

# Onondaga Township Master Plan



2017

ADOPTED JANUARY 12, 2017





## WITH THANKS

This document is an update of the 2008 master plan and is a direct result of the ideas, opinions, and research shared by the many Township residents and other public and private sector stakeholders who volunteered their time and efforts. Their input was invaluable in forming this guide which will help to shape the future of Onondaga Township.

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Special thanks to Matthew J. Schindewolfe, 1956 - 2016, for his leadership and support on this Master Plan.

With Assistance Provided By:









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# CHAPTER 1

## INTRODUCTION







## INTRODUCTION

The 2016 Onondaga Township Master Plan was developed through a transparent process with direct input from community leaders, stakeholders, and residents committed to creating a stable future for the community. This document is an update of the 2008 Onondaga Township Master Plan. As an update, it builds upon the findings and concepts put forth in the 2008 plan, with revised demographic information and fresh input from local residents and interested stakeholders. As with the previous plan, the 2016 Master Plan highlights the relationship between transportation, land use, economic development, agriculture, the natural environment, and open space preservation, and sets forth suggestions for goals and objectives for the community.

The vision outlined in this Master Plan takes into account the wishes and desires of Township residents. No two communities are alike, and while there are certainly general recommendations that work for many situations, it is important that a Master Plan be tailored to meet the needs of the community. Interviews with Township officials and review of survey results and resident commentary make us confident that the recommendations proposed here are ones that will best meet the ongoing needs of Onondaga Township.

It is also important to remember that the Master Plan is a reference tool to guide future decision making processes. It is intended to be a dynamic, flexible document with general recommendations to help the Township leadership provide well informed decisions regarding transportation, economic development, capital expenditures, and land use. Technical planning strategies, policies, and support needed to implement this vision are included as addendums to the Master Plan.



*Image 1: Crain Road Lake. Image Source: Flickr.com/Diana*





## CHAPTER 2

# BACKGROUND STUDIES





Image 2: Onondaga Hotel circa 1911. Image Source: <http://genealogytrails.com/>



Image 3: Onondaga Township Barn. Image Source: Flickr, Mario Q

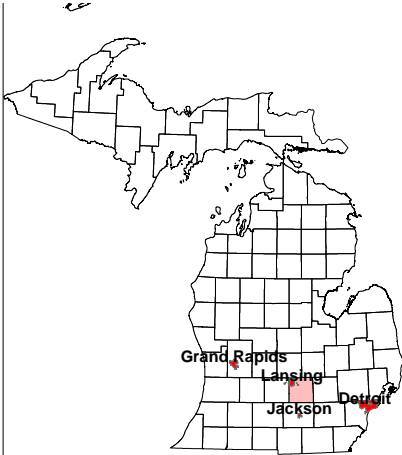






# ONONDAGA PROFILE

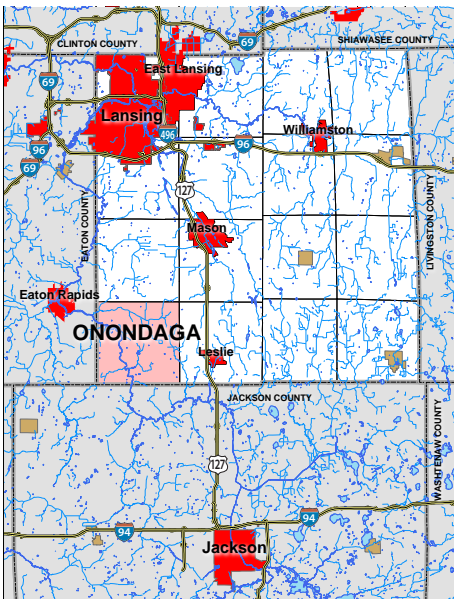
## LOCATION & REGIONAL CONTEXT



Map 1. – Ingham County, Michigan

Onondaga Township is located in the southwestern corner of Ingham County and is bordered to the north and east by Aurelius, Vevay, and Leslie Townships in Ingham County; to the south by Springport, Tompkins, and Rives Townships in Jackson County; and to the west by Eaton Rapids and Hamlin Townships in Eaton County. The Township is located approximately twenty-four (24) miles south of Lansing and approximately eighteen (18) miles north of Jackson. Maps 1 and 2 illustrate the location of the Onondaga Township within Michigan and Ingham County.

Onondaga Township's proximity to two significant population centers makes it a natural bedroom community. Residents can reach Lansing and Jackson in less than half an hour via US-127. Smaller population centers such as Eaton Rapids, Mason, Leslie, and Springport are easily accessible by County roads.



Map 2 – Onondaga Township, Michigan

## HISTORY OF ONONDAGA

As early as 10,000 BC, Paleo-Indian peoples were believed to inhabit the area. By the time the French explored Michigan around 1620, copper-based cultures had been in place for over five thousand years. The primary peoples populating the region were Algonquian-speaking tribes; the Potawatomi tribe territory covered much of lower Michigan, while the Fox and Kickapoo territories bordered the territory and often overlapped it.

The first recorded land purchase by European settlers in Onondaga Township was by Oliver Booth on May 26, 1834, three years before Michigan was officially recognized as a state. The early settlers, many of whom were associates of Mr. Booth, came primarily from New York and Massachusetts. According to Pioneer History of Ingham County, Onondaga Township was split off from Aurelius and organized into a separate township in on March 6, 1836. The Township was dubbed Onondaga by, "...Orrin Phelps, who thought it one of the good old Indian names that are written on our waters and rooted in our soil."

## POPULATION CHARACTERISTICS

Based on data from the U.S. Census Bureau, as of 2010, Onondaga has a population of 3,158. As shown in Table 1, this represents a 7% increase from the population reported in 2000.

While Onondaga Township's growth rate slowed considerably from the previous Census (21% in 1990-2000), the current growth rate is comparable or better than her neighboring townships. As shown in Table 2., only Eaton Rapids and Hamlin Townships had higher percentage growth rates. Ingham County and the state as a whole experienced declines or significantly slower growth. The "Great Recession" of 2007 to 2009 directly influenced the decline, with Michigan among the hardest hit states in the country.

The Township's density also increased during this time period, from 81.0 to 87.4 persons per square mile. This increase in density can be partially attributed to a recalculation of the Township's area; the official area decreased from 36.52 to 36.11 square miles.

**TABLE 1: ONONDAGA TOWNSHIP ANNUAL GROWTH, 1990 - 2010**

	1990	2000	2010	% CHANGE 2000 - 2010
	2,444	2,958	3,158	7%

Source: U.S. Census 2010

**TABLE 2: REGIONAL ANNUAL GROWTH**

	1990	2000	% CHANGE 1990-2000	2010	% CHANGE 2000 - 2010
Onondaga	2,444	2,958	21.0%	3,158	6.8%
Aurelius	2,686	3,318	23.5%	3,525	6.2%
Vevay	3,668	3,614	-1.5%	3,537	-2.1%
Leslie	2,436	2,327	-4.5%	2,389	2.7%
Springport	2,090	2,182	4.4%	2,159	-1.1%
Tompkins	2,321	2,758	18.8%	2,671	-3.2%
Rives	4,026	4,725	17.4%	4,683	-0.9%
Eaton Rapids	3,003	3,821	27.2%	4,113	7.6%
Hamlin	2,351	2,953	25.6%	3,343	13.2%
Ingham County	281,912	280,895	-0.4%	284,582	1.3%
Michigan	9,295,297	9,883,640	6.3%	9,909,877	0.3%

Source: U.S. Census 2010





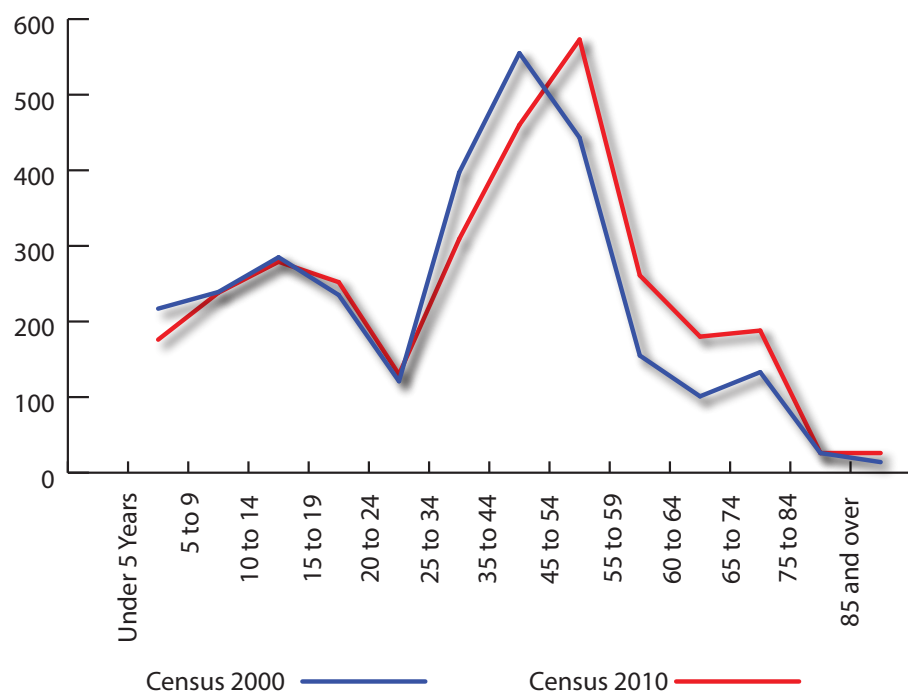
Projecting future growth depends on a variety of factors that can change dramatically in a very short period of time. The previous Master Plan discussed a variety of techniques which can be used to estimate growth based on existing and historical trends. The *current trend* approach assumes a growth rate similar to that experienced between 2000 and 2010 (6.8% for a projected population of 3,373 in 2020). The *historical rate* looks further back, taking an average of the growth rates between 1930 and 2010 (14.6% for a projected population of 3,620). The *ratio trend* bases its assumptions on the Township maintaining its current population ratio against that of Ingham County, using the DTMB projected population levels for 2020. The DTMB projects that the County's population will stay flat, meaning Onondaga Township's population should stay the same as well. An average of these approaches suggests a population around 3,384 by 2020.

**TABLE 3: AGE CHARACTERISTICS, 2013**

AGE	ONONDAGA TOWNSHIP		INGHAM COUNTY		STATE OF MICHIGAN	
< 20 years	945	30%	75391	27%	2,598,993	26%
20 - 44 years	899	28%	108652	39%	3,113,742	31%
45 - 64 years	1014	32%	66976	24%	2,768,127	28%
65 or greater	300	9%	30512	11%	1,405,233	14%
Median age	39.8		39.1		31.4	

Source: United States Census, 2009-2013 American Community Survey

**FIGURE 1: ONONDAGA TOWNSHIP AGE DISTRIBUTION**



Source: U.S. Census 2000 & 2010



Onondaga Township became more homogenous between 2000 and 2010, with the white population increasing from 95.4 to 96.8%. Not only does this reflect a less diverse population than the County and the State, but reverses the national trend towards increasing diversity. The Township's population is trending older; the median age increased from 34.7 to 39.8 years, mirroring Ingham County but does not reflecting the State, which showed a median age decrease from 35.5 to 31.4 years. Since 2000, there has been virtually no change in the population under age 25, and the 25 to 44 range has actually decreased. All of the groups 45 and older, however, have increased. This shift is significant; older populations require different facilities, amenities, and programs than younger age groups.

**TABLE 4: RACE, 2013**

RACE	ONONDAGA TOWNSHIP	INGHAM COUNTY	STATE OF MICHIGAN
White	96.8	76.5	79.3
Black/African American	0.6	11.0	14.0
American Indian, Alaska Native	0.5	0.4	0.6
Asian	0.0	5.3	2.5
Native Hawaiian / Pacific Islander	0.0	0.0	0.0
Other race	0.4	1.8	1.1
Two or more races	1.7	5.0	2.5

*Source: United States Census, 2009-2013 American Community Survey*





## HOUSING CHARACTERISTICS

The 2010 Census reported 1,175 households within Onondaga Township, representing a 5.3 percent increase from the numbers reported in 2000. In 2010, the Township's average household size was reported at 2.77, a 4.8% drop from 2000. Tables 5 through 8 depict Household Demographic information for Onondaga Township.

Approximately 207 households (19.1%) within Onondaga have at least one senior citizen (age 65 and up). 381 households, or approximately 35% of households, have children. The percentage of married-couple homes decreased slightly from 68.4% to 64%; despite the drop, this rate is still significantly higher than the rates reported in the County and State.

**TABLE 5: HOUSEHOLD DEMOGRAPHIC INFORMATION**

	2000	2010	% CHANGE
Number of households	1,031	1,086	5.3%
Average household size	2.91	2.77	-4.8%

Source: U.S. Census 2000 & 2010

**TABLE 6: ONONDAGA TOWNSHIP POPULATION GROWTH**

HOUSEHOLD TYPES	CENSUS 2000	CENSUS 2010	% CHANGE
With Seniors 65+	150	207	38.0%
Without Seniors	881	879	-1.0%
With Children	458	381	-16.8%
Without Children	573	705	23.0%
Total Households	1,031	1,086	5.3%

Source: U.S. Census 2000 & 2010

**TABLE 7: HOUSEHOLD TYPE, 2013**

HOUSEHOLD TYPE	ONONDAGA TOWNSHIP	INGHAM COUNTY	STATE OF MICHIGAN
Married-couple family	64.0%	40.8%	48.5%
Other family:	14.7%	16.1%	17.4%
Male householder	(5.9%)	(4.1%)	(4.4%)
Female householder	(8.8%)	(12.0%)	(12.8%)
Non-family household	21.3%	43.1	34.3%

Source: United States Census, 2009-2013 American Community Survey

### Housing Tenure

Owner-occupied units represented a majority (88.5%) of total housing units in 2010. Renter-occupied units comprised 11.5% of total units in 2010, while seasonally vacant and other vacant homes comprised 17% of total units. Approximately half of the vacant units are due to seasonal trends.

### New Residential Development

One hundred sixteen (116) new single-family residential homes were granted building permits between 2000 and 2013. No building permits were granted for two-family or multi-family units during this time. The majority of permits were issued prior to 2005; from 2005 through 2013, an average of four permits were issued per year.

### Housing Value

The median home value in Onondaga Village is approximately \$139,700 and the median gross rent is approximately \$775/month per rental unit per month. In comparison, the median home value in Ingham County is slightly lower at \$120,500, while median gross rent is identical at \$775/month.

TABLE 8: HOUSING SUMMARY

DWELLING	ONONDAGA TOWNSHIP		INGHAM COUNTY		STATE OF MICHIGAN	
YEAR BUILT (%)	Units	%	Units	%	Units	%
since 1990	462	38.5%	22,055	18.2%	1,052,087	23.2%
1950 to 1990	497	41.5%	70,247	57.9%	2,408,752	53.2%
Pre 1950	240	20.0%	29,015	23.9%	1,068,472	23.6%
Total	1,199		121,317		4,529,311	
Vacant	86		12,494		706,031	
Median House Age	44.3 years		52.6 years		51.2 years	
Median Value	\$139,700		\$120,500		\$121,700	
Median Rent	\$775		\$775		\$768	

Source: U.S. Census 2000 & 2010





## SOCIO-ECONOMIC CHARACTERISTICS

According to the American Community Survey 5-year estimates, almost a third (31%) of Onondaga Township's employed population (age 16 and over) works within the management, business, science, and arts occupations. Roughly a quarter (26%) of the population works within the production, transportation, and material moving occupations. Table 9 depicts employment numbers by occupation.

Per the 2013 American Community Survey, the median family income for Onondaga Township is \$61,636. 19.4% of all families and 24% of all persons in the Township fall below the poverty line.

**TABLE 9: OCCUPATION FOR EMPLOYED CIVILIAN POPULATION, 2009 - 2013**

OCCUPATION	EMPLOYED	% OF TOTAL EMPLOYED
<b>MANAGEMENT, BUSINESS, AND FINANCIAL OCCUPATIONS</b>		
Management, business, and financial operations	180	13%
Computer, engineering, and science occupations	64	5%
Education, legal, community service, arts, and media occupations	108	8%
Healthcare practitioner and technical occupations	60	4%
<b>SERVICE OCCUPATIONS</b>		
Healthcare support occupations	20	1%
Protective service occupations	23	2%
Food preparation and serving related occupations	79	6%
Building and grounds cleaning & maintenance	73	5%
Personal care and service occupations	79	6%
<b>SALES AND OFFICE OCCUPATIONS</b>		
Sales and related occupations	56	4%
Office and administrative support occupations	163	12%
<b>NATURAL RESOURCES, CONSTRUCTION, AND MAINTENANCE OCCUPATIONS</b>		
Farming, fishing, and forestry occupations	15	1%
Construction and extraction occupations	35	3%
<b>PRODUCTION, TRANSPORTATION, AND MATERIAL MOVING OCCUPATIONS</b>		
Installation, maintenance, and repair occupations	36	3%
Production occupations	222	17%
Transportation occupations	89	7%
Material moving occupations	40	3%
<b>TOTAL EMPLOYED</b>	<b>1,342</b>	<b>-</b>

Source: 2009-2013 American Community Survey, 5-year estimates

Ingham County and Michigan as a whole were especially hard hit by the Great Recession of 2009 - 2011, with seasonally adjusted jobless rates exceeding 10% (10.3% and 12.6% respectively) at its peak. The economy has rebounded as of 2015, with State jobless rates identical to national averages (5.1%). Manufacturing (16%) and education (27%) are by far the dominant employment industries in the Township. While agricultural fields make up 70% of the Township's land area, only 3% of the Township's population are employed in that industry. Even so, this is more than double the averages for the County and State.

Township residents enjoy a comparatively high income level in relation to State and County levels. The median household income is 28% higher than Ingham County levels and nearly 8% higher than state averages.

**TABLE 10: INCOME, 2013**

INCOME CHARACTERISTIC	ONONDAGA TOWNSHIP	INGHAM COUNTY	STATE OF MICHIGAN
Median household income	\$52,216	\$40,744	\$48,411
Median family income	\$57,500	\$50,063	\$60,793
Per capita income	\$18,981	\$21,079	\$25,681
Families below poverty level	5.6%	8.3%	12.0%
Persons below poverty level	9.0%	14.6%	16.8%

Source: United States Census, 2009-2013 American Community Survey

**TABLE 11: EDUCATIONAL LEVEL ACHIEVED, 2013**

INCOME CHARACTERISTIC	ONONDAGA TOWNSHIP	INGHAM COUNTY	STATE OF MICHIGAN
Less than 9th grade	1.7%	2.8%	3.4%
9th to 12th, no diploma	5.5%	6.1%	7.7%
High school diploma	36.4%	21.8%	30.4%
Some college, no degree	26.4%	24.3%	24.0%
Associates degree	12.2%	8.5%	8.6%
Bachelor's degree	10.7%	20.3%	15.9%
Graduate/Professional degree	7.1%	16.2%	10.0%
High school graduate or higher	92.9%	91.1%	88.9%
Bachelor's degree or higher	17.9%	36.5%	25.9%

Source: United States Census, 2009-2013 American Community Survey







## COMMUNITY SERVICES

Onondaga Township offers its residents a variety of services including: Township Hall Rental, Inspection services (building, electrical, mechanical, and plumbing), Land Use (including Land division, the Park Advisory Board which oversees the Township's two parks, and the Planning Commission), review board, treasurer, and zoning. All operations are run out of the Township Hall at 4756 Baldwin Road, Onondaga, Michigan, 49264.

The Township also maintains two cemeteries. Onondaga Cemetery is located on Rossman Road, and Lanes Cemetery is located on Bellevue Road west of Hunt Road.

## TOWNSHIP ADMINISTRATION

Onondaga Township is served by a five member Township Board and a nine person planning committee. Three of the appointed and elected staff serve dual roles in the Township, serving on multiple boards.

The Township operates the Onondaga Township Fire Department. Police service is provided by the Ingham County Sheriff's Department. Five different school districts (Eaton Rapids, Leslie, Mason, Northwest, and Springport) serve the Township, although no school facilities are located within its borders.



Image 4: Farm near Onondaga. Image Source: [www.flickr.com](http://www.flickr.com) Diana

## STATE AND FEDERAL FACILITIES

The Michigan Department of Natural Resources (DNR) operates the 131 acre Grand River Gale Road State Game Area west of Stimson Road. The site has been dedicated for wildlife conservation and management. The facility allows hunting and hiking and includes a drop-in boat launch.

The VFW National Home for Children, a non-profit corporation offering housing, education, daycare, recreation, and more to military families, is located within the Township's borders. The home is open to families of active-duty military, veterans, and descendants of members of the VFW and its Auxiliary.

## SEWAGE DISPOSAL AND POTABLE WATER

The highly rural character of Onondaga Township means that residents have very limited access to utilities and other municipal infrastructure. The Township does not offer water or sewer services; sewage disposal is accomplished via septic systems and solid waste is collected by private services.

## EDUCATION

Area students are served by five different school districts: Eaton Rapids, Leslie, Mason, Northwest, and Springport. No school facilities are located within the Township borders.

## PAY TELEVISION AND INTERNET SERVICES

Pay television and internet are offered in limited areas of the Township, although many residents must utilize satellite dish service.



Image 5: Onondaga Post Office. Image Source: [www.flickr.com](http://www.flickr.com) T Z





## EMERGENCY SERVICES

The Ingham County Sheriff's Department provides police protection for the Township on an "on demand" basis. The Township has no special funding for these services.

The Onondaga Township Fire Department operates a six-bay station located in the village of Onondaga. The department maintains a thirty person staff of firefighters and EMTs. Department EMTs are allowed to administer emergency medical aid, but transportation services are contracted out to the Leslie Ambulance Company. The department is funded by the Township's general fund.

## NATURAL GAS AND ELECTRIC SERVICES

Natural gas service is only available in certain areas of Onondaga Township. Private companies such as Avery Oil & Propane and Fogg Oil & Propane offer propane services to area residents.

Consumers Energy and Home Works Tri-County Electric Cooperative provide electrical service to Onondaga Township properties.

## LOCAL AND REGIONAL RECREATION

A five-person Parks Advisory Board oversees management of the Township's two parks. One of the Trustees acts as the Advisory Board's chair; another board member also serves as the Township's park ranger. Onondaga Township maintains two parks and a basketball court. Onondaga Veterans Memorial Park, located in Onondaga village, is a new passive use facility created through private donations. Baldwin Park, just south of the village, includes frontage on the Grand River, a playground area, picnic pavilions, bathroom facilities, and a softball field. The Township plans on improving the park using Township funds and grant money from the state.

Several State Game or Recreation Areas are located within an hour of Onondaga Township. Waterloo and Pinckney State Recreation Areas are large (20,000 and 11,000 acres respectively) recreation areas located approximately 40 miles southeast of the Township. They offer a variety of amenities including trails, campgrounds, playgrounds, fishing, hunting, and more. Portland State Game Area, 44 miles to the northwest, and Maple River State Game Area, 60 miles to the north, are primarily focused on wildlife conservation, although they also allow limited hunting.

The nearby cities of Lansing and Jackson, both within a half hour drive of the Township, offer numerous additional recreation opportunities, including minor league baseball, major college athletics, and numerous museums, theaters, and restaurants.



## NATURAL FEATURES

In the master plan survey, the overwhelming majority of residents stated that the rural character, open space, and natural assets of Onondaga Township are the most important qualities of the region. Features such as rivers, streams, wetlands, forests, and other open spaces not only provide recreational and environmental benefits, but are economic and educational resources as well.

## WATER RESOURCES

Perhaps the most easily recognizable natural feature of the Township is the Grand River, which winds westward from just south of Jackson, passing through Eaton Rapids, Lansing, Grand Rapids, and Grand Haven before emptying into Lake Michigan. The topography near the river is somewhat more varied than the remainder of the Township, although even here grades rarely exceed 10%. Several drains feed the river as it flows through the area. The river can be accessed at various points throughout the Township, most notably at Baldwin Park, forming a significant recreation opportunity for the community.

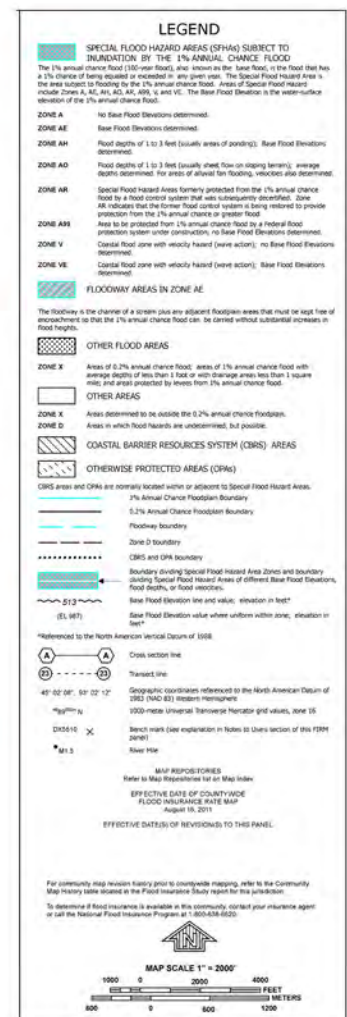
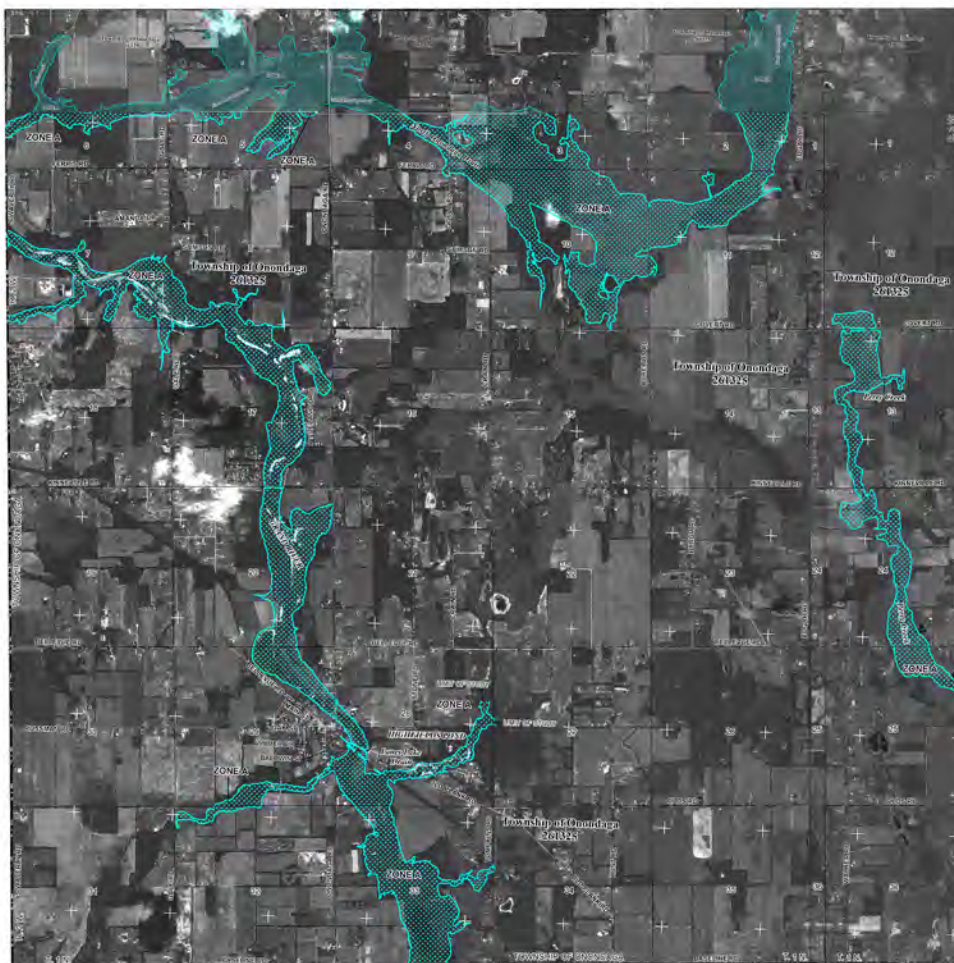
The river and other water features in the area are subject to flood risk. The recently updated flood plain boundaries compiled by FEMA show large sections of the western and northern sections of the Township at risk for periodic flooding. Historically, Onondaga has been spared from major floods, although events in 1947 and 1975 highlight the potential for significant flooding damage. Map 3 shows the current FEMA flood boundaries. Map 5 shows wetland boundaries in the Township in relation to existing land uses.

Preservation of existing wetlands, which act like large sponges and assist in flood control, is critical to minimize the damage potential from future flood events. In addition to their flood mitigation effects, wetlands also help to purify stormwater runoff, recharge groundwater, and provide wildlife habitats. A large wetland corridor currently stretches along the Grand River between Kinneville Road to Waverly Road. Overall, wetlands make up approximately 14% of the Township's surface area.





The wetland/woodland matrix plays a key role in a number of different ecosystem services. Stormwater velocity is reduced by tree leaves; the leaves halt the immediate flow, provide a large surface area for the water to spread, where much of it evaporates before ever reaching the ground. Once on the ground, wetlands and other vegetated surfaces further slow the stormwater, allowing it to infiltrate into the groundwater aquifer system. The water is purified as it percolates downwards. The system provides habitat for all types of animals in the process. These same systems provide recreational opportunities for local residents, from hunting to kayaking to hiking or biking. Direct and indirect economic benefits can be attributed to this matrix as well, from tangible benefits such as the cooling factor provided by evapotranspiration of trees, to indirect benefits such as the mental well being of residents. Ultimately, this matrix helps to preserve the rural character so prized by Township residents.



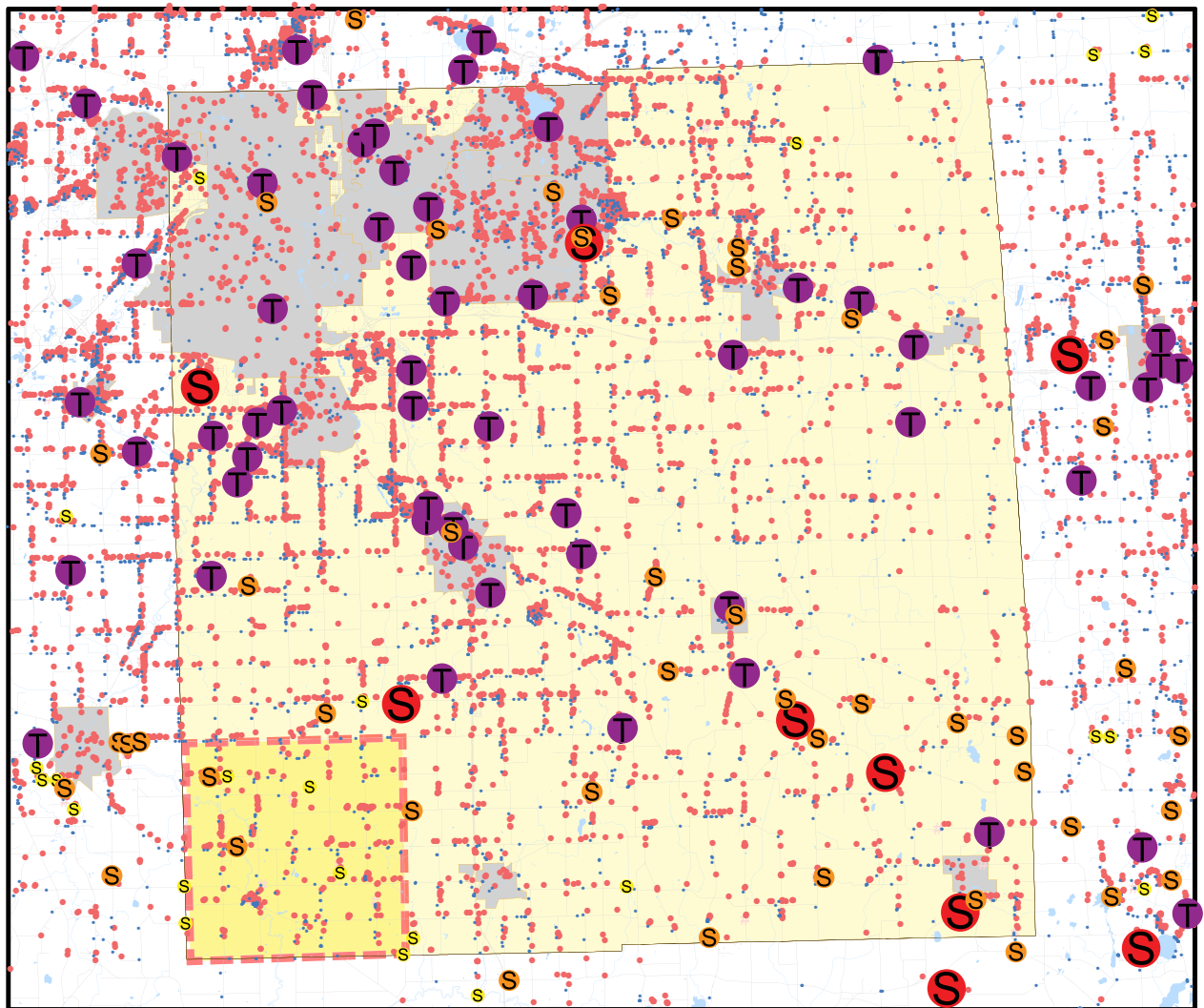
Map 3: FEMA Flood Map Boundaries  
Source: Adapted from FEMA Flood Insurance Rate Maps, August 2011

In general, the Township's water is considered to be of very high quality, although there are some areas of concern. Onondaga's water is drawn from the Saginaw Formation aquifer. The DEQ's WaterChem database, which contains readings from 1983 - 2003, shows nitrate levels exceeding the maximum contaminant level goal (MCLG) at two survey points, one near South Onondaga Road and Ferris Road, and the other near Kinneville Road west of the Grand River. The EPA sets the MCLG for nitrates at 10 ppm, and the readings at these two locations fall within 10 to 20 ppm. Possible sources of these nitrates are runoff from fertilizer, leaking from septic tanks, sewage, or erosion of natural deposits. Excess nitrate levels can cause serious illness or even death in infants under six months.

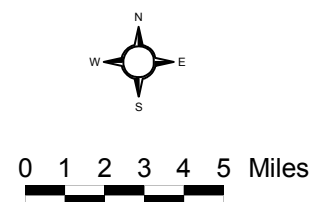
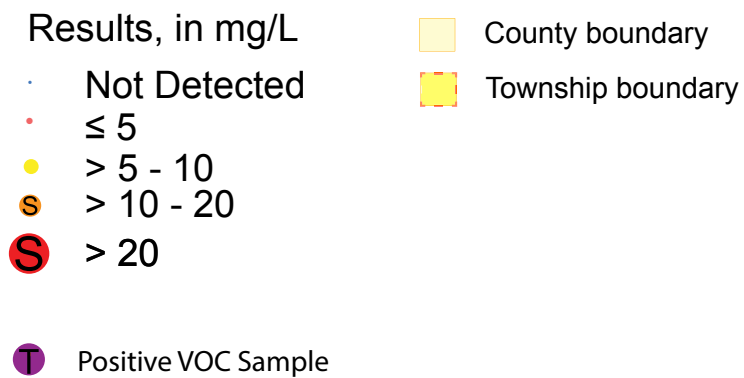




MAP 4: INGHAM COUNTY NITRATE SAMPLES / VOC INCIDENCES



Source: DEQ WaterChem Database, 1983 - 2003 samples



Source: Adapted from DEQ Water Quality Map

## TOPOGRAPHY & SOIL

Like most of Michigan, Onondaga Township's character was formed by the retreat of the glaciers from the region some 11,000 years ago. The combination of scouring by the glaciers and subsequent creation of low inland seas resulted in a generally flat topography with some rolling, rounded hills. Deposits left by streams of glacial melt water range in thickness from relatively shallow 10 feet to over 300 feet deep. Onondaga Township is one of the few locations in the lower peninsula where bedrock is exposed. The composition of the outwash in this area is primarily fine sand, although some coarse sand and gravel deposits can be found. Approximately 3% of area's wells are completed in these glacial deposits, with another 92% in the bedrock.

The soil structure of the area is a mixed blessing. The Natural Resources Conservation Service classifies 97% of the Township as either "prime farmland", "unique farmland", or "additional farmland of local importance." Under proper management, these soils can produce high yields of food, feed, forage, and other crops.

Conversely, the soils in Onondaga Township are severely limiting in terms of establishment of septic tank facilities. Ponding, poor soil filtration, and/or soil wetness contribute to this characterization. These limitations can be overcome via the use of specially engineered systems, although these systems typically mean extra costs for the homeowner.

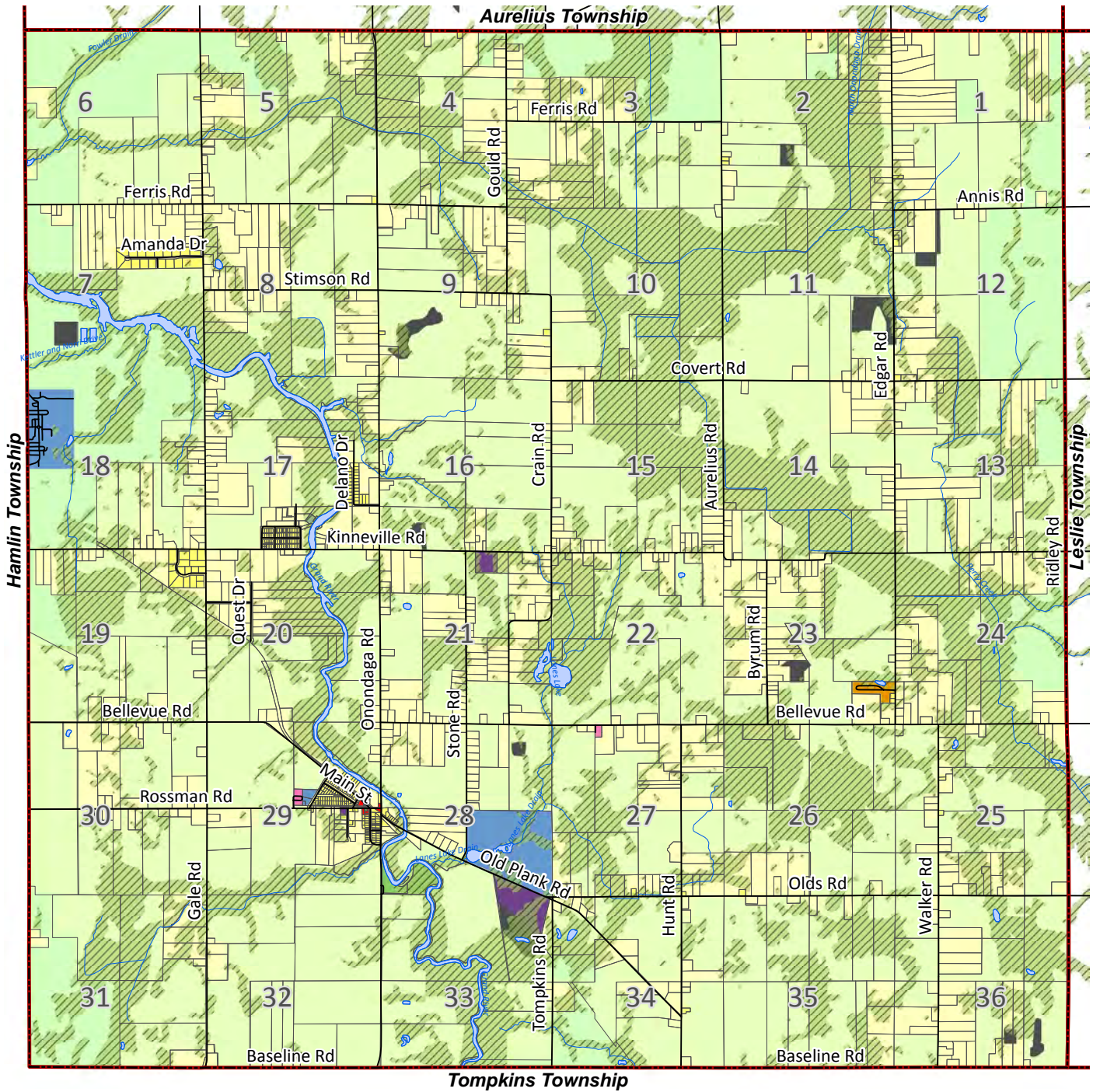
## VEGETATION

Vegetation and open space in Onondaga Township are dominated by agricultural crops. Approximately 64% of the Township area is characterized as agricultural; wetlands, woodlands, and residential development (lawn) accounts for the remainder of vegetative cover. The wetlands in Onondaga Township are predominately (84%) lowland hardwood swamps, with trees such as ash, elm, and red maple. Smaller pockets of shrub, emergent, and aquatic bed wetlands are also present. Upland woodlands account for 1,375 acres, or 6% of the total Township area.





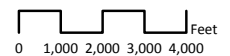
MAP 5: EXISTING LAND USE WITH WETLANDS



- |                   |                  |
|-------------------|------------------|
| Wetlands          | Cemetery         |
| Agricultural      | Park             |
| Rural Residential | Transportation   |
| Single Family     | Extractive       |
| Mobile Home Park  | Light Industrial |
| Commercial        |                  |
| Institutional     |                  |

## EXISTING LAND USE WITH WETLANDS

Onondaga Township, Ingham County



Source: MIGDL Map Data

April 18, 2016

Carlisle/Wortman Associates, Inc.  
Ann Arbor, Michigan



**TABLE 12: ONONDAGA TOWNSHIP SOIL TYPES**

Code	Description	Acres	%
Ad	Adrian muck, 0 to 1 percent slopes	48.1	0.20%
AnA	Aubbeenaubbee-Capac sandy loams, 0 to 3 percent slopes	1,926.50	8.30%
Au	Aurelius muck	2.4	0.00%
BrB	Boyer sandy loam, 0 to 6 percent slopes	0.6	0.00%
BsD	Boyer-Spinks loamy sands, 12 to 18 percent slopes	98.8	0.40%
BsE	Boyer-Spinks loamy sands, 18 to 30 percent slopes	26.3	0.10%
ByA	Brady sandy loam, 0 to 3 percent slopes	698.6	3.00%
CaA	Capac loam, 0 to 3 percent slopes	1,116.90	4.80%
Ce	Ceresco fine sandy loam	159.4	0.70%
Ch	Cohoctah silt loam	490.4	2.10%
Co	Colwood-Brookston loams	586.1	2.50%
Ed	Edwards muck, 0 to 1 percent slopes	107.3	0.50%
EvB	Eleva variant channery sandy loam, 2 to 6 percent slopes	135.8	0.60%
Gf	Gilford sandy loam	485.5	2.10%
Gr	Granby loamy fine sand	44	0.20%
Ha	Histosols and Aquepts, ponded	45.9	0.20%
Hn	Houghton muck, 0 to 1 percent slopes	729.3	3.20%
Ka	Keowns very fine sandy loam	1,391.30	6.00%
KbA	Kibbie loam, 0 to 3 percent slopes	707.3	3.10%
Ln	Lenawee silty clay loam	333.5	1.40%
MaB	Marlette fine sandy loam, 2 to 6 percent slopes	1,250.20	5.40%
MaC	Marlette fine sandy loam, 6 to 12 percent slopes	368.2	1.60%
MeD2	Marlette loam, 12 to 18 percent slopes, eroded	63.5	0.30%
MrA	Matherton sandy loam, 0 to 3 percent slopes	74.8	0.30%
MtB	Metea loamy sand, 2 to 6 percent slopes	90.8	0.40%

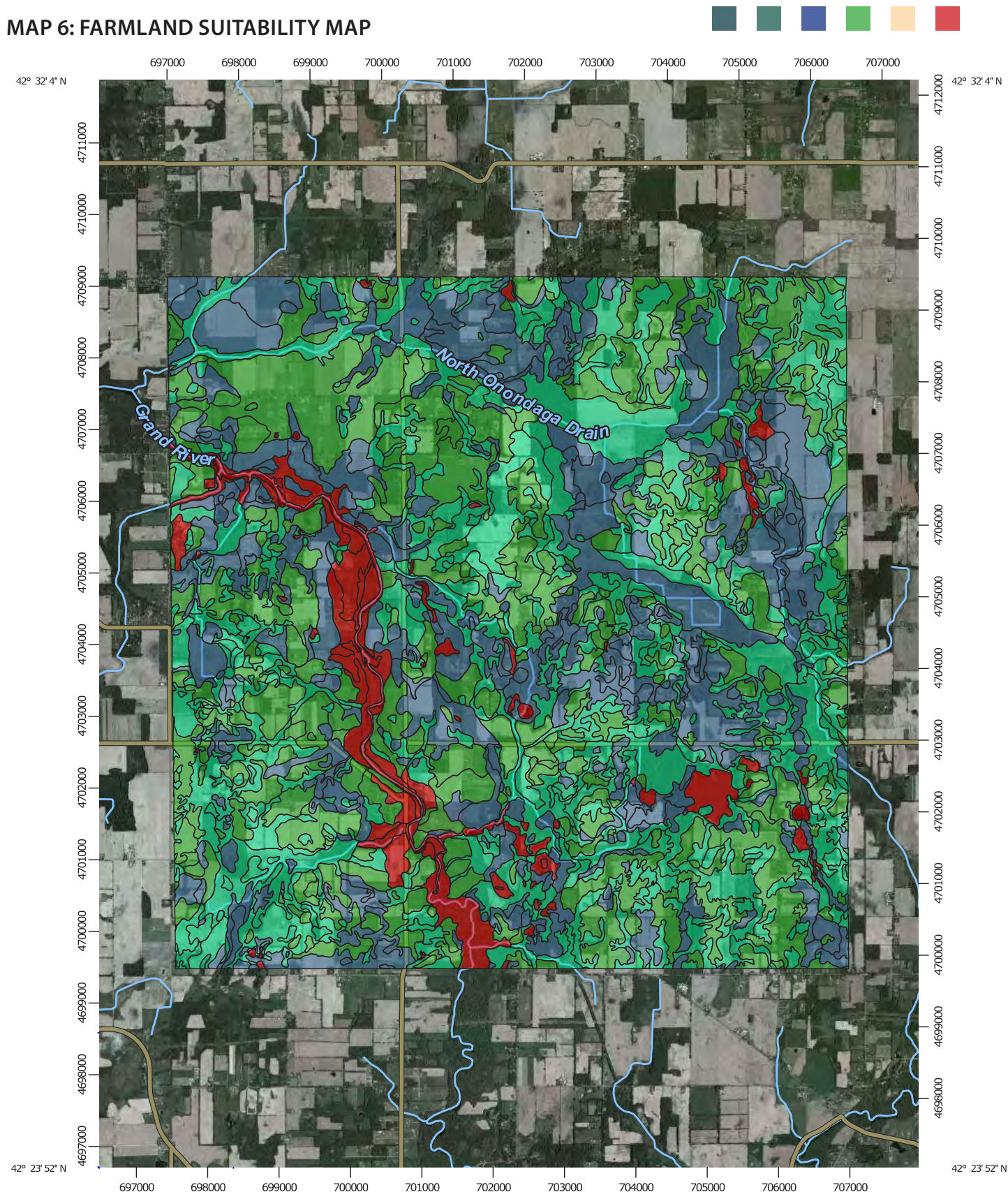
Code	Description	Acres	%
MtC	Metea loamy sand, 6 to 12 percent slopes	26.2	0.10%
Na	Napoleon muck	93.4	0.40%
OsB	Oshtemo sandy loam, 0 to 6 percent slopes	1,525.10	6.60%
OsC	Oshtemo sandy loam, 6 to 12 percent slopes	328.8	1.40%
OtB	Oshtemo-Spinks loamy sands, 0 to 6 percent slopes	1,019.60	4.40%
OtC	Oshtemo-Spinks loamy sands, 6 to 12 percent slopes	220.6	1.00%
OwB	Owosso-Marlette sandy loams, 2 to 6 percent slopes	1,651.10	7.20%
OwC	Owosso-Marlette sandy loams, 6 to 12 percent slopes	348.1	1.50%
Pa	Palms muck	787.8	3.40%
Pt	Pits	25.6	0.10%
RdB	Riddles-Hillsdale sandy loams, 2 to 6 percent slopes	1,807.70	7.80%
RdC	Riddles-Hillsdale sandy loams, 6 to 12 percent slopes	519.9	2.30%
RdD	Riddles-Hillsdale sandy loams, 12 to 18 percent slopes	93	0.40%
Sb	Sebewa loam, 0 to 2 percent slopes	1,014.60	4.40%
SnB	Sisson fine sandy loam, 2 to 6 percent slopes	143.9	0.60%
SnC	Sisson fine sandy loam, 6 to 12 percent slopes	52.4	0.20%
SpB	Spinks loamy sand, 0 to 6 percent slopes	1,327.70	5.70%
SpC	Spinks loamy sand, 6 to 12 percent slopes	154.8	0.70%
ThA	Thetford loamy sand, 0 to 3 percent slopes	677.7	2.90%
Ud	Udorthents and Udipsamments	8.9	0.00%
UeB	Urban land-Boyer-Spinks complex, 0 to 10 percent slopes	34.9	0.20%
UtB	Urban land-Marlette complex, 2 to 12 percent slopes	31.4	0.10%
W	Water	216.3	0.90%

Source: United States Department of Agriculture





# MAP 6: FARMLAND SUITABILITY MAP



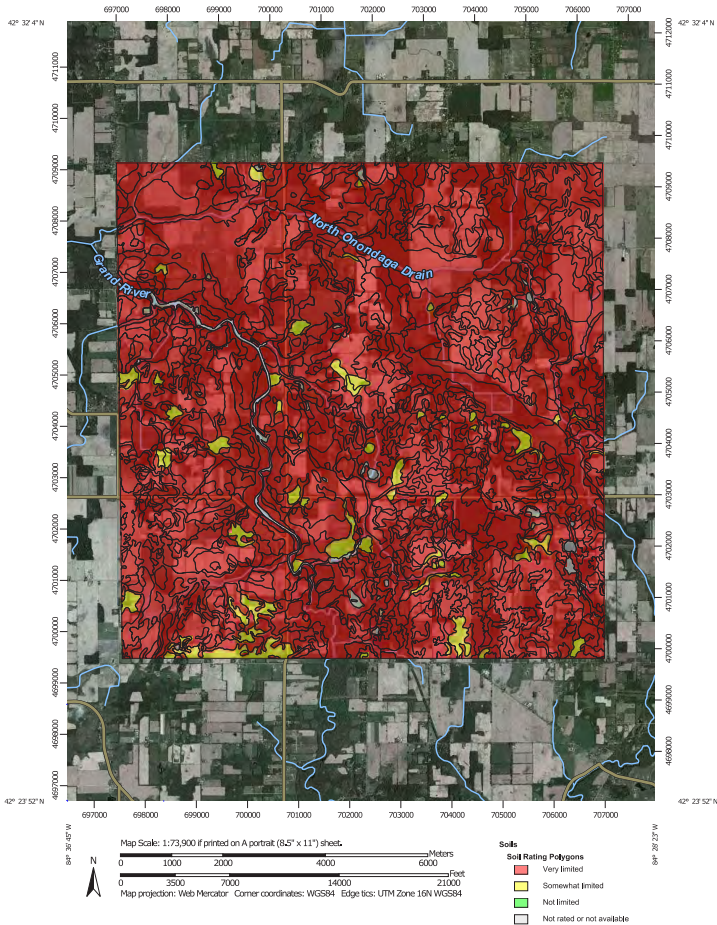
## Soil Rating Polygons

<span style="color: red;">■</span> Not prime farmland	<span style="color: yellow;">■</span> Prime farmland if irrigated	<span style="color: lightgreen;">■</span> Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season	<span style="color: lightblue;">■</span> Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60	<span style="color: blue;">■</span> Farmland of local importance
<span style="color: green;">■</span> All areas are prime farmland	<span style="color: orange;">■</span> Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season	<span style="color: pink;">■</span> Prime farmland if subsoiled, completely removing the root inhibiting soil layer	<span style="color: teal;">■</span> Prime farmland if irrigated and reclaimed of excess salts and sodium	<span style="color: cyan;">■</span> Farmland of unique importance
<span style="color: lightgreen;">■</span> Prime farmland if drained	<span style="color: brown;">■</span> Prime farmland if irrigated and drained		<span style="color: lightblue;">■</span> Farmland of statewide importance	<span style="color: gray;">■</span> Not rated or not available
<span style="color: lightgreen;">■</span> Prime farmland if protected from flooding or not frequently flooded during the growing season				
<span style="color: yellow;">■</span> Prime farmland if irrigated				

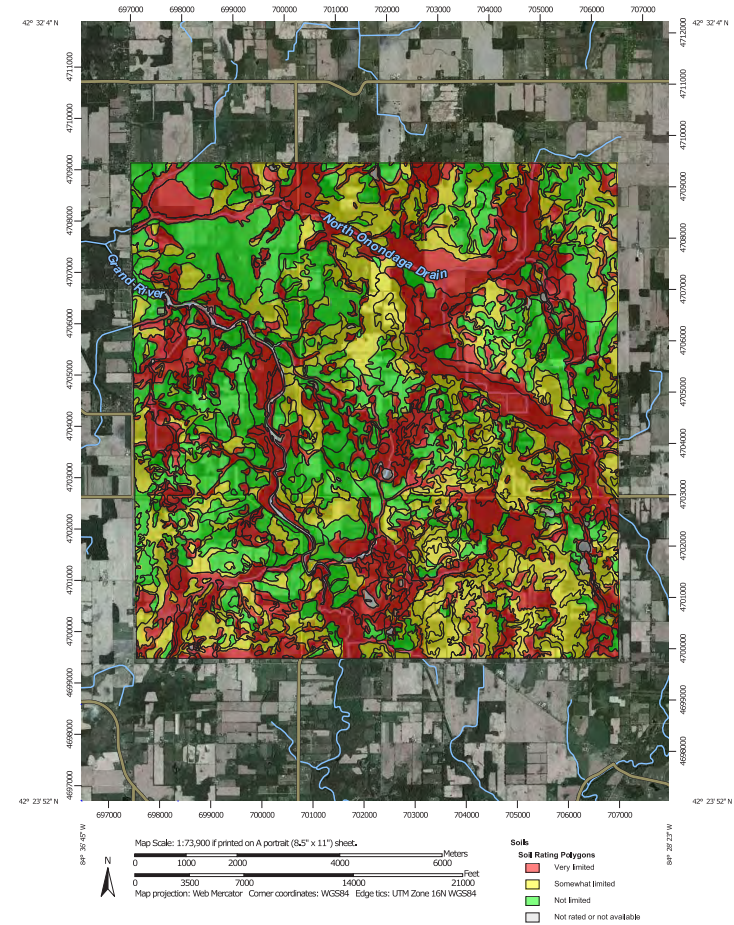
Source: United States Department of Agriculture



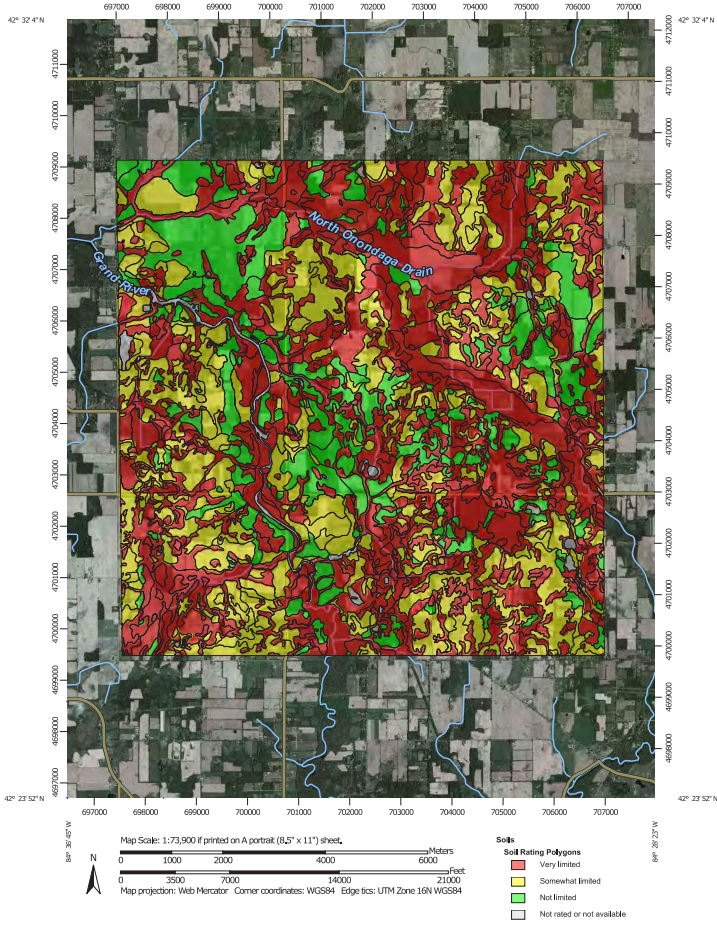
MAP 7: SEPTIC TANK SUITABILITY



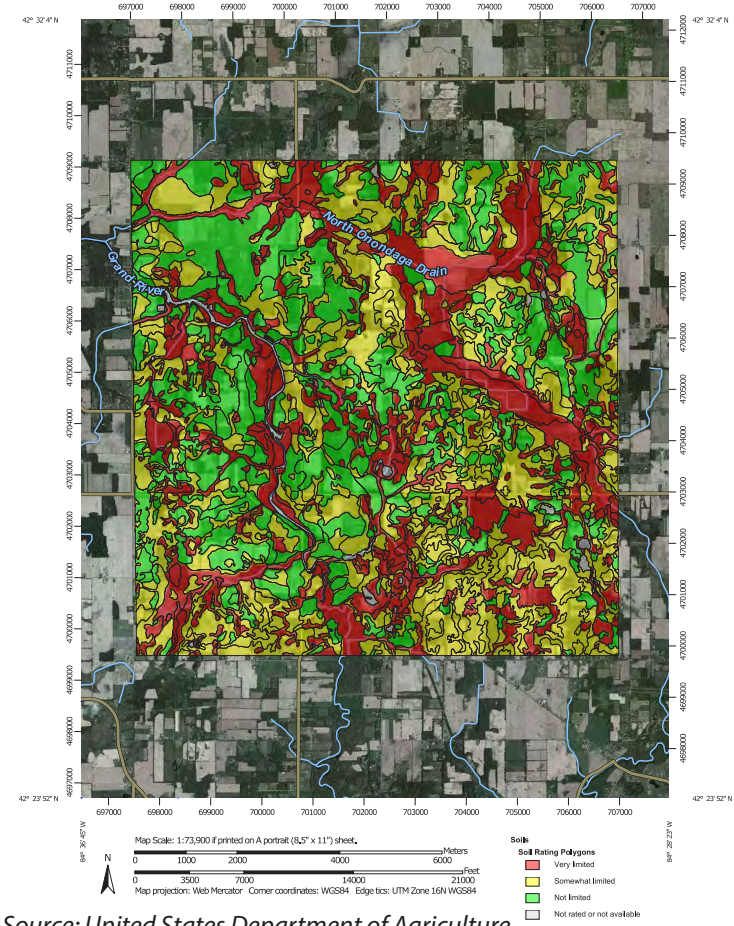
MAP 8: COMMERCIAL BUILDING SUITABILITY



MAP 9: BASEMENT SUITABILITY



MAP 10: DWELLINGS W/OUT BASEMENTS

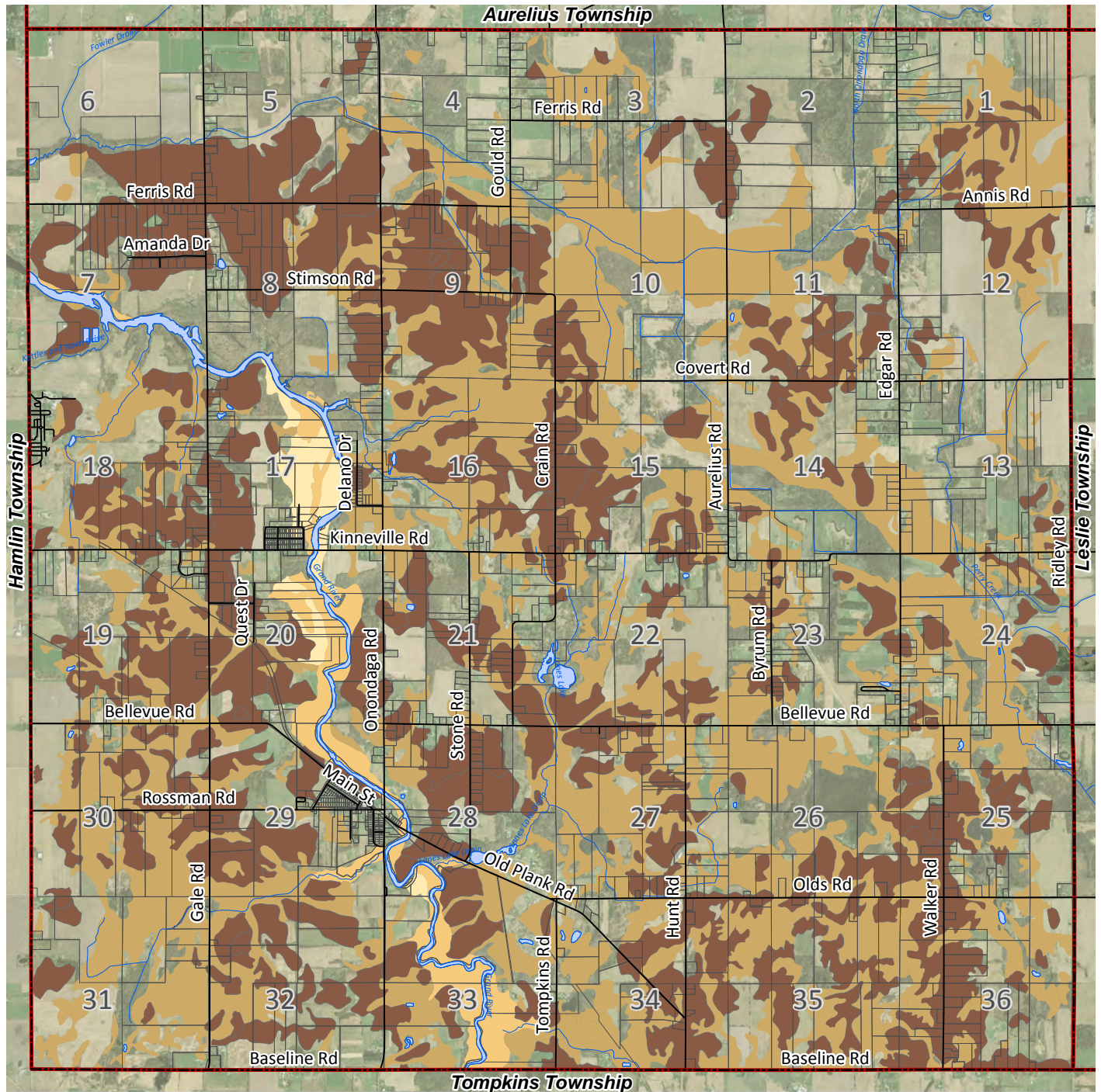


Source: United States Department of Agriculture





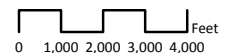
## MAP 11: PRIME FARMLAND



- Prime under all circumstances
- Prime if adequately drained
- Prime if not flooded more often than occasionally
- Prime if adequately drained and not flooded more often than occasionally

## PRIME FARMLAND

Onondaga Township, Ingham County



Source: MiGDL Map Data

April 18, 2016

Carlisle/Wortman Associates, Inc.  
Ann Arbor, Michigan



# TRANSPORTATION

Onondaga Township’s street network and its close proximity to other transportation systems ensures that her citizens have quick and easy access to other communities.

## ROAD CLASSIFICATION

Onondaga Township’s street network consists primarily of rural collector and local roads maintained by the Ingham County Road Commission (ICRC). The ICRC is required by Michigan Act 51 of 1951 to classify all roads under its jurisdiction as either primary or local roads. 23.5 miles of primary roads run through the Township. The roads identified by the ICRC as primary include:

- Aurelius Road
- Base Line Road between Hunt & Rives Roads
- Bellevue Road
- Byrum Road
- Covert Road east of Aurelius
- Kinneville Road between Byrum & Aurelius Roads, and west of Onondaga Road
- Old Plank Road
- Onondaga Road
- Plains Road

Bellevue Road forms the principal east-west connection between the village of Onondaga with the City of Leslie and US-127 to the east. The only continuous east-west roads through the Township are Kinneville and Plains Roads. Onondaga Road, running north-south through the Township, is the primary connector linking Onondaga with southern Lansing to the north and M-50 to the south.

All of Onondaga’s roads, with the exception of a small section of Baseline Road, are paved. Waverly Road, on the Township’s western border, is under the jurisdiction of Eaton County.

## LOAD RESTRICTIONS

The ICRC effectively maintains three levels of roads in the Township. Onondaga includes five roads classified as all-season routes with no load restrictions. Class A and B routes have specific load restrictions during spring months as detailed in table 13 below. In all cases, when load restrictions are not in effect, normal loading is limited to 18,000 pounds when spacing between axles is greater than or equal to 9 feet, and 13,000 pounds when axle spacing is greater than 3.5 feet but less than 9 feet.

Thirty five county roads in Onondaga Township have some form of seasonal load restrictions. See table 14 for a complete list of roads.



**TABLE 13: MAXIMUM ALLOWABLE GROSS AXLE LOADING WHEN LOADING RESTRICTIONS ARE IN FORCE**

SPACING BETWEEN AXELS	ALL SEASON ROUTES	CLASS 'A'	CLASS 'B'
9 feet or over	18,000 lbs	13,500 lbs	11,700 lbs
More than 3.5 feet, but less than 9 feet	13,000 lbs	9,750 lbs	8,450 lbs
When part of a tandem axle assembly (only one tandem permitted)	16,000 lbs	12,000 lbs	8,450 lbs
When less than 3.5 the combined weight shall not exceed:	18,000 lbs	13,000 lbs	11,700 lbs
Max. load on any wheel shall not exceed (pounds per inch of tire width)	700 lbs	525 lbs	450 lbs

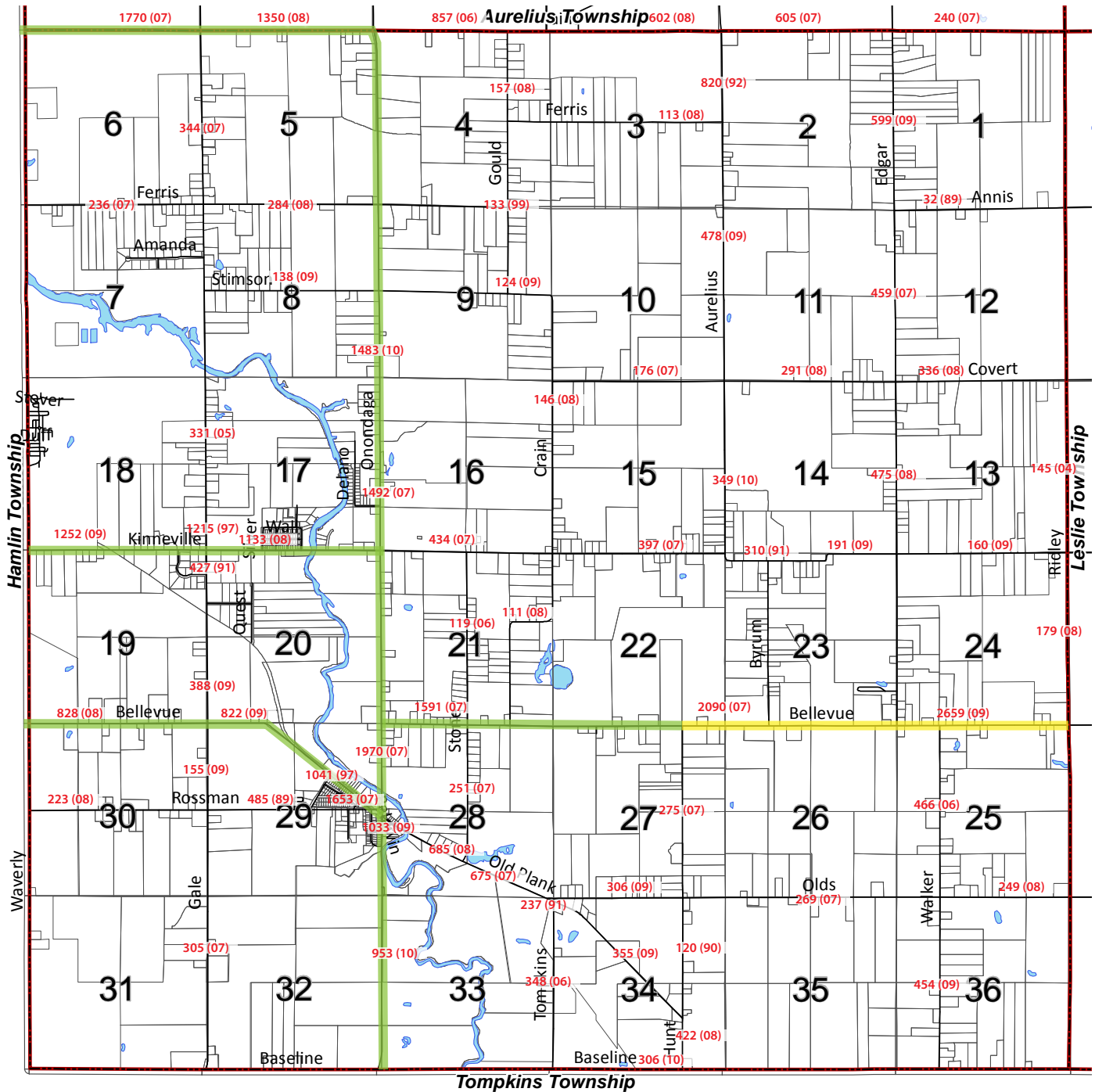
Source: Ingham County Road Commission

**TABLE 14: LOAD RESTRICTED ROADS IN ONONDAGA TOWNSHIP**

ROAD	CLASS	DESCRIPTION/PLAT NAME	ROAD	CLASS	DESCRIPTION/PLAT NAME
Amanda Drive		Section 7, Knickerbocker Est.	Melissa Ct		Section 7, Knickerbocker Est.
Annis Road	Class B	Section 12	Mill Street		Section 29, Baldwin's Addition
Aurelius Road	All season		Old Plank Rd	Class B	Sections 28, 34
Baldwin Street		Section 29	Olds Road	Class B	
Base Line Road	Class B		Onondaga Rd.	All season	North of Bellevue Rd.
Bellevue Road	All season	East of Onondaga Rd.	Onondaga Rd	Class A	N of Base Line and S of Bellevue
Bellevue Road	Class A	West of Onondaga Rd	Pine Street		Section 17, Nova Scotia
Byrum Road	All season		Quest		Section 20
Covert Road	Class A	Section 15, East of Byrum Rd.	Ridley Road	Class B	
Cherry Street		Section 17, Nova Scotia	Roland Drive		Section 17, Grand River View
Churchill Road		Sections 5, 32	Rossman Road	Class B	Sections 29, 30
Church Street		Section 29, Onondaga Villag	Sherman Street		Section 29
Crain Road		Sections 10, 21	Silver Street		Section 17, Nova Scotia
Delano Drive		Section 17, Grand River View	Simot Street		Section 17, Nova Scotia
Edgar Road	Class B	Sections 1, 24	Stimson Road	Class B	Sections 8, 9
Elk Ridge Drive		Section 19	Stone Road		Sections 21, 28
Ferris Road	Class B	Sections 3, 4	Swan Drive		Section 17, Grand River View
Gale Road	Class B	Section 32	Tompkins Road	Class B	Section 34
Gould Road	Class B		Walker Road	Class B	Sections 25, 36
Hunt Road	Class B	Sections 27, 35	Wall Street		Section 17, Nova Scotia
Kinneville Road	All season	Between Aurelius and Byrum	Water Street		Section 17, Nova Scotia
Kinneville Rd	Class B		Willis Street		Section 29, Baldwin's Addition
Main Street		Section 29			

Source: Ingham County Road Commission

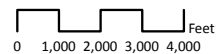
## MAP 12: AVERAGE DAILY TRAFFIC COUNTS



## Average Daily Traffic Counts

Onondaga Township, Ingham County

- Low density traffic counts (less than 2,000 ADT)
- Medium density traffic counts (2,000 - 2,799 vehicles per day)
- 1252 (09) Average daily traffic count (# of vehicles, year of survey)



Source: MiGDL Map Data  
Ingham County Road Commission

January 21, 2016

Carlisle/Wortman Associates, Inc.  
Ann Arbor, Michigan







## TRAFFIC COUNTS

Township residents seem to be relatively happy with the existing road system. While 47% of survey respondents listed “Inadequate road maintenance” as a significant problem for the community, noting that many of the roads required significant maintenance, 57% indicated that improvement of traffic flow was not important.

This disparity could be explained by the relatively low traffic counts on the area roads. Per the Federal Highway Administration guidelines, roads with an average daily traffic (ADT) load of less than 2,000 vehicles per day are considered to have low traffic levels. Virtually all of Onondaga Township’s roads meet that criteria. Only Bellevue Road, leading in from US-127, exceeds the 2,000 ADT threshold. While somewhat elevated traffic levels can be found concentrated along Onondaga Road and on Plains Road west of the Onondaga Road intersection, even the most heavily trafficked areas have relatively low ADTs; the highest daily traffic level (2,650 ADT at Bellevue Road between Edgar and Ridley Roads) is a third of the levels experienced in nearby Delhi Township. Typical local ADTs average between 100 to 400.

The general trend seems to point to an overall decrease in traffic levels; since 2007, the ICRC shows negative growth for the region.

**TABLE 15: ANNUAL TRAFFIC GROWTH**

YEAR	% GROWTH
2007	-5%
2004	6%
2001	12%
1998	-4%
1996	24%
1995	8%

*Source: Ingham County Road Commission*

**TABLE 16: COMMUTING TO WORK, 2013**

COMMUTING METHOD	ONONDAGA TOWNSHIP	INGHAM COUNTY	STATE OF MICHIGAN
Drive alone (car, truck, van)	85.2%	76.4%	82.7%
Car Pool (car, truck, van)	9.1%	8.6%	8.9%
Public Transportation	0.3%	3.0%	1.4%
Walked	0.2%	5.6%	2.2%
Bicycle/Other Means	0.9%	2.6%	1.2%
Worked at Home	4.2%	3.9%	3.6%
Mean Commute (Minutes)	27.8	19.8	24

*Source: United States Census, 2009-2013 American Community Survey*

## REGIONAL TRANSPORTATION

Onondaga Township is well connected to the surrounding region despite a lack of direct interstate highway access. The closest highway, US-127, runs north/south two miles east of the Township and is a primary connector between Jackson north to Lansing. I-94, the primary east/west corridor connecting Detroit to Chicago, lies roughly fifteen (15) miles to the south of the Township. I-69, running south to Fort Wayne, Indiana, is fifteen (15) miles to the west. Only one Michigan Department of Transportation (MDOT) road serves the Township; Route M-188 forms a portion of the northwest border of the Township, connecting from Eaton Rapids to the VFW Home. Routes M-50 and M-99 are approximately 2 miles west of the Township's western edge.

Air transportation is served by Detroit Metropolitan International Airport, located approximately fifty-five (55) miles southeast of the Township, or by Lansing's Capital Region International Airport twenty-three (23) miles to the north.

Historically, the Michigan Central (later New York Central) railroads passed through Onondaga on their way from Jackson to Grand Rapids. The rail operated from 1870 through 1976, when it was finally abandoned by Conrail. No rail service currently exists in the Township.

## NON-MOTORIZED TRANSPORTATION

While no local level non-motorized plan exists for Onondaga Township, two important non-motorized plans have recently been completed which will guide development of pathways throughout the region. The Michigan Department of Transportation's (MDOT) "2015 University Region - Regional Non-motorized Plan" utilizes a combination of existing and proposed paths to create a regional network to connect communities throughout the mid-central region.

MDOT's plan calls for utilizing the existing 4 foot wide shoulder along Onondaga Road to bring cyclists south from Lansing. A proposed expansion of the shoulder along Bellevue Road would connect Onondaga Village with Leslie. Perhaps the most ambitious project involves a proposed shared-use lane which utilizes an old access road roughly paralleling Old Plank Road and a portion of Bellevue Road. The path would begin at Waverly and Kinneville and continue south to Baseline Road. Ultimately, this would connect to a similar shared use path coming south from Leslie which would then link south to Jackson. Map 13 shows proposed routes through the County.



# MAP 13: MDOT UNIVERSITY REGION NON-MOTORIZED PLAN

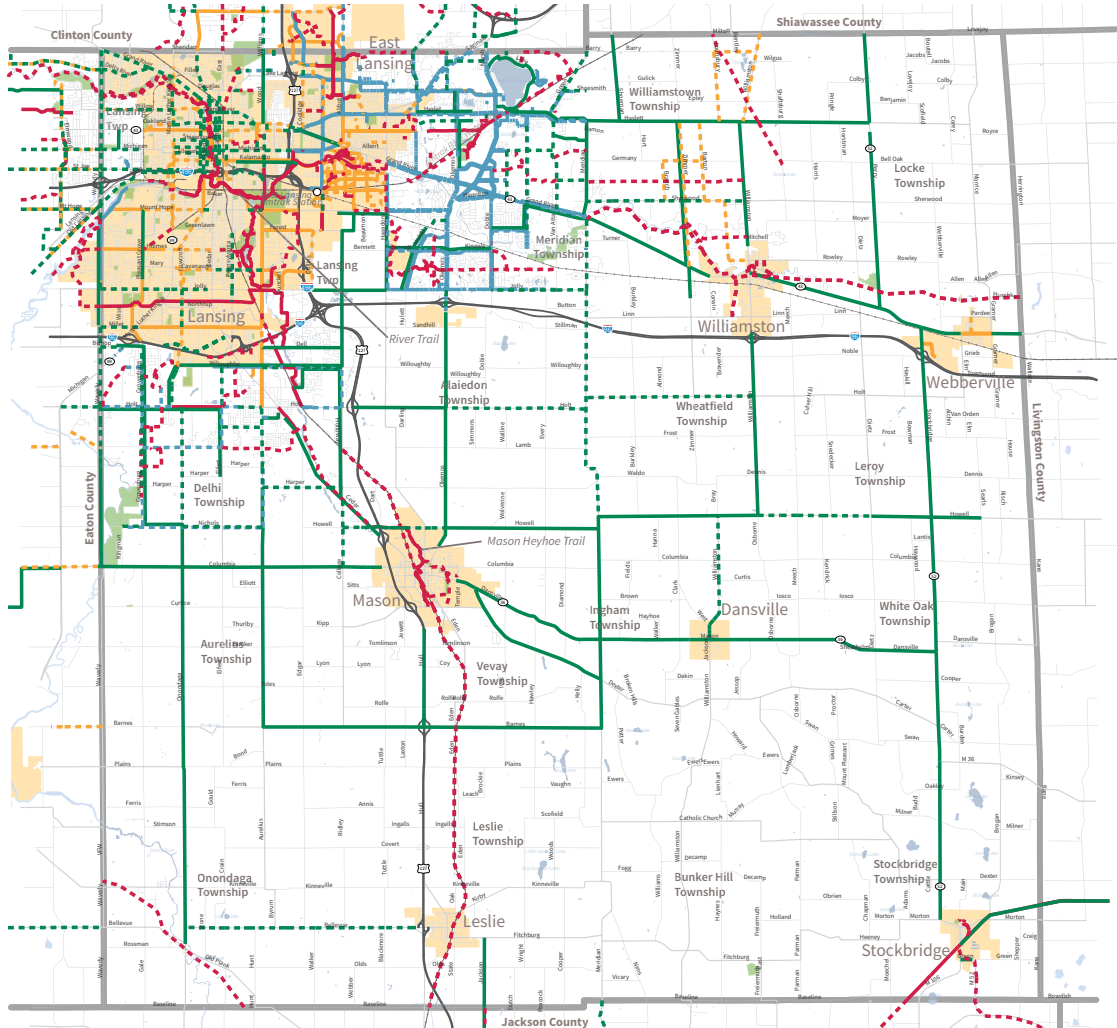


## Ingham County

### LEGEND

SHARED USE PATH  
PAVED SHOULDER - GREATER THAN 4 FT. WIDE  
SIDE PATH  
BIKE LANE

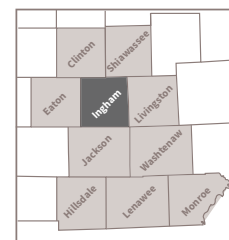
EXISTING  
PROPOSED



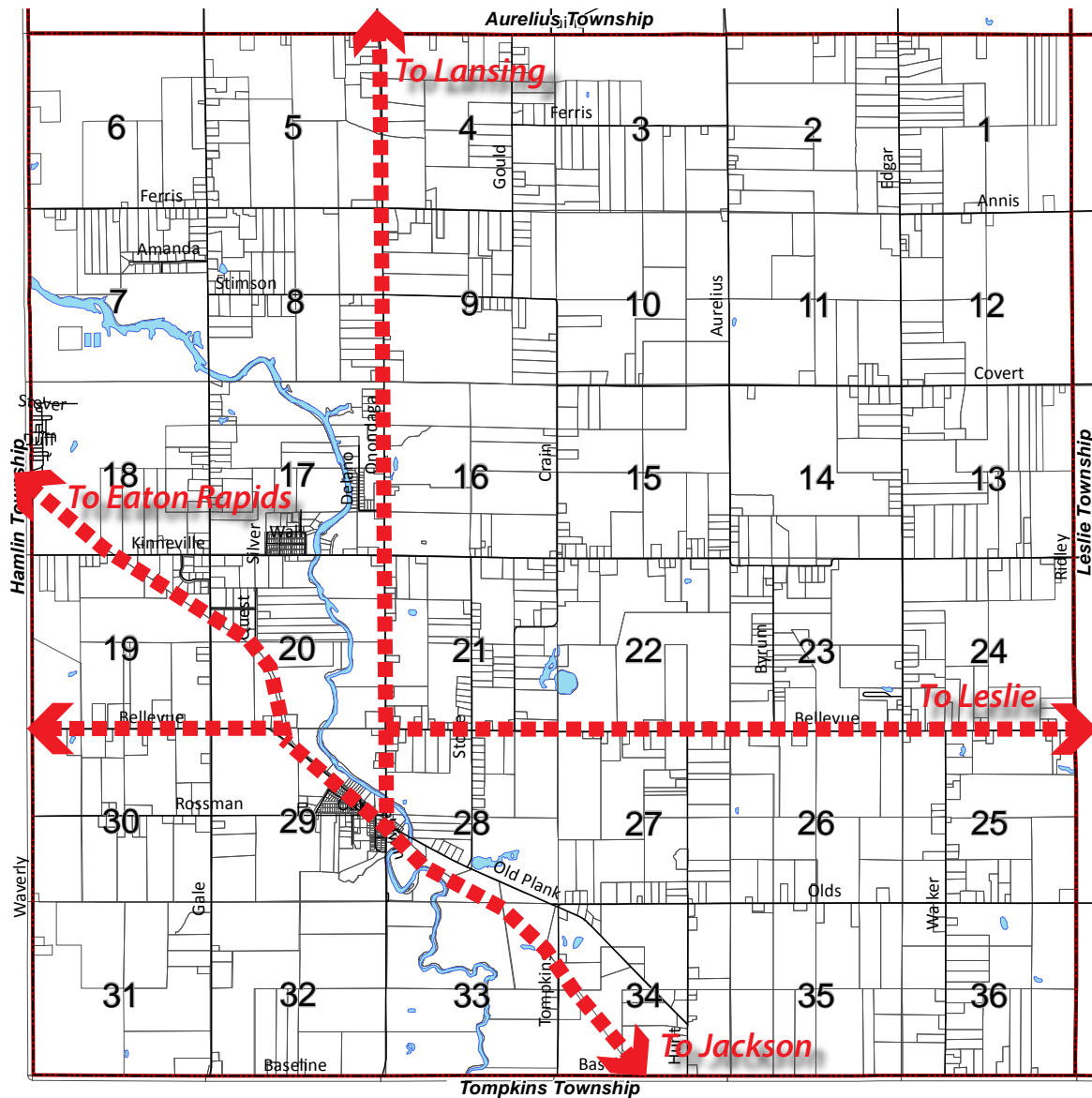
### MDOT University Region Non-Motorized Plan

Existing and Proposed Non-Motorized Facilities  
June 2015

Source: Michigan Department of Transportation



## MAP 14: INGHAM COUNTY PROPOSED NON-MOTORIZED TRAILS



### Proposed Non-Motorized Trail System

Onondaga Township, Ingham County

■ ■ ■ ■ ■ Proposed Non-Motorized Trail



Source: Ingham County Non-Motorized Plan

January 21, 2016  
Carlisle/Wortman Associates, Inc.  
Ann Arbor, Michigan



The Ingham County Non-Motorized Plan, currently in development, is using funds from a 0.5 mil to connect the County's significant trail system to statewide systems such as the Iron Belle Trail. While the plan will not prescribe the specific facilities, relying on the local context and the planning process to identify the appropriate facility, a number of potential non-motorized routes have been identified to connect Onondaga to the system. Map 14 shows proposed routes through the Township.



**TABLE 17: LAND USE BY ACRE**

LAND USE	ACRES	%
Agricultural	17,185.9	73.6%
Rural Residential	5,681.5	24.3%
Single Family	147.1	0.6%
Mobile Home Park	13.5	0.1%
Commercial	2.8	0.0%
Institutional	135.5	0.6%
Open Space & Recreation	8.1	0.0%
Transportation	4.5	0.0%
Extractive	77.1	0.3%
Cemetery	4.9	-
Water	104.4	0.4%
<b>TOTAL</b>	<b>23,365.3</b>	<b>100%</b>

Source: United States Census, 2010

## LAND USE & DEVELOPMENT PATTERNS

Onondaga Township is best characterized as a rural community. Of the Township's roughly 23,365 acres, approximately 17,185 (73.6%) acres is dedicated as farmland and 5,681 acres (24.3%) as rural residential. Forested areas and wetlands, which occur on both public and private acreage, cover a significant portion of the total land area. Approximately 5,843 (25%) acres are classified as either rural or single family residential or mobile home park. Only 138 acres, less than 1% of the Township's total area, is classified as commercial, institutional, or industrial.

### AGRICULTURAL USES

More than 98% of area's farmland is used for crop production. These vast areas of cropland are ubiquitous in most of lower Michigan's rural areas, and particularly so in Ingham County and Onondaga Township. The primary crops in Ingham County include corn for grain and silage, soybeans, wheat, and forage. Cattle make up more than half of the livestock farms in the county. The total value of products sold in Ingham County in 2007 approached \$85 million.

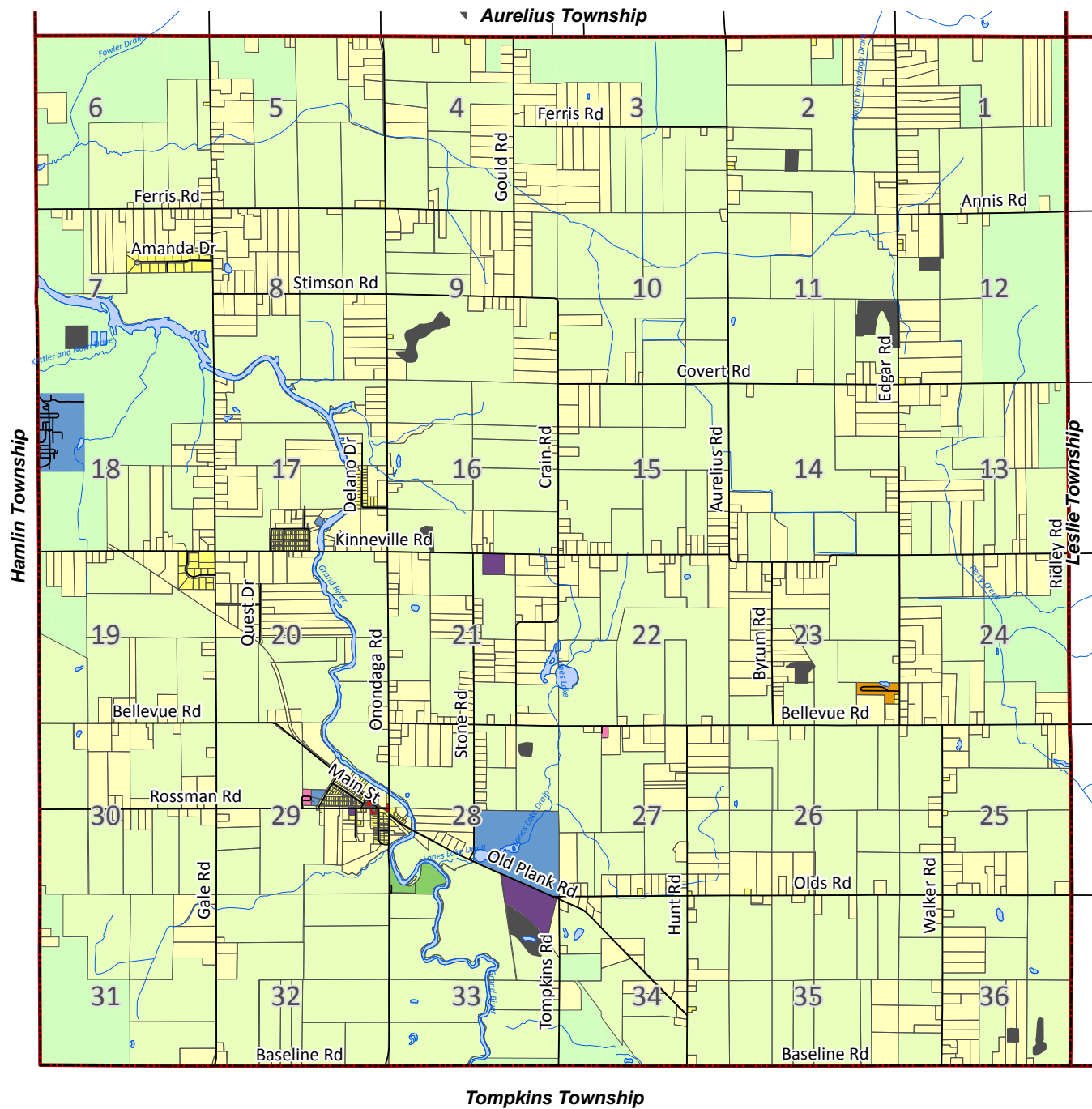
### RESIDENTIAL DEVELOPMENT












Residential lots comprise 28.2% of the total area in Onondaga Township. Over 97% of that area is comprised of rural residential property. The 2010 Census lists 1,199 housing units in the Township, a 14% increase over the 2000 count. 88.5% of residential properties are owner-occupied. 88.7% of homes were single family detached, with the remaining 11.3% mobile homes. There were no multiple unit residential properties listed. Slightly more than 20% of properties are owned free and clear.

Only 7.6% of residential properties (89 units) are vacant. Of these, 30% are listed for sale, with another 11% listed as sold but not occupied. 4.5% of vacant properties are categorized as seasonal or recreational.

The housing stock in Onondaga Township is relatively new, with nearly 40% of properties built since 1990. New home construction has come to a standstill recently, however, with no new homes built from 2010 to 2013. While the housing stock is still younger than the County and State, the median age has increased from 34.3 years to 44.3 years since the 2008 Master Plan. The lull is reflective of both the weak economy and the relative lack of building opportunities in the Township.

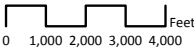
MAP 15: EXISTING LAND USE



- |   |  |
|---|--|
|  Agricultural      |  Cemetery         |
|  Rural Residential |  Park             |
|  Single Family     |  Transportation   |
|  Mobile Home Park  |  Extractive       |
|  Commercial        |  Light Industrial |
|  Institutional     |  |

EXISTING LAND USE

Onondaga Township, Ingham County



Source: MiGDL Map Data

April 18, 2016

Carlisle/Wortman Associates, Inc.  
Ann Arbor, Michigan





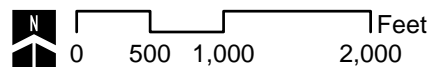


## MAP 15: EXISTING LAND USE - ONONDAGA VILLAGE INSET



### EXISTING LAND USE

Onondaga Township, Ingham County



Carlisle/Wortman Associates, Inc.  
Ann Arbor, Michigan  
Source: MiGDL Map Data  
April 19, 2016



The majority of residential lots, roughly two thirds, consists of low density strip lots with direct access along the section roads such as Onondaga Road, Edgar Road between Plains and Ferris Roads, and Bellevue Road east of Onondaga Road. Exceptions to this strip development pattern include:

- the village of Onondaga: approximately 125 dwellings on lots between 8,700 and 18,000 square feet
- the Kinneville/Nova Scotia neighborhood with 50 dwellings on lots between 8,700 and 18,000 square feet
- a mobile home community on Edgar Road north of Bellevue Road with 45 units
- The Grand River View plat off of Onondaga Road in Section 17, with 25 dwellings on lots between 15,000 and 20,000 square feet
- the Elk Ridge plat in Section 19 consisting of 12 lots ranging from one to one and a half acres

Strip development is a throwback to the agricultural history of the Township when typical parcel sizes ranged in the order of 80 acres or larger. As the Township has evolved, pressure for residential development has increased, and land division has become the norm. Every Section of the Township contains one or more small acreage divisions with many Sections now dominated by smaller parcels ranging from two to twenty acres in size.



## COMMERCIAL & INDUSTRIAL DEVELOPMENT

Commercial and Industrial development within Onondaga Township is extremely limited. A small cluster of business has formed at the intersection of Onondaga, Bellevue, and Old Plank Roads, including a country store, gas station, and two bar/restaurants. Several small contractors are scattered throughout the Township, operating out of home offices.

Industrial facilities are similarly unusual, and nearly all of the industrial properties in the area are of an “open space” character. The Eaton Rapids Gas Storage System, on the northwestern edge of the Township, receives and stores natural gas for subsequent distribution. The facility occupies approximately 500 acres and public access is closely monitored. Small gravel extractions are located along Onondaga and Baseline Roads.



## CHAPTER 3

# GOALS & OBJECTIVES



## PLANNING GOALS & OBJECTIVES

The planning issues facing Onondaga Township are very straightforward. Based on the responses to the Master Plan survey, Township residents enjoy living in a quiet, rural community and they prefer to keep it that way. Almost unanimously, respondents stated that the rural atmosphere was the Township's best feature. Nearly 70% said that, given the choice, they would prefer the Township not to grow.

Growth and preservation are not mutually exclusive; the challenge is to develop policies which will allow for controlled, managed growth similar to the levels the Township has experienced over the past 80 years, while preserving the rural character and natural features the residents cherish.

All communities, from the smallest burg to the largest city, focus their activities around four basic precepts: Live, Work, Move, and Play. Every aspect of daily life fits in at least one category; many straddle two or more of the groups. The distribution of activities within these four categories is what ultimately defines the character of the community. Understanding the interplay between these activities leads to a better understanding of what kind of characteristics residents are looking for when they state they want to live in a "rural" community. To paraphrase the old saying, it is no longer acceptable to just say, "I don't know what rural is, but I know it when I see it!"

The concepts on the following pages loosely acknowledges this four part structure but does not attempt to adhere to it exclusively. Instead, the goals and objectives attempt to clarify the desires expressed by the community in the broadest sense. They define the logic behind any future land use policy recommendations and are intended to be used as a guide to steer the Township along the residents' expressed desired path. The goals and objectives should be used as a reference for developing future land development, policymaking, and zoning decisions.





## GROWTH MANAGEMENT

The existing Onondaga Township ordinances are well crafted and provide an excellent set of guidelines for officials, residents, and developers, offering direction while avoiding being overly burdensome. Clear yet flexible guidelines allow a community to grow and develop in a sustainable fashion. Well thought out ordinances provide community leaders the tools they need to make appropriate adjustments in response to community growth.

Onondaga Township has experienced healthy growth during a period when neighboring communities have remained stagnant or even lost population. As the economy continues to rebound, the growth rate can be expected to accelerate, at which point the concern becomes explosive growth and the ability of the Township to absorb a large influx of people.

Development patterns can have a strong influence on how new populations are incorporated into the community. Cluster development or higher density residential zones have the effect of allowing the Township's population to expand while simultaneously allowing preservation of more sensitive areas. Clear commercial and industrial zoning, driven in part by an efficient transportation network, help to define population centers.

Infrastructure improvement becomes both a means of controlling and encouraging growth. The current model of well and septic field use for water and sanitary facilities necessitates relatively large residential lots, which in turn presents a risk to agricultural districts as the demand for new residential space grows. Implementation of municipal water and sewage facilities, in contrast, allows for smaller lots and denser, more controlled development patterns. The introduction of sewer and water utilities, therefore, should only be in areas designated on the Future Land Use Map for densities that would require such utilities. Specifically, these areas are located in or around the Village.

As Onondaga continues to grow, it will be important that Township leaders utilize all of their available tools to ensure steady, controlled growth, while protecting the open, rural character Township residents have grown to love.





# COMMUNITY GOALS & OBJECTIVES

**GOAL:** Manage future growth and development in a sustainable, controlled fashion to ensure that growth levels are consistent with the natural limitations of the land, the availability of existing and planned public facilities and services, the protection of the Township's natural resources and rural character, and the protection of the public health, safety, and welfare.

1. Prepare a future land use strategy which identifies the most appropriate resource allocation based upon the geographic characteristics of the Township's regions.
2. Update the Township's zoning regulations to implement the recommendations of the Master Plan.
3. Identify areas which can support higher density developments with priority placed on areas with proximity to existing thoroughfares and public services.
4. Encourage development of a commercial/industrial core and higher density residential neighborhoods through the introduction of public sewer and water facilities in a small, specifically designated zone as indicated in the Future Land Use Map.
5. Discourage the introduction of sewer and water infrastructure in areas not designated for such growth except where the intensity of existing development requires such services, or where the public health, safety or welfare is at risk.
6. As part of the Master Plan process, identify critical agricultural and natural features and develop regulations to protect the most important properties.
7. Provide regular opportunities for substantive public input on growth and development issues facing the Township.
8. Review and revise zoning regulations, as applicable, to assure that permitted growth and development is coordinated with the future vision of the community.
9. Establish effective land development review procedures to assure new land uses are designed to minimize negative impacts upon existing uses, protect important natural resources, and assure public health, safety, and welfare.

## AGRICULTURAL GOALS

Agricultural lifestyles have been under attack for several decades. Pressure from residential development and economic disincentives for farming have contributed to loss of agricultural space throughout Michigan and the country. Onondaga Township has been a strong center for agricultural activities since its inception in the 1800s but even here, the number of farms and the acres devoted to farming have declined. Identifying methods for preserving key farmland will be of utmost importance as the Township looks to protect not only its farmland, but its entire rural character.

One key to maintaining a farming culture will be to adapt the social and economic expectations for farming. Traditionally, a farmer would be expected to earn his income either by the sale of his produce on-site or via sales to a distribution company of some sort. Rising production costs and incidental expenses has made this income model tenuous for many individuals.

The Township currently enables farmers to enhance their agricultural income through complimentary commercial activities on their properties, such as retail sales of in-season produce on-site. As technology advances and the dynamic of the traditional household changes, however, the farmer or his immediate family members may have the opportunity to explore supplementary revenue opportunities either off-season or in conjunction with their primary farming activities.

Current regulations allow for ancillary “home office” activities within a residential district, provided that these activities do not alter the essential residential character of the district. A similar allowance, however, does not exist for agricultural residential districts. Township officials may consider changes to allow for such activities such as agro-tourism, corn mazes, “U Pick ‘Em” fruit orchards, and the like.

The pressure to split and develop prime farmland should also be addressed. Prime farmland and open space should be protected from residential development as much as possible.







# AGRICULTURAL GOALS & OBJECTIVES

GOAL: Preserve existing agricultural operations and encourage continued farming activities via the long-term protection of agricultural resources.

1. Develop regulations to protect the most critical properties identified as prime farm land on Map 11, page 35.

2. Enact zoning provisions which allow supplemental farmland income through limited commercial activity on agricultural properties.

3. Limit the amount of non-farm residential development in prime agricultural areas. Where such development does occur, discourage large acre lots which accelerate the loss of farmland.

4. When development is necessary, encourage development on less productive farmland.

5. Support the Farmland and Open Space Preservation Program (P.A. 116).

6. Support Purchase of Development Rights (PDR) programs administered at the county or other regional level.

## RESIDENTIAL GOALS

The very features that make Onondaga Township attractive to so many people are the ones which are most at threat from unconstrained growth. Close proximity to urban centers, extensive open spaces, and the relaxed, rural character of the Township are highly appealing to many. Careful consideration will be required to accommodate anticipated growth while preserving the Township's desirable characteristics.

One key strategy which would allow population increases while maintaining the region's overall rural character would be the implementation of municipal sewage and water services for select areas of the Township. Such a move would need to be strictly limited to reduce the risk of excessive growth. Services should be provided only in areas with relatively strong road infrastructure already in place, and where complimentary zoning would benefit from such new services. Onondaga Village and the immediate surrounding area is a strong candidate as indicated by the designations on the Future Land Use Map. Prime farmland and open spaces should be protected from development as much as possible. The Township should consider implementation of R-2 or R-3 zoning in areas where municipal sewer and water are provided.

The Township should also continue to allow limited commercial endeavors operating out of residential neighborhoods. These businesses should be unobtrusive and not negatively affect the character of the surrounding neighborhood.





# RESIDENTIAL GOALS & OBJECTIVES

**GOAL:** Manage future growth and development in a sustainable, controlled fashion to ensure that growth levels are consistent with the natural limitations of the land, the availability of existing and planned public facilities and services, the protection of the Township's natural resources and rural character, and the protection of the public health, safety, and welfare.

1. Prepare a future land use strategy that identifies the most appropriate use of land resources according to geographic regions of the Township.
2. Update the Township's zoning regulations to implement the recommendations of the Master Plan.
3. Identify areas which can support higher density residential developments with priority placed on those with proximity to thoroughfares and public services.
4. Introduce public sewer and water facilities in a carefully controlled fashion to encourage development of smaller residential lots and higher density neighborhoods in or around the Village.
5. Discourage the introduction of sewage and water infrastructure in areas not designated for such growth except where the intensity of existing development requires such services, or where the public health, safety or welfare is at risk.

## COMMERCIAL & INDUSTRIAL GOALS

Commercial and industrial development within the Township have been hampered in part due to the lack of public sewer and water. A small population base and competition from nearby communities are also contributing factors. Despite these obstacles, the success of existing businesses within the district indicates at least some level of acceptance for essential retail and entertainment operations.

Implementation of a municipal sewer and water system would greatly enhance the viability of small commercial and industrial operations in the Onondaga Village core. Connection to well traveled routes are critical to the success of any business; Onondaga and Bellevue Roads provide the level of visibility required to allow for adequate business levels for proprietors.

It should be emphasized that any commercial or industrial development would need to be relatively unobtrusive to fit the character of the community; small grocery, cafés, or similar businesses would be appropriate for commercial applications. Auto repair or other facilities where materials are assembled rather than manufactured would be appropriate for industrial districts. In either case, the enterprises would not generate excessive traffic levels and would focus on local rather than regional population bases.





## COMMERCIAL/INDUSTRIAL GOALS & OBJECTIVES

**GOAL:** Provide opportunities for limited expansion of commercial and industrial activities which are appropriate for the rural character of the community, which have minimal negative impact on surrounding properties, and which are compatible with the existing public facilities and services.

1. Identify appropriate locations in the Township for commercial and industrial land uses taking into account opportunities and limitations presented by the Township's natural features and the availability of public facilities and services.

2. Utilize the Township's existing road infrastructure to help define zones, with a priority placed on paved facilities near urban centers.

3. Use zoning restrictions to ensure commercial and industrial facilities are of the appropriate physical scale.

4. Encourage consolidated commercial and industrial nodes to provide a unified commercial district.

5. Encourage commercial endeavors that serve daily, local requirements, rather than having a regional focus.

6. Limit industrial uses to primarily "light" activities such as assembly facilities.

7. Continue to provide home office opportunities for residential districts and allow for similar enterprises in agricultural districts.

8. For businesses in the downtown core, encourage dense development with store fronts close to street and parking behind the building.

## TRANSPORTATION GOALS & OBJECTIVES

Road development patterns can have a direct impact on the character of a community. Growth patterns can be managed by encouraging higher density development along key thoroughfares, and by clustering development in nodes rather than continuing the strip development pattern that is so prevalent in many rural communities.

Onondaga and Bellevue Roads continue to act as the main conduits into the Township and into Onondaga Village. These roads, along with a select few other principal roads, can help to define growth and land use patterns in the community.

Onondaga Township should also begin to consider the impact of non-motorized transportation in the community. Bicycle ridership has experienced explosive growth over the past decade, and dedicated cyclists consistently show a desire for safe and scenic connections between surprisingly distant communities. These cyclists can bring positive exposure and commercial dollars to the community. While the community is likely not a candidate for an extensive internal trail network, Onondaga Township should investigate opportunities to connect with the Ingham County trail system.

## COMMUNITY FACILITIES & INFRASTRUCTURE GOALS & OBJECTIVES

Commercial, industrial, and higher density residential development all require an increased level of services and infrastructure over traditional low density development. Septic field requirements inhibit the population densities needed to support a commercial core. Larger lot sizes encourage sprawl, threatening agricultural and natural areas and placing increased demands on transportation infrastructure.

Implementation of municipal sewer and water systems allows for smaller lot sizes and the introduction of traditional, suburban style housing developments. By carefully controlling the extent of infrastructure development, the Township can control growth patterns, protecting key open space and farm zones. This development, in turn, can encourage the growth of small scale commercial enterprises which form the backbone of the downtown area.

As population increases, support for Township residents will necessarily also increase. The Township should anticipate demand for full time service, with Township offices open during standard office hours.







## TRANSPORTATION GOALS & OBJECTIVES

**GOAL:** Maintain a transportation network which allows for safe and efficient movement of vehicles, both motorized and non-motorized, throughout the community, utilizing the existing transportation structure and improving the base structure as needed to accommodate higher traffic flows.

1. Identify priority road segments for maintenance and improvement based upon planned future land use and existing and projected traffic patterns.
2. Discourage high traffic generating land uses and development patterns along secondary roads until such roads have been improved to accommodate such development.
3. Adopt land use and/or other regulations which minimize traffic congestion and safety hazards along adjacent roadways, including limitations on the number, size, and shape of new land divisions along county roads and the discouragement of "strip" development.
4. Coordinate with Ingham County to extend regional non-motorized pathways into the Township.



## COMMUNITY FACILITIES & INFRASTRUCTURE GOALS & OBJECTIVES

**GOAL:** Provide necessary utilities and services to Township residents to promote the health and welfare of the citizens and encourage compact and sustainable growth while preserving and maintaining the essential rural character of the community.

1. Identify areas which can support higher density developments with priority placed on areas with proximity to existing thoroughfares and public services.
2. Encourage development of a commercial/industrial core and higher density residential neighborhoods through the introduction of public sewer and water facilities in a small, specifically designated zone.
3. Discourage the introduction of sewage and water infrastructure in areas not designated for such growth except where the intensity of existing development requires such services, or where the public health, safety or welfare is at risk.
4. Improve service for Township residents through extended office hours and increased online presence.
5. Continue to provide fire and emergency services for Township residents and extend relationship with Ingham County Sheriff's office for necessary police presence.

## **PARKS & RECREATION GOALS & OBJECTIVES**

Demand for access to outdoor recreational facilities in a rural community is clearly not as high as you would find in a more highly developed area. This does not mean, however, that demand is non-existent. Parks serve a variety of functions, encompassing both active and passive uses, and offers a gathering place for community members. Parks can help to provide an identity for a neighborhood or community, and are a critical component to the long term success of a municipality as a whole.

Acquisition and development of park land can be an expensive proposition for municipalities. Ideally, communities should begin identifying properties for preservation and/or acquisition well before property values rise due to increased development. Onondaga Township should begin to identify key parcels, especially in relationship to proposed higher density development zones, and consider the level of development that is appropriate or required for those properties.

Access to these parks will be critical to their success. Connection to regional non-motorized trails as well as local path systems can help to bolster use and ensure the park's long term success.

## **ENVIRONMENTAL & NATURAL RESOURCES GOALS & OBJECTIVES**

The term "parks" can also imply "open spaces". Preservation of natural areas and open spaces will be key to the Onondaga Township's success in preserving its rural character.

For both park development and open space preservation, the Township should investigate funding opportunities available from County, State and Federal sources. The Township may consider using a regional approach to open space protection by encouraging development of State or County parks or game areas within the Township's borders. The Township may also consider working with extractive companies to help restore properties which have been degraded as part of the mining process.

The Township should also encourage the use of Purchase of Development Rights (PDR) programs. PDRs enable farmers to sell the farm's development rights to a governmental or other non-profit entity in return for a conservation easement placed on the farm.

Protected open spaces can be sources of recreation as well as preservation. Preserves can offer hunting or camping opportunities for Township or outside residents, and can increase access to natural resources like the Grand River by providing public boat launches.





## PARKS & RECREATION GOALS & OBJECTIVES

GOAL: Provide recreational and gathering opportunities for Township residents.

1. Prepare a future land use strategy that identifies the most appropriate use of land resources according to geographic regions of the Township.
2. Update the Township's zoning regulations to implement the recommendations of the Master Plan.
3. Preserve the Township's natural resources through a coordinated future land use strategy and related regulations which permit reasonable use of land while discouraging unnecessary destruction or loss of natural resources.
4. Work with developers to ensure that a portion of all new development space is set aside as parkland or open space.



## ENVIRONMENT & NATURAL RESOURCES GOALS & OBJECTIVES

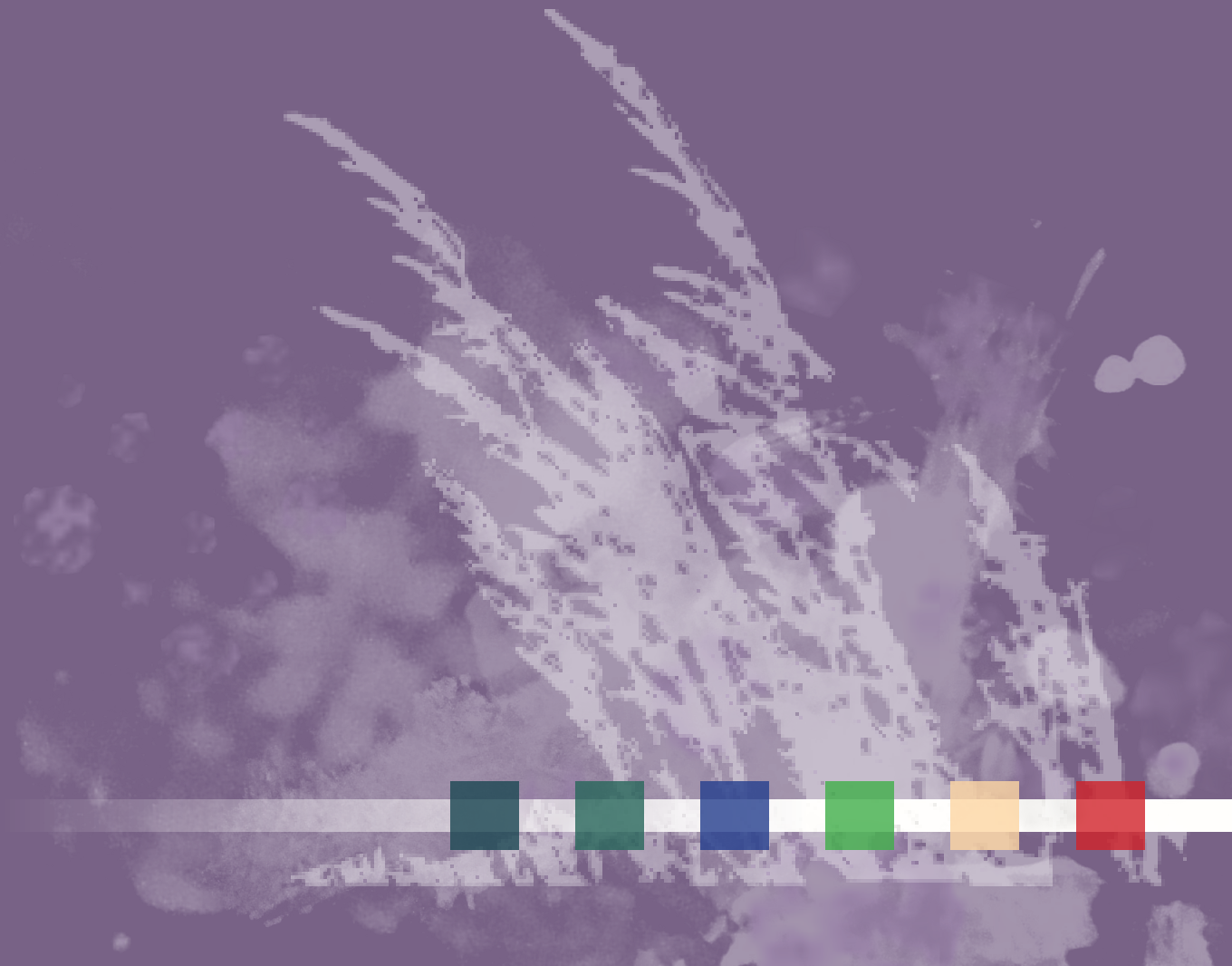
GOAL: Protect the rural character of the community through preservation of existing natural features.

1. Prepare a future land use strategy that identifies the most appropriate use of land resources according to geographic regions of the Township.
2. Update the Township's zoning regulations to implement the recommendations of the Master Plan.
3. Preserve the Township's natural resources through a coordinated future land use strategy and related regulations which permit reasonable use of land while discouraging unnecessary destruction or loss of natural resources.
4. Work with developers to ensure that a portion of all new development space is set aside as parkland or open space.



## CHAPTER 4

# FUTURE LAND USE



## INTRODUCTION AND OVERVIEW

The principal planning issues facing Onondaga Township were covered in Chapter Three. The Future Land Use Strategy presented in this chapter identifies a development and land use pattern which helps to address the issues discussed in the previous chapter. These strategies rely on implementation via existing regulatory tools, namely the Onondaga Township Zoning Ordinance. The Ordinance defines the expectations of the community in terms of development, including density, form, location, and type of zones allowed within the Township borders.

The Future Land Use Strategy recognizes and encourages the continued use of a predominantly rural agricultural zoning pattern. In anticipation of continued land development pressures, however, this strategy provides opportunities for higher density residential development in and near unincorporated Onondaga Village. Limited expansion of commercial and industrial development in central Onondaga Village is also accommodated. Any higher density use should be predicated upon the development of adequate public services and facilities, in particular the introduction of municipal sewer and water in the central village area. At no point should development be allowed to outpace the Township's ability to manage the rate of growth and assure public health, safety, and welfare.

The primary goals of this Future Land Use Strategy has been outlined in Chapter Five and includes the following:

- Preservation of the Township's rural character
- Protection of prime agricultural resources
- Protection and conservation of the Township's environmental resources including woodland, wetlands, and streams
- Insure compatible land use between adjacent zones
- Minimize public service costs

The land use pattern takes into consideration community concerns, existing infrastructure and roadway networks, existing soil characteristics, and environmentally sensitive areas. Of prime concern are wetland areas, especially those hydraulically connected to larger wetland complexes, which provide innumerable benefits to the community and surrounding areas and should be protected from development if at all possible. Wetland areas should be limited to open-space and natural resource based uses, such as agriculture, passive recreational, or wildlife management uses.

Unlike the previous Master Plan, this update incorporates public service strategy directly into the Future Land Use Strategy.







## LAND USE AREAS

The Future Land Use Strategy adopts and adapts the land use categories recommended in the previous Master Plan and applies the concepts to identify three general land use zones: Agricultural Residential Area, Residential, and Mixed-use Onondaga Village. The purpose of these three categories is not to define land use on a plot-by-plot basis, but instead to identify general land use characteristics which can help guide decisions by Township officials when applying specific land-use designations for future development decisions.

### *Agricultural Residential Area*

By far the largest zone in Onondaga Township is the Agricultural Residential Area. This zone is characterized by large lots, very low residential density, and predominantly agricultural business activities. These properties represent significant or prime farmland properties which should be protected from residential development when possible. Any residential development that does occur in this zone should be of very low density and should preserve the agricultural character of the area.

Properties within the Agricultural Residential area are described as having the following characteristics:

- Large parcel sizes, typically around 40 or more acres
- Limited encroachment by non-agricultural uses
- Identification by the U.S. Department of Agriculture as “prime”, “unique”, or “farmland of local importance” (see Map 11)
- Enrollment in the P.A. 116 Farmland and Open Space Protection Program, and
- Adjacency to other similar farmland parcels.

The availability of a Purchase of Development Rights (PDR) program is a critical component of the Agricultural Residential Area. PDRs enable landowners to sell development rights for the farm parcel to a governmental or not-for-profit entity in exchange for placement of an easement on the land which prohibits future non-agricultural development of the property. This form of agreement allows the farmer to receive the value of their property without having to develop it.

Where residential development does occur in this zone, the form should be very low density, typically in the range of one dwelling per two to five acres. This is consistent with current development patterns seen across the Township.

Higher density development in the range of one dwelling per two acres should be carefully regulated and encouraged only when development plans act to preserve the rural quality of the area. One frequently used technique, called “clustered development”, combines clustered home placement around an interior road. If development pressure is recognized in a specific area, clustered development may be an option.

Clustering limits parcels to one or several portions of the project parcel, with the remaining balance dedicated as open space. The open space is preserved via use of conservation easements or similar restrictions. The open space can be saved as farmland, natural area, or some combination of the two.

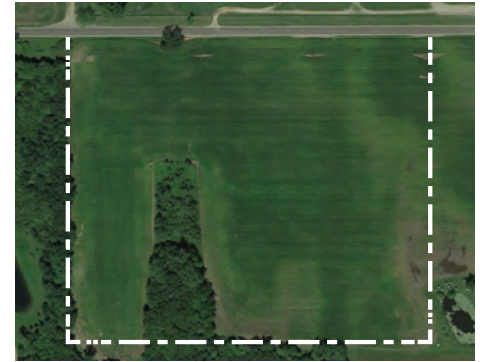
A central access drive reduces the number of entrance points required along the county road, improving overall safety. Public roads should be utilized for cluster development when feasible. Should a private road be necessary, it is important that the central drive be held to the same design standards as public roads to ensure adequate access for residents and emergency services. Used in conjunction with clustered housing, the net effect is an effective preservation of the rural character of the community; the reduction of access drives and reduced frontage area dedicated to homes is perceived as an increase in total amount of open space.

As existing Township ordinances suggest, new residents to the area should be prepared for the realities of living in an agricultural zone; the smells, noises, and general activities associated with agricultural living are a component of this lifestyle and should be expected to continue on an indefinite basis. Realtors and developers should disclose these features to prospective buyers of properties within the Agricultural Residential zone.

### *Rural Residential Development*

The Residential zone acts as a transitory zone between Agricultural Residential and the denser Mixed-Use Onondaga Village area. It provides an area for suburban style development. Due to septic field requirements, lots in this zone tend to be larger than their counterparts in traditional suburban areas. Compared to the Agricultural Residential zone, however, these lots are small, in the range of one unit per half-acre to one acre. As municipal sewer and water are introduced and expanded, higher density residential would be appropriate and could be considered for this zone as well.

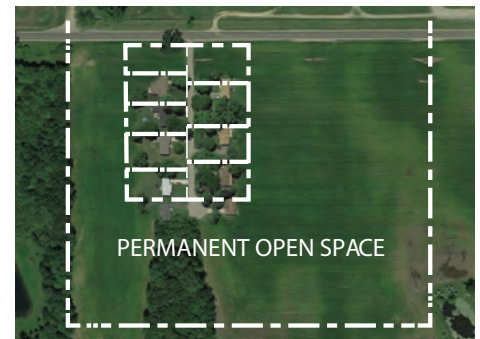
**FIGURE 2: CLUSTER DEVELOPMENT**



1 - Existing condition



2 - Strip development



3 - Cluster development





Residential developments should extend along primary county roads, in particular Bellevue, Onondaga, and Kinneville Roads. This location was identified as appropriate due to several factors, including proximity to existing road infrastructure, access to fire prevention infrastructure, existing suburban-style developments, and land patterns which limit farming viability.

As with the Agricultural Residential zone, strip development in the Residential area is highly discouraged. Development of projects which encourage preservation of the rural nature of the community, such as cluster development and interior road use, should be encouraged.

Higher density developments on the scale of four or more units per acre are not appropriate for this zone. Developments such as mobile homes or multiple-family dwellings should only be considered where public sewer and water has been provided, and even then only after special review to determine the appropriateness of the project for the specific property. Traffic patterns should be monitored to ensure that any higher density developments do not adversely affect congestion levels within the Village limits.

### *Mixed-Use Village Center*

The unincorporated Village of Onondaga serves as the Township's commercial center, offering access to public facilities and services as well as limited commercial enterprises. The current road infrastructure supports this role; several major county roads lead directly to the heart of the village. This Plan encourages further development of the village with expanded opportunities for commercial, industrial, and residential growth, while respecting and preserving the rural qualities of the Township as a whole.

The Mixed-Use Village Center also provides an opportunity for denser residential development, both in the form of single unit detached facilities and potentially in the form of mixed-use residential/commercial properties.

Any development that does occur must take into account suitability in relationship to abutting land uses. Conflicts between land uses, primarily between commercial/industrial and residential uses, should be minimized through the use of buffers and screens. Limits on signage, building heights, and related architectural qualities should be established to better assure compatibility of land uses as the zones continue to develop.

### *Public Infrastructure Development*

The ability of the Township to accommodate commercial, industrial, and residential growth is severely restricted by the lack of basic sewer and water services. Introduction of a municipal water system would eliminate the need for septic systems, which in turn makes it possible for development of multiple units per acre. This Plan recommends a phased introduction of water and sewer services within the village area, with potential expansion as required to accommodate new growth.

It must be emphasized that the proposed infrastructure improvements should be strictly limited to allow a gradual, controlled expansion of the community. These facilities should not be allowed in the Agricultural Residential Zone, and should only be incorporated into Residential Zones if a proposed development lies immediately adjacent to the village center. Increased traffic should be expected in these areas, therefore preferred expansion routes should follow existing county roads.

### *Residential Development*

Existing residential development densities in the village are typically in the range of two to four units per acre. This level of density is appropriate for this region, especially if municipal water and sewer is introduced in the area. Compact development and clustering of homes is highly encouraged, with remaining open space to be preserved and utilized for community gathering points and unofficial park spaces.

All future developments should be closely monitored to ensure that proposed developments meet the character and quality of the surrounding community. To help ensure compact development, the zone should only extend approximately 1/2 mile out from the commercial center. Further expansion of this zone should not be allowed until it is demonstrated that a greater land area is necessary and appropriate.

### *Commercial Development*

Onondaga village currently serves as the commercial center of the Township. The Plan recommends that this configuration is not only allowed to continue, but that steps be taken to encourage further commercial development in the town center. Implementation of a municipal water and sewage system will allow denser development in the commercial and industrial districts. Commercial development should be compact, centered on the intersection of Onondaga and Old Plank Roads, and should exhibit the “small town” character of the surrounding Township. Commercial developments should be aimed at serving the needs of the immediate community, and should not have a regional focus. Minimal setbacks with on-street parking in front and overflow parking behind the commercial properties will help to contribute to the rural aesthetic Township residents desire.







### *Light Industrial Development*

Light industrial development should also be encouraged in the Mixed-Use Village Center. The industrial center should be located west of the intersection of Bellevue and Plank Roads. This location, while still in close proximity of the village center, is far enough away to minimize land use conflicts. Much like commercial development, industrial development should be relatively small scale and of a character that does not conflict with the existing rural character of the surrounding neighborhoods.

### **PHASED ZONING**

Rezoning of vacant land should be discouraged except in a phased manner. All rezoning requests should only be accommodated on an incremental basis to allow for controlled, centralized development on a level that is appropriate for existing Township resources. Immediate rezoning “across the board” is not recommended; while the Plan may identify parcels of land that are suitable for commercial, industrial, or high density residential development, these properties should be held as undeveloped until it has been demonstrated that the Township has adequate resources, facilities, and sufficient need to support such a development.



Image 6: Veterans Memorial Park, Source: [www.onondagatownship.org](http://www.onondagatownship.org)

## PUBLIC SERVICES STRATEGY

All development is predicated on the assumption of a well developed system of infrastructure and public service amenities. While the Plan thus far has focused on land use development and maintaining of Onondaga Township's rural character, it is the underlying infrastructure and public service features that will ultimately define the growth of the Township and the boundaries of the higher density zones.

Public services and infrastructure include emergency protection services (police, fire, ambulance), roads and highways, sewage and water, and general government services. The capability of these services to handle anticipated growth should be the driver behind encouraging or limiting development. As development occurs, Township officials must be prepared to accommodate the demands of the new residents and businesses.

### *Roadway Network*

Onondaga Township's roadway network is well suited to handle existing levels of traffic, although based on results from the Master Plan survey, residents feel maintenance has started to become an issue. As the Township continues to grow, traffic flow management and ongoing maintenance will become even more important.

Priority for road improvements and maintenance should be given to those roads which present a threat to human welfare, including roadway impasses and roads regularly inundated by flooding. Once these issues have been addressed, the functional classification of roads should determine the priority of any improvements. County primary roads should receive first attention, particularly those within the Residential and Mixed-Use Village areas. County local roads, again in the Residential and Mixed-Use Village areas but excluding roads in platted subdivisions or similar developments, would receive the next highest level of consideration. Minor roads, including the aforementioned roads within platted subdivisions, would receive lower priority.

### *Sewage Disposal and Potable Water*

The Township does not currently provide potable water or sewage service to its residents. Residents rely on well water and septic field service to control their waste. Septic fields require a relatively large surface area to operate, meaning that typical residential lots need to be one to two acres or greater to accommodate the treatment. Commercial and industrial operations typically place an even larger demand on sewage services and require a higher level of potable water.







Improper construction or operation of septic fields can contaminate drinking water, posing a serious health risk to the community and the community's lakes and streams. Complicating matters further, much of the soil in the area is considered unsuitable for on-site sewage disposal.

Municipal water and sewage service alleviates the aforementioned problems, and frees up prime land for higher density development. Higher density development in turn relieves the pressure to develop sensitive natural or agricultural areas.

The Plan recommends implementation of a municipal sewage and water service for the Mixed-Use Village area. The system should be introduced on a carefully controlled basis; any expansion of the service should be limited to the areas immediately adjacent to the Mixed-Use Village area which are being considered for rezoning. It is important to introduce services in a controlled fashion as premature introduction of these services into underdeveloped areas can lead to accelerated and unmanaged growth.

Any introduction of municipal sewer and water should take place only after careful consideration. The community should look to neighboring communities for partnership opportunities.

In addition to growth opportunities, several existing neighborhoods are slightly denser than other areas of the Township. If there are significant septic system failures in this area, a municipal system may become more of a necessity.

The Township should investigate parcels to acquire and reserve for future facility development. Section 20 (see map on page 67) may prove to be a suitable candidate, as it offers close proximity to both Onondaga Village and the subdivisions along Kinneville Road. The easternmost portion of the section has relatively infrequent flooding events, does not contain any wetlands, and has good access to Onondaga Road. Further study by qualified sanitation engineers will be required.

Any new facilities will be constructed and maintained in strict accordance with the requirements and standards of the Ingham County Public Health Department, Michigan Public Health Department, and other applicable local, county, state, or federal agencies.

## *Stormwater Management*

As development increases in Onondaga Township, so does the amount of impermeable surfaces. Vegetation that once intercepted and slowed rain is replaced with hard surfaces. Even surfaces considered permeable, such as lawn and gravel roads, offer a fraction of the detention capabilities of native, undisturbed vegetation. Unchecked runoff poses problems with flooding, scours away valuable topsoil, and increases sedimentation in lakes and streams, stunting or even killing off fish populations.

A number of stormwater management techniques exist which can help mitigate the worst effects of runoff. Vegetated swales, rain gardens, and detention/retention ponds are but a few methods of retaining stormwater on site, allowing the water to infiltrate gradually or at least slowing the water so that it does not contribute to the rush of water polluted water pouring into area streams.

All new and existing land uses must comply with county, state, and federal regulations regarding storm water management and soil erosion. While adherence to these regulations will greatly reduce the impact of stormwater on local ecosystems, the Township may consider taking additional steps to further control runoff levels. Runoff produced due to increased development should be detained on-site. Finally, for both safety and environmental protection reasons, development within the 100-year floodplain as defined by FEMA should be strongly discouraged.

## *Emergency Services & Administrative Facilities*

An increasing population base will demand a higher level of service than the community currently provides its residents. Increased police, fire, and emergency services along with improved access to administrative facilities should be anticipated.

Fire protection infrastructure such as wells, waterlines, and the like, should be considered necessary for platted subdivisions and other developments where the increased size and density of the development demands it. Standards for communities of a similar size and density recommend a maximum service radius of 3 miles, and a maximum 2 mile service radius for higher density residential and commercial areas. The Township should explore partnering opportunities with surrounding communities, and should consider the addition of additional fire stations within the Township.

The Township Hall facility is geographically well situated to provide service to Township residents. Limited hours of operation, while adequate to meet current demands, should be expanded to match expectations of Township residents.





## Recreation

While Onondaga Township has abundant levels of open space, most of it is held by private entities. As the population base increases, access to public open space and opportunities for a variety of recreational opportunities will increase. The Township should consider acquisition of land for preservation and recreation purposes while land prices are relatively low.

Many municipalities, including the state of Michigan, refer to recreation, park, and open space standards developed in 1983 and 1995 to help determine the adequacy of existing recreational facilities. The guidelines base recreational facility development on a community's overall population. The Michigan DNR has adapted these standards for the state, but notes that the guidelines should be adjusted to meet the wants and needs of the community.

The standards suggest that the Township may lack some of the recreational opportunities demanded by a community of this size. As shown in Table 15, the total acreage of recreational facilities falls short of the minimum recommended levels for mini- and neighborhood parks. As development progresses in the Township, it will be important to set aside open space for future parks. The Township's recently completed 2014 - 2019 Parks and Recreation Master Plan will help guide development of area facilities and will allow the Township to pursue matching grants available through the MDNR.

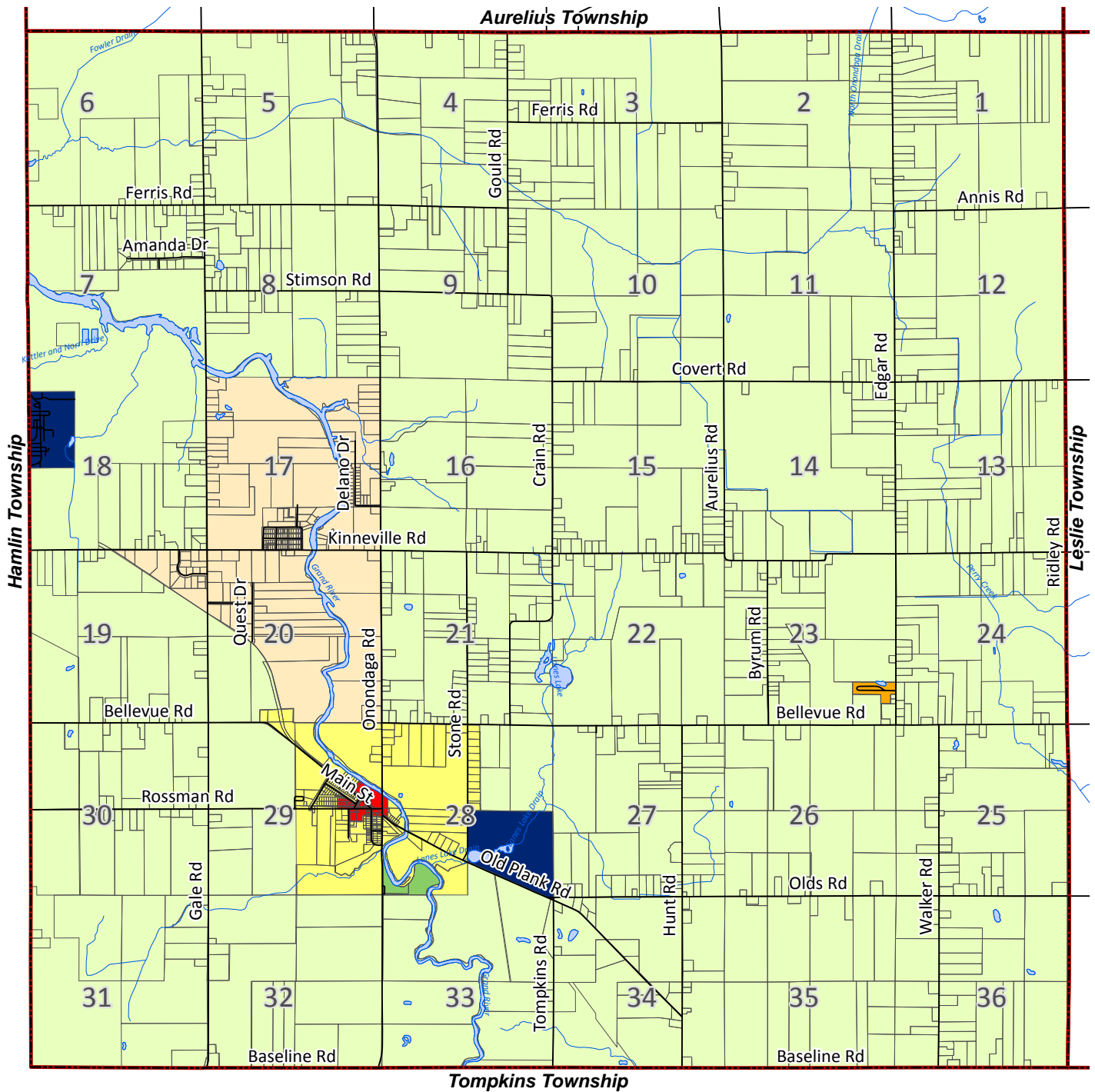
In addition to development of traditional park facilities, the Township should examine the opportunity to connect to regional and state trail systems. Ingham County has been aggressively pursuing opportunities for shared use and bike trails throughout the county, and townships to the north of Onondaga Township have been especially active in developing their trail systems. Bike trails can act as a catalyst for commercial center development, bringing users from outside the Township borders.

**TABLE 18: SUGGESTED FACILITY DEVELOPMENT STANDARDS, STATE OF MICHIGAN**

TYPE OF RECREATION FACILITY	MDNR STANDARD	EXISTING FACILITIES	DEFICIENT (Y/N)	AMOUNT
Mini-Park	0.25 - 0.5 acres/1,000	0.15 acres	Yes	0.6 - 1.35 acres
Neighborhood Park	1.0 - 2.0 acres/1,000	0	Yes	3.0 - 6.0 acres
Community Park	5.0 - 8.0 acres/1,000	16 acres	No	
Basketball Courts	1/5,000	1	No	
Tennis Courts	1/2,000	0	Yes	1 court
Volleyball Court	1/5,000	0	Yes	
Baseball/Softball	1/5,000	1	No	
Trails	1 system per region	0	Yes	

*Source: 2015 Guidelines for the Development of Community Park, Recreation, Open Space, and Green way Plans, Michigan department of Natural Resources Grant Management*

# MAP 16: FUTURE LAND USE



- AR - Agricultural Residential
- CSMU - Commerical Services Mixed Use
- P1 - Public Lands/Institutional
- R-1 - Low Density Residential
- R-2 - Medium Density Residential
- R-MHC - Manufactured Housing Community
- REC - Recreational

## FUTURE LAND USE

Onondaga Township, Ingham County



0 1,000 2,000 3,000 4,000 Feet

Source: MiGDL Map Data

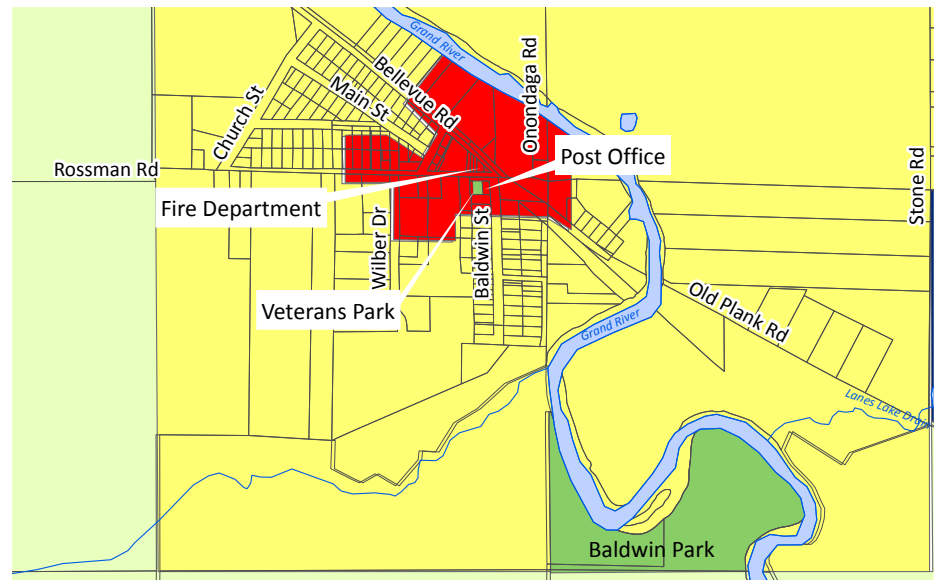
April 18, 2016

Carlisle/Wortman Associates, Inc.  
Ann Arbor, Michigan



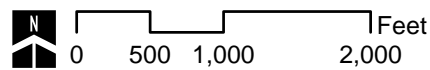


## MAP 16: FUTURE LAND USE - ONONDAGA VILLAGE INSET



### FUTURE LAND USE Onondaga Township, Ingham County

Carlisle/Wortman Associates, Inc.  
Ann Arbor, Michigan  
Source: MiGDL Map Data  
April 19, 2016







## CHAPTER 5

# IMPLEMENTATION STRATEGIES



## INTRODUCTION

The purpose of this chapter is to identify tools the Township can utilize to implement or continue to employ the recommendations of the Master Plan. Where applicable, specific actions to be pursued are provided.

## PUBLIC SUPPORT, COMMUNICATION, AND COMMUNITY INVOLVEMENT

The success of the Township's plan will depend heavily on citizens' understanding of the planning process and the plan's specific goals, objectives, and policies. An engaged population will be more likely to support bond proposals, special assessments, zoning decisions, and development proposals. The Township must effectively communicate the importance of long-range planning and encourage citizen participation in on-going planning efforts.

Specific actions which will help to develop understanding and support for the Township's planning process include:

- Ensure that copies of the Master Plan are readily available for viewing at Township Hall.
- Ensure that copies of the most recent adopted zoning ordinance are readily available for viewing at Township Hall.
- Post the Future Land Use Map of the Master Plan in the Township Hall where it is clearly visible.
- Post a copy of the Master Plan on the Township's web site.
- Post a copy of the most recent adopted zoning ordinance on the Township web site, or make the ordinances available via web services such as MuniCode.
- Post a regularly updated list of current events pertaining to planning and zoning matters in the Township and on the Website.
- Notify residents of meetings that will address development and public service improvement proposals. Notifications should be provided through multiple sources including the Township's newsletter, Township Hall postings, the Township website, and other available means.
- Hold periodic meetings to discuss planning efforts and provide opportunities for public input.
- Promote opportunities for civic involvement such as participation in community advisory boards, neighborhood watch programs, and similar institutions.





# LAND DEVELOPMENT AND PRESERVATION CODES AND PROGRAMS

## ZONING ORDINANCE

Onondaga Township first adopted zoning ordinances in the 1970s and has updated its zoning provisions as required to address changing conditions and policies. Onondaga Township's zoning ordinance was last updated on July 10, 2014. Since 2006, zoning regulations for Michigan communities are adopted under the authority of the Michigan Zoning Enabling Act, P.A. 110 of 2006.

Zoning ordinances, the primary tool for implementing a Master Plan, regulate the use of land, dividing the community into districts. Each district is prescribed a set of uses and a minimum set of requirements that must be met, such as setbacks, minimum lot area, and the like. Onondaga Township's Planning Commission, Township Board, and supporting staffs are tasked with administering and enforcing ordinance requirements, including functions such as plan and site inspections, community/developer liaisons, and periodic ordinance reviews. As the community grows, it will be crucial to employ adequate staff to meet the administrative needs of residents, developers, and other community stakeholders.

## ZONE PLAN

The following sections present a zone plan for the Township. The zone plan is comprised of four components:

- Critical components of the Township Zoning Ordinance
- Overview of zoning districts
- Zoning district site development standards
- Farmland and natural resources preservation tools

### ***A. Critical Components of the Onondaga Township Zoning Ordinance***

The Township should incorporate the following elements into the zoning ordinance and administrative processes to ensure ease of use and to advance the goals, objectives, and policies of the Master Plan:

1. ***Procedural Matters:*** The ordinance should include clear, precise instructions for addressing procedural matters. Procedural processes to be addressed would include:
  - Application for and issuance of zoning permits,
  - Application procedures and approval criteria for amendments to the zoning ordinance

- Application procedures and approval standards for special land uses,
- Application procedures and approval standards for matters before the Zoning Board of Appeals such as variance requests and appeals of administrative decisions
- Violation and enforcement procedures

The current version of Onondaga Township's zoning ordinance effectively meets these requirements for establishing procedural matters. Any future modifications to the zoning ordinance should continue to utilize the precedent established by these ordinances.

2. ***District Provisions / Special Land Uses:*** The ordinance should include a clear representation of each zoning district including the district's purpose, authorized uses, and site development standards. The ordinance should differentiate between uses authorized "by right" versus "special land uses".

"By right" uses are the primary uses and structure specified for a particular district. "Special uses" are uses that are generally accepted as compatible with primary uses but still fall outside of the intended use of the district. An example of a by right use would be construction of a home in a residential district. A special use might be operation of a graphic art studio within a home in a residential district.

Special land uses should be accommodated only in appropriate circumstances. Conditions should be applied to ensure that the proposed use does not negatively affect the quality of the district or well being of its residents. The proposed land use should not be disruptive or have a negative impact on the surrounding properties, and should meet the standards established by the zoning ordinance.

The current version of Onondaga Township's zoning ordinance provides clear direction regarding the application of special land uses. Any future modifications to the zoning ordinance should continue to utilize the precedent established by these ordinances.





**3. *Site Development Standards:*** In addition to language in the zoning ordinance covering general standards such as lot size, setbacks, building heights, and the like, the ordinance should cover more fundamental issues affecting the design and general use of a property such as:

- off-street parking requirements,
- access requirements for emergency vehicles,
- landscaping and screening requirements
- sign regulations
- environmental safeguard provisions

The existing Onondaga Township zoning ordinance as written effectively addresses these requirements. The Township may, however, consider modifications to the existing requirements for setbacks and parking in commercial and industrial districts. The proposed modifications are intended to encourage the development of compact and walkable commercial districts.

- Allow shared-use parking lots for compatible commercial or industrial enterprises. The provision would allow for businesses with functionally different business hours to share parking lots. Such an arrangement would decrease the total amount of surface area dedicated to parking, and in turn decrease the impact on the environment and improve the aesthetics of the district
- Encourage the arrangement of parking lots behind businesses and the implementation of limited on-street parking for commercial districts. This arrangement improves the street presence for businesses and creates a more walkable downtown area.
- The existing ordinance allows for a reduction or elimination of side setback requirements for commercial districts. The ordinance should encourage the development of a street wall (a solid line of businesses) in the commercial district, with limited access points to the aforementioned rear parking.

The remainder of the ordinance language is sound and should continue to act as a model for future ordinance revisions.

**4. *Nonconformities:*** The existing ordinance effectively addresses lots, uses, and structures that are non-conforming due to changes to the zoning ordinance, and the extent to which such facilities can be replaced or otherwise altered. The Township should continue to utilize the language established in these ordinances for future ordinance updates.



- 5. *Site Condominium Regulations:*** Condominiums present special challenges for planners. While similar in many respects to traditional residential developments, condominiums utilize a unique combination of privately owned building elements on collectively owned lots. Zoning regulations must be worded in a manner to ensure that such developments are held to the same standards as other residential developments.

The existing zoning ordinance effectively addresses condominium development. Future amendments or revisions to the ordinance should continue to use this language as a model.

- 6. *Compliance with Current Law:*** The Zoning Enabling Act, Public Act 110, was adopted in 2006. Onondaga Township's zoning ordinance must comply with current law to ensure its validity and the ability of officials to enforce the ordinance. The Township's zoning regulations should be periodically reviewed and updated as applicable to address any subsequent changes to the law.

The existing zoning ordinance effectively adheres to current laws. Future revisions or amendments to the ordinance should continue to use this language as a model.

## ***B. Overview of Recommended Zoning Districts and Relation to Future Land use Strategy/Map***

Table 19 provides recommendations for zoning district classifications to be utilized in the Onondaga Township ordinances as outlined by the Future Land Use Strategy and graphically demonstrated in the Future Land Use Map.

Commercial and light industrial uses, along with mixed use residential space, have been consolidated into a Commercial Services Mixed Use (CSMU) district. The uses are viewed as generally compatible, although careful control of the types of light industrial uses permitted will be important. Creation of separate industrial and commercial districts is not recommended at this time.

## ***C. Zoning District Site Development Standards***

Table 20 provides guidelines for basic site development standards for zoning districts. The standards will help to drive implementation of the recommendations in the Future Land Use Strategy and the Future Land Use Map.





**TABLE 19: OVERVIEW OF RECOMMENDED ZONING DISTRICTS AND RELATION TO FUTURE LAND USE STRATEGY / MAP**

<b>ZONING DISTRICT</b>	<b>PRIMARY RELATIONSHIP TO MASTER PLAN'S FUTURE LAND USE MAP</b>	<b>PRIMARY INTENDED DISTRICT USES</b>	<b>EXAMPLES OF INTENDED SECONDARY DISTRICT USES</b>
AR - Agricultural Residential	Implements the Agricultural Residential Area	Generally limited to agriculture, single family residences, and conservation-based uses such as nature preserves.	Generally limited to uses that support and enhance farm uses or residential areas such as schools, religious institutions, recreation facilities, medical services, and funeral homes, or uses that are compatible with the environmental/rural character of the district such as kennels, stables, bed & breakfasts, hunt clubs, and other home-based businesses..
R-1 Low Density Residential	Implements (in part) the Suburban Residential Area, in the absence of sewer	Generally limited to single family residences and conservation-based uses such as nature preserves.	Generally limited to uses that support and enhance residential areas such as schools, religious institutions, recreation facilities, medical services, and nursing homes, or uses that are uniquely compatible with the environmental/rural character of the area such as bed & breakfasts and other home-based businesses.
R-2 Medium Density Residential	Implements (in part) the Suburban Residential Area, primarily where sewer is present	Generally limited to single and two-family residences	Generally limited to uses that support and enhance residential areas such as schools, religious institutions, recreation facilities, medical services, and nursing homes.
R-MHC Manufactured Housing Community	Implements (in part) the Suburban Residential Area, primarily where sewer is present	Manufactured housing communities, aka mobile home parks	Generally no secondary uses anticipated.
CSMU- Commercial Services Mixed Use	Implements the commercial and light industrial components of the Mixed-Use Village Area	Generally limited to <ul style="list-style-type: none"> <li>• Retail, office, and personal service uses that cater to the needs of Township residents, visitors, and nearby populations;</li> <li>• Industrial uses of a "light" character such as printing and publishing or assembly of electrical appliances; and</li> <li>• Mixed-use residential facilities such as apartments over commercial space.</li> </ul>	Generally limited to <ul style="list-style-type: none"> <li>• Commercial uses geared toward local needs such as gas stations, vehicle repair shops, mini-storage facilities, funeral homes, indoor recreation, and medical services, and</li> <li>• Marginal light industrial uses such as building material sale yards, or monument stone production.</li> </ul>
PI - Public Lands / Institutional	Implements the public services strategy	Limited to public and quasi-public entities including schools, governmental buildings, emergency services, and similar facilities	Generally no secondary uses anticipated.
REC - Recreational	Implements the recreation component of the public services strategy	Generally limited to parks, memorials, preserves, and similar facilities	Generally no secondary uses anticipated.

**TABLE 20: ZONING DISTRICT SITE DEVELOPMENT STANDARDS**

ZONING DISTRICT	MINIMUM LOT AREA	MINIMUM LOT WIDTH & FRONTAGE	MAXIMUM BUILDING HEIGHTS	MAXIMUM LOT COVERAGE	MINIMUM YARD SETBACK		
AR - Agricultural Residential	2 acres	220'	35'	25%	25' to 50' based on type of road	30'	50'
R-1 Low Density Residential	1 acres	200'	35'	25%	25' to 50' based on type of road	15'	35'
R-2 Medium Density Residential	<i>Without sewer:</i> SFD: 20,000 sq ft TFD: 30,000 sq ft  <i>With sewer:</i> SFD: 13,000 sq ft TFD: 22,000 sq ft	<i>Without sewer:</i> SFD: 80 ft TFD: 100 ft  <i>With sewer:</i> SFD: 65 ft TFD: 85 ft	35'	30%	25' to 50' based on type of road	10'	30'
R-MHC Manufactured Housing Community	10 acre project parcel	330 ft project parcel	Conformance with Rules and Regulations of the Michigan Manufactured Housing Commission				
CSMU - Commercial Services Mixed-Use	20,000 sq ft	100'	35'	50%	25' to 50' based on type of road	30'	30'
PI - Public Lands / Institutional							
REC - Recreational							

*SFD = Single Family Dwelling*

*TFD = Two Family Dwelling*

*sq ft = Square Feet*





#### ***D. Farmland and Natural Resources Preservation Tools***


Farmland and natural resources preservation has been discussed at length throughout this Master Plan. Township residents have clearly expressed their strong desire to maintain the current agricultural/rural feel of the community. A number of tools are available to help implement this component of the plan:

- ***Purchase of Development Rights (PDR):*** PDRs pays landowners to protect their farmland from development. A government agency or private non-profit organization buys development rights from landowners in exchange for limiting development in the future, typically in the form of a conservation easement. The program is voluntary and non-regulatory. The landowner receives the difference between the land's existing value and its developed value. Typically the developed value is substantial, as large, open, flat parcels are highly prized by developers. PDRs offer the community the opportunity to target specific areas to preserved for agricultural or open space use, while offering the farmer the opportunity to realize the development value without actually having to develop it. If financing the cost of the PDR requires public support, and residents do not support the purchase, the program may face challenges.
- ***Transfer of Development Rights (TDR):*** TDR programs allow increased in specified areas in exchange for preservation of another specified area. While TDRs are typically used for agricultural or open space protection, the preservation right can be used for protection of any important resource. When development rights are transferred from a property to another, the first property is restricted to agricultural or conservation use by a conservation easement. The second property can be developed at a greater density than is typically allowed by the existing ordinance. TDRs are generally established through local zoning ordinances, and the local government must approve transactions and monitor easements. The main advantage of TDRs over PDRs is that the community need not be involved in financing the development rights as the agreement is between two willing landowners. The community may be reluctant to support permitting increased development densities in the receiving area, however, so the municipality should carefully assess any such agreement.

- ***Farmland Agreements:*** The Farmland and Open Space Preservation Act (PA 116 of 1974, as amended) allows a farmer to enter into a development rights agreement with the state. The agreement ensures that the land will remain in agricultural use for a minimum of 10 years and the landowner may receive tax credits from the state. The land is also not subject to various special assessments such as for sanitary sewer and water. In 2012, the program was under threat of discontinuation due to state budget cuts but remains in operation as of the writing of this Master Plan. Farmland agreements may be extended by the landowner.
- ***Clustering / Planned Residential Development / Open Space Preservation Development:*** This development approach encourages clustered grouping of new housing in one area of a development, preserving the remaining area as open space. The resulting lots are smaller than normally required for residential zoning. Clustering reduces infrastructure costs by reducing lengths of roads and utilities, improves safety by eliminating multiple exit points along county roads, and can preserve 50% or more of the sites available acreage for open space. The preserved areas, in turn, can be utilized for recreation space, continued agricultural uses, or simply preserved as natural area. Clustering patterns typically allow the same overall amount of development that is already permitted, although density incentives may be provided. Clustering should only be utilized in situations where warranted by growth pressures and, whenever feasible, be situated on public roads. If private roads are necessary to facilitate cluster development, clustered developments should be permitted only if a strict road ordinance requiring private roads to meet the standards set for public roads is enacted.







## Onondaga Township Planning Commission

### RESOLUTION

#### TO ADOPT THE ONONDAGA TOWNSHIP, MICHIGAN MASTER PLAN

**WHEREAS**, the Michigan Planning Enabling Act (P.A. 33 of 2008, as amended), required the Planning Commission to review the Master Plan at least every five (5) years after adoption to amend or adopt a new plan; and

**WHEREAS**, a letter of intent to update the plan was mailed to: 1) all planning commissions within or contiguous to the municipality; 2) Ingham County Board; 3) Tri-county Regional Planning Commission; and 4) each registered public utility company and railroad company owning or operating a public utility or railroad within the Township; and

**WHEREAS**, a community survey was distributed by the Planning Commission to receive public comment; and

**WHEREAS**, the Township Board reviewed the draft plan and authorized the distribution of the plan for the required review period; and

**NOW THEREFORE IT BE RESOLVED**, the Onondaga Township Planning Commission hereby adopts the Master Plan on 6/14/16 including all text, descriptive material, and maps.

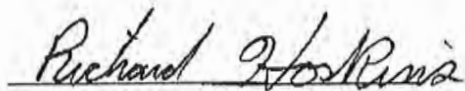
**FURTHER, BE IT RESOLVED**, the Onondaga Township Planning Commission recommended approval of the Master Plan to the Township Board of Trustees including all text, descriptive material, and maps.

Ayes: 7

Nays: - 0 -

Absent: Ray Moore

Abstentions: - 0 -



Richard Hoskins, Chairman, Planning Commission Chairperson

## Onondaga Township Board of Trustees

### RESOLUTION

#### TO ADOPT THE ONONDAGA TOWNSHIP, MICHIGAN MASTER PLAN

**WHEREAS**, the Michigan Planning Enabling Act (P.A. 33 of 2008, as amended), required the Planning Commission to review the Master Plan at least every five (5) years after adoption to amend or adopt a new plan; and

**WHEREAS**, a letter of intent to update the plan was mailed to: 1) all planning commissions within or contiguous to the municipality; 2) Ingham County Board; 3) Tri-county Regional Planning Commission; and 4) each registered public utility company and railroad company owning or operating a public utility or railroad within the Township; and

**WHEREAS**, a community survey was distributed by the Planning Commission to receive public comment; and

**WHEREAS**, the Township Board reviewed the draft plan and authorized the distribution of the plan for the required review period; and

**WHEREAS**, the Planning Commission approved the Master Plan and recommended approval of the Master Plan to the Township Board of Trustees; and

**WHEREAS**, the Township Board of Trustees held a public hearing on January 12, 2017.

**NOW THEREFORE IT BE RESOLVED**, the Onondaga Township Board of Trustees hereby adopts the Master Plan on January 12, 2017, including all text, descriptive material, and maps.

**FURTHER, BE IT RESOLVED**, the Onondaga Township Board of Trustees hereby directs the distribution of the adopted plan to the required entities in accordance with the Michigan Planning Enabling Act (P.A. 33 of 2008, as amended).

Ayes: 5

Nays: 0

Absent: 0

Abstentions: 0



Diane Johnson, Clerk, Onondaga Township

