adequate number of each type of road with the appropriate carrying capacity to serve the Township's land use pattern.
2. Alternative development proposals should be analyzed to determine the amount of traffic that will be generated and how the increased traffic will affect the transportation system.

OBJECTIVE VII: To reduce or limit conflicts between land use and traffic wherever possible.

POLICIES

1. The Township should encourage the installation and use of service drives, connector drives or "cut-throughs" for access between adjacent properties along commercial corridors.
2. The number of curb cuts to commercial properties must be limited to avoid automobile and pedestrian conflict points.
3. Spacing between curb cuts should be maximized to avoid conflicts in turning movements.
4. An access management ordinance shall be adopted to control excessive curb cuts and hazardous turning movements.
5. Improve the efficiency and safety of the Baldwin Road and Lapeer Road corridors.

GOAL B: To Develop a system of pedestrian/bicycle safety paths to link residential areas with schools, recreation areas, commercial districts and other destinations.

OBJECTIVE I: To continue to require installation of safety paths in conjunction with all new development.

POLICIES

1. Safety paths shall be constructed in accordance with the Safety Path Ordinance and Township Safety Path Master Plan.
2. Complete unfinished sections of the safety path in order to link existing pathways.

OBJECTIVE II: To consider public initiative to install paths in areas that are already built up.

POLICIES

1. Grant applications should be submitted as a means to fund safety path construction on public land and/or areas already built-out but lacking such a system.

OBJECTIVE III: To support development and maintenance of the proposed Polly Ann Trail and Paint Creek Trailway.

POLICIES

1. Continue working with the Polly Ann Trail Council and Paint Creek Trailway Commission.

GOAL C: To preserve significant natural features near roadways by designating Natural Beauty Roads, in accordance with Michigan Act 150 of 1970.

OBJECTIVE I: To recommend roads for designation as Natural Beauty Roads where warranted.

POLICIES

1. The Township should carefully monitor development along these road segments to ensure compliance with the Act.
2. Promote the preservation of scenic and rural road corridors in order to preserve rural character.

VII. GROWTH MANAGEMENT

GOAL A: To guide growth within Orion Township in a rational and sequential manner which will avoid patterns of sprawl and “leapfrog” development. Innovative and flexible approaches for growth management shall be employed which will prevent overcrowding, protect critical open space, preserve a balance of housing options, and minimize traffic congestion.

OBJECTIVE 1: Direct higher-density residential and commercial development to appropriate areas of the Township in order to maintain the rural character of low-density areas.

POLICIES

1. Preserve critical environmental areas as identified by the Oakland County priority conservation area designations.
2. Preserve larger acreage parcels in appropriate locations in order to provide appropriate transitions from higher to lower-intensity/density uses.
3. Guide development and foster responsible use of land and the preservation of natural features.
4. Limit residential and commercial development in areas where conditions are least capable, such as areas without water or sanitary sewer, areas with poor soil quality, or areas where the transportation network would not support the density.
5. Consider each development based upon soils, impact on woodlands, wetlands, floodplains, water bodies and infrastructure.
6. In areas where higher-density developments are appropriate, promote residential designs which encourage compact and livable communities using clustering or density transfer options that preserve open space.
7. In areas of the Township where existing larger acreage lots exist, recognize the pattern of larger lot residential areas in order to maintain housing options for a variety residents. The Township should provide a variety of housing and residential land use options, providing appropriate housing for first-time home buyers, renters, families with children, empty nesters and seniors.
8. Consider density transfers and clustering as a method to preserve natural features.

OBJECTIVE II: Establish municipal service boundaries which will discourage the extension of public sewer or water service into areas of the Township ideally situated for open space, natural feature preservation or large lot residential uses. Consider traffic impacts of new development and the cumulative impacts on traffic corridors.

POLICIES

1. Carefully evaluate the Township's remaining large tracts of property as to determine the limits of dense residential and commercial growth. Consider municipal service boundary limitations for areas identified in the Master Plan for low density residential uses or identified as priority conservation areas.
2. Discourage extension of public sewer or water in areas outside of the established municipal service boundary, except where such extension would be necessary from an environmental standpoint.
3. Consider areas adjacent to or contiguous to the established municipal service boundaries as preferred areas for expansion, thereby eliminating leap-frog development.
4. Where sewer or water service is currently not available, expansion shall only occur in accordance with the Township's municipal service expansion policy, when established.
5. Consider traffic impacts for new development and the level of service (LOS) for intersections.
6. Evaluate and minimize traffic impacts of new development on the Township's major north/south corridors including Baldwin Rd. and Lapeer Rd.

OBJECTIVE III: Collaborate with neighboring communities to coordinate growth and establish consistent and compatible land use policies.

POLICIES

1. Participate in discussions with adjacent communities regarding multi-jurisdictional services, infrastructure and land use planning.
2. Actively investigate opportunities to coordinate traffic, economic development, and natural resource planning across jurisdictional boundaries.
3. Coordinate future land use map with those of adjacent communities to ensure that the land uses near the Township's edges are consistent with those of neighboring communities.

VIII. RESIDENTIAL AREAS

GOAL A: To emphasize and strengthen the single family home character and rural suburban atmosphere of the Township, while providing for a variety of new, high-quality housing types at various densities and protecting the natural features of the Township.

OBJECTIVE I: To maintain and enhance the residential character of existing neighborhoods

POLICIES

1. Encourage self-initiative in upgrading property.
2. Initiate housing rehabilitation, foreclosure stabilization, and neighborhood revitalization efforts in appropriate areas.
3. Continue to work with homeowners and appropriate County agencies to identify and implement needed capital improvements in residential areas.
4. Carefully monitor areas where residential uses are located adjacent to industrial or commercial uses so that timely safeguards against blight can be initiated, if necessary.
5. Provide a transitional zone between intensive commercial uses and residential uses to ensure protection of existing neighborhoods.
6. Follow a policy of stringent code enforcement in all residential areas.
7. Rehabilitate or remove blighted residential structures.

OBJECTIVE II: To provide for the development of new, high-quality single-family residential growth at varying densities.

POLICIES

1. Residential Development should be permitted in accordance with the ability to provide necessary public services, including public water and sanitary sewer services, road construction and maintenance, police and fire services, and governmental administrative services.
2. New residential developments shall be designed to be compatible with the natural features of the site. Significant topographic features, tree stands, wetlands, and other important natural features should be preserved intact wherever possible.
3. Discourage overbuilding in areas which have a limited capacity for additional traffic.

4. Maintain appropriate open space and amenities for residential areas.
5. The level of residential development should be continuously monitored in terms of the impact on natural features. In particular, rezoning or planned unit development proposals that would increase the density of development and population of the Township should be discouraged.
6. Ensure the provision of sufficient open space to serve each dwelling unit either through individual yard spaces or the encouragement of common open space areas.
7. Promote quality housing, regardless of type, at low and moderate densities to maintain the rural suburban character of the community.
8. Re-evaluate the remaining undeveloped multiple family residential parcels and/or re-evaluate the future land use designation on such parcels due to a high supply of such land within the Township.
9. Evaluate the creation of utility service districts with distinct boundaries.
10. Maintain an appropriate balance of small lots and large acreage lots while ensuring open space and areas of rural character.
11. Ensure large setbacks on land classified as low density residential.

OBJECTIVE III: To provide appropriate areas for housing other than conventional single-family homes.

POLICIES

1. Limit the location of multiple-family areas to sites with access to major thoroughfares so that use intensities and traffic demands are compatible.
2. Encourage the construction of senior housing complexes within residential neighborhoods.
3. Encourage alternative housing styles other than multiple-family apartments, which include "empty-nest" condominiums and attached single family dwellings.

OBJECTIVE IV: To encourage the use of land in accordance with its character and adaptability through the use of innovative planning techniques that will result in substantial benefit to future residents and to the Township.

POLICIES

1. Innovative techniques should effectively implement the goals set forth in the Master Plan, especially in preserving the Township's natural features.
2. Alternative residential developments must result in substantial benefit to the

future residents and to the Township that exceed those accomplished under conventional methods.

3. Such development should enhance the quality of life in residential areas and provide readily available recreation opportunities.
4. Assure that compatibility with neighboring properties will be maintained.
5. Consider programs such as purchase, donation, or transfer of development rights, conservation easements, and scenic easements as a tool to maintain parcels with significant natural features.
6. Establish clear policies and procedures to consider requests for conversion of public or private recreation lands to alternative land uses.

OBJECTIVE V: To minimize pollution and preserve the lakes and watershed areas of the Township.

POLICIES

1. Areas around existing lakes should be reserved for low density single family and open space residential uses.
2. Prevent pollution or siltation of lakes by managing drainage near lakes through the use of Township Ordinances.
3. Encourage the use of zero phosphate fertilizers in order to minimize nutrient loading of lakes. Michigan law now prohibits the use of phosphorous fertilizer on lawns.

OBJECTIVE VI: Develop programs to improve and maintain older neighborhoods.

POLICIES

1. Obtain tax delinquent properties from the County or State and rehabilitate acquired properties through programs such as Habitat for Humanity, Community Development Block Grants (CDBGs) and veterans associations.
2. Improve and maintain the infrastructure (i.e. water and sewer) in older neighborhoods to keep them viable.
3. Improve walkability and options for non-motorized traffic within and between all neighborhoods.

IX. OFFICE AREAS

GOAL A: To provide exclusive areas for office uses that will have limited impact beyond the sites and which are intended to serve nearby residences or businesses.

OBJECTIVE I: To set aside areas in the Township for General Offices which will serve as areas of transition between residential and non-residential uses.

POLICIES

1. Establish standards that will provide landscaped settings for office uses as areas of transition.
2. Limit uses in these office areas to those that will provide services to the residents or businesses of surrounding areas.
3. Establish standards for development that will permit the utilization of relatively small parcels for the purposes intended.

OBJECTIVE II: To provide for the utilization of relatively shallow frontages for office use when single-family residential use is not reasonable because of existing conditions and as an alternative to strip commercial development.

POLICIES

1. Limit the supply of land planned for such office use to an amount that will not outstrip the demand for such office uses in the foreseeable future.
2. Strategically plan such office use areas where alternative residential uses are not feasible.

GOAL B: To provide sites for Research and Development uses that are characterized by buildings in which people are employed in activities that are of a technical research nature, or are professional activities, including technical training and education.

OBJECTIVE I: To allocate areas in the Township which would be suitable for the development of high-technology office or research facilities.

POLICIES

1. Locate Research and Development areas on lands that have direct access to major thoroughfares or collector streets.
2. Encourage the establishment of Research and Development in appropriate areas of the Township.

3. Require well-landscaped settings and encourage attractive buildings to establish an area identity that will be appealing to signature and single-tenant buildings.
4. Promote the Brown Road area and the Lapeer Road corridor for industrial, medical, office, and research-related facilities.

OBJECTIVE II: To place Research and Development uses in close proximity to industrial uses to provide space for activities that are ancillary to or supportive of the industrial uses.

POLICIES

1. Locate Research and Development uses at the fringe or edge of industrial use areas to act as a transition to adjacent less-intensive uses or to natural features.
2. Site Research and Development offices in a portion of the Township where vehicular access is good, with reasonable access to the I-75 freeway.

X. COMMERCIAL AREAS

GOAL A: To provide for a proper distribution of commercial land uses.

OBJECTIVE I: To strictly limit the location of commercial uses to protect the health, safety, and welfare of businesses and their patrons.

POLICIES

1. Commercial areas should be limited to more centralized locations along Baldwin Road south of Waldon Road, within the Village of Gingellville, and appropriate areas within the Lapeer Road and Brown Road corridors.
2. Commercial development should not be encouraged in the Township at the expense of the Village's commercial district. The community's retail and service needs can best be served through the coordinated growth and development of both the Township's commercial corridors and the Village's commercial district.
3. The future allocation of commercial land in Orion Township should be based on the shopping needs of Township residents. Orion Township commercial sectors are not intended to serve large segments of the regional market.
4. Ensure that all commercial developments are provided with adequate public services and sufficient roadway improvements.

OBJECTIVE II: To encourage the development of compact commercial use areas rather than have such developments strung out along major thoroughfares in a haphazard fashion or as spot developments intruding into residential areas.

POLICIES

1. The development of planned, multi-tenant shopping centers should be encouraged along commercial corridors instead of unplanned strip development where uses are located on individual parcels. Consolidation of individual uses on separate parcels into more functional multi-use developments should be encouraged.
2. Develop design guidelines to encourage quality design and architecture.
3. Promote shared service drives to minimize the number of curb cuts along major roadways.
4. Promote and maintain a system of centralized and defined commercial centers with "Village-like" design guidelines. Incorporate innovative strategies within the Zoning Ordinance (i.e. Gingellville Overlay District) to promote quality development within these commercial centers.
5. Promote coordinated design concepts and encourage walkability within and between commercial centers through increased pedestrian access, bikepaths, bikeracks, and pedestrian amenities (i.e. benches, plazas, etc.)

OBJECTIVE III: To provide for compatible land uses relationship between commercial and other uses.

POLICIES

1. Placement of intense commercial uses next to residential areas should be avoided unless sufficient buffering is provided.
2. Proper screening of commercial uses from other uses should be ensured.
3. Promote non-intrusive lighting from commercial sites.

OBJECTIVE IV: To distinguish, by location and type, the various commercial uses (Convenience, General) in specific zoning districts where supported by existing or projected Township population.

POLICIES

1. Commercial land in Orion Township must be allocated efficiently to uses that fulfill the essential needs of residents.
2. Promote the development of quality retail establishments for which residents have expressed a need.

3. The Township should discourage development of land for commercial uses for which the demand has already been met.
4. Encourage redevelopment of older commercial properties through private consolidation, demolition, and redevelopment for convenience retail uses.

GOAL B: To provide mechanisms for traffic management in commercial areas that will make such areas easily accessible, while limiting the impact on adjacent thoroughfares.

OBJECTIVE I: To encourage commercial development in areas where it is most likely to develop successfully (at the intersection of major routes) in relation to population centers.

POLICIES

1. Commercial uses should be placed along major commercial corridors at locations of easy access, where ingress and egress will not impede traffic flow.
2. The number and spacing of entrance drives into commercial facilities should be limited by requiring shared service access drives, where feasible, and as required in the Access Management Ordinance.
3. Safety paths should be utilized in commercial areas to provide safe pedestrian and bicycle access to businesses.

OBJECTIVE II: To encourage the use of landscaping and setbacks to delineate drives, direct vehicular movement, and provide sufficient stacking space in entranceways. These are effective means of improving safety while enhancing the aesthetic value and desirability of businesses.

POLICIES

1. Consider development of a corridor plan for each of the major thoroughfares that would coordinate land use and traffic. The plans will also be coordinated with the Michigan Department of Transportation (MDOT) or the Road Commission for Oakland County (RCOC), in accordance with guidelines for traffic management, land use, landscaping, etc.

GOAL C: To improve the appearance of existing and future commercial areas.

OBJECTIVE I: To encourage the design and layout of commercial uses in Orion Township that reflect through thorough and careful analysis of the site and creative efforts to improve aesthetics.

POLICIES

1. Architecture should be clean and uncluttered.
2. Signs must adhere to the Township Sign Ordinance and shall be set back from the proposed future right-of-way.
3. Parking, loading and storage areas should be landscaped and screened in order to provide visual relief from large paved areas and unsightly activities.
4. Landscaping and setbacks should convey a sense of spaciousness and compatibility with natural features.

OBJECTIVE II: To closely monitor and stringently enforce building, zoning and maintenance codes in commercial areas.

POLICIES

1. Buildings, signage, landscaping, or parking areas that are deteriorating should be renovated or repaired on a timely basis.
2. Changes in business use in existing buildings should be monitored to be certain that new uses are in compliance with Township building and zoning codes.

XI. INDUSTRIAL AREAS

GOAL A: To provide for industrial development in a manner that increases the community's tax base, results in proper land use relationships, and does not negatively impact the environment.

OBJECTIVE I: To maximize the use of available transportation (rail and highway) in the location of industrial areas.

POLICIES

1. Future industrial development should be confined to the designated areas in the south central, southwest and southeast parts of the Township where an industrial base has already been established. Since most industries are oriented toward the I-75 corridor, future industrial development in the south will minimize the impact on the rest of the Township.
2. Promote the Brown Road area for industrial, medical, office, and research-related uses within an attractive industrial campus.

OBJECTIVE II: To minimize the negative impacts of industrial areas on non-industrial areas and on the environment.

POLICIES

1. Concentrate industrial uses in suitable locations to protect residential uses.
2. Other land uses should be physically and visually protected from the intrusion of industrial land use.
3. Codes and regulations applicable to industrial areas must be strictly enforced in Orion Township. Including close monitoring of industries that may be using or storing hazardous chemicals or toxic materials.
4. Promote non-intrusive lighting.

OBJECTIVE III: To provide a balanced industrial development strategy to achieve environmental compatibility and maintain the semi-rural character of the Township.

POLICIES

1. Industrial growth strengthens the tax base and increases employment opportunities. A balance should be achieved between these economic benefits and the amount of industry that is compatible with the Township's

environmental objectives and overall future development pattern.

2. It is not intended that Orion Township become a major center of regional industrial development.
3. Goals for the preservation of the spacious, rural character of the Township must not be sacrificed to build a large industrial base.
4. The pace and type of industrial development should be monitored so that it is in keeping with the Township's overarching goals for preservation of the natural environment and resources, and protection of its residential areas.
5. Light manufacturing and research firms would be best suited to Orion Township as such firms generally produce low levels of waste, noise and traffic, as well as less air and water pollution.
6. Future industrial development should be permitted only in accordance with the ability to provide required utilities and public services, including public water and sanitary sewer services, adequate road construction and maintenance, police and fire protection and a tax base to allow for adequate general municipal administrative and regulatory services.
7. Utilize economic development tools such as Brownfield Redevelopment and Local Development Finance Authority (LDFA) to improve the infrastructure related to new industrial development or expansion.

GOAL B: To strive for high standards of design for industrial development in the Township, especially since one of the most heavily traveled gateways to the Township (Lapeer Rd./M-24) traverses the industrial area.

OBJECTIVE I: To create industrial areas which are well served by infrastructure, are efficiently served by transportation facilities and are as attractive as can be attained in an industrial district.

POLICIES

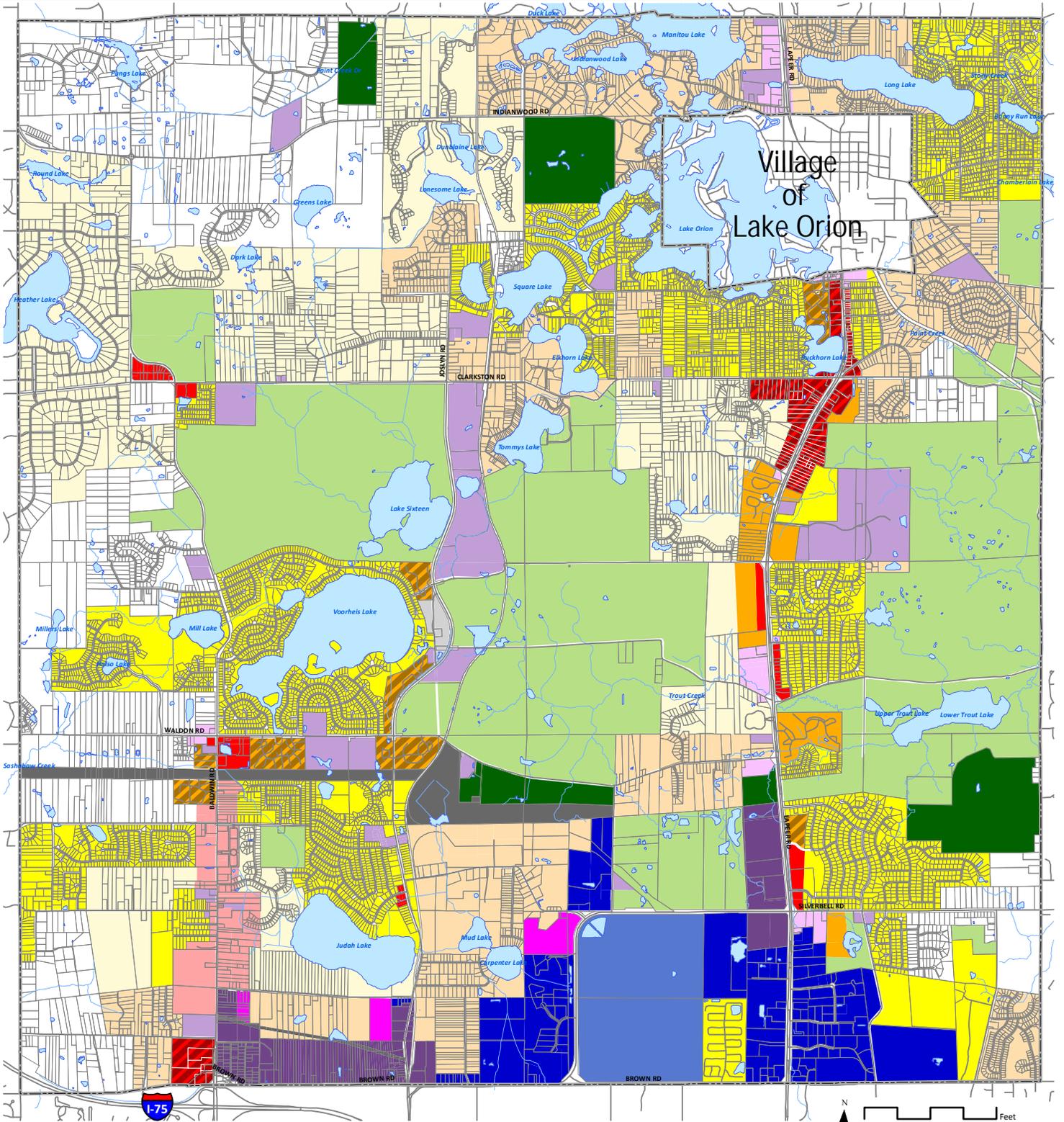
1. Industrial buildings that are attractive and of substantial construction are encouraged.
2. Significant landscape treatment of the yards of industrial developments should be required.
3. Screening the view of materials storage, loading areas and trash receptacles from public roads and from nearby non-industrial land use areas will be required.

FUTURE LAND USE PLAN

The Future Land Use Plan and Future Land Use Map presented in the following pages define the framework for future growth and illustrate the proposed physical arrangements of land use for Orion Township. This chapter serves to translate community goals into a narrative and provide a descriptive rationale as to the reasoning and placement of preferred land uses and density. The Sub Area Plans contained within this chapter highlight particular areas of the Township where more detailed guidance for future uses and development patterns are provided.

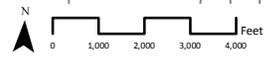
The Future Land Use Plan is formulated to serve as the primary policy guide for local government officials regarding future land use decisions, investment in public improvements, and coordination of public improvements and private development. In one sense, this chapter presents an idealized view of future growth patterns in Orion Township. However, the Plan must also provide practical guidance to local decision-makers regarding today's issues. This Plan is intended to be a working document that will provide for the orderly development of the Township, assist the community in its effort to maintain and enhance a pleasant living environment, and spark a vision towards the future.

In developing policies and a plan for future development of the Township, residents must consider the potential for various types of uses in relation to other identified development goals. Foremost, the potential for future residential, commercial, and industrial development must be examined in relation to long-standing goals to preserve the natural resources and peaceful, suburban character of the Township. The Master Plan must seek an appropriate balance between the need for various types of development and the desire to preserve the Township's remaining unspoiled natural resources. A realistic plan for future development must bring into focus all pertinent issues, including those related to preservation of the natural system, as well as issues related to the economic, social, and political systems. As indicated earlier, this effort to relate key issues and create a vision for the community will provide an environment which reflects residents' desires for the Township.



- Single Family Low Density
- Single Family Medium Low Density
- Single Family Medium Density
- Single Family Medium High Density
- Multiple Family Low Density
- Multiple Family Medium Density
- General Office
- Office Research
- Neighborhood Commercial
- General Commercial

- Village Center
- Industrial/Commercial/Residential Mixed Use
- Research/Light Industrial
- Heavy Industrial
- Institutional
- Private Recreation
- Recreation
- Special Purpose
- Utility Owned
- Water



Map 17

Future Land Use Plan

Charter Township of Orion
Oakland County

Source: Oakland County Planning & Economic Development Services, 2013

June 5, 2015
Carlisle / Wortman Associates, Inc.

FUTURE LAND USE CLASSIFICATIONS

The planning policies contained in the Master Plan are intended to guide future development of all types in Orion Township. These policies provide guidance to public officials and owners and developers of property concerning the appropriate location and scope of future developments in the community. The policies and future land use plan together establish the long range vision for the built and natural environments of the Township. A summary of the future land use classifications illustrated in the Future Land Use Map is provided as follows:

RESIDENTIAL CLASSIFICATIONS

Single Family Low Density Residential is planned for areas with existing and adjacent low density development, with the greatest concentration in the northwestern corner of the Township and along the western confines of the community. These areas are planned to develop at a density of one (1) unit for every 2.5 acres, with a range of 0.1 to 0.5 units per acre, and are intended to remain rural residential in nature. Many of these areas lack municipal sewer and water, are accessed from unpaved roads, and have challenges in terms of site development. Many of the parcels in these areas are large lot divisions which were created a number of years ago and are intended to remain as rural residential and small plot agriculture. The correlating zoning classification is the SF, Suburban Farms zoning district with a minimum lot size of 2.5 acre.

Single Family Medium Low Density Residential is planned for areas with existing medium low density development and areas that are more capable of supporting development due to their less imposing natural resource constraints and the proximity to paved roads. These areas are planned to develop at a density of one (1) unit per every 1.5 acres of land, with a range of 0.5 to 1 units per acre, and are intended to buffer the low density areas within the Township. Such areas are still semi-rural in nature due to the lack of municipal sewer service, but are on the fringe of having sufficient land to meet the Oakland County Health Department requirements for a septic system. The correlating zoning classification is the SE, Suburban Estates zoning district with a minimum lot size of 1.5 acres.

Single Family Medium Density Residential is planned for areas with existing moderate density development and areas most capable of supporting development due to adequate utility services (municipal sewer and water) and paved roads. Because some of these areas border lakes, cluster developments are encouraged to preserve open space areas and lake access. The density in these areas is planned at 1.2 dwelling units per acre, with a range of 1-3 units per

acre. However, the actual density may vary depending on the area needed for the street right-of-way. The correlating zoning classification is the SR, Suburban Ranch zoning district with a minimum lot size of 30,000 square feet.

Single Family Medium High Density Residential is the highest density single family category with a density range of 3 to 5 dwelling units per acre. While the actual density will depend on the area needed for the street right-of-way, lot sizes in such areas range from 8,400 to 14,000 square feet each. A majority of the areas planned for Medium High Density residential are clustered around the Township's lakes, near Gingellville Village and the Village of Lake Orion, and located adjacent to the Township's major corridors. Much like the medium density areas, the clustering of residential homes around lakes allows more people to take advantage of the amenity while also providing sufficient recreation space. These areas are typically flatter and can thus accommodate a greater number of units. The presence of adequate roads and utilities are also of importance. The correlating zoning classifications include the R-1/R-2/R-3, Single Family Residential zoning districts at a minimum lot size of 14,000 square feet, 10,800 square feet and 8,400 square feet respectively.

This classification also includes the Chateau-Orion Mobile Home Park zoned MHP, Mobile Home Park. However, the classification does not provide for the expansion of mobile home parks in other portions of the Township.

Multiple Family Low Density Residential is planned for selected areas along Lapeer Road (M-24) as a buffer from the more rural residential neighborhoods to the east and west of the corridor. The planned density for these areas is between 5 to 7 dwelling units per acre, depending on the number of rooms per unit (defined in the Zoning Ordinance). Proximity to a major thoroughfare, utilities, commercial amenities and the limited presence of significant natural resources makes these areas viable for multi-family uses. The correlating zoning classification is the RM-1, Multiple Family Residential zoning district at a density of 20.1 rooms per acre.

Multiple Family Medium Density Residential is planned for areas primarily within the southwestern portion of the Township with only one pocket located adjacent to Lapeer Road and south of the Village of Lake Orion. Unlike the low density multiple family areas, these areas have pre-existing development, with limited available land for expansion. However, the remaining areas planned for such uses could be developed at a density of between 7 to 9 dwelling units per acre depending on the number of rooms per unit (defined in the Zoning Ordinance). The proximity to a major thoroughfare, utilities, commercial amenities and the limited presence of significant nature resources has made these areas suitable for

higher-density residential development. The correlating zoning classification is the RM-2, Multiple Family Residential zoning district at a density of 22.5 rooms per acre.

OFFICE CLASSIFICATIONS

General Office uses in the Township are implemented through use of the Office and Professional District (OP) of the Zoning Ordinance, and located predominantly within the Lapeer Road corridor. General Office areas are intended to provide for development on small sites and to be limited to uses that will be relatively compatible with residential uses. Direct access to a major thoroughfare or collector street is key to the viability of these uses, which include administrative offices of all types. Professional offices for administrative services, including medical, are anticipated to be the predominant office use, while service type uses are also permitted under certain situations. The standards applicable to these areas reflect the intent to be able to place the uses on small parcels of land, with comparable small setback requirements (see the Zoning Ordinance).

Office Research areas are intended to provide employment opportunities in many varied research fields, but all with the characteristic of having little or no impact on nearby residential areas. Intended uses include research, computer applications, pilot manufacturing, administrative, automotive technologies, etc. The classification is also intended to encourage the development of planned office and business parks; to promote excellence in the design and construction of buildings, outdoor spaces, transportation facilities and streetscapes; to direct the development of workplaces consistent with the availability of public facilities and services, and; to continue to complement the vitality and quality of life in nearby residential neighborhoods. Development in these areas should take place on larger parcels of land with generous setbacks intended to create an open space setting. Correlating zoning districts include the Brown Road Innovation Zone (BIZ), Office and Professional (OP) and Industrial Park (IP).

COMMERCIAL CLASSIFICATIONS

Neighborhood Commercial uses are located primarily along Baldwin and Lapeer Road (M-24) corridors with the greatest concentration planned for the M-24 corridor. These areas are intended to be located in close proximity to the residential neighborhoods in order to meet the day-to-day shopping needs of nearby residents. Neighborhood commercial activities may be located either individually or in small centers that serve one or more neighborhood trade areas. Planned uses include food stores, hardware and drug stores as well as personal service establishments, all of which can be found within the Restricted Business (RB) zoning district.

General Commercial is planned along the Baldwin and Lapeer Road corridors and is intended for commercial uses that supply a larger and more diversified number of goods than those in the Neighborhood Commercial classification. The intended character of these areas is comparable to those permitted within the General Business (GB) zoning districts which includes a wide range of regional commercial uses such as large-format retail, supermarkets and drugstores, discount stores, department stores along with facilities such as automobile dealers, other vehicle related services, and commercial recreation.

Village Center is planned for the Gingellville sub area exclusively. This portion of Baldwin Road between Maybee and Judah Roads is one of the oldest commercial/residential centers in the Township and has a rich history. The intended mix of uses includes those in the Neighborhood Commercial, General Office, Multiple Family Residential and Single Family Residential land use categories. The classification intends for the integration of commercial and residential uses in an attractive and well-designed environment. The classification is also intended to encourage the development of a pedestrian friendly atmosphere, an attractively landscaped boulevard and sidewalks, rear and side parking lots, unified architectural theme and streetscape, and aims to continue the vitality and quality of life in nearby residential neighborhoods through the creation of public spaces and amenities. The correlating zoning district is the Gingellville Village Center Overlay District. See the Gingellville Sub-Area in this Chapter for additional land use considerations regarding the Village Center.

INDUSTRIAL CLASSIFICATIONS

Industrial/Commercial/Residential Mixed-Use Development is planned to provide a mix of industrial, commercial and residential uses in the area near Brown Road between Baldwin and Joslyn and along Lapeer Road between Brown and Waldon. The intent is a mix of industrial, residential, commercial, medical and office uses and ancillary commercial uses within a well-planned business setting. Large-format retail may be considered along the Brown Rd. frontage. The Township will also promote economic development initiatives for the area. Economic incentives may include Brownfield Redevelopment, Local Development Finance Authority (LDFA), Industrial Facilities Tax Exemption (IFT), Tax Increment Financing (TIF), infrastructure investments and State grant programs. Redevelopment projects will be reviewed by way of a Planned Unit Development for those projects which deviate from the listing of permitted/special uses. Specific zoning regulations are incorporated within the Light Industrial (LI), Brown Road Innovation Zone (BIZ) and Lapeer Road Overlay zoning districts.

Research/Light Industrial areas are intended to provide locations for research, laboratory and light industrial development including scientific research and development, training, and production of prototype products, plans or designs. Accessory commercial and office uses are also encouraged. Such uses are intended to be enclosed within a building and any external effects are not to be experienced beyond the property boundaries. This classification is further intended to encourage the development of a campus-type setting; to promote excellence in the design and construction of buildings, outdoor spaces, transportation facilities and streetscapes; to direct the development of workplaces consistent with the availability of public facilities and services, and; to work within the confines of the existing natural features. Correlating zoning classifications include Limited Industrial (LI) and Industrial Park (IP).

Heavy Industrial is planned for the General Motors plant exclusively which is located at the southeast corner of Giddings and Silverbell Roads. The classification is intended to accommodate manufacturing and non-manufacturing uses that, in contrast to research and light industrial uses, may negatively impact the environment and adjacent land uses. Presently no additional land is proposed to be included within this land use classification. The correlating zoning classifications is the IC, Industrial Complex zoning district.

OTHER CLASSIFICATIONS

Institutional is located where existing schools, churches, public buildings and cemeteries are currently in operation within the Township. Because such uses are permitted in a variety of zoning districts, the correlating zoning classifications are too numerous to mention. Institutional uses are permitted within nearly any zoning district within the Township.

Private Recreation is located where existing private recreation facilities are in operation, the majority of which are associated with a golf course and/or a private conservation easement. These uses are scattered throughout the Township, with the greatest concentration within the northern portions of the community. The correlating zoning classifications are the REC-1, and REC-2, Recreation zoning districts.

Recreation is the second largest land use within the Township. The State and County own and operate three very large tracts of land, while several smaller pieces are owned and operated by the DNR and/or the Township. The correlating zoning classifications are the REC-1, and REC-2, Recreation zoning districts.

Special Purpose is a very limited land use category, and is presently only planned for the area known as Olde World Canterbury Village. While the correlating zoning classifications (SP-1/SP-2, Special Purpose) permit a mixture of uses, the only site taking advantage of this classification consists of gift shops, a restaurant, cider mill and church.

Utility Owned land is located exclusively within the DTE utility corridor that extends from the western parcel perimeter to Giddings Road just south of Waldon Road. However, there is no correlating zoning classification because the above noted area is actually zoned for REC-2 use.

SUB AREA PLANS

As a part of this Master Plan update, several areas within the Township received more detailed analyses and considerations for future land use. The areas of special focus, described below, provide specific land use recommendations and site design considerations for each. These sub areas include:

- Gingellville
- Village of Lake Orion Area
- Brown Road

GINGELLVILLE SUB AREA

The Village of Gingellville has had a long history in Orion Township. Originally founded as an agricultural community, the Village has evolved into a collection of shops and residential areas. The land use plan promotes the continued refinement of the Village into a unique enclave. The plan promotes the integration of commercial and residential uses within a well-designed, pedestrian-friendly development.

Due to the size of the Township's population, the historical growth patterns and the close proximity to several regional shopping centers, it is imperative that the development concepts for this sub-area are compatible with the existing development patterns. The congestion problems within the area, the abundance of available land, and the desired intent to preserve the historical hamlet of Gingellville should also be key elements of any new development concepts. Therefore, the Township policies for this sub-area should focus on clustered, mixed use village style rather than strip commercial development land use patterns.

Strip Development vs. Village Center Development



The disjointed character of strip-style development (left) often requires the use of an automobile to get from building to building. In contrast, village center-style development (right) encourages pedestrian connectivity between uses.

Source: <http://homesmsp.typepad.com/>

Table 15. – Characteristics of Typical Strip Development vs. Village Center Development

TYPICAL STRIP DEVELOPMENT	VILLAGE CENTER DEVELOPMENT
Disruption of traffic flow from multiple curb cuts.	Shared access to minimize the number of curb cuts.
Not pedestrian friendly due to multitude of cars in front of the buildings.	Parking encouraged in the side or rear to make the street side for pedestrians.
Lack of coordination of commercial uses and building styles.	Compatibility of uses and architecture through specific guidelines.
Requires the continued use of the automobile to shop in multiple stores.	Buildings located close to the street to slow vehicles and encourage pedestrian use.
Often has blighting effect on contiguous residential land.	Pedestrian connectivity between buildings and uses.
Lack of uniformity in signs, lighting, landscaping and other amenities.	Uniform sign, lighting and landscape requirements result in a uniform and well maintained product.

The intent of the Gingellville sub area is to create a “village-like” atmosphere with areas of various uses that are interconnected, pedestrian-friendly, and blend community-oriented business development with residential uses. Commercial uses shall be of neighborhood scale and shall not include intensive commercial uses which are incompatible with surrounding residential uses. A new zoning overlay district – the Gingellville Village Center Overlay District – has been established to accomplish the intent of this land use category.

As a mixed land use concept, low intensity commercial and office uses are allowed to mix with residential land uses within the Gingellville sub area. The following land use design principles shall apply to the Village Center land use classification, the Gingellville sub area and the correlated Gingellville Village Center Overlay District:

- Mixed-Use Village Center developments shall be reviewed as part of a Planned Unit Development (PUD).
- Commercial uses shall be limited to low intensity retail, office or professional uses similar to the Restricted Business zoning district (RB).
- “Big Box” commercial uses shall be prohibited. Maximum floor area for commercial use shall be limited and shall be consistent with the Village character.
- Deep parcels shall be reserved for residential uses. Single-family residences are favored as the predominant land use in mixed use developments, interspersed with a

mixture of multi-family attached housing and local business uses along the frontage of the property.

- Land uses should transition from commercial, or multiple-family, to lower density residential uses including single family detached units to the east and west of Baldwin Road, with appropriate buffers and screening on the perimeter.
- Village Center developments shall promote pedestrian connection and linkage.
- Secondary access shall be required either by parallel access roads or perpendicular access roads from Baldwin Road.
- Rear yard and side yard parking shall be encouraged.
- Pedestrian amenities such as street furniture, benches, lighting, pavers and extensive landscaping shall be required.
- All projects shall demonstrate quality architecture and landscaping consistent with the Village Center.

The conclusion from this analysis is that the Township needs to maintain the existing Gingellville Village Center Overlay District in order to ensure that strip development land use patterns are halted and that new "Village"-style development concepts can take hold. As noted above, this development concept is a traditional village concept that successfully integrates commercial and residential uses. Special emphasis will be placed upon high-quality architecture and landscaping within a pedestrian-friendly environment.

Village Center Development



Pedestrian-friendly mixed-use projects are encouraged within the Gingellville Village Center. Village Center developments should promote linkages between various land uses, including neighborhood-oriented retail (left), multi-family residential (right), and single-family residential.

Source: activerain.trulia.com

VILLAGE OF LAKE ORION AREA

The Master Plan recognizes the importance of the Village of Lake Orion to the Township. The Village is a commercial and residential center with an attractive downtown and waterfront. The Township and Village share a unique identity within the overall region.

Much of the commercial activity prevalent within this sub-area of the Township is in a linear pattern on Lapeer Road as opposed to larger commercial areas or shopping centers. While understanding that this portion of the Township promotes a mix of office and commercial facilities in close proximity to several neighborhoods, the depth of the commercial land use prohibits regional shopping centers. These smaller-scale commercial centers are also not intended to compete with the larger regional shopping centers in Auburn Hills, Pontiac and Novi.

BROWN ROAD SUB AREA

The Brown Road sub area is geographically consistent with the Brown Road Innovation Zone (BIZ) zoning district. The sub area and BIZ district encourage mixed industrial and commercial uses, and supporting ancillary uses, within large-scale planned developments. The sub area promotes economic development as well as redevelopment, and encourage the elimination of blighted properties. The Master Plan promotes "flex" zoning concepts which will help facilitate redevelopment and minimize impediments to future growth. The Brown Road Area is also intended to encourage collaboration between adjacent property owners in the form of shared access and lot combinations. Parcel consolidation and interior loop roads are encouraged and are represented in the proposed Brown Road Redevelopment Plan illustrated on the following page.

Development within the Brown Road sub area should incorporate low impact design (LID) and participate in Leadership in Energy and Environmental Design (LEED) practices. New developments shall plan for safe and complementary vehicular and pedestrian circulation patterns and improve environmental quality. Special consideration should be given to projects that provide an attractive transition between residential and non-residential properties, and projects which feature a mixture of uses in a well-designed land use arrangement.

Figure 13. Brown Road Innovation Zone (BIZ) and Brown Road Redevelopment Plan



RESIDENTIAL LAND USE PLAN

The first residents in Orion Township were farmers who cleared the land and farmed large acreage plots during the mid and late nineteenth (19th) century and early twentieth (20th) century. Many of these early houses still exist and have become notable historical and cultural resources.

Since the 1920's, the desirability of the natural environment has been the key factor that has affected residential development in Orion Township, the Village of Lake Orion, and northern Oakland County. The Township's lakes have long been recognized as choice summer recreation areas. As a result of their attractiveness, especially Lake Orion, the earliest plats in the Township were developed in the vicinity of the lakes and were designed primarily for vacation cottages. The growth in residential development and population paralleled the transitions of the Township and Village from predominantly summer, recreation-oriented communities to permanent family-oriented communities.

After World War II, Orion Township began to develop as a bedroom community, as persons working in nearby communities found the living environment a pleasing getaway from the more densely built communities to the south. This trend has continued with the improvement of major roads such as Lapeer Road (M-24) and the building of I-75. The current subdivisions with curvilinear streets have been developed as part of this movement.

The demand for residential development in the Township has made it economically beneficial to sell the undeveloped land, farmland, and cottages. However, the Township still retains much of its rural and suburban atmosphere. The Township's numerous lakes and wooded areas, in conjunction with the large amount of park land owned by the State and County, have helped to maintain its rural character amidst a growing population.

Environmental protection has been identified as an important factor within the Township. Over time, the demand for new housing can have substantial environmental impacts and further congestion on local roads. With this awareness, new goal statements have been developed which foster the protection of the natural features and promote traffic management within the Township while encouraging multiple forms of residential development at a variety of densities.

Additional growth management criteria are established for the Township, including the following:

1. Greater density is planned for areas where sufficient infrastructure is available;
2. Greater density is planned for areas with immediate access to major thoroughfares; Higher density should be planned for areas immediately adjacent to the major north-south corridors;
3. Decreased density is planned for areas with the greatest environmental sensitivity, limited sewer availability, and traffic congestion;
4. Decreased density is planned for areas with established larger lot patterns (metes and bounds);
5. Uses and density must complement the neighborhood/sub-area development pattern;
6. Provide a balance between small lot and large lot land uses.

Based upon the above criteria, the northwest, west, southwest and eastern quadrants of the Township should be planned to remain rural in nature, with larger lots, limited municipal sewer service, and some unpaved roads. The remaining portions of the Township are planned for a mix of residential densities that transition into more dense areas adjacent to the Township's lakes and major corridors.

The southern side of Gregory Rd. (southwest portion of the Township) is planned for a mix of Single-Family Medium-Low and Medium-High Density residential. However, sections of Gregory Road are in disrepair with no shoulders, narrow travel lanes and sub-standard design. Additionally, the southwest portion of the Township (i.e. Peppermill Subdivision) is especially prone to flooding. Given these poor road and drainage conditions, higher-density residential is not appropriate adjacent to Gregory Rd.



Orion Township strives to provide a diverse housing stock to attract a variety of residents, including large single-family homes (left) and single-story attached condominiums (right).

Additional Growth Management strategies are provided later within this Chapter. Thus, the objective of the residential land use plan is to reflect densities that will assist in preserving natural features while recognizing the limitations of existing roads and the limited availability of public sanitary sewer systems. The Township's residential areas are also intended to provide for a range of housing styles that will appeal to all ages and lifestyles.

OFFICE LAND USE PLAN

The Orion Township Future Land Use Plan sets aside areas for office developments of two (2) types: General Office and Office Research. General Office areas are those that are intended to provide low intensity administrative and professional offices that dispense services primarily for nearby residents or businesses. Office Research areas are intended for large office buildings and larger-scale planned business parks with ancillary commercial and residential uses. Intended uses include activities geared toward testing, research, prototype planning or development.

Office uses are limited to those which function during daytime business hours, have limited truck traffic and have no outside activities. Because of their limited impact, General Office uses can be placed as a transition between single family residential areas and more intensive nonresidential areas.

Office Research uses are primarily located within the south Lapeer Road corridor, within the northern portions of the Brown Road Innovation Zone and scattered throughout the industrial parks along Silverbell and Giddings Roads. These kinds of uses seek locations on major thoroughfares where there is good access for employees, viable truck routes, and close proximity to an interstate. These buildings are often occupied by signature tenants or are multi-tenant facilities. Such buildings in Orion Township are attractively designed, landscaped, and usually maintained within a campus/office park setting. As noted, offices can be strategically located where they can buffer residential uses from non-residential uses.

COMMERCIAL LAND USE PLAN

The amount of land available for commercial land use needs to be adequate in size to serve the Township's population. Additionally, this land should be located where stores and services are accessible and convenient. Therefore, the commercial areas indicated in the Master Plan need to address two (2) questions: how much land should be available for commercial purposes and where should this land be located. General guidelines for the commercial areas plan are described herein.

HOW MUCH LAND SHOULD BE AVAILABLE FOR COMMERCIAL PURPOSES?

Commercially-used land represents approximately 14% of the Township's overall tax base. The majority of the commercial value comes from convenience or general convenience activity (i.e. small retail establishments, grocery stores, and service stations) scattered in individual locations throughout the Township.

The influx of "big box" establishments, such as Kmart and Home Depot, and the various uses existing within the Baldwin Commons shopping center, has contributed to the increased commercial value. However, the proximity to developed communities, the limited available land for new residential developments and the development of such activity centers (aka trade centers) within adjacent developing communities has lessened the need for additional centers beyond that of Dutton/Lapeer Road and Brown Road where large format retail would be acceptable. Based upon these projections, more than sufficient commercial land is available to meet the demands of the existing and projected population within the trade areas.

WHERE SHOULD COMMERCIAL LAND USES BE LOCATED?

There are two (2) trade areas within the Township, having a range of two (2) miles and four (4) miles respectively, within which people are willing to travel for the requisite goods and services. The two (2) mile radius is for neighborhood/convenience goods and the four (4) mile radius is for comparison and general goods.

For the Lapeer Road Trade Area, the radii is measured from the intersection of Lapeer and Clarkston Roads, while for the Baldwin Road Trade Area the radii is measured from the intersection of Baldwin and Gregory Roads. People are less likely to travel beyond the Trade Areas, indicating a need to maintain the respective types of commercial uses within either two (2) or four (4) miles of the center. These types of commercial land uses should therefore remain predominantly within these areas with only scattered neighborhood stores located elsewhere within the Township.

Due to the significant amount of commercial land within the Township, it is imperative that the Township ensures a proper land use distribution for such uses, provide mechanisms for traffic management, and improve the appearance of existing and future commercial areas. These three (3) goals are aimed at ensuring the viability of these areas, while protecting the long-term economic health of the commercial areas. The means of achieving these goals are summarized as follows:

- Encourage the development of compact commercial use areas.
- Provide for compatible land use relationships between commercial and other uses.
- Distinguish, by location and type, the various commercial uses (Neighborhood, General) in specific zoning districts where supported by existing or projected Township population.
- Encourage commercial development in areas where it is most likely to develop successfully in relation to population centers.
- Encourage the use of landscaping and setbacks to delineate drives, direct vehicular movement, and provide sufficient stacking space in entranceways.
- Encourage the design and layout of commercial uses that reflect thorough and careful analysis of the site and creative efforts to improve aesthetics.
- Closely monitor and stringently enforce building, zoning, and maintenance codes in commercial areas.
- *Provide for efficient traffic flow with minimal impacts to surrounding areas.*

While the supporting policies are detailed in an earlier section of the Master Plan, the focus of the commercial areas is to provide the desired goods and services in an appropriate location, buffered from incompatible uses, and in an attractive and safe environment.

Baldwin Road Commercial Uses



Larger-scale commercial uses should be limited to commercial corridors, such as Baldwin Road (pictured), Lapeer Road and Brown Road. Commercial buildings should be of high-quality architecture, feature pedestrian connectivity, and contain adequate landscaping.

INDUSTRIAL LAND USE PLAN

An important objective of the Master Plan is to establish areas that can provide employment and strengthen the Township's tax base. Present-day standards for industrial development are very selective, calling for large amounts of land area available for expansion, immediate access to highways and rail, availability of utilities, and other criteria. These rigorous standards limit the locations that could be considered appropriate for new industrial development.

Sites in the southern part of Orion Township meet many of these present-day locational criteria. As a result, several new industrial facilities have been constructed in this part of the Township in recent years. Approved developments include the following: Applied Manufacturing Technologies, JST Enterprises, McLaren, MPD Welding, Orion Business Center, General Development Company, Kay Automotive, Environmental Wood Solutions, Orion Business Park, U.S. Farathane, Powers Distributing, General Motors, and Ashley Capital.

EXISTING INDUSTRY

Based on total employment, volume of production, and similar criteria, the industrial base of Orion Township is dominated by the General Motors Assembly plant. Construction of the General Motors plant in the early 1980's established the southeast corner of the Township as the industrial core of the community. Most Township industries are located in proximity to the General Motors plant and within the Brown Road/Lapeer Road corridors. Industrial development in the southern part of the Township extends west of the General Motors plant on scattered sites along Brown Road and Joslyn Road and east of the plant along Lapeer Road. Others are concentrated east of Lapeer Road. Small pockets of industrial development exist in other sections of the Township.

INDUSTRIAL DEVELOPMENT POTENTIAL IN ORION TOWNSHIP

Industrial developers cite five (5) major considerations that determine suitable industrial locations: transportation, labor supply, energy and other utilities, availability of land and public policy. Additional considerations that are relevant when selecting a specific site include: accessibility, topography, soil conditions, population growth, and industrial growth markets. When measured in terms of these considerations, certain portions of the Township are well-suited for industrial development.

Transportation – The primary industrial location determinant is convenient access to freeway transportation. Over three quarters (3/4) of all land developed for industry is located within 2.5 miles of an interstate freeway interchange. Orion Township is served by I-75 with interchanges at Baldwin Road, Joslyn Road, and M-24. The Township is also served by the Grand Trunk Western Railroad system. Oakland-International Airport, located in Waterford Township, is the nearest airport.

Labor Supply – The availability of a trained labor force is an important need that can be adequately met in Orion Township. According to the SEMCOG 2040 Regional Development Forecast, the Township's labor force numbers were estimated to be 9,467 in the year 2010, of which 1,431 were estimated to be employed in manufacturing. With good transportation access, industries in the Township can draw from the labor skills available in the area.

Energy and Utilities – The Township receives electrical services from DTE Energy and gas service from Consumers Power. Public water and sanitary sewer lines have been extended along M-24 into the industrial core of the Township. These utilities have adequate capacity to serve the Township's (immediate and future) needs.

Land Availability – Orion Township has approximately a 6% vacancy rate for industrial and research uses, which indicates a deficiency in available industrial buildings. Based upon the land zoned for industrial use, compared with the existing land use map, approximately 362 acres of industrial land is available for development. This acreage should be sufficient to provide the Township with an adequate supply of industrial land for a number of years. This, of course, will depend upon market demand and other economic factors.

Public Policies – Research in recent years has documented the relationship between public policies and the ability to successfully operate a business or industry. Public policies with the greatest impact on industry in Orion Township are reflected in adopted planning and zoning standards. The Township has made a conscious effort to minimize friction between industrial and other land uses by concentrating industrial development in the southeast and south central part of the Township. The Township has also adopted "One Stop Ready" economic development policies which help streamline the permitting and development review processes. Furthermore, the Township has established guidelines for the types of uses and processes permitted in industrial districts. These policies have minimized the potential conflict between industries and neighboring residential uses.

Township environmental policies have also had an impact on industrial development. The Township places a high value on the protection of its natural resources, including wetlands, wooded areas and natural topography. These environmental policies have served to preserve attractive locations for modern industries and research facilities that wish to establish or maintain a well-managed, orderly and forward thinking public image.

The preceding analysis concludes that conditions in Orion Township are conducive for industrial growth. The Township's location on the 1-75 industrial corridor places Township industries close to suppliers of parts and materials, a large labor force and a strong market for manufactured products. In addition, recently-adopted zoning strategies encourage light-industrial, research and technological growth within the southern portion of the Township. The pace and direction of recent industrial growth in southeast Michigan heighten the prospects that the land planned for industrial development in Orion Township will be used.

LABOR FORCE AND INDUSTRIAL LAND USE

Needs – Industrial development needs can also be evaluated based on the employment needs of residents. As the population of the Township increases, the size of the labor force will continue to grow. Projections indicate that the labor force will increase from 9,467 persons in 2010 to 10,905 persons in 2040. In 2010, 15% of all employed residents were engaged in manufacturing employment; This percentage is expected to decrease to 14% by the year 2040. Therefore, it is expected that the number of residents employed in professional, technical and knowledge-based service occupations will continue to increase and eventually surpass that of manufacturing.

Industrial Base Analysis – Based on the factors noted above, the potential for future industrial growth in Orion Township is strong. Manufacturing employment is expected to decrease, but the need for professional and technical employment is expected to rise. Although industrial building vacancy rates are low, the Township contains sufficient existing industrial land to provide opportunities for new industrial and research-based development.

The pace and type of industrial development must be carefully monitored to be certain it is in keeping with the Township's overriding goals for preservation of the Township's natural environment and resources, and protection of its residential areas. Consistent with these goals, new industry should be concentrated in the industrial core in the southeast and south central part of the Township, while research industry could be located along Brown Road within the Brown Road Innovation Zone or along South Lapeer Road within the Lapeer Road Overlay

District. Immediate access to M-24 and I-75 in this part of the Township ensures that the impact of industrial traffic on the remainder of the Township will be minimal. Light manufacturing and research firms would be best suited to Orion Township, especially within the Brown Road corridor, because such firms generally produce low levels of waste, noise, traffic, air and water pollution, and other harmful impacts. Research-based industries should be located in large planned-development settings and may include ancillary retail and service uses. Attention must be focused on the design and layout of industrial areas to be certain that new development achieves the high standards desired by the Township. These considerations are reflected in the goals, objectives, and policies of this Future Land Use Plan.

Orion Township Industrial Uses



Many of Orion Township's industrial uses are clustered within the southeast portion of the Township. These industrial uses, located along Kay Industrial Drive and Northpointe Drive, incorporate attractive landscaping and building design.

RECREATIONAL AREAS AND FACILITIES

Sufficient recreation facilities are essential to a growing community like Orion Township. The Township currently has significant State and County recreation areas, as illustrated in the table below. Based upon the table, public recreational areas make up approximately 27% of Orion Township's total land area. Despite the significant amount of recreational areas within the Township, there are a number of recreational needs that remain unmet due to insufficient funds or lack of appropriate policies. These needs are laid out in detail within the adopted 2014 Parks and Recreation Master Plan.

Table 16. – Orion Township Public Recreational Facilities: Acreage

PARK*	ACREAGE
Camp Agawam	137 acres
Friendship Park	135 acres
Civic Center Park	79 acres
Gingell Nature Area	39 acres
Jesse Decker Park	25 acres
Orion Center	11 acres
McConnell Field	1 acre
Bald Mountain State Recreation Area	4,637 acres
Orion Oaks County Park	916 acres
TOTAL ACRES	5,980 acres
PERCENTAGE OF TOTAL TOWNSHIP LAND AREA (22,059 acres)	27%

Note that calculations do not include private recreational facilities (i.e. golf courses, country clubs).

As a result of the current growth patterns within this portion of the County, efforts should be directed toward the following areas of need:

NEW PARKS

As a result of the recent population growth within the Township and surrounding areas, the amount and location of parkland has become an issue of concern for residents and Township officials. Presently there are dedicated recreation lands within the central and eastern portions of the Township as well as public recreational lands north of Clarkston Road. Therefore, policies should be adopted which encourage new developments to provide usable parkland for the residents. The Township should also work with the County and State to provide additional amenities. These spaces should also provide amenities that meet the needs of the intended or current occupants of the development and/or area. Sites with

significant natural features, such as waterfronts, woodlands and topographical changes should be used for recreation sites as a means of preserving their aesthetic quality. The incorporation of existing historic structures into a recreation facility should also be considered as a means of preserving a portion of the Township's history. Upon the closure of the landfill within the next few years, the Township should also pursue the possibility of that land becoming a park, as per the Future Land Use Plan and Consent Judgment with Waste Management.

PARKLAND LINKS

The Township has a safety path network that is beginning to provide much needed links between parklands and key attractions such as Olde World Canterbury Village, the Village of Lake Orion, the public school campuses, the Orion Township Public Library, the Orion Senior Center, the Orion Center, the Township Hall and the Gingellville area. However, policies should be adopted that encourage additional links between these and other areas of the Township. Some of these links could be accomplished through the acquisition of the abandoned Grand Trunk railroad right-of-way, the enhancement of the Paint Creek Trailway, and further development of the Polly Ann Trail. Each of these links must comply with the criteria identified in the Safety Path Ordinance.

PARK FUNDING OPTIONS

There are numerous funding options, both at the State and Federal level, for the construction of various types of park amenities and/or for the purchase of parkland. The Township should continue to submit grant applications and work with the adjacent townships and the County to provide a regional park system.

IDENTIFICATION OF NEEDED AMENITIES

The 2014 Recreation Master Plan identifies several amenities, both active and passive, that are needed to serve the residents of the Township. Primary needs include maintaining and upgrading existing park facilities, construction of new sports fields, and improvements to path connections. Additionally, continued improvements to Civic Center Park, Friendship Park, Jesse Decker Park and the Gingell Nature Area need to be provided. In addition to these goals, the Parks and Recreation Plan encourages the Township to assess opportunities for the acquisition of future park land. The Plan recommends acquiring new park land as follows:

- Land that preserves natural features which would provide a setting for passive activities;
- Land that is easily accessible from most existing and future Township residents and land that provides linkages; and
- Work with the Township Board and Planning Commission to ensure park land and open space preservation needs are considered in the review of new developments and to encourage or develop regulations for developers to set aside land appropriate for open space preservation, community park land and pathways.

Orion Township Public Recreation Facilities



Orion Township should actively seek opportunities to create new parkland areas and link existing parks together via pedestrian paths. Existing park amenities, such as those shown above, provide opportunities for active and passive recreational activities.

GROWTH MANAGEMENT

Orion Township takes great pride in preserving its natural beauty and open space. Additionally, residents have indicated that the Township should aim to preserve a variety of housing types at varying densities. An effective means to accomplish these goals is to develop and adopt growth management strategies and policies. An effective growth management plan aims to direct denser development towards appropriate areas of the Township in order to preserve natural features, open space, and a variety of lot sizes.

Proximity to services such as sanitary sewer and municipal water is a very important element in determining maximum residential and commercial density. Whereas properties with septic systems are typically required to be at least one (1) acre in size, the availability of water and sanitary sewer service enables denser development on smaller lots. More recently, however, the increased availability of sanitary sewer service has made higher density residential development feasible in areas previously reserved for lower-density development. While sewer availability should remain a driving force in the planning of higher-density areas, the Township should consider additional factors when determining whether or not an area can or *should* accommodate increased density. Additional growth management factors include:

- Transportation network;
- Presence of established large lots; and
- Natural features.

In deliberating whether or not an area can accommodate increased residential density, the Township should consider a variety of growth management factors. For example, maximum residential density should be restricted where one or more of the following is present: 1) Lack of sanitary sewer service; 2) Limited capacity of the transportation network; 3) An existing pattern of established large lots; and/or 4) Proximity to natural features and/or priority conservation areas. These factors are further described below:

SANITARY SEWER

From a planning standpoint, higher densities should always be placed in areas where adequate public services, such as sanitary sewers, are currently available or planned for expansion. Conversely, planning for lower densities in areas where services are not available enables the Township to preserve open space and larger lots. The areas that deserve the highest priority for sewer expansion are the areas planned for residential development at a density of greater than one (1) dwelling unit per acre. Vice versa, areas planned for a high density should be

limited to those areas with existing sanitary sewer service or areas planned for future sewer expansion. Compliance with the Stormwater Management Policy and Program Plan as well as State and Federal requirements will also alleviate existing problems and prevent future problems from occurring. A Capital Improvement Plan (CIP) and growth management plan will provide the necessary tools to plan for the expansion of these systems, each of which should be coordinated with the adjacent townships' systems.

The Township should consider a policy that limits the extension of sewer and water services into low density residential areas. Generally speaking, the northwest, western and southwest portions of the Township are reserved for low density residential dwellings without public utilities. Other areas on the eastern and western fringes are also expected to remain outside of the sanitary sewer service area. It is recognized, however, that, in certain cases, sanitary sewer may need to be extended within lower-density areas in order to resolve or mitigate water quality/environmental issues, complete a vital segment of the sanitary system, or for additional reasons. For example, sewer service may need to be extended adjacent to lower-density lakefront properties in order to protect lake water quality from outdated and/or mismanaged septic systems. The presence of sanitary sewer in and of itself, however, does not automatically justify an increase in density.

TRANSPORTATION NETWORK

The Township should ensure that an increase in density will not degrade the road network to a point of inefficiency. In determining whether or not an area can support increased residential density, the Township should consider the existing condition of the adjacent road network. In particular, the Township may wish to establish a minimum Level of Service (LOS) threshold for increased density. For example, the Township may determine that project sites adjacent to roads with poor or failing levels of service may not be eligible for a density greater than that permitted under the current zoning. The Township should also recognize that the Michigan Department of Transportation and the Road Commission for Oakland County have limited funding for road improvement projects.

ESTABLISHED LARGE LOTS

The Township should limit densities in areas with established larger lot patterns (i.e. greater than 1 acre). In particular, existing deep residential lots located within the northwest, west, and southwest segments of the Township should be preserved in order to maintain contiguous areas of low residential development. Large metes and bounds parcels located along west Maybee Road, Casemer Road and

Indianwood Road offer opportunities for lower-density residential living. As such, these low-density areas of the Township can be preserved with proper growth management strategies, maintaining a diversity of housing options at varying densities.

NATURAL FEATURES

In order to limit the impact of man-made development on natural resources and provide a gentle transition from natural open space to higher-density development, parcels located within or near Priority Conservation Areas, as illustrated in Map 11, should be reserved for lower-density development.

ADDITIONAL FACTORS

The land use plan is based upon comments and opinions gathered during the planning process, including numerous meetings and workshops with the Planning Commission and Township citizens and business owners. To this extent, the future land use plan reflects general policies towards development within the Township. The future land use plan is also based on consideration of a number of planning factors, including:

- Community Facilities
- Transportation and Thoroughfares
- Placemaking
- Environmental Resources
- Historic Resources

Other issues to consider are population, market trends, economic factors, and other more elusive goals such as "community character." The criteria are meant as a guide for considering as many issues as possible prior to designating land uses and densities. The Land Use Plan should be based upon clear and factually supported rationale. The following is a discussion as to why certain factors are important.

COMMUNITY FACILITIES

Sufficient community facilities and services play a vital role in the growth potential of the Township. The availability of sufficient fire and police protection, civic and cultural facilities, and a high ranking school system and library help to draw people to the area. As a result of the current challenges to the system, efforts should be directed at the following areas of need:

Township Civic Center – Township administrative offices should remain within the Center in order to ensure that all such services are available within one location and are accessible to all Township residents. The Civic Center also functions as a community hub or nucleus for civic activities, cultural events, and recreation. The Civic Center, Wildwood Amphitheatre, and Township Hall should also serve as an identifiable landmark for the community of Orion Township.

Orion Center – The Community Programs Department, which encompasses general recreation programming and senior services, should remain within the Orion Center. The 2014 Parks and Recreation Plan outlines several recommended improvements for the Orion Center, including the installation of outdoor exercise stations and bocce ball courts, new outdoor patio amenities, and a new hike/bike pathway connection from Joslyn Road to the Polly Ann Trail.

Fire and Police Services – The Township strives to provide excellent fire and police services. Current services are funded under the Township's dedicated police and fire millage rate of 3 mills. The Township recently opened a new fire station on Giddings Road, and new equipment and staff are periodically added to meet the expanding needs of the Township.

Police services are contracted through the Oakland County Sheriff's Department. Police staffing and equipment have been adjusted to keep pace with land use changes and the influx of new residents.



The Orion Township Civic Center (left) houses Township offices as well as an office of the Oakland County Sherriff's Department. The Orion Center (right) houses the Community Programs Department and offers activities and programs for senior citizens.

TRANSPORTATION AND THOROUGHFARES

Because the Township is located adjacent to a major north-south interstate and contains an important State roadway (Lapeer Road/M-24), the amount of traffic that passes through the Township is very high. High traffic counts have resulted in several roads needing immediate attention. M-24 (Lapeer Road) and Baldwin Road are scheduled for improvements between 2016 and 2018.

The issue of transportation has become an important land use issue. Proximity and access to roads is important in locating land uses for the following reasons:

- It is more efficient and less disruptive to natural features to utilize the existing transportation network than to develop in areas where the system is not complete or does not have the capability.
- The costs of sprawl can negatively impact a community as funds are used to build infrastructure in new places as opposed to maintaining the existing infrastructure.
- Higher densities are generally more appropriate in proximity to M-24, I-75 and major arteries because more people have access to the road systems.

The Master Plan also establishes long range road improvements for the Township. These projects are intended to upgrade the Township's road system and provide for safe and convenient passage through the Township. A listing of long range improvements are as follows:

Right-of-Way Acquisition – In order to minimize the need to relocate structures and parking areas, the Township has adopted a policy requiring that all development must be located outside of the future right-of-way as adopted by the Township Board. Despite the foresight of the Township, it is imperative that the Township coordinate with the Road Commission for Oakland County (RCOC) and the Michigan Department of Transportation (MDOT) to add much needed road improvements to their long range plans.

Baldwin Road – The congestion on Baldwin Road results in a road that is nearly impassible at times. Baldwin Road is scheduled to be widened from 2 lanes to a 4 lane boulevard between Morgan and Waldon in 2017/2018 which should help to alleviate some of the congestion. A roundabout was constructed at Baldwin and Indianwood in 2004. Additional roundabouts are planned along Baldwin Road, which may influence land uses and development patterns in the near future. See Figure 12 in the Transportation and Thoroughfares chapter for an illustration the Baldwin Road expansion project.

Lapeer Road – Lapeer Road is one of the most congested highways in this portion of Oakland County. Peak hour traffic in the morning and evening has created prolonged travel delays and raised issues regarding overall traffic safety. The congestion and safety issues were frequently mentioned during the public input process of this Master Plan update. Traffic efficiency and traffic safety on the Township's two (2) main arteries are of special concern to the residents of the Township.

MDOT recently completed a traffic improvement plan for this portion of Lapeer Road. The plan calls for various intersection improvements and cross-over improvements within the boulevard island. Improvements to Lapeer Road are scheduled for 2016.

The Township can work with MDOT in identifying planning and design measures to help alleviate congestions and safety concerns. Local action includes the following:

- Limiting curb cuts / increased driveway spacing;
- Creation of secondary or shared access road / service roads, frontage roads or parking lot maneuvering lanes;
- Requiring traffic studies for projects having significant traffic volumes and impacts on the Lapeer Road corridor;
- Re-circulation of traffic within the site / shared access with adjacent properties;
- Requiring interconnection between plats/site condos;
- Working within the limitations of the existing system to minimize conflicts; and
- Requiring tapers and/or passing lanes.

Safety – There are a number of existing safety concerns within the Township. Some issues of the greatest concern include the following:

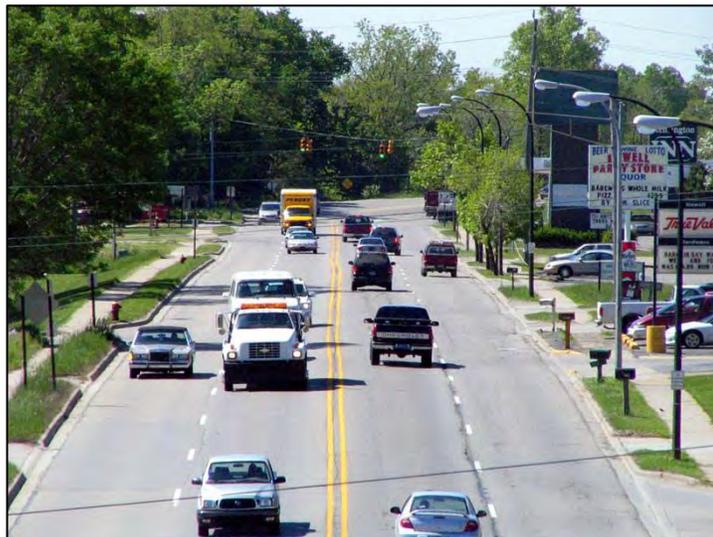
- Off-set intersections that tend to slow traffic, but also result in hazardous conditions;
- Too many curb cuts along many of the commercial corridors which result in potential conflicts in turning movements;
- The Township design standards need to be revised to be compatible with those of RCOC and Michigan Department of Transportation (MDOT);

- The efficiency and safety of the Baldwin Road and Lapeer Road corridors need to be improved;
- The lack of service drives, connector drives or “cut-throughs” for access between adjacent properties along commercial corridors needs to be addressed;
- Require future development to evaluate the amount of traffic to be generated and how the increased traffic will affect the transportation system.

The means of addressing these and other transportation safety issues can be implemented through the use of local, County or State funding sources and other grant sources. Such grants could also be used to fund safety path construction on public land and/or in areas already occupied but lacking safety paths. The safety path system includes the Polly Ann Trail and Paint Creek Trailway, of which the Township is a member.

Aesthetics – Due to the amount of time it takes to travel across the Township, the roadways should be visually pleasing and well landscaped. The Township maintains a stringent landscape standard in the Zoning Ordinance which is implemented as vacant land is developed or existing buildings are redeveloped. The proliferation of incompatible and abundant signs within these corridors also needs to be addressed through amendments to the Sign Ordinance. These changes could include provisions to ensure compatibility within corridors instead of by zoning district. Roadway aesthetics are further discussed in the Placemaking section below. The Township should also facilitate the removal of phragmites to ensure that the lakes are visible from the roadway.

Sign “Clutter”



While signage is necessary, relaxed sign ordinances can lead to sign “clutter,” detracting from the visual appearance of a corridor.

PLACEMAKING

Placemaking is the process of creating a sense of place by capitalizing on an area's assets and amenities. Sense of place is not limited to a specific community or location, but can also be regional in nature. Successful communities have a sense of place and a recognition of those characteristics that make it special or unique.

The Michigan State Housing Development Authority (MSHDA) is currently making efforts to influence changes in state policy that support placemaking techniques. As such, Orion Township should explore the concept of placemaking and some of the tools that can make it happen. Several placemaking tools that the Township could employ to foster a more vibrant and unique community include:

- Gateway Improvements;
- Wayfinding Improvements; and
- Streetscape Improvements.

Gateway Improvements – Gateway signage and features, in conjunction with streetscape elements (i.e. landscaping) can distinguish the Township from surrounding communities at key entry points and encourage a sense of place. It is recommended that Orion Township reinforce its sense of community through signage and landscaping at critical areas along major road corridors within the Township. Entrance signage which provides a welcoming “gateway” to the community and landscaping will improve the sense of community and civic pride.

The entrance sign on Lapeer Road is appropriately placed, but is in need of refurbishment due to its age. An updated and more highly visible entrance sign with attractive landscaping could also be located at other key entrance points or gateways into the Township. Potential new locations for gateway signage include:

- Northbound Baldwin Rd. at Brown Rd.
- Northbound Joslyn Rd. at Brown Rd.
- Eastbound Clarkston Rd., west of Baldwin Rd.

Examples of gateway signage are illustrated on the following page.

Examples of Gateway Signage



Gateway signage can distinguish the Township, and certain areas of the Township, from surrounding areas and serve as a form of branding for the Township.

Wayfinding Improvements – Similar to gateway signage, wayfinding signage can provide general direction to key locations within the Township or within specific developments. Wayfinding signage for locations in the Township may provide direction to Township facilities, libraries, schools, medical facilities, and the like. Wayfinding signage within a development may provide direction to parks, community centers, stores, and restaurants.

In conjunction with streetscape and gateway tools, wayfinding can foster a sense of place and direction for residents and visitors. The Township may want to consider wayfinding signage at the same locations suggested for gateway improvements. Wayfinding signage may also be appropriate in pedestrian-oriented areas, such as Gingellville Village and Olde World Canterbury Village. Examples of wayfinding signage are provided below.

Example of Wayfinding Signage



Source: Morris County, New Jersey

Streetscape Improvements – Streetscape improvements work to define and beautify areas along thoroughfares and encourage non-motorized transportation. Streetscape features may include road-tolerant landscaping, native plantings, sidewalk and bike lane improvements, pedestrian islands and rest areas, and other enhancements. In conjunction with gateway and wayfinding tools, streetscape improvements can add a great deal of value to surrounding areas and promote the placemaking concept. The Township may want to consider streetscape improvements at the same locations as gateway and wayfinding improvements. Examples of streetscape improvements are illustrated below.

Landscaping of key areas which experience high traffic volumes and/or an existing poor image would benefit from landscaping to buffer and soften road corridors. These areas include:

- Buckhorn Lake – Clean up guardrail and weeds along Lapeer Road (M-24) and the lake, and plant street trees and shrubs. Due to the proximity of Lapeer Road to the lake, the land between the road and the lake should be improved as an attractive waterfront.
- Friendship Park – Provide additional landscaping adjacent to the expanse of chainlink fencing to ensure an attractive intersection.
- Baldwin Road/Indianwood Road Roundabout – Additional landscaping should be included to emphasize the unique roadway improvement which is located at a gateway into the Township.
- Clarkston Road/Rhodes Road/Buckhorn Lake – Provide street trees along portions of the Clarkston Road corridor.

Streetscape and Roundabout Landscaping



ENVIRONMENTAL RESOURCES

The Paint Creek watershed and other tributaries in the Township are recognized as sensitive environmental features. These water courses and their accompanying watershed areas are indispensable and fragile resources that provide public benefits including maintenance of surface and groundwater quality, fish and wildlife habitat, stormwater run-off control, and aesthetic resources.

It is inappropriate to consider these fragile resource areas for high or suburban density development. Smaller lots within these areas can degrade natural resources. Clear-cutting, dredging, filling, and other activities associated with higher density development can be harmful to natural systems. It is therefore recommended that areas within close proximity of streams, lakes, and watercourses and without public water and sanitary sewers be reserved for low density development.



Lake Sixteen

Natural features play a vital role in the health of Township residents and the natural systems of the Township. Overall density and lot size should be closely related to natural features. In general, the Township may consider larger lots for environmentally sensitive areas and smaller or moderate size lots in areas more suitable for denser development. It is recognized that large lots are not always a guarantee of environmental preservation. Large lots consume more land and may diminish local control of wetlands, woodlands, or other environmental features. Small lots or cluster residential developments may be sensitively planned to preserve natural features and may be more appropriate than some large lot developments. In general, however, large lot developments have the potential to create fewer environmental impacts.

The enforcement of the Township Wetlands Protection Ordinance, Stormwater Management Ordinance and Woodlands Regulations, provided they are constantly evaluated for accuracy, can help maintain the natural resources within areas planned for higher density development. Additionally, Orion Township should consider adopting a phragmites ordinance that addresses the control and removal of invasive phragmites from areas adjacent to inland lakes, wetlands and drainage areas.

HISTORIC PRESERVATION

Much like the presence of natural resources, historic resource preservation is imperative to maintain the character of the Township. While development may change the landscape, the preservation of historically or architecturally significant structures will ensure that the history of Orion Township is not forgotten. Therefore, as a result of the immense growth pressures on some of these structures, efforts should be directed at the following areas of need (see Map 11 for locations):

- Use publicly owned historic structures for recreation buildings, community centers, etc. when they are no longer suitable for their original purpose. The preservation and relocation of the Porritt Barn at Friendship Park is an example of how these structures can be preserved;
- Preserve historical names of the Township by setting a policy of requiring new developments to incorporate them into their street and/or subdivision names;
- Preserve natural beauty roads and scenic vistas of the Township;
- Adopt a Local Historic District Ordinance to preserve important historic resources;
- Identify any structures that may be of historical significance to the Township but are on the verge of being lost.

ZONING PLAN AND IMPLEMENTATION

The Orion Township Master Plan is intended to be a policy guide for future land development. As the Township grows, it should grow in a manner consistent with this Plan. The primary tools for the implementation of this Plan are the Township's Zoning Ordinance, Subdivision Regulations, Land Division and Private Roads Ordinance, Wetlands Ordinance, Sign Ordinance, Safety Path Ordinance, and Stormwater Management and Erosion Control Program.

When properly applied, the Zoning Ordinance accepts the realities of existing land uses and gradually, as new development is proposed, directs growth toward achieving the goals and objectives of the Master Plan. As rezonings are considered, they should be compared to the concepts, policies, and future land use designation of this Master Plan. If a proposed rezoning is inconsistent with the Plan, it should be discouraged. However, sometimes a desirable land use is proposed which conflicts with a Master Plan; this may be due to a change in site conditions or infrastructure, among other factors. If the Planning Commission determines that the proposed land use would not be inconsistent with the goals and objectives of the Master Plan, and therefore, a desirable alternative to the Plan, the Plan can be amended accordingly, concurrent with the rezoning or at a later date.

Finally, this Master Plan should be a flexible document, which changes as the character of the community and its people change over time. This Plan should be periodically (at least once every five (5) years) reviewed and amended, as necessary, to remain up-to-date. It should be remembered that the Master Plan is just the best estimate of what would be the desirable land use configuration of the community in the future, from a point in time at the present. As time moves on, this concept of a desirable community may change, so the Plan must be flexible in order to accommodate that change.

To assist in reaching the goals of this Master Plan, certain actions should be taken including, but not limited to, the following:

- Adherence to the Master Plan in zoning decisions.
- Review of the Zoning Ordinance and Subdivision Regulations to ensure that they are in line with the Goals, Objectives and Policies of this Plan.
- Review of the Zoning Map to ensure that it supports the goals of the Master Plan and has a strong relation to the Future Land Use Plan.
- Close adherence to Wetland, Woodland, and Storm Water Management Ordinances.
- Coordination of Capital Improvements.
- Coordination of planning activities and programs with surrounding communities and with other levels of government.

Once adopted, the Orion Township Master Plan is the official policy guide to be used by the Township Board and Planning Commission to solve the existing and anticipated community development problems identified in this document. Through text and maps, the Master Plan illustrates the attitude and desires of the community toward future growth and development. Further, the Plan also promotes continuity in development policy, as memberships on the Planning Commission and Township Board change over the years.

To implement the Master Plan, the following specific recommendations are made:

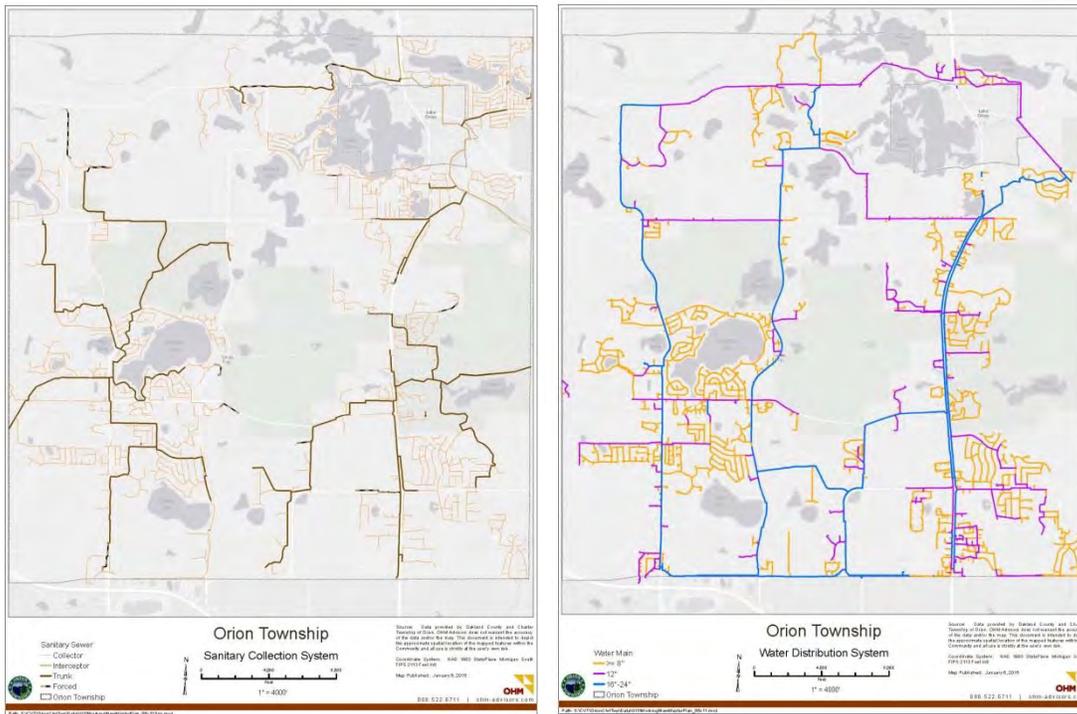
TOWNSHIP POLICY

The Master Plan is the official policy document regarding development in the community. The Plan establishes an idealized goal toward which the entire community can work and establishes the foundation against which private and public development proposals can be based. Too often, local officials and citizens find themselves in a reactive role to development proposals within their community. Without a firm base of information, communities must either accede to development pressures or be criticized for arbitrary denials. In addition, decisions regarding public improvements are often made incrementally and not related to any overall concept. Careful attention to adopted Township policy must therefore be practiced by the Planning Commission and Township Board.

UTILITY SERVICE DISTRICTS

As noted in previous sections of the Master Plan, specified areas of the Township are planned for greater densities than others. Additionally, the Master Plan establishes growth management goals which state that certain areas of the Township should be reserved for lower-density residential, open space and natural features. In order to achieve these goals and uphold desired land use patterns, the Township should consider existing and proposed utilities. While sewer and water availability are not the only factors that determines appropriate density (i.e. transportation networks, established pattern of large parcels, natural features), dense development is much more feasible on those sites with access to sanitary sewer and municipal water systems than those sites without them. The greatest densities within the Township, as several of the Master Plan policies indicate, should be located where the necessary services are available. Additionally, sanitary sewer should not necessarily be extended in areas of the Township planned for open space and low-density residential.

The Relationship between Municipal Services and Density



The greatest densities within the Township should be planned for areas where municipal services (such as sanitary sewer and water mains) are available.

ZONING PLAN

WHAT IS ZONING? - Zoning is the development control that has been most closely associated with planning. Originally, zoning was intended to inhibit nuisances and protect property values. However, zoning also serves additional purposes relating to planning, including:

- Promote orderly growth in a manner consistent with land use policies and the Master Plan;
- Promote attractiveness in the Township's physical (built) environment by providing variation in lot sizes, architectural features and appropriate land uses;
- Accommodate special, complex or unique uses through mechanisms such as planned unit developments, overlay districts or special land use permits;
- Guide development away from conflicting land uses (i.e. heavy industrial uses adjacent to residential areas).
- Preserve and protect existing land uses, natural resources, air, land, water and other significant natural features in accordance with the Master Plan; and
- Ensure that land uses related to oil and gas exploration occur in a manner consistent with the goals and policies of this Master Plan.

The Zoning Ordinance and Future Land Use map in themselves should not be considered as the major long-range planning policy of the Township. Rather, the master Plan should be regarded as a statement of planning policy, and zoning should be used to assist in implementing that policy.

LAND USE – ZONING CORRELATION – As per PA 33 of 2008, the following is a comparison between the future land use categories and the associated zoning districts. In a few cases, zoning districts may need to be modified. Additional zoning ordinance regulations may also need to be modified to meet Master Plan goals. Thus, the subsequent list and text provides a recommended approach to implementing these and other zoning ordinance amendments as noted by the Planning Commission.

Table 17. – Land Use/Zoning Plan

Future Land Use Category	Zoning District/Zoning Plan
Residential	
Single Family - Low Density (0.1-0.5 units/acre; 2.5 acre lots)	SF, Suburban Farms (0.4 units/acre; 2.5 acre lots)
Single Family - Medium Low Density (0.5-1 units/acre; 1.5 acre lots)	SE, Suburban Estates (0.66 units/acre; 1.5 acre lots)
Single Family - Medium Density (1-3 units/acre)	SR, Suburban Ranch (1.5 units/acre; 30,000 sq. ft. lots)
Single Family - Medium High Density (3-5 units/acre)	R-1/R-2/R-3, Single Family Residential (3.1-5.2 units/acre; 8,400-14,000 sq. ft. lots)
Multiple Family - Low Density (5-7 units/acre)	RM-1, Multiple Family Residential (5.7-7.3 units/acre)
Multiple Family- Medium Density (7-9 units/acre)	RM-2, Multiple Family Residential (6.4-8.2 units/acre)
Office	
General Office	OP, Office and Professional
Office Research	BIZ, Brown Road Innovation Zone and OP, Office and Professional
Commercial	
Neighborhood Commercial	RB, Restricted Business
Village Center	Gingellville Village Center Overlay District
General Commercial	GB, General Business
Industry	
Industrial / Commercial Mixed Use Development	BIZ, Brown Road Innovation Zone and Lapeer Road Overlay
Research Industry	LI, Limited Industrial and IP, Industrial Park
Heavy Industry	IC, Industrial Complex
Other	
Institutional	n/a
Private Recreation	REC-1/REC-2, Recreation
Recreation	REC-1/REC-2, Recreation
Special Purpose	SP-1/SP-2, Special Purpose
Utility Owned	n/a

ZONING ADJUSTMENTS – The Township Zoning Ordinance should be reviewed to ensure that it is consistent with the goals and objectives of this Master Plan. The Township has identified specific areas of the Zoning Ordinance that should be reevaluated, including **Planned Unit Development** (PUD) regulations and **Rezoning** regulations. Additional innovative zoning techniques, such as **overlay zoning**, may be implemented to meet the intent of the Master Plan.

Planned Unit Developments – Planned Unit Developments (PUDs) are large, integrated developments that are tied to a specific plan. PUDs, which are treated as rezonings, have a number of advantages over conventional development. In particular, PUDs offer a degree of flexibility not typically available with conventional subdivision and zoning practices. For example, PUDs are capable of mixing residential and nonresidential land uses, allowing more compact, dense development while preserving open space, and providing pedestrian facilities. Additionally, the PUD option gives a community more discretionary power in the approval process.

Despite these clear advantages, communities must be careful to find a delicate balance between the desire to be flexible and the need to spell out concrete PUD standards. The Planned Unit Development option is currently available in all of Orion Township's residential zoning districts, including districts intended for low-density, large-lot development patterns. Furthermore, the PUD Ordinance (contained within the Zoning Ordinance) does not contain explicit standards regarding maximum project density as it relates to the underlying zoning district.

In order to ensure that the Township offers a flexible development option while also maintaining clear development and density regulations, and to meet the Township's growth management goals, the following adjustments may be considered for the Planned Unit Development ordinance:

- *Modify PUD Eligibility Criteria:* Expand the definition of "recognizable benefit" to ensure that a project with a density higher than that permitted within the underlying district will result in a clearly recognizable and substantial benefit, both to the residents of the project and the overall quality of life in the Township.
- *Limit maximum PUD density to a factor which is only slightly higher than that permitted within the underlying zoning district:* Note that one of the main purposes of the PUD option is to permit homes to be clustered together to preserve large tracts of open space, **NOT** necessarily to permit an overall density higher than that permitted within the underlying zoning district. However, when a higher density is proposed, it should be limited within the underlying district to ensure that the project will be consistent with the character of the adjacent area.

- *Consideration of traffic congestion factors:* Standards can be adopted to ensure that an increase in density will not degrade the road network to a point of inefficiency. In determining whether or not an area can support a PUD with a high residential density, the Township should consider the existing condition of the adjacent road network. In particular, the Township may wish to establish a Level of Service (LOS) threshold for increased density.
- *Finding of no significant impact:* Approval of a PUD with a high residential density should be dependent upon a finding of no significant impacts to the transportation system, natural features, public utilities, character of adjacent area, and other vital Township systems.

Planned Unit Development Option



Source:
<http://tetonwy.greenwoodmap.com/>

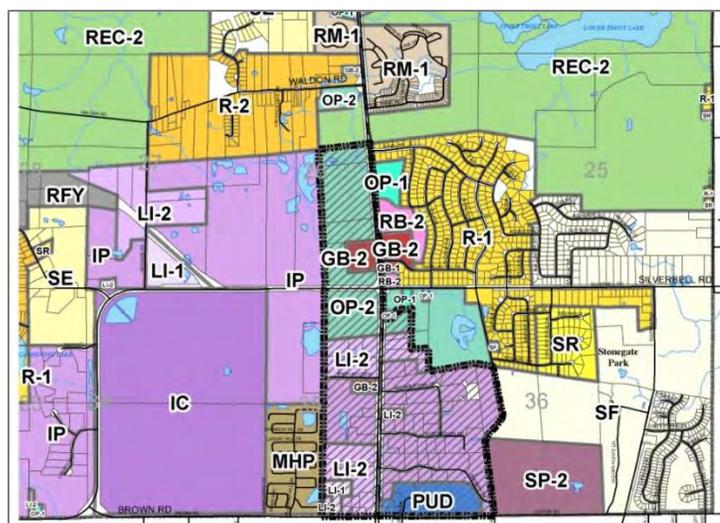
Planned Unit Developments (PUDs) offer many benefits over conventional zoning, including a mix of uses, clustered development options, and greater discretion with regards to approval. However, standards should be in place to ensure that overall site density is not increased far beyond that which is permitted in adjacent areas.

Rezoning – Similar to the suggested PUD modifications above, the following adjustments should be considered for the Township's rezoning standards, especially as they relate to an increase in density:

- *Consideration of traffic congestion factors:* Standards should be adopted to ensure that an increase in density will not degrade the road network to a point of inefficiency. In determining whether or not an area can support a rezoning with a high density, the Township should consider the existing condition of the adjacent road network.
- *Open Space and Natural Features Preservation:* Approval of a rezoning to a higher residential density should be dependent upon a finding of no significant impacts to existing natural features. The Natural Features and Priority Conservation Areas maps (**Maps 10 and 11**) may be referenced when making this determination. Additionally, the Planning Commission and Township Board should reference the goal of preserving large metes and bounds parcels when considering a rezoning.

Overlay Zoning – Overlay zoning is an innovative zoning technique which allows a community to place special provisions (the overlay zone) over an existing base zoning district. An overlay district can share common boundaries with the base district or cut across base district boundaries. In an area where an overlay zoning district is established, the property is placed simultaneously in two zones, and the property may be developed only under the applicable conditions and requirements of both zones. Thus, the overlay district regulations supplement the regulations of the underlying zoning district. Overlay zoning may be used to address special conditions and features, such as historic areas, wetlands, and other environmentally sensitive areas, or can encourage specific types of development, such as form-based or mixed-use, without disrupting the underlying zoning plan. Orion Township has recently utilized the overlay zoning technique with its Gingellville and Lapeer Road Overlay Districts.

Lapeer Road Overlay District



CAPITAL IMPROVEMENT PROGRAM

The Township's role in providing and financing community facilities will undoubtedly increase in the future. An orderly procedure for planning and financing such facilities can be achieved through the adoption of a Capital Improvement Program (CIP), attached to the annual budgeting process. The CIP is a schedule of projects developed for a six (6) year period and contains estimated costs and sources of funding.

While the Planning Commission is involved in larger-scale capital improvement planning for infrastructure improvements as it relates to land use, the Township Board has responsibility for yearly capital improvement planning. This includes detailed budgeting, staff assignments, and strategic planning. The Planning Commission does not have the authority to manage budgetary issues and staff assignments. Therefore, the Planning Commission defers responsibility for the development of the Capital Improvements Plan to the Township Board.

The Master Plan does not guarantee a solution to budgetary issues and long-term needs. This plan attempts to identify broad areas of need and priority, rather than specific projects. Such an approach is intended to initiate coordination between the Township Board and Planning Commission and provide guidance to the Board regarding the allocation of tax dollars toward public improvements. The Capital Improvements Program is strongly coordinated with the Master Plan so that funds are devoted to projects that will benefit the greatest number of Township residents and visitors.

FEDERAL/STATE FUNDS

Given the high cost of public improvements, many local units of government have become reliant on outside sources of funding. Orion Township has already enhanced its ability to secure grant funds by adopting a Master Plan. The Plan not only sets priority for public improvements but should also be used to justify the need for such improvements to funding agencies. Federal and State funding can be raised through the following sources:

TRANSPORTATION ALTERNATIVES PROGRAM – *The Transportation Alternatives Program (TAP) was authorized under Section 1112 of the Moving Ahead for Progress in the 21st Century Act (MAP-21). The program provides funding for projects defined as transportation alternatives, including on-and-off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver*

access to public transportation and enhanced mobility, recreational trail program projects, and safe routes to school projects. Projects are jointly evaluated by SEMCOG and MDOT staff to determine eligibility, consistency with TAP program requirements and how well the project promotes holistic and regionally significant outcomes.

BROWNFIELD REDEVELOPMENT ACT FINANCING, PUBLIC ACT 381 OF 1996 –

This method allows a community to use tax increment financing (TIF) in order to finance the clean-up of sites where environmental contamination limits redevelopment. Where applicable, the development of a Brownfield Authority and designation of potential redevelopment sites is recommended.

LOCAL FUNDS

The potential availability of grant funds does not eliminate the necessity to finance all or portions of projects with local funds. It is the rule rather than the exception that Federal grants require the local unit of government to fund or match a portion of the project. Local funding can be raised through the following sources:

GENERAL FUND – The Township Board may make an appropriation from the general fund to finance certain improvements. However, this method is not considered entirely feasible because general funds are usually needed to finance essential services, leaving little available money for additional projects.

GENERAL OBLIGATION BONDS – With the approval of the voters, the Township can sell general obligation bonds, usually having a long payback period and low interest rates. General obligation bonds also enjoy the backing of the full faith and credit of the Township.

REVENUE BONDS – Revenue bonds are paid off through revenues generated by a project. For example, most municipal water systems are financed through revenue bonds with user charges paying off the bond. Revenue bonds are not necessarily backed by the full faith and credit of the Township, do not require voter approval, and usually are sold at higher interest rates than general obligation bonds.

SPECIAL MILLAGE – The Township Board may ask for voter approval to earmark increased millage for a specific improvement project.

SPECIAL ASSESSMENT – Many projects that benefit only a segment of the community rather than the community at large are financed through special assessments to the benefiting property owners. Drainage and street improvements are projects frequently financed through special assessments.

ECONOMIC DEVELOPMENT

Economic Development is another important aspect of Master Plan implementation. According to the International Economic Development Council, economic development is defined as "a program, group of policies, or activities that seeks to improve the economic well-being and quality of life for a community by creating and/or retaining jobs that facilitate growth and provide a stable tax base". To achieve such an end goal, economic development activities must be planned and long-term. Thus, the actions that ensue can be justified by producing the following:

- Economic diversification – attracting companies from broad economic sectors to balance the swings in the market. The Township should continue its membership with **Automation Alley** and close alliance with Oakland County Planning and Economic Development Services.
- Tax base development – private sector investment increases the public sector's ability to provide necessary services that benefit the community by increasing the quality of life and leveraging additional investment
- Job creation or replacement – new jobs can be an important element of economic development, but more important is creating a job base that improves the median wages of each sector of the community and providing a broad base of employment options when a once vital businesses ceases to operate
- Supporting existing businesses – economic development can provide the means of expanding an existing business while working with local entrepreneurs to produce the goods and services presently only available outside of the community

AUTOMATION ALLEY

Automation Alley is a technology business association and business accelerator dedicated to growing the economy of Southeast Michigan and enhancing the region's reputation around the world. Automation Alley offers talent and business development programs and matchmaking services to tech-focused businesses of all sizes — from startups to large corporations — to help them grow and prosper.

Since its founding in 1999, Automation Alley's membership has grown to include nearly 1,000 businesses, educational institutions, government entities and nonprofit organizations from the city of Detroit and the surrounding eight-county region. Automation Alley provides a variety of exclusive benefits to its members to help them succeed, including networking opportunities, meeting space and public relations tools. Automation Alley also serves the general business community in five key areas: entrepreneurial services, talent development, international business services, product lifecycle management, and defense and manufacturing.

Automation Alley collaborates with regional partners to provide its members and clients with the best business resources available, to drive local economic growth, and to positively influence the stories being told around the globe about the people and businesses of Greater Detroit.

Source: www.automationalley.com

- Positive marketing – promoting the community via press releases, newsletters, web pages, and engaging professionals can foster a consistent, “one voice” approach to marketing the attributes of the Township (i.e. housing options, parks and recreation, employment opportunities, schools, etc.), thus, providing for previously unrealized economic development opportunities.
- Building upon the Township's service friendly initiatives – continually increasing the service levels within the community will ensure an improved relationship and greater support from the residents, business owners, and developers.
- Streamlined zoning procedures – modification of the time frame and providing increased flexibility within the zoning ordinance equates to a more expedient development process and potential decreased cost to developers, while also ensuring allowances for unknown future fluctuations in the economy. Orion Township should continue to participate in Oakland County's **One Stop Ready** (OSR) Program, described below.

A means of determining the success of this approach is increased prosperity for the Township. However, that cannot be achieved without a combined effort involving the economic development organization (analyst, catalyst, and advocate), an objective community, a defined market, business development (i.e. retention, expansion, and attraction), and workforce development.

OAKLAND COUNTY “ONE STOP READY” PROGRAM

The One Stop Ready (OSR) Program encourages communities to capitalize on their strengths and refine their economic development processes for the purpose of implementing their community vision. The ultimate goal of the One Stop Ready initiative is to lower the barriers for business that want to locate within Oakland County.

Being ready for economic and community development is not simply approving projects. It means understanding the effects of leadership, process and time, and implementing a culture of collaboration with community stakeholders, businesses, developers, residents and resources. The One Stop Ready program encourages communities to think of themselves in the context of a developer, a business or a resident making a decision to locate, or invest, in their community.

The OSR Program has five core tools and strategies that are considered best practices for improving economic development readiness:

1. Free pre-application meetings with all necessary staff and consultants;
2. Internet accessibility;
3. Track projects from application through occupancy;
4. Mechanisms to gather input from the business community; and
5. Clear permitting processes and efficient time frames.

Source: www.advantageoakland.com

There are a number of financing tools available for specific industries and parcels. The tools provide revenue sources for private companies to invest in projects that benefit the general public, for acquisition of fixed assets, or for related soft costs. However, the following tools provide the means necessary for infrastructure improvements:

SPECIAL ASSESSMENT DISTRICTS (SAD) – Establish an SAD into which the abutting property owners would contribute. Because all Township residents benefit from some of the necessary improvements, the Township could consider being an additional contributing member.

INDUSTRIAL REVENUE BONDS – Available through Michigan Strategic Fund, manufacturing, non-profit, and solid waste facilities can finance projects that meet the criteria for public purpose. The governmental unit borrows the money based upon the project's revenue. Capital cost is reduced because the loan is at a tax-exempt rate (only available for governments).

LOCAL DEVELOPMENT FINANCE AUTHORITY (LDFA) – While presently not the County's most desirable approach because it involves capturing taxes, tax increment financing has historically been the key mechanism for funding industrial infrastructure needs. Infrastructure is funded through a bond that is based upon the incremental increase in tax capture that would result from the increased investment within the confines of the LDFA. Some improvements can extend beyond the LDFA borders when demonstrated that they can directly benefit. See PA 281 of 1986, as amended, for the specific of the Act.

COMMERCIAL REHABILITATION DISTRICT (PA 120 OF 2005) – The tool is intended to allow the establishment of a district which creates an incentive for commercial properties to be improved by exempting a portion of the ad valorem property taxes (excludes taxes on the land and personal property) for up to 10 years. More specifically, the Act is designed to accomplish the following: increase the current tax base, provide employment opportunities for local residents, help redevelop older "functionally obsolete" and/or "blighted" properties that are vacant or marginally occupied, help develop vacant commercially zoned properties to expand retail, and stimulate other non-subsidized development. No less than three (3) acres is required, and the structure must be no less than fifteen (15) year old. An annual commercial rehabilitation tax is levied in place of the general property tax, but only on the pre-rehabilitation taxable value.

CORRIDOR IMPROVEMENT AUTHORITY (CIA) – The Act is designed to assist communities with funding improvement in commercial corridors outside of the main commercial or downtown areas. The provisions mirror those of a

Downtown Development Authority with the exception of prohibiting the levying up to two mills and allowing for multiple districts. Minimum criteria include no less than 51% first floor commercial, 30 years of commercial history, proximity to arterial or collector road, no less than 10 contiguous parcels or 5 contiguous acres, zoned to allow mixed use or high density residential, and an agreement to expedite the permitting and inspection process. See PA 280 of 2005, as amended, for details regarding process and qualifications.

RENEWABLE ENERGY RENAISSANCE ZONES (RERZ) – The program is intended to promote renewable energy operations in the state and to enhance the industry. Applicable facilities include those that create energy directly or fuel from the wind, sun, trees, grasses, bio-solids, algae, agricultural commodities or residues from agricultural processes, wood or forest processes, food production and processing, or the paper products industry. Facilities that create energy or fuels from solid biomass, animal wastes, or landfill gases are also eligible. Upon acceptance, the company is exempt from all taxes except those mandated by the federal government, local bond obligations, school sinking funds, or special assessments, and companies are still subject to Michigan sales and use taxes. The duration of the abatement is up to 15 years with a phase out in 25% increments over the last three years.

Each of the tax incentives and financing tools can be used in combination and/or stand-alone. However, complementing them with a coordinated business retention and attraction package would be advisable. Additionally, the Township should work with Oakland County and State to create a marketing package, which could be provided to potential businesses with information about access to capital (loans and grants), employment banks, tax credits, etc.

PLAN EDUCATION

Citizen involvement and support will be necessary as the Master Plan is implemented. Local officials should constantly strive to develop procedures that make citizens more aware of the planning and zoning process and the day-to-day decision-making which affects implementation of the Plan. A continuous program of discussion, education, and participation will be extremely important as the Township moves toward realization of the goals, objectives, and policies contained within the Master Plan.

MASTER PLAN UPDATES

This plan should not become a static document. The Township Planning Commission should attempt to re-evaluate and update portions of the Plan on a periodic basis. In accordance with Michigan Public Act 33 of 2008, the Township is required to review the Plan every five (5) years to determine whether to commence the procedure to amend or adopt a new Plan. However, the Planning Commission should set goals for the review of various sections of this Plan on a yearly basis. The Master Plan should also be coordinated with the Parks and Recreation Master Plan to provide proper long-range planning for parks and recreation improvements.

COORDINATION WITH ADJACENT COMMUNITIES

As a part of the Master Plan adoption process and in accordance with Michigan Public Act 33 of 2008, Orion Township notified neighboring jurisdictions, Oakland County, regional agencies, and any registered public utility company, railroad, or other governmental entities of the intent to update its master plan. Subsequent to the notification and eventual completion of the draft, the noticed entities were asked to review and make comments on the proposed plan. The comments were compiled and taken into account by the Township. Upon receipt of the comments from adjacent communities and others, a public hearing was held and the plan eventually approved by the Planning Commission. Each of these requirements is outlined in Michigan Public Act 33 of 2008 and has been adhered to by the Charter Township of Orion.

2015



CHARTER TOWNSHIP OF ORION MASTER PLAN - APPENDICES

September, 2015

APPENDIX A:

PUBLIC INPUT SUMMARY

Community input is the core of any master planning effort. Therefore, Orion Township residents, property owners and business owners were given many opportunities to provide comments, ideas and suggestions regarding the Township's future growth.

The master planning process included three (3) different public input methods. Residents and business owners were invited to provide input through:

1. An Open House (p. A1);
2. Online Master Plan Survey (SurveyMonkey) (p. A-7); and
3. Online Mapping Tool (MiCommunity Remarks) (p. A-17)

A summary of the comments received from these three methods are outlined below:

OPEN HOUSE

The Township's Master Plan Open House took place on November 12, 2014 at the Orion Center. Roughly thirty (30) residents attended the Open House, along with Township Board Members and Planning Commissioners. The event included five topic "stations," each of which contained an informational display about the topic along with a brief questionnaire and comment sheet to guide discussion.

The topic stations included:

1. Transportation and Road Improvements;
2. Shopping/Entertainment/Retail Services and Growth;
3. Natural Features and Environmental Quality;
4. Residential Growth and Housing Types; and
5. Economic Growth and Office/Research/Industrial Land Uses.

Open house attendees provided nearly 70 comments regarding various land use issues facing the Township. A summary of these comments is provided on the following page.

TRANSPORTATION & ROAD IMPROVEMENTS

Guiding Questions:

1. How does the traffic in Orion impact the quality of your daily life?
2. Which roads and intersections within the Township are in need for improvement?
3. Are alternative forms of transportation important?
4. Should more be done to promote pedestrian access to the extensive Township trail system?
5. Other transportation issues?

Public Comments Received:

- More access to trail systems & paths.
- Support alternative transportation.
- Why is the speed limit on Morgan Road 45 mph, where Baldwin, which is a business road, the limit is 35 mph.
- Traffic jams are our biggest problem. Plan to fix them. Fix Clarkston & Waldon roads load.
- Don't worry over development & have gridlock road like Rochester & Rochester Hills. Their over-crowded roads are one of the reasons I moved to Orion Twp.
- There has been improvement of light timing @ Silverbell & Lapeer but light timing just south of Silverbell not good.
- Proposed safety path at Silverbell east of Squirrel very much needed!
- Traffic on M24 really bad at work commute times
- Timed lights have helped M-24 flow but it's still horrible. I stay off 24 as much as possible & avoid making appointments & running errands at rush hour! Nightmare driving. Find myself cutting through neighborhoods.
- Scripps & 24 needs major help!
- Promote pedestrian access to trail system.
- Light too long at 24. People cut thru H. Hill Silverbell sub. Please finish the safety path on Silverbell east of Squirrel Road. The amount of traffic on Silverbell makes walking/bicycle riding to Oakland Twp. trail by Oakmonte development too dangerous. The more paths the better. Enhance healthy living.
- Traffic is becoming worse and is slowly diminishing our quality of life. The amount of residential development is having an impact and I fear the projects under construction will drastically worsen the situation. I ask that all future development approvals consider the "unestablished" projects in traffic count and flow.

SHOPPING/ENTERTAINMENT/RETAIL SERVICES & GROWTH

Guiding Questions:

1. Should the Township encourage continued commercial growth? If so, where?
2. Are the three types of commercial uses (Neighborhood, Community, and Regional) adequately represented in Orion Township?
3. Should the Township consider locations for additional large format “big box” retailers? If so, where?
4. Should the Township continue efforts to improve the attractiveness of the Lapeer Road and Baldwin Road corridors with improved landscaping, sign regulations and streetscape design?

Public Comments Received:

- Encourage neighborhood growth
- Encourage housing for seniors
- Maintain our green spaces
- No big box retailers
- My concern is what are they planning on putting into the strips on Baldwin. I am not a fan on how they brought hooka bars into our city. We do not need that kind of business.
- If we need commercial development – change zoning of the road commission 38 acres at Lapeer & Clarkston. Sell it. Let County use the sale proceeds to buy a new site on cheaper land. We get the tax revenue from the stores in that mall.
- Roads don't support additional commercial growth. Also, don't want increase in traffic.
- Don't need more commercial.
- Easy access to existing commercial areas. Closely located.
- Yes, support improvement of attractiveness.
- The Township should encourage commercial and retail growth in areas that already have commercial/retail space and not at the expense of residential or green space. For example, the north side of Brown between Baldwin & Joslyn would be a good area for further retail development.

NATURAL FEATURES & ENVIRONMENTAL QUALITY

Guiding Questions:

1. What areas of the Township are especially sensitive to environmental degradation? Why?
2. Should the Township be actively promoting the preservation of natural areas?
3. Should the Township adopt more strict woodland and wetland ordinances?
4. Should the Township promote new regulations regarding the control of phragmites near lakes and wetland areas?

Public Comments Received:

- Preserve natural areas.
- Adopt strict woodland & wetland ordinances.
- I think township should stay natural.
- We need to promote a more aggressive control of phragmites near lakes and wetlands.
- Township should promote regulations for preservation of wetlands and natural areas.
- Bald Mountain Golf Course area should not be developed—keep green area, road can't handle additional growth.
- Yes, promote preservation of natural areas
- Yes, phragmites are an issue & can take over wetland natural resources
- Place natural buffer zones when new development occurs along road. Helps break wind & snow blowing in addition to sound & visual barrier
- The township should take all actions and measures to preserve our green spaces and natural areas. These areas are what make the Township special and attractive. While the Township currently has a large amount of green space, the majority is the Bald Mountain State Rec. Area. It would be great if the Township increased the amount of Township or County land. Let's not be dependent on the State to own/control our green space.

RESIDENTIAL GROWTH & HOUSING TYPES

Guiding Questions:

1. Please indicate your preferred location for new housing and the type of housing desired.
2. What is the biggest problem you see related to residential development?
3. Are there adequate options for elderly persons in the Township?
4. Are there adequate housing options for all income levels, age groups and lifestyles?
5. Do you prefer low density large lot development or high density residential development?
6. Are there areas in the Township appropriate for higher density residential uses?
7. Other residential growth or housing issues?

Public Comments Received:

- Would LOVE to see independent senior housing either in condos or apartments – gated would be great!
- No more residential housing until the roads/congestion/flows are addressed
- Residential development is running rampant. At this rate, congestion will clog roads and generally diminish the charm it is known for
- Please restrict any such developments to very, ultra-low density – estates, farms, etc.
- Please build more 3 bedroom nice condos with curb appeal and green space. Don't tag it for just empty nesters
- Also, need housing for college grads that might get a roommate for busy newlyweds
- Rezone Bald Mountain Golf Course to residential zoning
- More senior-friendly housing
- Inadequate options for seniors
- Preferred housing type: One story condos
- Density is the biggest problem related to residential development.
- Yes, there are adequate options for elderly persons.
- Prefer low density residential.
- Make sure roads/schools can support massive development.

ECONOMIC GROWTH AND OFFICE/RESEARCH/INDUSTRIAL LAND USES

Guiding Questions:

1. Should the Township encourage continued industrial growth? If so, where?
2. Should the Township encourage continued research and office growth? If so, where?

Public Comments Received:

- Less industrial.
- Keep our green space.
- Areas around other industrials – they belong together, not scattered.
- Yes, encourage continued research and office growth, away from industrial areas.
- I dislike drastically changing zoning to accommodate companies—make it fit!
- No, Township should not encourage continued industrial growth
- Yes, according to your research & projected growth, research and office growth is the best area to expand. Not along M24 in the Industrial Park area along silverbell. There are several ways to access this area from all directions

GENERAL COMMENTS

- The board approved 7 new subdivisions in 2013. Before we add more, we need to fix the gridlock on our roads. That is our biggest problem planning wise.
- We need another east west paved road. Waldon can be paved and provide that access
- Can we plan to add another 2 lanes to Lapeer Road?
- Can we plan to pave Kern up to Clarkston Road and pave Clarkston Road east to Kern?
- Can we plan to double the lanes on Joslyn Road to at least Indianwood Road?
- When we add so many people so fast, have we provided enough cemetery plots for the future?
- This is the time to look to future needs. Perhaps the Bald Mountain property would be a good site for a township owned cemetery? It might generate more income than a golf course.
- Is there a plan for a water park? We hear that often. It may work at Bald Mountain golf site.
- Would the corner of Clarkston Road and Lapeer Road be better used as a regional shopping center than a road commission lot? Do the

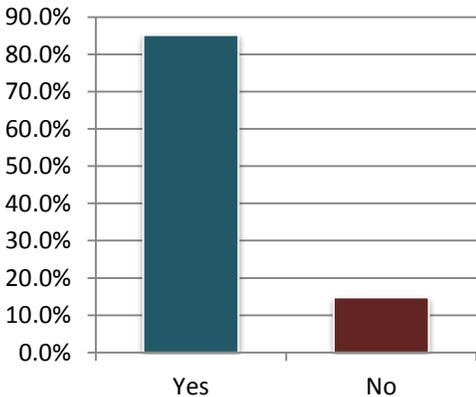
trucks really need this highly desirable commercial corner? Could the plow truck and dump trucks be served just as well one block off Lapeer Road on cheaper, less desirable land?

- Can we zone it commercial for shopping center now in case that develops? Zone it and they will come?

ONLINE MASTER PLAN SURVEY (SURVEYMONKEY)

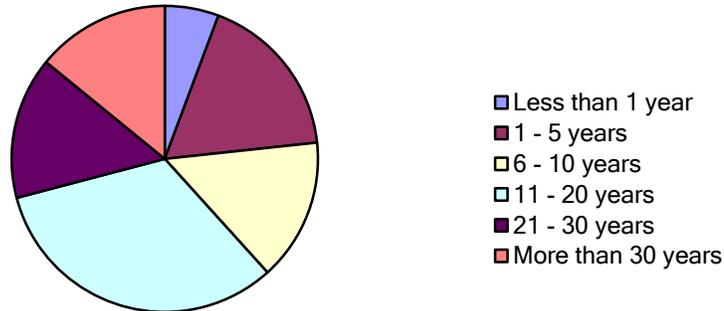
The second public input method was a traditional opinion survey, which was provided online at the Township's website via SurveyMonkey. The survey was available online for public comment for the duration of the Master Planning Process, beginning in September, 2014. The survey contained questions regarding residential development, road improvements, natural resources, non-motorized transportation, and public facilities, among others. Nearly 550 respondents participated in the survey, the results of which are summarized below:

Q1. Do you live in Orion Township?



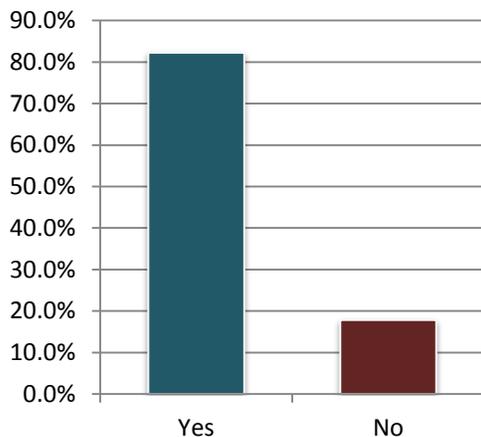
Answer Options	Response Percent	Response Count
Yes	85.2%	450
No	14.8%	78
<i>answered question</i>		528
<i>skipped question</i>		5

Q2. If yes to the previous question, please indicate how long you have been a resident of Orion Township.



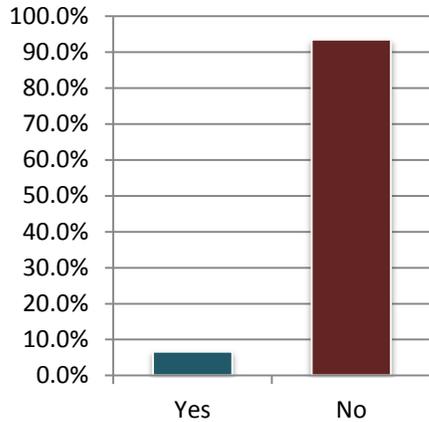
Answer Options	Response Percent	Response Count
Less than 1 year	5.7%	26
1 - 5 years	17.6%	81
6 - 10 years	15.0%	69
11 - 20 years	32.6%	150
21 - 30 years	15.0%	69
More than 30 years	14.1%	65
<i>answered question</i>		460
<i>skipped question</i>		73

Q3. Do you own property in Orion Township?



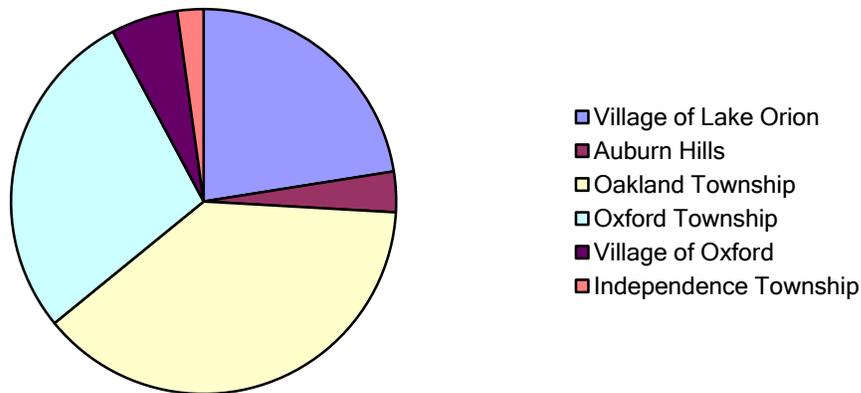
Answer Options	Response Percent	Response Count
Yes	82.2%	434
No	17.8%	94
<i>answered question</i>		528
<i>skipped question</i>		5

Q4. Do you own a business in Orion Township?



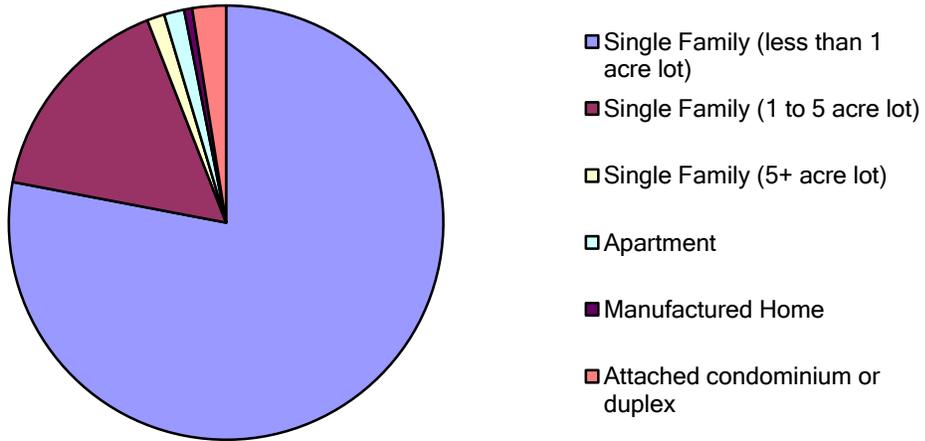
Answer Options	Response Percent	Response Count
Yes	6.6%	35
No	93.4%	492
<i>answered question</i>		527
<i>skipped question</i>		6

Q5. If you don't live in Orion Township, where do you live?



Answer Options	Response Percent	Response Count
Village of Lake Orion	22.5%	20
Auburn Hills	3.4%	3
Oakland Township	38.2%	34
Oxford Township	28.1%	25
Village of Oxford	5.6%	5
Independence Township	2.2%	2
Other (please specify)		13
<i>answered question</i>		89
<i>skipped question</i>		444

Q 6. Please select the term that best describes your residence.



Answer Options	Response Percent	Response Count
Single Family (less than 1 acre lot)	78.0%	408
Single Family (1 to 5 acre lot)	16.1%	84
Single Family (5+ acre lot)	1.3%	7
Apartment	1.5%	8
Manufactured Home	0.6%	3
Attached condominium or duplex	2.5%	13
Other (please specify)		2
	<i>answered question</i>	523
	<i>skipped question</i>	10

Q7. What are the most favorable features of Orion Township?

Answer Options	Response Percent	Response Count
Friends/Family live nearby	43.1%	218
Friendliness of residents	41.1%	208
Access to open space	64.8%	328
Suburban Character	22.5%	114
Close to employment centers	15.2%	77
Sidewalk and bike path network	47.0%	238
Nice neighborhoods	53.0%	268
Lake Orion Schools	61.3%	310
Access to parks and recreation	73.7%	373
Close to shopping opportunities	35.0%	177
Access to lakes	56.9%	288
Proximity to cultural facilities (i.e. sports, concerts)	21.7%	110
Cost/value of home	35.2%	178
Close to expressways	38.9%	197
Other (please specify)		26
<i>answered question</i>		506
<i>skipped question</i>		27

Q8. What are the 3 least favorable features of Orion Township?

Answer Options	Response Percent	Response Count
Lack of commercial development	5.7%	29
Lack of non-motorized transportation options (i.e. sidewalks and bikepaths)	17.2%	87
Too much commercial development	26.5%	134
Limited housing options	3.8%	19
Traffic congestion	79.8%	403
Lack of public transportation	15.0%	76
Inadequate road maintenance	54.5%	275
Public safety	2.4%	12
Lack of downtown identity/feel	20.0%	101
Suburban character	2.8%	14
Lack of parks/recreation options	4.8%	24
New development not consistent with community	42.0%	212
Other (please specify)		71
<i>answered question</i>		505
<i>skipped question</i>		28

Q9. What types of non-residential development could Orion Township use more of? Check all that apply?

Answer Options	Response Percent	Response Count
Essential services (grocery, dry cleaners, hardware, etc.)	11.2%	54
Specialty shops/Boutiques	24.8%	120
Restaurants (Independent)	47.5%	230
Restaurants (chains/national brand)	17.8%	86
Entertainment venues (movie theaters, night clubs, etc.)	21.5%	104
Big box stores (Home Depot, Sears, Meijer, etc.)	6.2%	30
Research/Office	9.5%	46
Industrial	1.4%	7
Mixed Use (combination of residential and commercial)	9.1%	44
None, there is enough commercial and industrial development	42.6%	206
Other (please specify)		54
<i>answered question</i>		484
How important should each of the following be to Orion Township government?		49

Q11. What type of residential development could Orion Township use more of?

Answer Options	Response Percent	Response Count
Apartments	4.9%	24
Attached townhouse/condominiums	15.3%	74
Senior citizen housing	26.2%	127
Manufactured homes	1.9%	9
Detached single family homes on smaller lots in subdivisions	17.3%	84
Detached single family homes on large lots (1 acre minimum)	24.3%	118
Detached single family homes on large lots (2 acre minimum)	14.0%	68
None	45.2%	219
answered question		485
skipped question		48

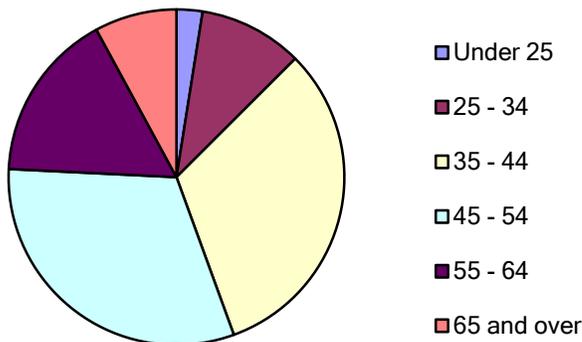
Q12. If the Road Commission for Oakland County and MDOT are financially capable of making road improvements, which roads and/or intersections are in need of improvement?

426 responses.

Q 13. Please provide any additional comments or concerns that you may have regarding the Township

273 responses.

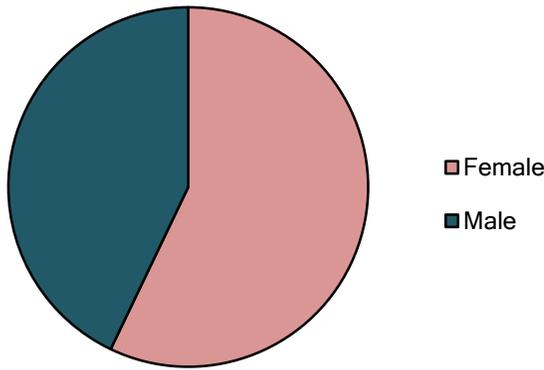
Q 14. What is your age?



Answer Options	Response Percent	Response Count
Under 25	2.5%	12
25 - 34	10.0%	48
35 - 44	31.9%	153
45 - 54	31.3%	150
55 - 64	16.3%	78
65 and over	7.9%	38
answered question		479
skipped question		54

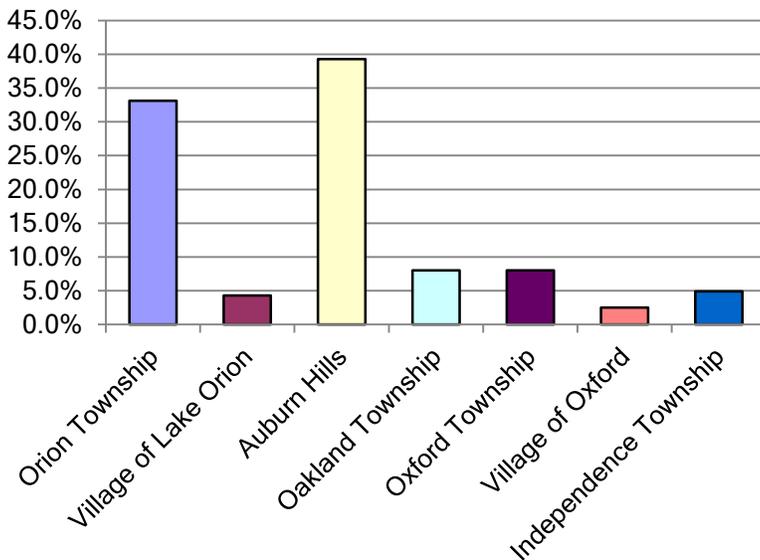
Q 15. What is your gender?

What is your gender?



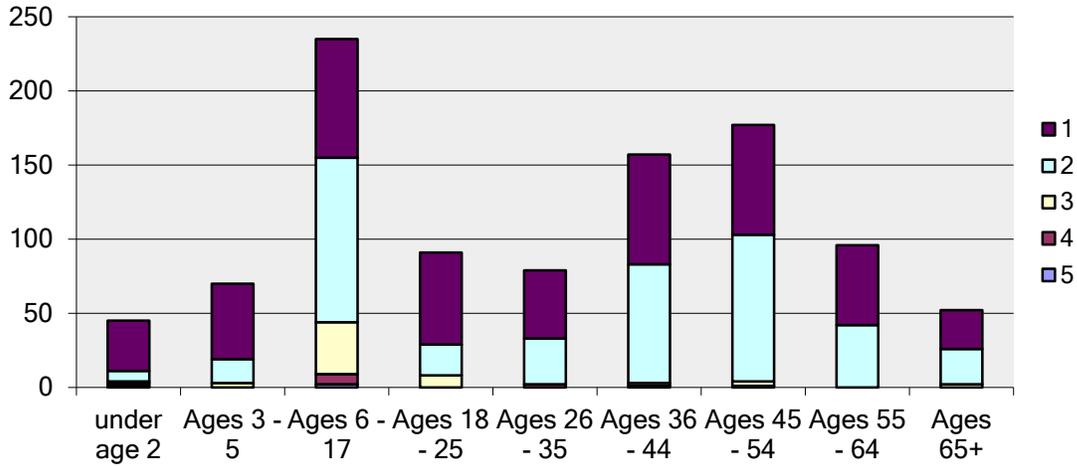
Answer Options	Response Percent	Response Count
Female	57.1%	271
Male	42.9%	204
<i>answered question</i>		475
<i>skipped question</i>		58

Q 16. If you are employed, where do you work?



Answer Options	Response Percent	Response Count
Orion Township	33.1%	54
Village of Lake Orion	4.3%	7
Auburn Hills	39.3%	64
Oakland Township	8.0%	13
Oxford Township	8.0%	13
Village of Oxford	2.5%	4
Independence Township	4.9%	8
Other (please specify)		240
<i>answered question</i>		163
<i>skipped question</i>		370

Q 17. Including yourself, how many people in your household are:



Answer Options	1	2	3	4	5	Response Count
under age 2	34	7	1	2	1	45
Ages 3 - 5	51	16	3	0	0	70
Ages 6 - 17	80	111	35	7	2	235
Ages 18 - 25	62	21	8	0	0	91
Ages 26 - 35	46	31	0	2	0	79
Ages 36 - 44	74	80	2	1	0	157
Ages 45 - 54	74	99	3	1	0	177
Ages 55 - 64	54	42	0	0	0	96
Ages 65+	26	24	2	0	0	52
<i>answered question</i>						475
<i>skipped question</i>						58

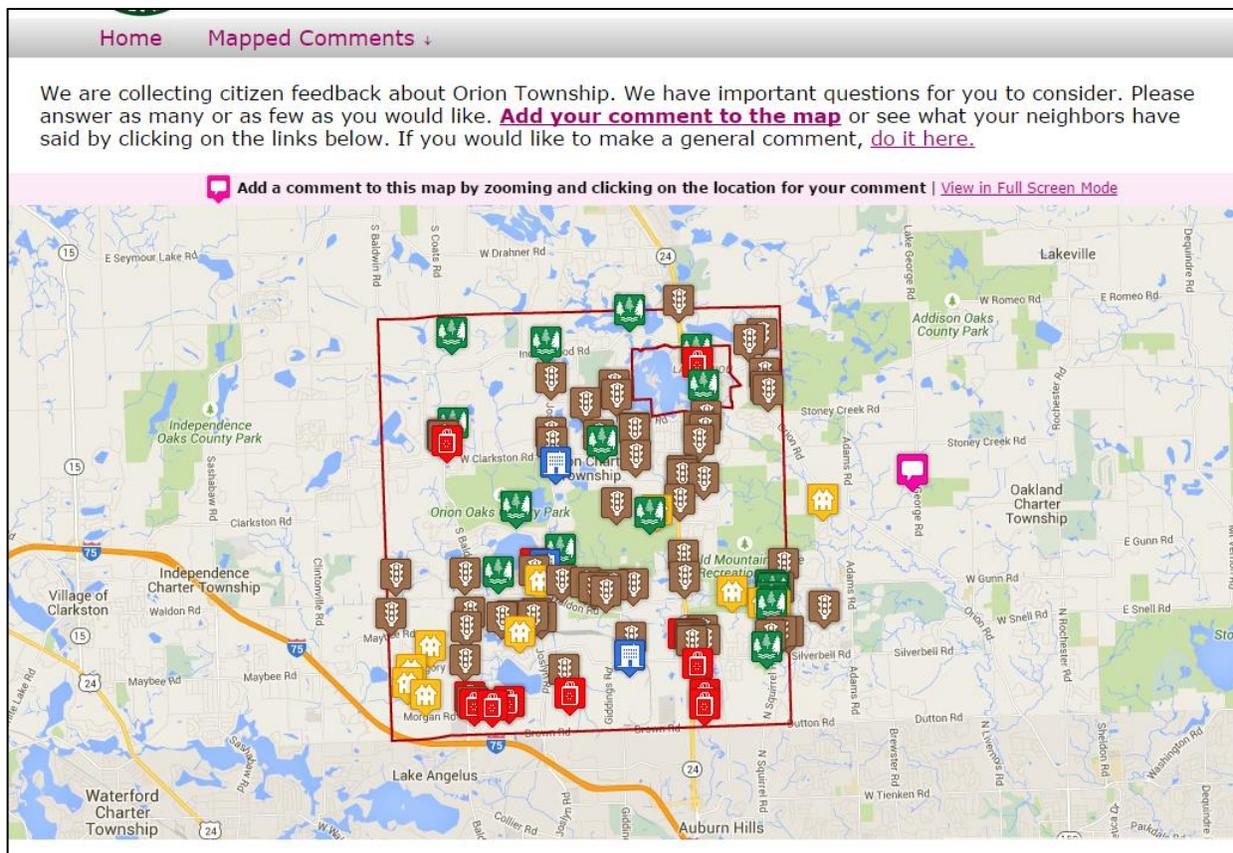
ONLINE MAPPING TOOL (MiCommunity Remarks)

Orion Township residents were invited to provide ideas and suggestions for the Township's future growth through an online mapping tool available from the Township's website. The map-based tool, known as MiCommunity Remarks, allowed users to post their ideas, comments and concerns, and relate those comments to a specific geographic location.

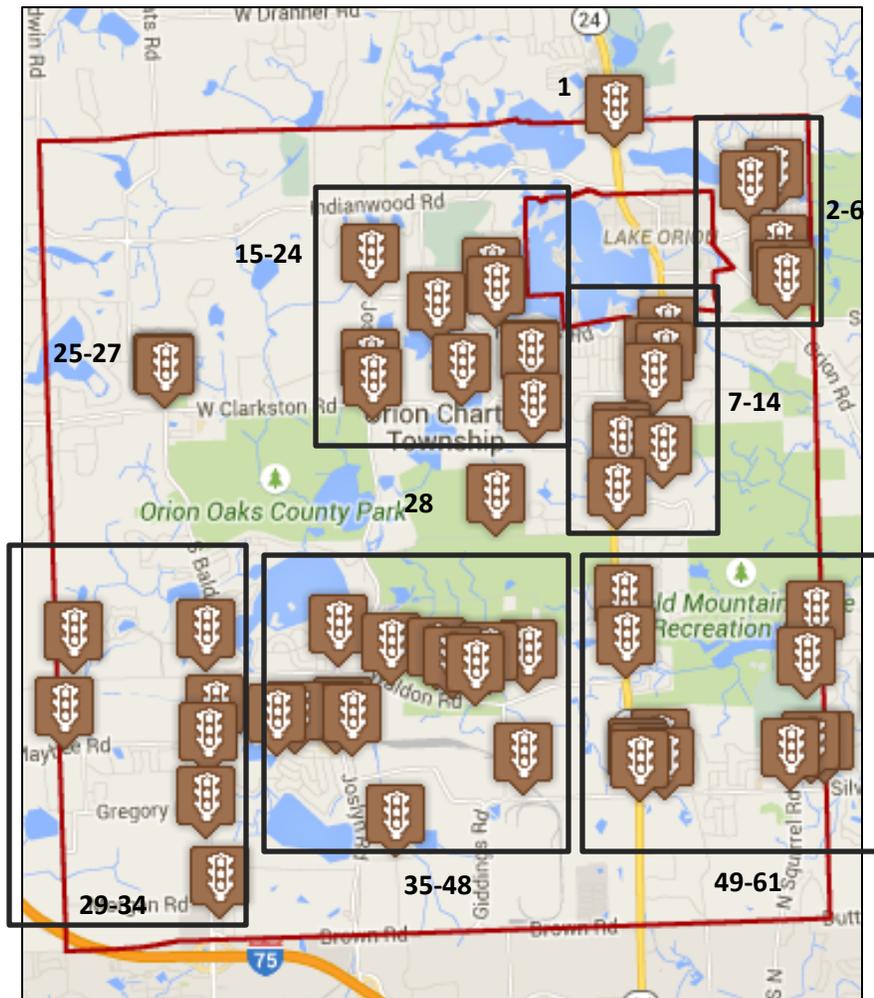
More than 100 comments were received and tabulated. Six topics were provided along with questions and factual information about each topic. The topics included:

1. Road Improvements;
2. Shopping, Entertainment, Retail Services and Growth;
3. Natural Features and Environmental Quality;
4. Residential Growth and Housing Types; and
5. Economic Growth and Office, Research and Industrial Land Uses.

A summary of the MiCommunity Remarks comments are provided on the following pages.



ROAD IMPROVEMENTS



1. This turn around (North of Buffalo Wild Wings) is shared by both Northbound and Southbound traffic. There are no street lights here, so it can be difficult to 1. find the turn around and 2. slow down in the left lane to negotiate the turn around. Having a separate Northbound to Southbound turn around with deceleration lane would be relieve that problem.
2. There is no safe sidewalk in front of Country Lake Market. When walking or biking on the "safety path" in front of the Market - one needs to weave behind or around cars. It is insanely unsafe for our children. I have contacted someone from the township before but nothing came of it. I will try to upload a picture soon.
3. The entrance to the Bunny Run subdivision is always covered in very LARGE potholes. These go for months without being scraped flat.

4. Please put in a safety path along the length of South Conklin Road to connect Paint Creek Trail to Bald Mountain trails, North Conklin sidewalks and downtown.
5. Please put in a traffic light at the intersection of Orion and Stoney Creek and Conklin.
6. Agreed about how dangerous and tricky with intersection is - and about the safety path idea as well. I do appreciate the county roads responding to my request to pave the apron - the pothole that used to be there could have swallowed a car, and it is perhaps a small amount safer for bikes to cross. However, what kind of solution could we have in this space, specifically for bikes? What about a push button caution signal like they have on Draher in Oxford for the Polly Ann Trail bike path.
7. There needs to be more turnarounds near this intersection. It is a pain to have to drive past the light to turn around.
8. I think there needs to be two lane traffic turning on to M-24 from Clarkston Rd. Congestion in the morning is unbearable.
9. The total intersection of M24 and Clarkston Rd. The turnaround on the northbound side to go south on M24 has a huge hole because of the fact it is so old it fills with water with absolutely no drainage. For a long time there has been talk of doing something with the flooding that happens on Clarkston Rd west of M24. Still upset with number of new subdivisions going up with little thought to the current traffic on M24.
10. They need to widen Lapeer Road to make it at least three lanes on each side. Traffic is nightmare.
11. There is a turnaround shared by both north and southbound traffic. Fix the turnaround so northbound m24 cars stay on south side (turning south) and vice versa. This way cars won't be trying to get around each other in the turn.
12. Increase the length of the Stadium Drive left turn from south bound M-24 lane past the following turn around (eliminate this) to ease M-24 congestion in the morning.
13. Please add an additional drive to Lapeer Road off of Stadium so people who are picking/dropping off kids don't have to worry about other people driving into oncoming traffic to avoid the pick-up line.
14. Fix the left turns at Scripps & M-24.
15. I would like some "no overnight parking" signs added to the Pinetree Elementary school parking lot. Most weekends a semi-truck parks there. In these day and times I do not feel comfortable having children playing on the playground or being around the school.
16. The 4 way stop at Heights and Pinetree is very dangerous. People rarely stop and parents dropping off and picking up from school are a menace to the roadways.

17. Road needs to be one way.
18. Speed limit needs to be reduced. There are children walking this road for the bus on dark mornings and cars on lacking control. 25mph on this residential rd not 40mph. This is another problem with may handicap residents on the road just trying to retrieve their mail.
19. Lower mph or make one way
20. Please, please can you consider adding a cycle path on Clarkston Road between M24 and Joslyn.
21. Would it be possible to have a bike path on Clarkston road from Pinetree Road to Joslyn Road?
22. Road signage very confusing at the stop sign. Very few people actually stop!
23. How about some right hand turn lanes, traffic backs up a ton, turn lane would help this problem.
24. A turning lane in front of Orion Oaks school.
25. Consider extending the left-hand turn lane from northbound Baldwin approaching Clarkston to improve the flow of traffic. Substantial backups prevalent during high-traffic periods.
26. I really think there needs to be right turn lanes at this intersection. At the very least, there needs to be one for northbound Baldwin traffic turning onto Clarkston.
27. How about some right hand turn lanes, traffic backs up a ton, turn lane would help this problem.
28. It's time to pave Scripps. With the high school being cross-town for so many residents, the amount of traffic on Waldon and Clarkston is more than either is intended to bare. Paving Scripps provides a much needed alternative route to both Clarkston for the north enders and Waldon for the South enders. This would surely help the buses as well.
29. Dirt road is always in terrible condition, never graded and damages cars.
30. Please drop the plan to add roundabouts to Baldwin road. Bias the existing lights more during rush hour (4-7pm, M-F) to favor n/b & s/b traffic on Baldwin rd, especially at Gregory and Maybee.
31. How about some right hand turn lanes, traffic backs up a ton, turn lane would help this problem.
32. Before there's a lot of building there has to be something done to keep the traffic was becoming more congested in the twp. This applies to not only Baldwin, but joslyn & lapeer rd.Twp leaders didn't stop & think before all the previous building &

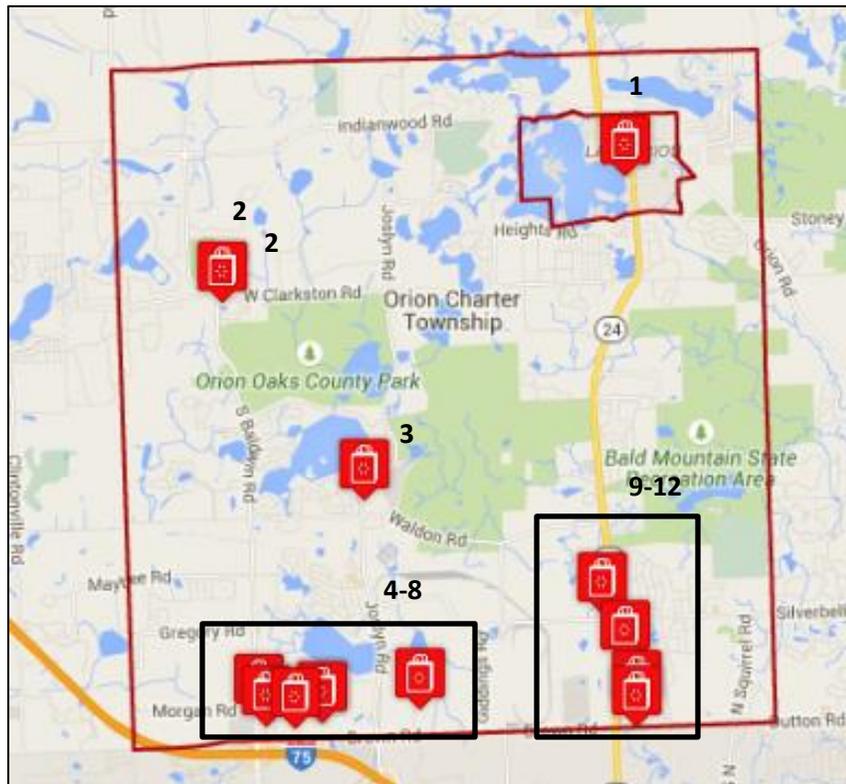
now the roads are congested. And now it seems it too late to widen Baldwin. There's so much traffic it can't be closed down for a long time. There was talk about roundabouts on Baldwin but that would mean closing Baldwin down & making Joslyn more congested. The twp. need to work with the road commission before anymore building.

33. I am very concerned that when the area of Baldwin south of Maybee and Gregory is developed this will cause gridlock on Baldwin for people exiting and entering businesses. This area will need to be double lane with controlled entrances. An example of how dangerous and difficult it is on Baldwin is trying to exit Great Lakes Athletic Club during busy times. The hills in this area will make it difficult to keep traffic flowing smoothly.
34. Extend safety paths from GLAC all the way to Baldwin Commons.
35. Something really needs to be done to stop the speeders flying on Flintridge & to also do something about cars parking on the road on Flintridge. On Oct 12 a mini van that had 2 little girls had to be going over the speed limit slammed into a park car on Flintridge totaling both cars. My suggestion for the OCRC is to low the speed limit on Maybee Rd. People keep on going 45 mph on Flintridge. There needs to be either no parking on the road or the road commission needs to come out & redo the curving. Ever since the road was torn up & redone people can't park their cars in the ditch, the curving is do high & they park on the road which can cause an accident like what happen.
36. Another bad accident May 7. people speeding down the road. Just because it 45 on Maybee rd they think they can fly down Flintridge.
37. How about doing something about all the traffic coming thru her from Independence Twp. Those people coming flying thru doing more than 25 mph. residents have a hard time getting out of their driveways. I call Flintridge & Maybe Rd the unofficial I-75 by pass. There has always been a rumor that there could be a official bypass. heck whenever there's an accident on I-75 the detour route is going thru Judah lake Sub. there been those buses from Flint going to GLC that go thru the neighborhood.
38. Something needs to be done at this intersection during Carpenter school's drop-off and pick-up times. The back up of cars on Flintridge (both sides) and Joslyn is very dangerous. And then cars come flying through there narrowly missing hitting cars waiting to get in the parking lot. Maybe even just re-timing the traffic light during drop-off and pick-up.
39. Bias the existing traffic lights more during rush hour (4-7pm, M-F) to favor n/b & s/b traffic on Joslyn, especially at Flintridge. It makes no sense to stop heavy Joslyn traffic so often during rush hour for just a couple cars on Flintridge.
40. How about some right hand turn lanes, traffic backs up a ton, turn lane would help this problem.
41. Waldon Road between Baldwin and Lapeer is very torn up from last winter, I'm sure this winter will cause more damage.

42. Waldon Road between Baldwin and 24 needs fixed. Very large potholes and uneven surfaces.
43. Waldon Road is in serious need of major work, please work with the County to place this road on a high priority for complete replacement including fixing the base structure to prevent future problems.
44. Please fix Waldon Road! Full of large potholes. This road is in desperate need of being redone. Will only get worse after this winter.
45. Waldon road between Baldwin and Lapeer should be the highest priority road work that occurs in Orion Township.
46. Waldon Road gets a lot of use - needs improvement.
47. Road needs a lot of work. Bumpier than some of the dirt roads.
48. Open this road back up. There is a real issue if/when an emergency happens on Kinmount or Hopefield and the train is on the tracks. There is no way out. I would think that closing off access would be a liability issue for both the township and OCRC. I hope it never comes to that.
49. This intersection, more so than Dutton and Silverbell is constantly backed up in every direction. This leads us all to believe that the timing just isn't right. I think the trucks to BOC back everyone up and there aren't enough lanes to accommodate the flow. Enough people continue West on Silverbell to require a straight lane versus and turn-right lane. Same can be said for north bound traffic...enough people turn right onto east bound Silverbell to require a right turn only lane and a northbound lane.
50. There is a water drainage problem at this intersection, especially after heavy rainfall.
51. There are "Clear Vision Areas" at the corner of Lapeer & Silverbell. I sincerely hope the developments planned here will not eliminate the Clear Vision Areas and the safety feature they provide at this intersection...
52. Add overpass at M-24 / silverbell road intersection to ease rush hour traffic
53. Morgan Hill is becoming a dangerous road to drive and walk on. People use it as a cut through to avoid waiting at the stop light when traveling S on M24 and turning E (left) onto Silverbell. Also the stop sign at Hi Hill & Morgan Hill is also being run by the cars cutting through. I have witnessed MANY near misses because of this traffic. Is there a way to prevent traffic from "cutting" through this street. I do not live on Morgan Hill but am concerned.
54. Traffic signal with a left turn arrow needed at Waldon & M-24.

55. Connect safety path between Greenshield Rd and entrance to apartments on North-bound side of m-24. Very hazzardous for bike riders and runners.
56. Pave Kern Rd, if Pulte wants build make them pay to pave.
57. I drive Kern road from end to end daily. There is no way Kern, in it's present condition, can handle a new densely populated subdivision. There are actually a few days a year when the flat area of Kern is completely impassable due to mud. The entire road would have to be paved/improved as well as Greenshield and Clarkston roads. If there is going to be talk of a new subdivision, how about we create the supporting infrastructure before we build the houses.
58. There needs to be a light on Silverbell at Kern. There are several accidents at this intersection each year. The children at the school on the corner have petitioned for one as well. The traffic in the evening is very hard to manage and in the morning, it is downright dangerous. If there is ever going to be any more development off of Kern, this must be dealt with, it's hard enough with the smaller amount of traffic that is currently running through it, I can't even begin to imagine what a large subdivision would do to this intersection as well as all the supporting roads.
59. With the level of development planned for the Kern Road area, it seems appropriate to post a speed limit on the road at least between Silver Bell and Gunn Rd. A speed limit of 25 MPH seems appropriate for the safety of the children in the area.
60. Just one of many areas that need a bike path for safety's sake. It would be nice to connect as much of Lake Orion as possible to the bike path system.
61. There is a need for a pedestrian crossing on the corner of Silverbell and Squirrel rd to get to the Jessie Park from neighboring subdivisions. It's very dangerous to cross the street if you want to go to the park. Also, sidewalk from Lapeer to Kroger Plaza on Adams would be important for the safety of walkers and bikers as Silverbell rd. is a very fast, too fast, road. Speed limit of 25-30 MPH would be greatly appreciated!

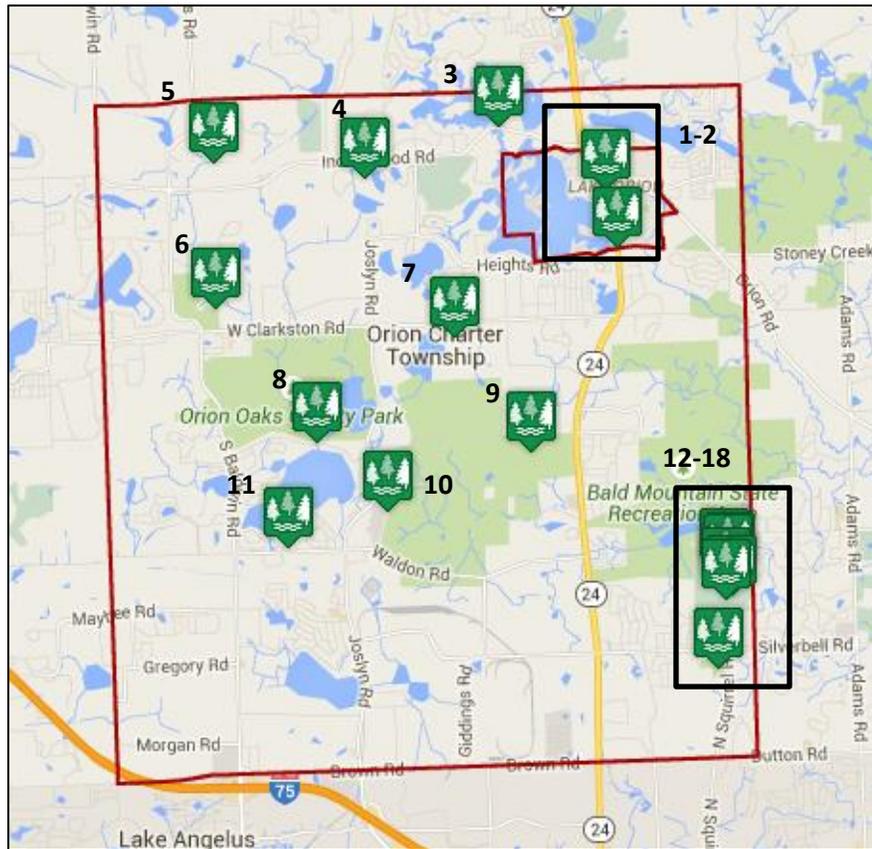
SHOPPING/ENTERTAINMENT/RETAIL SERVICES AND GROWTH



1. Would love to see better access to our Lake between the Village and the East side of the lake. Large park, good crosswalks connecting Village and lake, slips for boats to tie up and visit the Village shops and restaurants, etc. Make the Lake part of the entire community.
2. Would love to see a Planet Fitness type of establishment here. Would serve the community extremely well!
3. Would love for LO to have a community center with kids pool & splash pad like so many other communities have! An aquatic center like Troy has.
4. Taco Bell should be able to open up as early as they want. It isn't fair to limit the business because your roads are too busy.
5. This is the only undeveloped corner of I-75 & Baldwin. Stop piecing it out and put something big in there! Themed hotels (Great Wolf, Kalahari, etc.), themed restaurants (Margaritaville, Hard Rock, Cheesecake Factory), multi-sports complex, etc. With GLC and the new aquarium going in why not profit off of all of the people who are coming from Ohio and Canada to spend their money?!? Stop piecing it out and put something in there that will be an equal if not greater draw to the area! Let's add some class to it as well. Enough banks & fast food restaurants.

6. Perfect spot for an upscale grocery. Want to attract upscale spending and high potential people to your community? It is so sad that most of the nice retail development has skipped Orion (across the street to Auburn Hills).
7. I would like to see a sports complex development in this area with an ice rink.
8. Perfect spot for a large recreational complex or big box or cluster of a cute retail community. The terrain is much more conducive to this type of retail than what you are proposing for the other side of Brown Rd. I would spend my efforts working with the residents of Jamm Rd. to sell their properties instead. UNLESS you have figured out that those residents pay their school taxes to Pontiac Schools... maybe that's why it isn't being addressed.
9. How is it that Culvers gets away with all the signage, unpaved parking lot and the basic lack of concern on how that corner looks. It reminds me of the condition of the business on the westside of M-24 just south of Clarkston road. Despicable
10. We need more commercial businesses in this area (on Dutton btwn Lapeer and Squirrel). A gym, full service restaurants, a brewery or wine bar, starbucks, a high end liquor store and other shopping like a home goods or boutique stores.
11. The sign for this Italian Restaurant is very bright. Is there anything in the sign ordinance about brightness levels of roadside signs?
12. Would be nice to see a full service athletic club here, like a Lifetime Fitness, or LA Fitness

NATURAL FEATURES AND ENVIRONMENTAL QUALITY

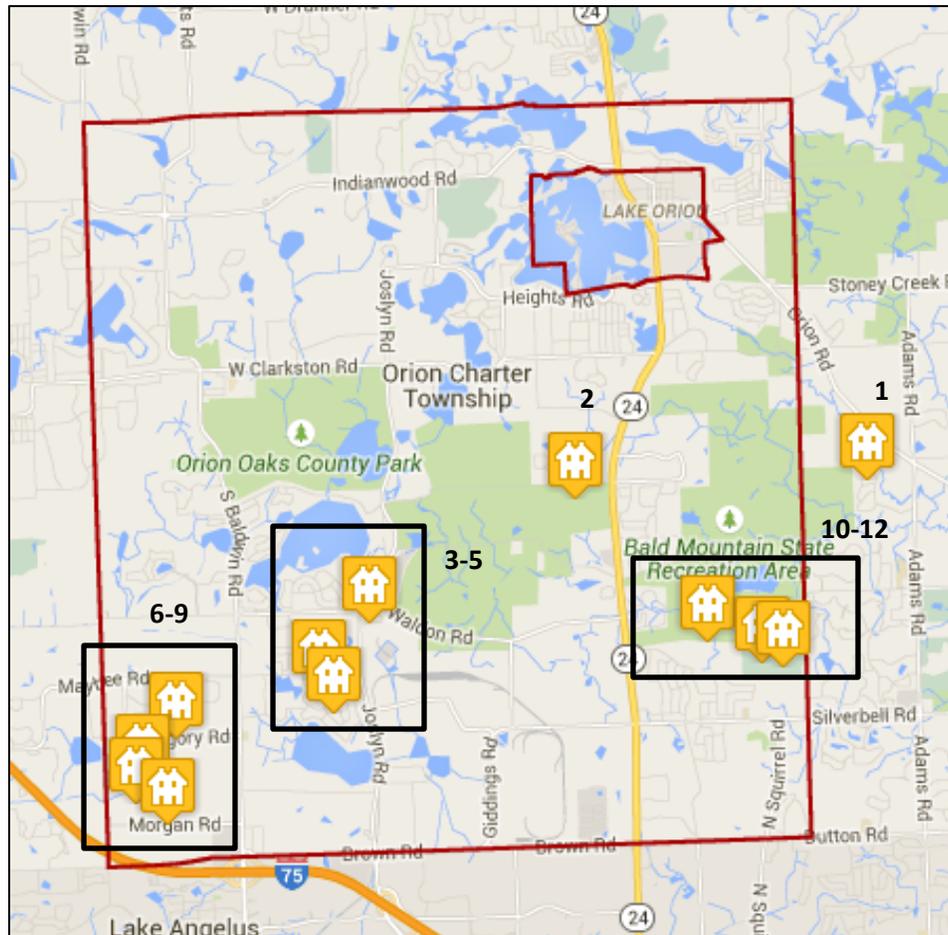


1. Walkway for safety along the lake would be great.
2. 24 hour park access .there is no reason for this place to be gated up like fort knox .5 million people have access to central park in new york and there not drowning.
3. Continue Safety path from Joslyn Rd east along Indianwood to Lapeer Rd.
4. Consider showing that Indianwood CC includes the New Course to the West of Joslyn and South of Indianwood Road
5. Orion Township should maintain it's rural character and limit residential and commercial development, by limiting commerical development to certain limited zones within the township, and maintaining very-low-density residential zones throughout the township.
6. Do something, anything to improve the park itself. There is nothing appealing about it (looks wise). It is a big open field of fields. There are no nice parks in Orion Twp. like the one in downtown Rochester. Preserve some of the woodland areas and make a nice, enjoyable park that people can go to... not just for a baseball/soccer game. (although bball and soccer fields are needed).

7. The former scout camp is a gem and should be kept natural. Needs a path to get it to easily by bike or walking. Would be great if the structures stay and are used.
8. The extent of Phragmites in this area is of great concern. Only a few years ago, one could kayak from Lake Sixteen to Lake Voorheis through this channel. The connection is in jeopardy of being removed forever, affecting lake levels.
9. There is a large housing complex in development right here, but it looks like it is in Bald Mountain Park. How can that be?
10. Continue supporting our trail systems with links to other townships.
11. Trim trees/bushes off sidewalk/walking path.
12. Jesse Decker Park needs more play structure options and other amenities.
13. Our Master Plan clearing has this property zoned Rec-2 currently and for future land use. Our township has not "planned" for this property or area of the township to be developed - certainly not with 360 houses on it and the stress they'd put on the current infrastructure and roads, etc. The surrounding neighborhoods weren't zoned Recreational prior to their development and therefore, shouldn't be used to compare "apples to apples". Shouldn't zoned recreational land be held to a higher standard? Just because there are several neighborhoods around this property that were once undeveloped pieces of property doesn't mean there should be another.... And again, those neighborhoods were zoned residential already, this land is zoned RECREATIONAL. Huge Difference!
14. This parcel of land needs to remain recreational... golf course or not, there are interested buyers, from the DNR to the 6 rivers conservancy, the owners need to understand that yes they have a right to sell their land, but that it is and must remain subject to the zoning and ordinance that are in effect. Just as I cannot tear down my home to build a car wash, a golf course cannot become a high density subdivision overnight... the infrastructure in this area cannot support it. I do not believe that potential recreational buyers have been explored and I believe that with this publicity that a recreational buyer can be found for a fair market value. Deny this proposal and allow the land to be considered by other potential buyers... if need be offer the owners a tax break for several years to stop the complaining and protect the green space... a buyer can be found to act in the best interest of the township... if not the township itself. There are many options but allowing Pulte to continue to steamroller the township representatives with the threat of litigation, now over Recreational Land, must stop... corporate bullying of small town america destroying our future planning and creating urban sprawl, traffic gridlock, and irreversible environmental damage... The Clinton River watershed is highly sensitive and a temperature change of just a few degrees could prove catastrophic for the entire downstream... Trout Creek, to Paint Creek, to Clinton River... northern Oakland County and Orion Township specifically are highly impactful to this watershed... and the elimination of 236 acres of green space which drains directly into this watershed could cost the township Billions in environmental fines if not protected... the risks are to great... to our infrastructure, to our community, to our way of life, to our environment, and to our township financially... do not approve this proposal

15. I moved my family and my business close to this area because of all the "green" area. If the Pulte development goes in, there is a very good chance that we may move back to Oxford where there is much less development.
16. Please keep the green areas of Orion Township. The beauty of the area is what drew us here to live and raise our family.
17. Keep the area around Bald Mountain friendly to plants, animals, and people. Housing development would hurt this. Recreation use only.
18. Please keep this area zoned recreational. The goal of Orion Township should be to preserve the open space. Keep the beauty and open space that people have moved and visited Lake Orion for.

RESIDENTIAL GROWTH AND HOUSING TYPES



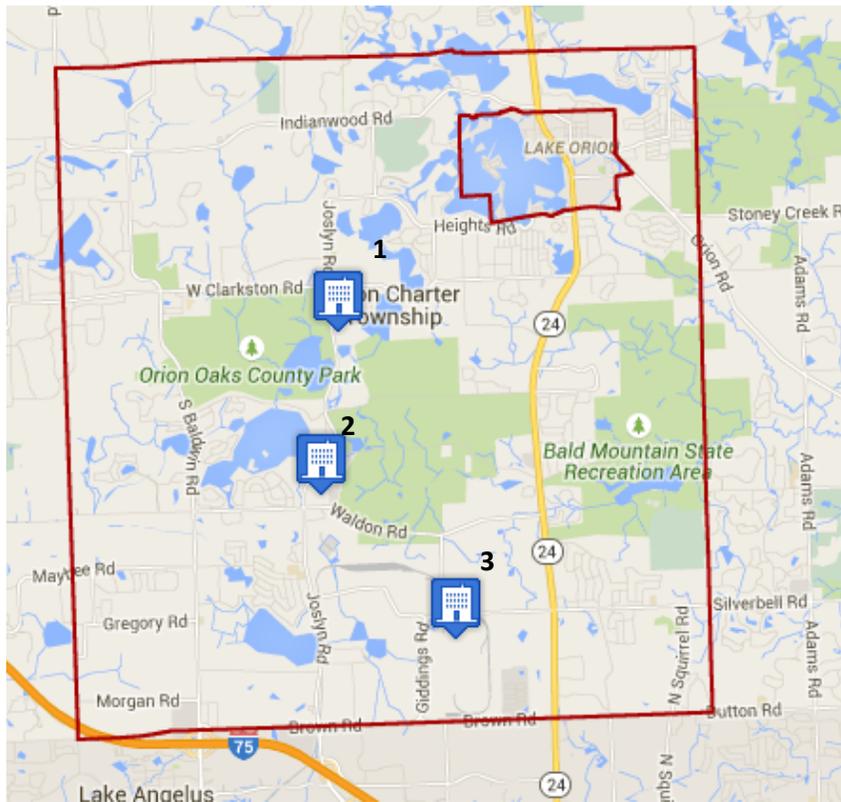
1. Do new really need 171 new apartments on Lapeer Road just North of Silverbell? I don't think so!! The traffic is already a mess. And what about property values of the subdivisions in that area?!
2. Stop the madness! The land swap concept stunk from the beginning however, if you are going to allow it and allow a million homes to be built in a tiny area, why not make them affordable to young families. Building 2500-3000 sf houses all over Lake Orion in clumps is ridiculous. The township has given blanket approval to large developers to turn our community into disjointed, cookie cutter homes on postage size lots.
3. Look at providing tax incentives for people living in these types of subdivisions with older homes (Judah Lake, Bunny Run) to improve and maintain their property. Would be a strong attraction for bringing new, young families into the community at an affordable price point.

4. Since it seems like a lot of the homes in Judah lake subs are now rentals & the renters seem to wreck the homes (I seem quite a few homes being redone in the inside) why not buy the owners out & make way for apartments & senior housing. Condo's. If it keeps going the way it is so it will be run down .I should note it seems like this renters don't stay long.
5. No more government subsidized high density housing. We have enough (case in point).
6. I would like to see a compromise on this road. If more housing is built, and going to be accessed by Morgan and Gregory, reduce the speed limit to 25. Alternatively, install sidewalks and/or lamp posts. Kids wait for buses on this road, people walk their pets, runners, bikers, etc. Drivers tend to push that limit of 40 as it is.
7. Keep this area zoned for larger suburban lots. We have enough of the Pulte type box housing in other parts of L.O. There needs to be some place to stretch out and enjoy more than a postage sized cleared lot.
8. Update Future Land Use Map regarding large vacant property located on south side of Gregory Road currently in Section 31, zoned SF. I believe this property to be about 80 acres. Rezone to accommodate these new type of cluster detached condominiums (I keep hearing about) requiring no maintenance upkeep to owners. Another alternative rezoning this parcel is to think about putting in a similar housing development as was proposed for the Bald Mountain Golf Course, but on a smaller scale due to less acreage to work with. I think this would be a nice fit to this area of the township and blend in well with the surrounding neighborhood properties.
9. Keep the lot size minimums in place. Don't allow high density residential development.
10. The Prieskorn family has made public that they no longer will be operating their permitted principle use zoned property as a golf course. They desire to sell their property. The township's current 5-year Master Plan (2009) is presently up for review for the next 5 years future land use planning, per state law. This is the proper procedure to follow in making any future zoning change to such a large parcel of land. No different than how other parcels of land have changed their zoning throughout the history of Orion Township for future (past) land development.
11. I think that Pulte's PUD for this property should be approved. Looking at the surrounding development, there is absolutely no way in which this is inconsistent with the master plan; it's the same density as nearby subdivisions such as The Crossings and Silverbell Oaks. Just because it's zoned "recreational" doesn't mean that that's its best current use. I find it ironic that people in surrounding "newer subs" oppose this development when just under two decades ago people had the same complaints about the PUD developments in which they currently live. It's as if everyone is opposed to development, you know, after I build MY house in MY subdivision. After that,

people are completely okay with closing the gates to newcomers and infringing upon perfectly reasonable uses of private property.

12. There is no need for additional development here. This land is recreational, and should remain this way. Lake Orion does not need this with the amount of new housing that is being built in the Township already (Squirrel Rd, and M24) are in process with Pulte currently.

ECONOMIC GROWTH AND OFFICE/RESEARCH/INDUSTRIAL LAND USES



1. See the Orion Center. it's been operating in the RED since its inception. Time to stop spending good money after bad.
2. Need more concerts at Wildwood, four official concerts for a facility of this type is severe underutilization of a beautiful facility.
3. Plenty of room in this area for office or even retail/entertainment. easy to get to and away from parks and homes