

TALLMADGE TOWNSHIP MASTER PLAN

CHAPTER 1 PHYSICAL DESCRIPTION

Any plan for the future must be based on knowledge of existing conditions and the influences that have shaped the community. This chapter examines the natural influences that have worked to make the community what it is today. These include its location and natural features such as topography, soils, and water resources.

REGIONAL SETTING

Tallmadge Township is a moderately developed rural township located at the eastern edge of Ottawa County. The Township is experiencing suburban development associated with the rapidly growing Grand Rapids Metropolitan area. Primary access to the township is M-45, a major state arterial which is positioned in an east/west direction through the center of the Township. This highway provides access to Grand Rapids and to Allendale and ultimately Lake Michigan. Interstate I-96 is positioned through the extreme northeast corner of the Township where an interchange provides direct access to Tallmadge Township. Because of its location with respect to the growing Grand Rapids Metropolitan area and numerous other linkages, it is expected that continued suburbanization will be a major factor in the future. Because of their regional significance, the M-45 corridor and the I-96 interchange will tend to attract commercial and industrial uses in the eastern portion of the Township.

TOPOGRAPHY

The most significant factor affecting the topography of the Township is the Grand River and its associated watersheds. The river forms the entire southern boundary of the Township as it meanders to the west toward Lake Michigan. Over time, the river and its tributaries have cut steep slopes and deep ravines into the otherwise gently rolling landscape. Many of the slopes associated with these ravines exceed 12%. Except for the slopes and elevation changes created by the surface drainage network, the major portion of the township has only 60 feet of elevation difference with the greatest difference slightly under 100 feet. Many of the ravines and the river valleys drop 40 feet off in a very short distance, creating attractive views and homesite locations. Most of the slopes associated with the ravines are extremely fragile and pose severe, although localized, limitations on development.

WATER RESOURCES

As previously mentioned, the major water resource of the Township is the Grand River and its tributaries. The most important tributaries are Sand Creek, which runs through the center of the Township from the north to the south and Deer Creek which runs in an east to west direction in the extreme northwest. The Grand River is the southern boundary of the Township placing only the north shore of the river within Township jurisdiction. The course of the river is meandering in nature and provides the Township over 11 ½ miles of river frontage.

There are several small lakes within the Township. Fennessy Lake is the largest and is located in the southeast corner of the Township in section 36. The lake is approximately 65 acres in size and is relatively shallow, averaging roughly ten feet in depth. There is public access to the lake and approximately 70% of the shoreline is residentially developed. Stafford Lake is located just to the north of Fennessy Lake and contains roughly 14 acres of water surface. This lake is also very shallow and is surrounded by wetland area.

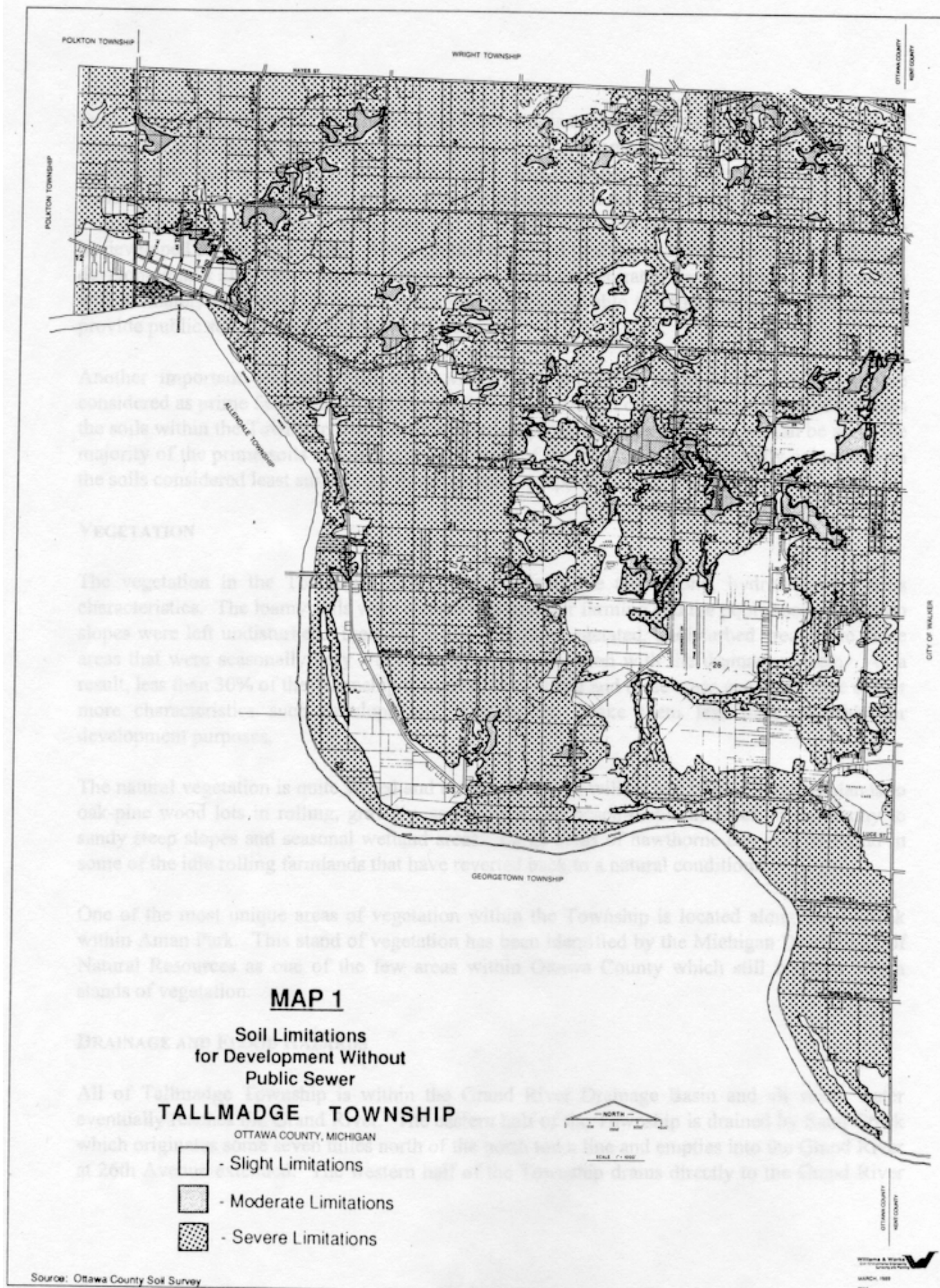
Lake Jabocena contains less than 5 acres of surface area and is located near the center of the Township within Aman Park. In addition to the above three natural water bodies, a series of small man made lakes have been created in the southwest portion of the Township along the Grand River. These water bodies have been created by the extraction of sand and gravel. The total water surface area created by the gravel extraction exceeds 50 acres.

SOILS

Existing development patterns reflect the suitability of the soils to support various land uses without extensive modifications such as public sewers or dewatering systems.

Map 1 has been prepared based on soils and their suitability for residential development without public sewers. The factors considered include water table, bearing capacity, percolation rate, and slope. It should be noted that the soils with severe limitations will, in most cases, present problems for the efficient operation of individual septic systems. Because of high water tables or rapid lateral movement of subsurface waters in these areas, the use of septic tanks and drainage fields provides increased potential of pollution to wells and surface waters. In addition, there is a potential for seasonal flooding of basements. Intensive development in these areas often result in increased demands for public sewer and/or water systems to compensate for environmental hazards or health hazards.

By mapping these soils according to their limitations, patterns are identified which make it possible to determine the development potential of specific areas. Although the map is not intended as a substitute for on site investigation or detailed engineering studies, it does however, generally define those areas that should be considered as prohibitive to intensive development without public sewer and water as well as other public and environmental health protection measures.



From Map 1, it is apparent that much of the Township is unsuitable for extensive development if it must rely on septic systems. With the exception of some lands through the center, the southeastern corner, and in the Lamont area of the Township, most of the Tallmadge would fall in this classification. Another area of porous soils runs parallel with the Grand River along Linden Drive. This area has seen extensive gravel extraction and is experiencing reclamation and residential construction. Although these areas may tend to somewhat limit the areas suitable for development, it also would tend to encourage a more concentrated development pattern which will ultimately be beneficial from the standpoint of being able to efficiently and economically provide public services such as sewer and water.

Another important feature of the soils within Tallmadge Township are the soils that are considered as prime farm land by the United States Department of Agriculture. Map 2 delineates the soils within the Township that are considered as prime agricultural soils. As provided in said map, the majority of the prime soils follow the upland areas of the Township and generally coincide with the soils considered least suitable for developmental purposes.

VEGETATION

The vegetation in the Township quite closely reflects the topography, hydrology and soils characteristics. The loamy soils were cleared and used for farming and the poorer soils and steep slopes were left undisturbed. Included in the naturally vegetated, undisturbed areas were those areas that were seasonally very wet or flooded in connection with the drainage system. As a result, less than 30% of the Township is naturally vegetated and these areas generally have one or more characteristics such as slope and wetness that make them less than desirable for development purposes.

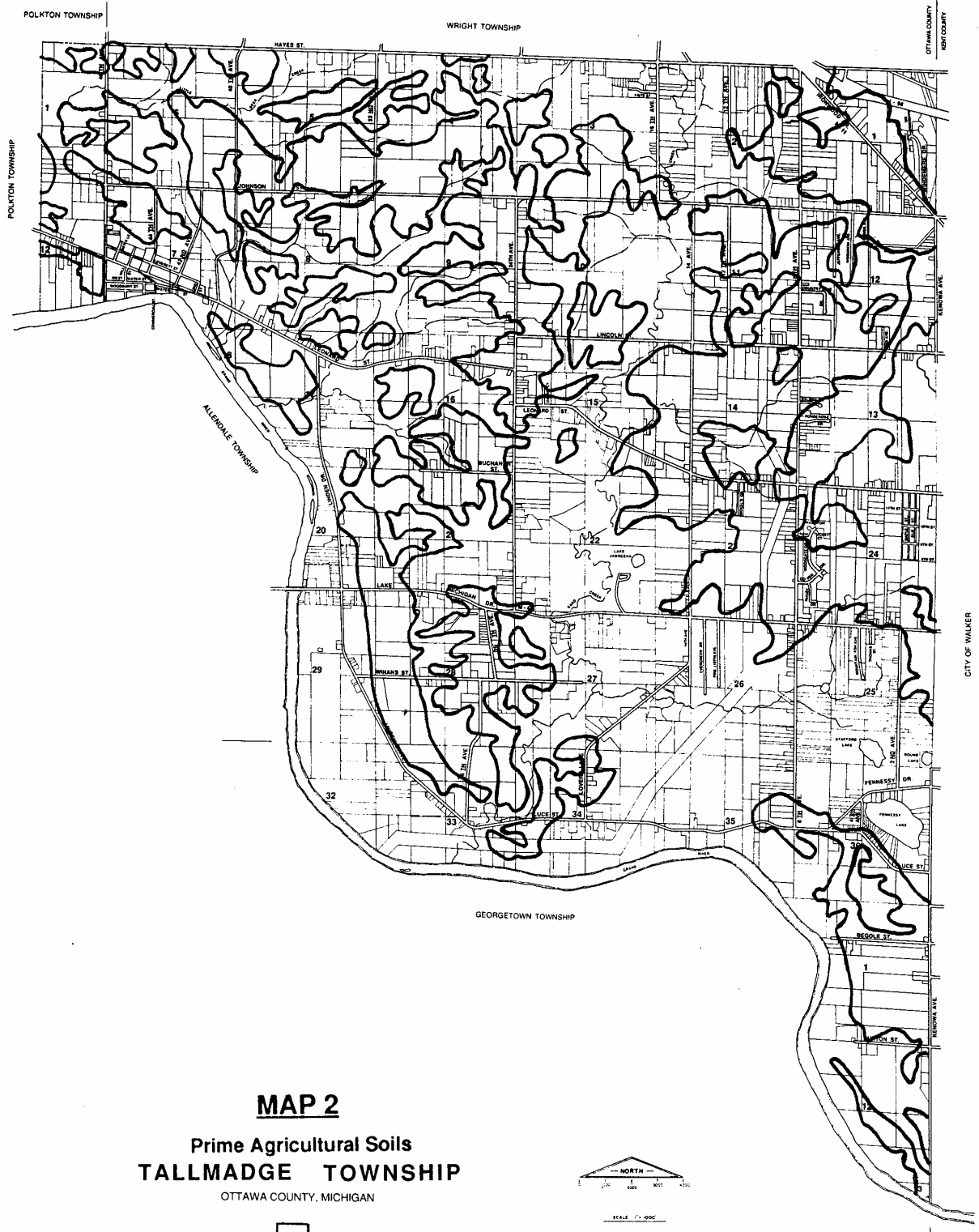
The natural vegetation is quite varied and ranges from ash, willow and poplar trees in the lowlands to oak-pine wood lots in rolling, gravelly, sandy soils and beach-maple-hemlock in the loamy to sandy steep slopes and seasonal wetland areas. Large areas of hawthorne trees can also be found in some of the idle rolling farmlands that have reverted back to a natural condition.

One of the most unique areas of vegetation within the Township is located along Sand Creek within Aman Park. This stand of vegetation has been identified by the Michigan Department of Natural Resources as one of the few areas within Ottawa County which still contains virgin stands of vegetation.

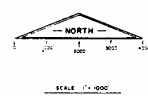
DRAINAGE AND FLOOD HAZARDS

All of Tallmadge Township is within the Grand River Drainage Basin and all storm water eventually reaches the Grand River. The eastern half of the Township is drained by Sand Creek which originates some seven miles north of the north town line and empties into the Grand River at 26th Avenue extended. The western half of the Township drains directly to the

through a number of small streams with relatively small watershed areas. The west half of Section 4 and most of Section 5, 6, as well as Section 1 (of Polkton) are in the larger Deer Creek watershed. This area drains westerly and then southerly emptying into the Grand River approximately one mile west of the Township.



MAP 2
Prime Agricultural Soils
TALLMADGE TOWNSHIP
 OTTAWA COUNTY, MICHIGAN



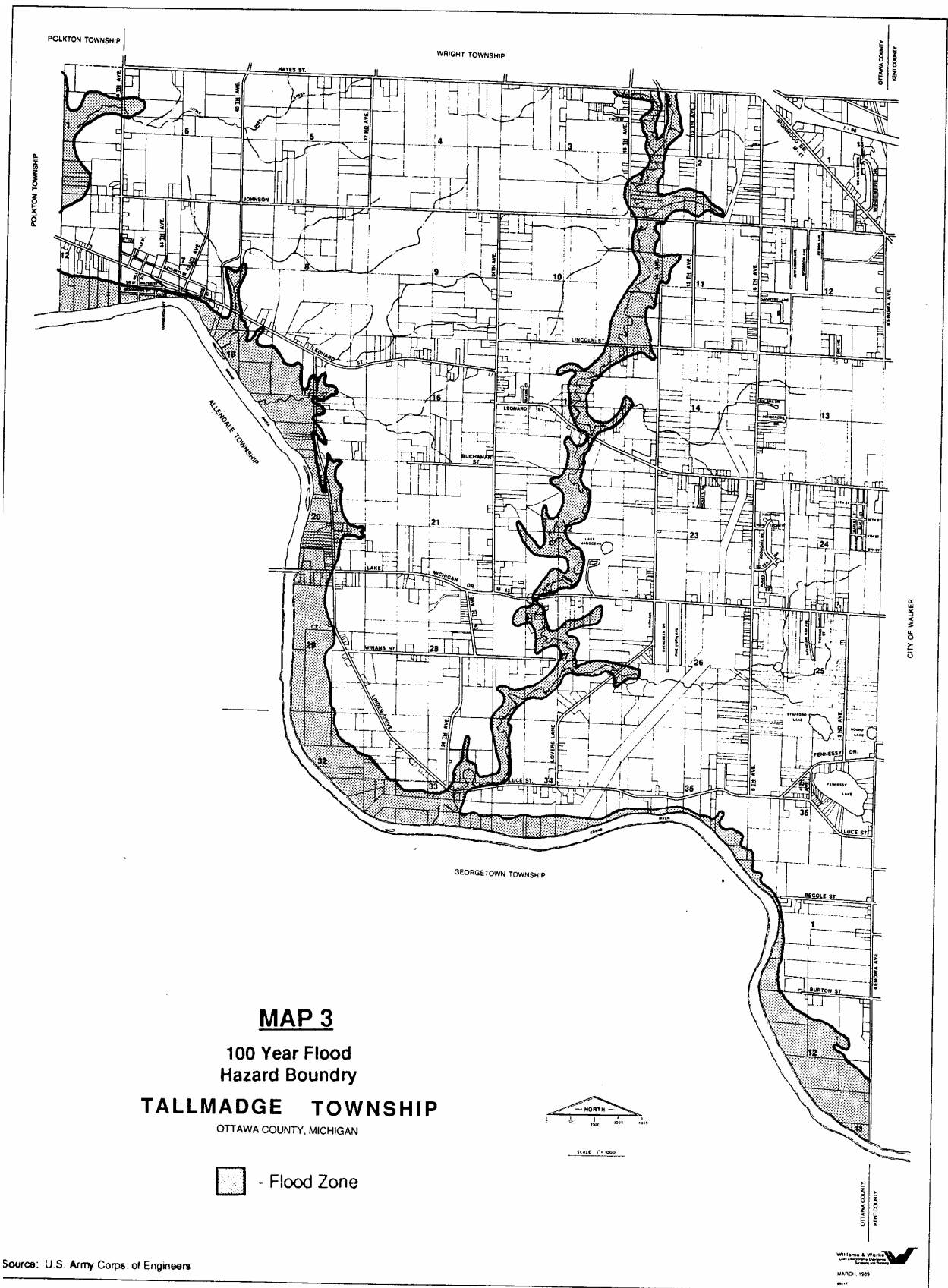
Source: USDA, SCS.

Williams & Morrow
 Surveyors & Engineers
 March, 1989

Hydrographic features have a definite bearing on land use and they are of primary importance in developing a plan that makes use of existing watershed drainage patterns. Every effort must be made to preserve and maintain the flood plain, the woodlands and pasture lands along the streams in their natural state.

Most of the creeks as well as the Grand River will flood the low lying areas along their banks in times of heavy rainfall and also during the spring time snow melt. These flood areas have several implications for planning, such as, consideration in the construction of all structures, the planning and design for new roads including bridges and culverts and the location for recreational and other open space areas.

Map 3 illustrates the 100 year flood plain areas contained within the Township based on a study completed by the U.S. Army Corps of Engineers. This map is only a guide, as its perimeters can change as regulated by the appropriate State agency.



CHAPTER 2

SOCIAL AND ECONOMIC CHARACTERISTICS

Understanding the people of Tallmadge Township will help establish the basis for developing the Master Plan. This discussion will review the Township's population characteristics and trends, its composition and the basic housing characteristics of the community.

POPULATION

A fundamental element of developing a good understanding of the growth of Tallmadge Township and the needs of its residents is the study of population growth and the important indicators such as age, education, income and employment. Such analysis allows decision makers the ability to assess the impacts of changing conditions to better formulate solutions to existing and future problems in terms of supplying services and in formulating the policies for proper land development.

From Table 1 it can be seen that Tallmadge Township experienced an increasing growth rate for each of the decades between 1940 and 1970. However, between 1970 and 1980 this growth rate tapered off considerably. Current estimates of population based on figures provided by Ottawa County indicate that the growth rate from 1980 to the present has generally slowed even further.

TABLE 1
POPULATION

<u>Year</u>	<u>Population</u>	<u>Numerical Change</u>	<u>Percent Change</u>
1940	1,728	-	-
1950	2,240	512	29.6%
1960	3,243	1,003	44.7%
1970	4,883	1,640	50.5%
1980	5,927	1,044	21.4%
1990	6,300	373	6.3%
2000	6,881	581	9.2%
2010 (est.)	7,535	654	9.5%
2020 (est.)	8,230	695	9.2%

Source: 1980 U.S. Census
2003 Ottawa County Demographics Data Book

Table 2 compares the past and present population trends of the Township with the other communities within Ottawa County for the same time period. These figures indicate that

recent growth in Tallmadge Township has been among the slowest in Ottawa County. This is in stark contrast to the growth rates experienced during the 1940's, 1950's and 1960's when the Township maintained one of the fastest numerical and percentage rates of increase.

One of the factors that may have influenced the growth rate in the Township is the limited availability of utilities throughout the Township and the resultant inability of large scale development to occur without public sewer and water systems. As a result, much of the development which has occurred in the 1970's and 80's has been on large acre lots in rural settings.

Table 3 illustrates the Township's population by age group. From the information that is presented, it can be seen that Tallmadge Township's population characteristics are fairly consistent with those of Ottawa County as a whole.

Since a comparatively large portion of Tallmadge's and adjacent Township's populations are entering their childbearing years, the nearby area and Tallmadge would appear to have a relatively high potential for an increased rate of natural population growth over the next twenty years. This assumption is reinforced by recognizing the national trend of delayed childbirth by young couples. Net population gains will of course be significantly influenced by migration patterns where it is expected that because of overall growth in the Grand Rapids Metropolitan area, in-migration is likely to exceed out-migration.

HOUSEHOLDS

In 2000 there were 2,283 households in Tallmadge Township which is an increase of approximately 23% from 1980. The number of persons per household is shown in Figure 1.

ECONOMIC CHARACTERISTICS

In 1999 the median household income in Tallmadge Township was \$59,205, as compared to \$52,347 for Ottawa County. The per capita income in Tallmadge Township was \$23,957 in 1999, as compared to \$21,676 for Ottawa County

OCCUPATION & EDUCATION

Tallmadge Township has a diverse occupational profile that reflects the fact that relatively few employment opportunities exist within the Township itself. This tends to broaden the character of the workforce as residents are required to work outside of the Township in a wide variety of jobs. Census data also reveals the average travel time to work for employed persons in the Township is over 21 minutes. This substantiates the obvious conclusion that Tallmadge is a bedroom community.

Educational data provided by the Ottawa County Planning and Grants department reveals that over 82% of the Township has a high school degree or greater educational attainment.

FIGURE 1

Household* Size (Local Units of Government, Ottawa County)

Unit of Government	Total Households	One Person		Two Persons		Three Persons		Four Persons		Five Persons		Six Persons		Seven or More Persons	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
City/Village															
Coopersville	1,420	321	22.6%	442	31.1%	241	17.0%	222	15.6%	130	9.2%	42	3.0%	22	1.5%
Ferrysburg	1,315	388	29.5%	501	38.1%	178	13.5%	165	12.5%	57	4.3%	19	1.4%	7	0.5%
Grand Haven	4,979	1,732	34.8%	1,828	36.7%	671	13.5%	480	9.2%	196	3.9%	58	1.2%	34	0.7%
Holland (1)	9,265	2,415	26.1%	2,836	30.6%	1,335	14.4%	1,316	14.2%	757	8.2%	335	3.6%	271	2.9%
Hudsonville	2,514	512	20.4%	835	33.2%	409	16.3%	384	15.3%	224	8.9%	106	4.2%	44	1.8%
Spring Lake (2)															
Zeeland	2,283	737	32.3%	733	32.1%	235	10.3%	320	14.0%	174	7.6%	67	2.9%	17	0.7%
Township															
Allendale	3,306	513	15.5%	973	29.4%	558	16.9%	731	22.1%	347	10.5%	116	3.5%	68	2.1%
Blendon	1,743	191	11.0%	489	28.1%	277	15.9%	406	23.3%	251	14.4%	92	5.3%	37	2.1%
Chester	714	105	14.7%	245	34.3%	116	16.2%	130	18.2%	67	9.4%	33	4.6%	18	2.5%
Crockery	1,393	275	19.7%	492	35.3%	232	16.7%	240	17.2%	109	7.8%	33	2.4%	12	0.9%
Georgetown	14,099	2,216	15.7%	4,674	33.2%	2,231	15.8%	2,852	20.2%	1,510	10.7%	481	3.3%	155	1.1%
Grand Haven	4,609	637	13.8%	1,563	34.6%	870	18.9%	970	21.0%	392	8.5%	118	2.6%	29	0.6%
Holland	9,821	1,922	19.6%	3,032	30.9%	1,609	16.4%	1,780	18.1%	947	9.6%	344	3.5%	187	1.9%
Jamestown	1,500	124	8.3%	459	30.6%	268	17.9%	282	18.8%	222	14.8%	84	5.6%	61	4.1%
Olive	1,370	185	13.5%	365	26.6%	261	19.1%	287	20.9%	168	12.3%	62	4.5%	42	3.1%
Park	6,113	953	15.6%	2,178	35.6%	920	15.0%	1,218	19.9%	578	9.5%	184	3.0%	82	1.3%
Polkton	759	110	14.5%	272	35.8%	108	14.2%	144	19.0%	73	9.6%	32	4.2%	20	2.6%
Port Sheldon	1,574	228	14.5%	581	36.9%	269	17.1%	300	19.1%	135	8.6%	41	2.6%	20	1.3%
Robinson	1,805	228	12.6%	601	33.3%	320	17.7%	388	21.4%	181	10.0%	59	3.3%	30	1.7%
Spring Lake	5,237	1,347	25.7%	1,872	35.7%	815	15.6%	791	15.1%	309	5.9%	82	1.6%	21	0.4%
Tallmadge	2,283	327	14.3%	765	33.5%	390	17.1%	434	19.0%	241	10.6%	79	3.5%	47	2.1%
Wright	1,037	180	17.4%	317	30.6%	190	18.3%	172	16.6%	102	9.8%	47	4.5%	29	2.8%
Zeeland	2,523	343	13.6%	858	34.0%	380	15.1%	503	19.9%	293	11.6%	106	4.2%	40	1.6%
Ottawa County	81,662	15,989	19.6%	26,941	33.0%	12,883	15.8%	14,493	17.7%	7,463	9.1%	2,600	3.2%	1,293	1.6%

Source: U.S. Census Bureau, 2000 Census Summary File 1

* A household consists of all people who occupy a housing unit regardless of relationship. See the Glossary of Terms for further explanation.

(1) Portion of Holland City located within Ottawa County

(2) Spring Lake Village data included with Spring Lake Twp.

TABLE 2

Population (Local Units of Government, Ottawa County, State)

Unit of Government	Population*			Percent Change		Projections**		Percent Change
	1980	1990	2000	1980-1990	1990-2000	2010	2020	2000-2020
City/Village								
Coopersville	2,889	3,421	3,910	18.4%	14.3%	4,587	5,358	37.0%
Ferrysburg	2,440	2,919	3,040	19.6%	4.1%	3,309	3,597	18.3%
Grand Haven	11,763	11,951	11,168	1.6%	-6.6%	10,748	10,338	-7.4%
Holland (1)	21,767	26,086	27,846	15.2%	11.0%	30,590	33,513	20.4%
Hudsonville	4,844	6,170	7,160	27.4%	16.0%	8,668	10,452	46.0%
Spring Lake	2,731	2,537	2,514	-7.1%	-0.9%	2,419	2,327	-7.4%
Zeeland	4,764	5,417	5,805	13.7%	7.2%	6,269	6,757	16.4%
Township								
Allendale	6,080	8,022	13,042	31.9%	62.6%	20,352	32,311	147.7%
Blendon	3,763	4,740	5,721	26.0%	20.7%	7,002	8,514	48.8%
Chester	2,034	2,133	2,315	4.9%	8.5%	2,498	2,690	16.2%
Crockery	3,536	3,599	3,782	1.8%	5.1%	4,008	4,244	12.2%
Georgetown	26,104	32,672	41,658	25.2%	27.5%	53,569	68,574	64.6%
Grand Haven	7,238	9,710	13,278	34.2%	36.7%	17,887	23,941	80.3%
Holland	13,739	17,523	28,911	27.5%	65.0%	42,784	63,229	118.7%
Jamestown	3,546	4,059	5,062	14.5%	24.7%	6,103	7,302	44.3%
Olive	2,449	2,866	4,691	17.0%	63.7%	6,711	9,581	104.2%
Park	10,354	13,541	17,579	30.8%	29.8%	23,346	30,980	76.2%
Polkton	2,027	2,277	2,335	12.3%	2.5%	2,451	2,571	10.1%
Port Sheldon	2,206	2,929	4,503	32.8%	53.7%	7,015	11,379	152.7%
Robinson	3,018	3,925	5,588	30.1%	42.4%	7,763	10,752	92.4%
Spring Lake	6,857	8,214	10,626	19.8%	29.4%	13,467	16,940	59.4%
Tallmadge	5,927	6,300	6,881	6.3%	9.2%	7,535	8,230	10.6%
Wright	3,387	3,285	3,286	-3.0%	0.0%	3,305	3,325	1.2%
Zeeland	3,711	4,472	7,613	20.5%	70.2%	11,288	16,738	119.9%
Ottawa County	157,174	187,768	238,314	19.5%	26.9%	303,674	393,643	65.2%
Michigan	9,262,044	9,295,287	9,938,444	0.4%	6.9%	10,121,300	10,454,700	5.2%

* Source - Population Data: U.S. Census Bureau, 1980, 1990 & 2000 Census, Table DP-1

** Source - Projection Data: West Michigan Regional Planning Commission (2001)

(1) Portion of Holland City located within Ottawa County

TABLE 3

Age Distribution (Local Units of Government, Ottawa County, State)

Unit of Government	Total Population		Under 5 Years		5-24 Years		25-44 Years		45-64 Years		65+ Years	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
City/Village												
Coopersville	3,910	100.0%	309	7.9%	1,299	33.2%	1,191	30.5%	715	18.3%	396	10.1%
Ferrysburg	3,040	100.0%	186	6.1%	726	23.9%	809	26.6%	886	29.1%	433	14.2%
Grand Haven	11,168	100.0%	591	5.3%	2,689	24.1%	3,084	27.6%	2,614	23.4%	2,190	19.6%
Holland (1)	27,846	100.0%	2,256	8.1%	10,403	37.4%	7,766	27.9%	4,181	15.0%	3,240	11.6%
Hudsonville	7,160	100.0%	626	8.7%	2,264	31.6%	2,017	28.2%	1,185	16.6%	1,068	14.9%
Spring Lake	2,514	100.0%	128	5.1%	524	20.8%	646	25.7%	561	21.9%	666	26.5%
Zeeland	5,805	100.0%	384	6.6%	1,602	27.6%	1,536	26.5%	933	16.1%	1,350	23.3%
Township												
Allendale	13,042	100.0%	891	6.8%	7,144	54.8%	3,024	23.2%	1,369	10.5%	614	4.7%
Blendon	5,721	100.0%	430	7.5%	2,137	37.4%	1,662	29.1%	1,167	20.4%	325	5.7%
Chester	2,315	100.0%	145	6.3%	752	32.5%	721	31.1%	429	18.5%	288	11.6%
Crockery	3,782	100.0%	236	6.2%	1,078	28.5%	1,193	31.5%	900	23.8%	375	9.9%
Georgetown	41,658	100.0%	2,923	7.0%	13,840	33.2%	11,480	27.5%	8,999	21.6%	4,436	10.6%
Grand Haven	13,278	100.0%	977	7.4%	3,942	29.7%	3,952	29.8%	3,314	25.0%	1,093	8.2%
Holland	28,911	100.0%	2,909	10.1%	9,147	31.6%	9,955	34.4%	4,858	16.8%	2,042	7.1%
Jamestown	5,062	100.0%	398	7.9%	1,821	36.0%	1,438	28.4%	1,107	21.9%	298	5.9%
Olive	4,691	100.0%	380	8.1%	1,688	36.0%	1,598	34.1%	775	16.5%	250	5.3%
Park	17,579	100.0%	1,398	8.0%	5,163	29.4%	6,342	30.4%	4,328	24.6%	1,348	7.7%
Polkton	2,335	100.0%	137	5.9%	717	30.7%	647	27.7%	585	25.1%	249	10.7%
Port Sheldon	4,503	100.0%	362	8.0%	1,307	29.0%	1,352	30.0%	1,127	25.0%	355	7.9%
Robinson	5,588	100.0%	442	7.9%	1,696	30.4%	2,027	36.3%	1,122	20.1%	301	5.4%
Spring Lake	10,626	100.0%	728	6.9%	2,873	27.0%	3,119	29.4%	2,660	25.0%	1,246	11.7%
Tallmadge	6,881	100.0%	481	7.0%	2,134	31.0%	1,963	28.5%	1,671	24.3%	632	9.2%
Wright	3,286	100.0%	207	6.3%	1,018	31.0%	938	28.5%	736	22.4%	387	11.8%
Zeeland	7,613	100.0%	718	9.4%	2,509	33.0%	2,395	31.5%	1,441	18.9%	560	7.2%
Ottawa County	238,314	100.0%	18,242	7.7%	78,473	32.9%	69,834	29.3%	47,663	20.0%	24,112	10.1%
Michigan	9,938,444	100.0%	672,006	6.8%	2,855,899	28.7%	2,960,544	29.8%	2,230,978	22.4%	1,219,018	12.3%

Source: U.S. Census Bureau, 2000 Census, Table DP-1

(1) Portion of Holland City located within Ottawa County

CHAPTER THREE

EXISTING LAND USE ANALYSIS

Tallmadge Township lies on the westerly fringe of the Grand Rapids Metropolitan area. As a result, the majority of development is generally oriented towards Grand Rapids and is located in the Eastern one-third of the Township. The most notable concentrations of development are directly associated with the major paved streets and available public utilities. This has resulted in the emergence of a pronounced linear pattern of development. This is typical of many communities in the early stages of suburbanization.

Following is a description of the specific land uses and their locations in the Township.

AGRICULTURAL AND OPEN LANDS

Despite the Township's proximity to an expanding urban area, Tallmadge Township can still be termed rural to moderately rural in character. Roughly 15% of its land area remains under agricultural production and 50% can be categorized as open or vacant.

Agricultural activity is very diverse within the Township. It consists of general field crops such as vegetables and grains, livestock and dairy farming, and specialized activities such as fruit orchards and ornamental evergreen nurseries. The locations of farmland of the various types is largely the result of a wide range of soil and topographic characteristics.

In the northwesterly portion of the Township, topography is relatively flat in the higher elevations and soils are very conducive to field crops. To date, relatively little development has occurred here and the majority of the land has been vacated, as it is no longer experiencing active production.

Fruit orchards are found scattered throughout the Township, but the highest concentrations are located in the extreme southeast portion. The fruit orchards are generally located in rolling topography to take advantage of air drainage that enhances growing conditions.

The evergreen nurseries are concentrated in a relatively small area in the northeast portion of the Township. This area consists of a broad flat plain containing sandy loam and loams with a high water table. These conditions are ideally suited for such activity.

Over the past ten years a considerable amount of farm land has been taken out of production. However, a relatively small amount of active farmland has actually been lost to development. Most of that which has been lost is in the eastern portions of the Township and in the southwest within the Grand River flood plain. In this flood plain area, several large parcels of farm land have been consumed by gravel mining operations.

Open and vacant areas are the largest category of land use. They consist primarily of large continuous wooded areas and large open fields of once farmed but marginal farm land. Also included are portions of large residential lots not actually utilized for residential purposes.

The majority of the wooded areas are associated with steep topography found in the south central portion of the Township. Elsewhere, shrublands and woodlands are generally confined to the major drainage courses and to the low, wet areas associated with the drainage network. While fallow areas of farmland are located throughout the Township, the highest concentrations are located in the eastern portions where development is encroaching and where soils are marginal for continued agricultural production.

RESIDENTIAL LAND USE

Within the residential land use category are conventional single-family homes, two family dwellings, mobile homes and multi-family dwelling units. A review of the information contained in the previous land use plan and 1980 census data indicates that between 1976 and 1980 there were a total of 197 new residential housing units erected. During the period 1980 through 1988, it is estimated that at least 200 additional dwelling units have been erected. This brings the total estimated number of housing units to approximately 2,032.

Due to the fact that Tallmadge Township generally a rural community, residential uses comprise a relatively small percentage of the total land area (7.5%). The largest amount of land is devoted to single-family residential uses (1,550 acres) followed by two family (24 acres), mobile homes parks (14 acres) and multi-family (5 acres).

As previously stated the most concentrated areas of development are found in the eastern portion of the Township in the general area extending southward from the Village of Marne to the Fennessy Lake area. In addition, the Village of Lamont in the extreme northwest stands out as the Township's historical community cluster. This village has its roots in the earliest settlement of the Grand River Valley.

Since 1976, most of the new housing has not been the result of new subdivision development. While at least one new plat has developed and existing plats have continued to be developed, the majority of new homes have occurred in a scattered fashion along the paved county roads. This has resulted in the rather noticeable pattern of residential development eluded to earlier.

There is one mobile home park in the Township. This park was developed in the late 1960's and contains approximately 105 mobile home sites. Multiple family uses consist of a duplex plat containing approximately 70 units, a small number of individually sited duplex units, four 4-family structures and two apartment buildings. The total amount of land estimated to be dedicated to all types of residential uses is placed at approximately 1,550 acres. This is an increase of approximately 320 acres since the previous plan was completed in 1976.

COMMERCIAL LAND USE

Commercial land uses total approximately 80 acres. They range from retail and office establishments to heavy commercial uses such as automotive repair and petroleum products distribution. The highest concentration of commercial activity is located along M-45 west of Second Avenue. This cluster of development also includes an expanding light industrial area and several commercial establishments including a lumber yard, auto parts store, and a recreational vehicle sales and service establishment. A second area of commercial activity is found along M-45 just to the west near 14th Avenue. The commercial uses located here include a restaurant/night club and an automobile auction establishment.

Also on M-45 at the Linden Road intersection is a small cluster of commercial development that includes a small multiple-tenant commercial building, a restaurant, an auto repair establishment and an office building.

One remaining area of concentrated commercial activity occurs in the Ironwood Avenue /8th Avenue area. In this area, the two major uses include a motel and a convenience store/gas station. These uses draw heavily from nearby expressway traffic. Commercial uses that are found within the Township in less concentrated or clustered fashion include a private campground in Section 29, a used car and propane sales on Ironwood Avenue near Second Avenue and several antique shops and several service type cottage industries on scattered residential parcels throughout.

INDUSTRIAL LAND USE

Within the Township industrial uses generally coincide with commercial areas described above. The most significant industrial area is in the M-45/Second Avenue area where several processing and manufacturing establishments have located in recent years. In addition, new industrial uses have been established in the Ironwood Drive/Kenowa Avenue area and several also exist in the Ironwood Drive/I-96 area.

It is estimated that industrial development in these areas represent approximately 40 acres of land.

In addition to the more conventional forms of industry listed above, gravel mining and oil wells are industrial land uses in Tallmadge Township.

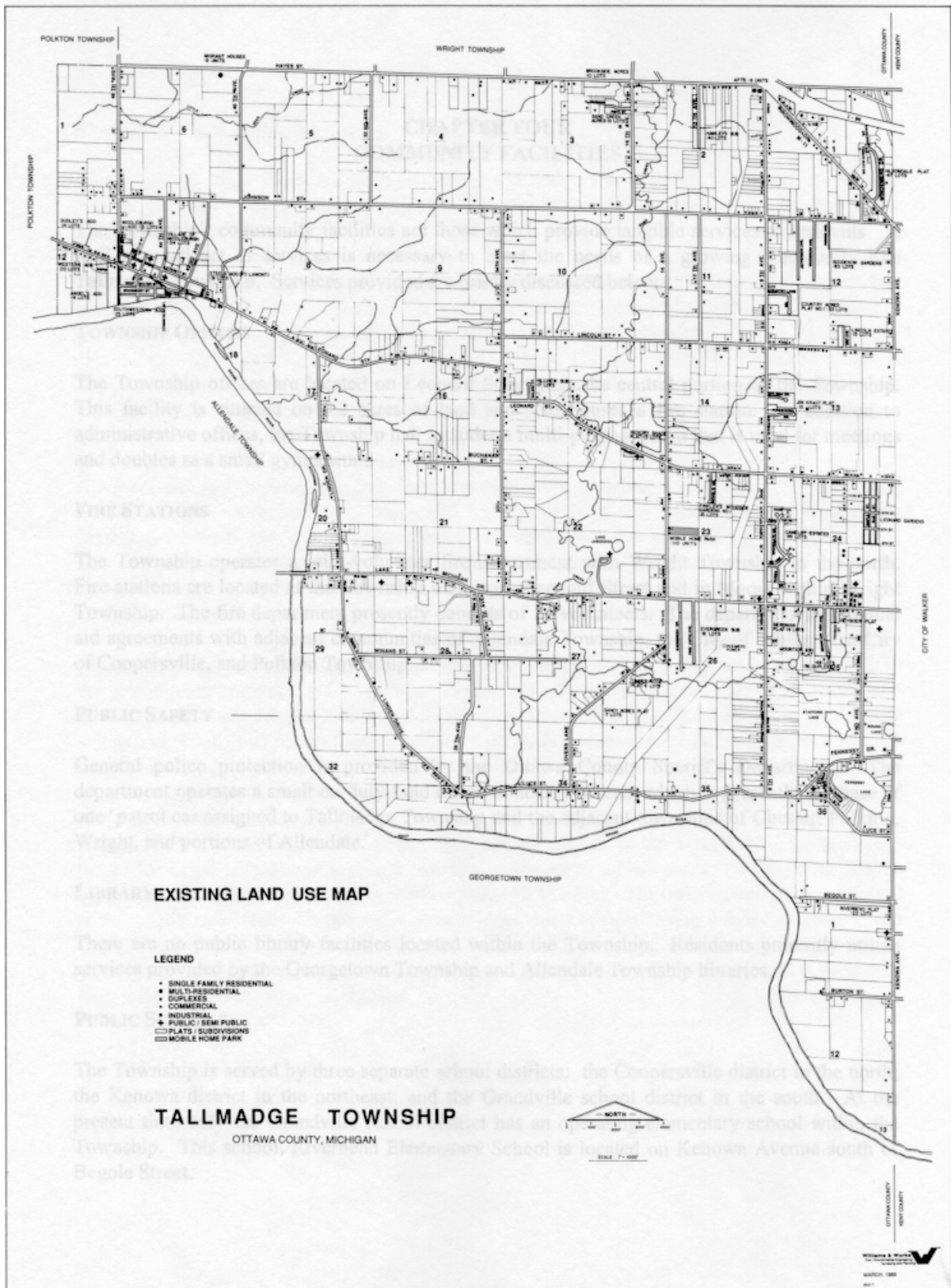
The principal area of gravel extraction is located south of M-45 both east and west of Linden Avenue. Well over 100 acres of land are currently directly devoted to gravel extraction and associated activities in this area.

There are numerous oil wells scattered throughout the Township within both developed and undeveloped areas. The highest concentrations of these wells are in the southeast. In addition to the numerous individual well sites are two oil service and storage facilities. Both of these facilities are located near Fennessy Lake and the most significant comprises approximately 5 acres of land.

PUBLIC AND SEMI-PUBLIC LAND USES

Public and semi-public uses include land and facilities available for use by the general public or specific interest groups. Included are schools, churches, cemeteries, golf courses, township facilities, and public parks. The largest public facility in the Township is Aman Park. It is situated in the center of the Township off of M-45. It consists of nearly 330 acres. Other major public/semi-public uses include the two golf courses south of Marne (180 acres), and Camp Optimist (120 acres).

Several churches and several schools are located in the Township. Map 4 illustrates their locations. Collectively, public and semi-public uses comprise over 570 acres of land.



CHAPTER FOUR COMMUNITY FACILITIES

The Township's community facilities are those which provide tangible services to residents. A well rounded set of services is necessary to meet the needs of a growing community such as Tallmadge Township. Services provided are briefly discussed below.

TOWNSHIP OFFICES

The Township offices are located on Leonard Street near the central portion of the Township. This facility is situated on 5.2 acres of land and also houses a fire station. In addition to administrative offices, the Township hall includes a multi-purpose room that is used for meetings and doubles as a small gymnasium.

FIRE STATIONS

The Township operates a joint-volunteer fire department with Wright Township, which is located to the north. Fire stations are located at the Township offices on Leonard Street and in Marne within Wright Township. The fire department presently consists of 25 volunteers. The department has mutual aid agreements with adjacent communities of Allendale Township, the City of Walker, the City of Coopersville, and Polkton Township.

PUBLIC SAFETY

General police protection is provided by the Ottawa County Sheriff's Department. The department operates a small on-duty field office in nearby Marne, which is presently the base of one patrol car assigned to Tallmadge Township and the adjacent townships of Chester, Polkton, Wright, and portions of Allendale.

LIBRARY

There are no public library facilities located within the Township. Residents presently utilize services provided the Allendale Township library.

PUBLIC SCHOOLS

The Township is served by three separate school districts: the Coopersville district in the north; the Kenowa district in the northeast; and the Grandville school district in the south. At the present time only the Grandville school district has an operating elementary school within the Township. This school, Riverbend Elementary School is located on Kenowa Avenue south of Begole Street.

RECREATIONAL FACILITIES

The Township recently constructed a Township park on its property located on Leonard Street. The park is approximately 27 acres and contains walking trails, tennis courts, baseball fields, a soccer field, swings, horseshoe pits and pavilion.

Aman Park, owned by the City of Grand Rapids and located within Tallmadge Township has been operated by the City as a park and natural area since approximately 1930. It consists of 330 acres of natural area with over 1-1/2 miles of Sand Creek flowing through it from north to south.

Lamont Park is located in the Village of Lamont on Leonard Street on the northeast side of the Township. The site contains approximately 1/10 of an acre and consists of a memorial and a garden area.

Other recreational facilities are contained at school sites including the former Sunshine school which contains approximately 5 acres and has a baseball field as well as tennis court. The Lamont Elementary School within Lamont also has a baseball field and a few playground communities. In addition there are a number of semi-public facilities within the Township that include sportsman clubs and Camp Optimist, which is a special purpose camp that is used almost exclusively by the Grand Rapids Public School system.

The sportsman clubs are hunting and shooting organizations primarily with memberships open to the surrounding communities. The West Walker Sportsman Club, the larger of the two has a membership of over 1,000 with approximately 200 of these from the Township. The facility has a club house that is available for rent on a limited basis and ranges for archery, skeet, trap, rifle and pistol shooting. There are 30 to 35 stations for skeet and trap alone. The Marne Sportsman Club has some similar facilities but on a smaller scale.

Two golf courses are also located in the north central portion of the Township. One facility is the Little Acres golf course and is a par 3, 9 hole course. The other is the Western Greens Country Club, a recreational play type of course with 18 holes.

The only Township campground is the Lakes and Valley Campgrounds located in the southwest along Linden Avenue in the Grand River floodplain. The campground is a developed gravel quarry with a convenience store, game room, social room, restrooms, nearly 70 camp sites with hook ups, and a variety of rentals for boats and service equipment.

CHAPTER FIVE TRANSPORTATION FACILITIES

Because of its nature as a rural and predominantly bedroom community, Tallmadge Township is dependent upon road linkages with nearby communities and the Grand Rapids Metropolitan area in general. Therefore, convenient, safe and efficient access both within the Township and to other designations is very important.

The Township's natural features pose a significant impediment to convenient traffic movement. In many cases, hilly terrain, wetlands, ravines and the Grand River have dictated the locations of roads and in some cases have resulted in the disruption of roads that would have otherwise been constructed in a complete grid pattern. The most significant disruptions are in the south and west where, because of the Grand River, direct access to neighboring Townships in a complete grid pattern from north to south and east to west has not been provided.

Nevertheless, the Township is generally well served by a primary system of roadways and they operate at varying levels of service. Map 5 illustrates the Township road network and classifies various roads by function.

MINOR ARTERIAL AND COLLECTOR STREETS

The minor arterials illustrated on Map 5 are classified by the Ottawa County Road Commission as county primary roads. The Road Commission has total responsibility in maintaining and making improvements to these roads. The rural collectors are classified as local roads by the County and the responsibility for making improvements to the streets is principally that of the Township with some limited revenues being provided by the Ottawa County Road Commission.

At the present time there are approximately 9.5 miles of unpaved local streets within the Township. These types of roads are not designed to efficiently handle traffic volumes that exceed 50 to 75 cars per day. As a result, the condition of many gravel roads within the Township range from adequate to nearly intolerable. Many of the problems that arise on some of the gravel roads include major site/vision problems, poor alignment, narrow widths and chuck holes in the driving surface. Changing seasons also pose additional problems on gravel roads. During the summer, dust is created that causes many driving problems, as well as serious inconvenience to residents who live along the streets who must contend with the dusty conditions. During the winter months as well as occasionally in the spring, the unplowed roads become impassable with snow and/or mud quite often, which causes the road system to be unusable for varying lengths of time.

As in many rural communities that are experiencing growth pressures, the demands to improve these roads have already been felt and will likely increase as growth continues. As a result, the ability of the Township to administer and finance improvements has been a concern in the past and is likely to continue to be a major issue of the future.

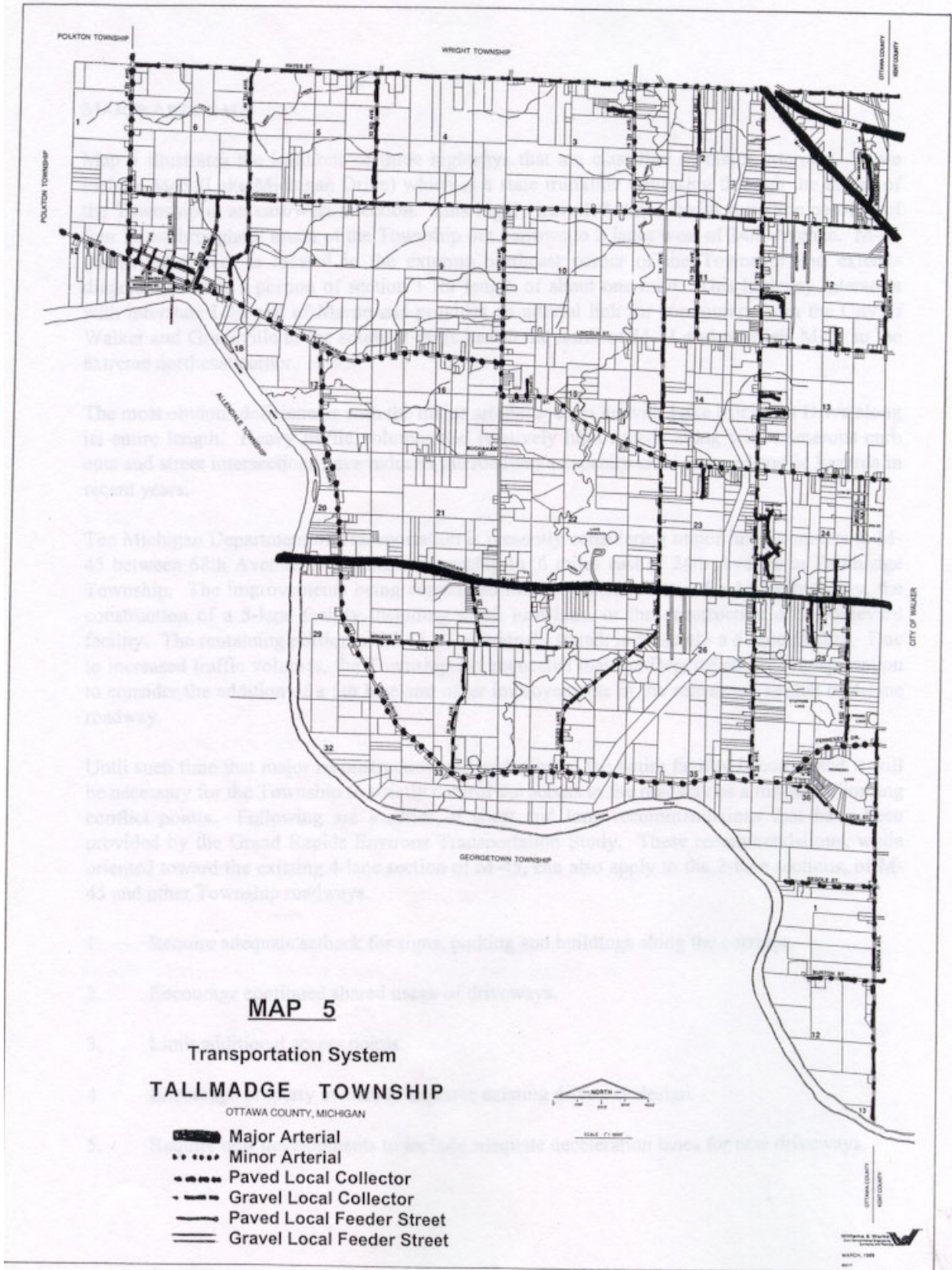
As a means of attempting to address the problems of unpaved roads within the Township, Township officials have made several efforts to inventory the local road network and to establish priorities for improvements. As a result of the efforts begun in 1982, several miles of once graveled roads have now been improved. However, a considerable number of unpaved roads still exist and funds necessary to make the needed improvements are severely limited. Based on the most recent evaluation of the local road network, the following list presents the priorities for road improvements within the Township.

<u>Road Name</u>	<u>Limits</u>	<u>Length in Miles</u>
1. Johnson	16 th to 8 th	1.04
2. 26 th	M45 to Winans	.5
3. 2 nd Avenue	Johnson St. to Ironwood	.25
4. Luce	Kenowa to Fennessy	.8

Source: Moore & Bruggink Eng., 1986

Once the above priority roads have been constructed, the Township's Engineers recommend that the remaining unpaved roads be reevaluated and priority ranked.

Those local and county primary roads that are paved have been maintained in good to excellent condition. While traffic volumes on almost all of these streets have increased, it is expected that the levels of service on those road surfaces will remain within design limitations. Where problems do arise, relatively minor improvements such as left turn lanes and deceleration lanes at intersections can be expected to adequately address deficiencies. Many of these improvements should be planned based upon the intensities of land use that are planned along the various roadway segments.



MAJOR ARTERIALS

Map 5 illustrates the locations of three highways that are classified as major arterials. These include M45 (Lake Michigan Drive) which is a state trunkline traversing through the center of the Township in an east/west direction. This highly traveled state arterial trunkline consists of four lanes throughout the entire Township. M-11 (Ironwood Drive) is located in the extreme northeast corner of the Township and extends diagonally across a portion of section 1 for length of about one mile. This highway intersects with interstate I-96 east of Marne and provides an arterial link for commuters from the City of Walker and Grandville to the south. I-96 is just to the north of M-11 and parallels M-11 in the extreme northeast corner.

Following are a series of short and long recommendations that have been provided by the Grand Rapids Environs Transportation Study. These recommendations, while oriented toward the existing 4-lane section of M-45, can also apply to the 2-lane sections, of M-45 and other Township roadways.

1. Require adequate setback for signs, parking and buildings along the corridor
2. Encourage continued shared usage of driveways.
3. Limit additional access points.
4. Encourage property owners to improve existing driveway design.
5. Require new developments to include adequate deceleration lanes for new driveways.
6. On approving new developments, require adequate setback to allow for improvements to M-45.
8. Install a yellow flashing light at 14th Avenue.
9. Consider animal warning signs at appropriate locations.
10. Improve street lighting in hazardous areas.

In the long range, the following recommendations have been suggested.

1. Improve 14th Avenue sections by adding right turn lanes.
2. Extend proposed M-45 improvements between Sand Creek and 68th Avenue east to M-11 located east of the Township line.
3. Extend Kenowa Avenue northward.

4. Construct an east/west road north of M-45 from 8th Avenue to either Kenowa or 2nd Avenue.
5. Consider installing a traffic signal along M-45.
6. Require new developments to allow adequate right-of-way or easements for future access roads.

As part of the basis for selecting the preferred land use plan alternatives, the above recommendations will be evaluated, and taken into consideration.

CHAPTER SIX PUBLIC UTILITIES

Currently, there are limited public water and sewer facilities available to the residents and businesses in Tallmadge Township. These facilities are located along and around Lake Michigan Drive between the east boundary of the Township and 8th Avenue. In addition, these facilities are located within a portion Ironwood Drive and Johnson Street. As aforementioned, the limitation of these utilities and the existence of heavy soils and other natural limitations has played a major role in curtailing major development from occurring, especially residential growth.

In the absence of these public utilities, homes and businesses must rely on private wells and septic systems. This reliance has resulted in the documentation of wastewater disposal problems, nitrate contamination of shallow wells, and varying qualities of domestic wells which tap into the deeper groundwater aquifers.

Based on the Tallmadge Township Facilities Plan, originally prepared in 1977 and updated in 1982, there are at least five problem areas of existing development that are in need of public sewers. These are concentrated in the eastern six sections of the Township and include:

1. The Begole Street neighborhood located in the extreme southeast corner of the Township. The problems documented in this area include seasonal odors, sewage backups and standing water over drainfields, and contamination of surface waters.
2. The Camelot Estates subdivision located along 8th Avenue in Section 24, where due to heavy soils, frequent septic system failures resulting in wastewater ponding have been documented.
3. The Ponderosa Drive at Bylsma Street residents in Section 13 where seasonal odors and surface water contaminations from septic systems have been documented.
4. The Johnson Street and 8th Avenue areas of Section 12 where the surfacing of effluent has been documented.

Based on the above documented public health problems, a series of alternatives have been evaluated for feasibility in providing public sewers to the area. Most recently, in the Spring of 2006, the Township constructed a lift station at the intersection 8th Avenue and Leonard Street to serve the surrounding area. The need to plan and implement a public sewage system in additional eastern portions of the Township appears necessary. When implemented on the basis of priority, such a system could be used to effectively control the time and location of future development as well as to alleviate current problems.

The documentation of well water quality issues relate primarily to nitrate concentrations in the Lamont area and the suspected contamination of groundwater from oil wells situated in the southeast portions of the Township.

As a result of current and potential health problems, the need for the construction of public sewer and water services to serve the more highly concentrated areas of existing and future development remains a major factor in the development of the future land use plan. However, because the Township does not presently have service areas for the provision of such utilities with surrounding communities, nor the current funding to construct such treatment and supply systems on its own behalf beyond its recent construction, it is likely that the actual revision of additional utilities are at best mid-term considerations. Given such considerations, it is important that development patterns continue to be guided by short range policies based on the natural limitations soils have on development without the provision of public utilities and long-range land use recommendations that assume the eventual provision of one or more of the utilities.

CHAPTER SEVEN PLANNING ANALYSIS

This section of the plan examines the various components which have previously been described and undertakes an analysis of planning indicators and growth trends. This analysis will provide a more complete understanding of the means by which the Township has developed. In addition, guided by this information, the goals and objectives for future development can be established.

By examining population projections, the existing land use mix and basic planning assumptions, the guidelines for developing the various land use needs can be determined. Through this process, the Township Board and the Planning Commission can evaluate if it is reasonable to accommodate development of through large amounts of land or small amounts of land for a specific type use.

Population Projections

By their very nature, population projections are only refined estimates of what the future might hold. It is clearly impossible to forecast the end result of untold individual and public decisions. Assumptions must be based on sound judgment, empirical data and historical information. By necessity, they must be tempered by local opinions or they will certainly be unreasonable. There are numerous methods of estimating future populations growth of a community; some are: (1) the co-hort survival method; (2) average percentage growth rate; (3) average numerical growth rate; and (4) geometric progression. Any of these methods could be utilized depending on the available background information required. For Tallmadge Township, the population is simply projected by the Ottawa County Planning and Grants Department, as shown in Table 1 and Table 2.

Residential Land Use

Given an expected population increase of over 1,500 people and over 730 new dwelling units by the year 2020, an estimated quantity of land area needed to accommodate this growth can be determined by making a few assumptions.

Given a predominance of single family detached homes and the limited public water and sewer facilities, it can be assumed that the average lot size for each future dwelling unit will be approximately 2 acres. This compares to a current average lot size of roughly .8 acres. This assumption is based on several considerations:

1. The current minimum lot size in the agricultural zoning district is 10 acres. Although some development will occur under such regulations, only a relative small percentage of the total number of new dwellings will occupy such parcels.

2. The current minimum lot size in the rural-preservation zoning district is 2.5 acres. The demand for such lot size is expected to be relatively strong.
3. Much of the land area of Tallmadge Township has soils that are unsuitable for on-site septic systems. As a result, lots and parcel sizes larger than the 22,500 square feet presently required in the residential districts are needed to safely provide for private septic systems.

Based on the above assumptions, the amount of land needed to accommodate the projected number of new homes can be determined as follows:

$$730 \times 2 = 1,460 \text{ acres}$$

Based on the amount of vacant land that is presently available in the Township, it appears that there is sufficient land available to handle this projected growth, in a fairly dispersed fashion.

As a more compact pattern of residential growth is to be achieved, the majority of growth must be directed toward areas having soils capable of supporting the higher densities or in the alternative, the provision of a public sanitary sewer system in at least a portion of the Township. The sanitary sewer should be used by the Township to direct future growth and development in a much more systematic and concise pattern.

Commercial Land Needs

There are currently over 60 acres of land developed for commercial use within the Township. This development serves a population presently estimated at approximately 6,800. Utilizing the population projection provided in Table 1 and a ratio of 6.8 acres to every 1,000 people (based on present population projection of 6,800 persons), it is reasonable to expect that an additional 10 to 15 acres of new commercial growth is needed, based solely on the population growth within the Township of approximately 8,230 by the year 2020. However, because the major arterials in the Township are also expected to attract business desiring high visibility for high volumes of through traffic, it is recommended that an additional 5 to 10 acres should be anticipated for a total of 15 to 20 acres of land. This amount of land will be sufficient to support a variety of small commercial lots as well as a larger neighborhood or community oriented service center. It is not anticipated that a major regional shopping center will be located in Tallmadge Township within the planning period.

Industrial Land Needs

Based on existing trends and existing population increases within the Township and the surrounding communities and given the fact that industrial facilities require good highway access, the M-45 and I-96 interchange areas are expected to be an attraction for industrial growth. It is therefore estimated that Tallmadge Township could accommodate an additional demand for well over 50 acres of industrial land if this type of activity were to be promoted.

The amount of land that will be devoted to mineral extraction is difficult to predict. However, based on the existence of desirable sand and gravel deposits in the Township and the broader metropolitan demand for these resources, it is expected that additional sand and gravel mining operations will be started to replace some of the operations which over time become depleted. For the purpose of estimating a land allocation of these uses, it is assumed that the depleted operations will be converted to an alternative use and that a similar amount of new land area desired to be made available for extraction. It is therefore estimated that approximately 100 to 150 acres of land would remain devoted to mineral extraction at any given time during the planning period.

Parks and Recreations

The following standards for Parks provide some guidance that would determine the future recreational needs for Tallmadge Township residents.

<u>Acres Needed Per 100 Population</u>	<u>Type</u>
.5	Mini-park (specialized facilities that serve a limited population or groups such as the elderly or small children).
2.00	Neighborhood playground (Tot-lot, swings, field and court game area, picnicking, ball fields, wading pools, toilet facilities, etc.)
5-8	Community park-playfield (athletic field, area of court games, swimming pools, etc.)

Total 10.5 Acres 1000 people

Source: Recreation Park and Open Space Standards and Guidelines - 1983, National Recreation and Park Association.

CHAPTER EIGHT

GOALS AND POLICIES

Planning goals are statements that express the community's long-range desires and serve to provide direction for related planning activities. Each goal's accompanying policies reflect the general strategy that the community will pursue to attain its goals. Following area set of goals and policy statements that have been developed in response to various land use and planning issues that exist in Tallmadge Township.

GOAL #1: The Environment

To insure that new development takes place in an environmentally consistent and sound manner and that the potential for flood hazard, soil erosion, disturbances to the natural drainage network and surface and groundwater contamination are minimized, thereby protecting natural resources and preserving scenic and environmental quality, as well as minimizing the public burden.

Policies

- Through zoning and site plan review encourage approaches to land development that take natural features such soils, topography, steep slopes, hydrology, and natural vegetation into account in the process of site design.

GOAL #2: Rural Character

To preserve the rural character of the township.

Policies

- Support the Farmland and Open Space Preservation Act, P.A. 116 of 1974 by encouraging use of preservation agreements by area farmers and approving such agreements that are consistent with the land use plan.
- Through zoning regulations, make lands which are less suitable for agriculture use more attractive to develop than prime and unique agricultural land and encourage such development to utilize open space preservation techniques, clustered housing techniques and other amenities and features to preserve rural character.

GOAL #3: Density

Encourage a general low density pattern of residential development consistent with the rural character found in most areas of the township and/or encourage higher density residential

development through planned unit developments that utilize clustered housing, mixed uses and/or open space preservations among other techniques and direct higher densities to occur in areas with available public utilities, which are essential for such development.

Policies

- Establish density standards that are consistent with the natural capacity of soils to handle on-site septic systems and which promote the preservation of the rural character of the Township.
- Encourage higher densities of development in locations where future public utilities and services can be most economically and efficiently provided, when they are needed.
- Develop site plan landscaping standards.
- Insure that state and federal environmental laws are being enforced.

GOAL #4: Commercial Development

Provide for the basic service and shopping needs of the township's residents by directing commercial development to take place in suitable areas but in a manner which limits commercial strip development, minimizes conflicts with surrounding land uses and prevents unnecessary conflicts with the movement of traffic along major highways.

Policies

- Adopt subdivision regulations in support of land use goals.
- Limit commercial development to a few concentrated areas, rather than allow strip development.
- Avoid High Density of commercial development that would lead to the need for public utilities and services that cannot be economically and efficiently provided in the foreseeable future.
- Insure that State and Federal environmental laws are being enforced.
- Encourage the shared use of commercial driveways and access roads to limit the number and spacing of driveways on public right-of-ways.
- Promote high quality commercial development through local site plan review.

- Develop site plan landscaping standards.

GOAL #5: Industrial Development

Provide for industrial development in areas that are easily accessible by major transportation facilities and contain public water and public sewer service for those uses that are heavier and require such utilities.

Policies

- Establish and reserve site(s) for future industrial purposes.
- Promote the development of an industrial park rather than a single lot development.
- Promote high quality industrial development through local site plan review.
- Encourage compliance with state and federal environmental laws.

GOAL #6: Economic Development

To increase the tax base of the township and the availability of jobs within the community, thereby increasing the ability of the township to provide services, bettering the economic well being of residents and improving the overall quality of life in the area.

Policies

- Accommodate limited, high quality commercial development.
- Accommodate limited, high quality industrial development.

GOAL #7: Land Use Conflicts

Discourage and avoid conflicts between incompatible land uses.

Policies

- Prevent the wide scale scattering of intensive and higher density non-farm land uses in the rural country-side.

- In areas of higher density, provide for the separation between conflicting land uses by designating suitable transitional districts or requiring greenbelt or buffer areas.

GOAL #8: Roads

To maximize the efficiency, safety, and ease of maintenance of the road system. Make provisions for road improvements that will promote growth in a way that is consistent with adopted goals and policies relating to land use and the desires of the township residents.

Policies

- Limit the number of driveways along major highway arterials by encouraging the shared use of driveways by commercial establishments through site plan review.
- Encourage clustered development.
- Adopt subdivision regulations in support of land use goals.
- Encourage the development of public and private local streets; adopt minimum standards for private streets.

GOAL #9: Housing

To provide a wide range of housing opportunities of good quality within the township.

Policies

- Permit construction of single family homes, placement of contemporary quality mobile homes and construction of multiple housing at acceptable densities.
- Minimize delays due to review and processing of development regulations with adoption of modern and current standards.
- Encourage planned unit developments that utilize rural character techniques and are served by public water and/or sewer.

GOAL #10: Quality of Life

Prevent the establishment of uses which, by their existence, tend to lower the quality of life within the community.

Policies

- Adopt regulations necessary to prevent establishment of substandard land uses.
- Adopt regulations necessary to prevent outdoor storage of equipment, goods, and other materials, where objectionable.
- Adopt regulations requiring the adequate siting and screening of those land uses which tend to have a blighting influence on the community.
- Provide necessary resources and expertise to enforce the provisions of the zoning ordinance.
- Encourage separation between conflicting adjacent land uses.

GOAL #11: Recreation

Provide for diverse recreational opportunities for all resident population groups.

Policies

- Implement a recreation plan which identifies the recreational needs of the community and sets forth a strategy for the acquisition and development of recreational facilities.
- Work closely with Ottawa County, adjacent townships and the school districts in the provision of recreational facilities that can be used by area wide residents.

CHAPTER NINE

LAND USE RECOMMENDATIONS

This chapter contains descriptions and recommendations for future land use in Tallmadge Township. These recommendations will provide the overall framework for the management and regulation of future development and will also serve as the basis for evaluating zoning requests.

The future land use program is general in scope. It is not intended to establish precise boundaries of land use or exact locations of future uses. It is also important to note that there is no schedule to implement recommendations contained herein. The timing of a particular land use is dependent upon a number of factors such as availability of public utilities, provisions for adequate roadways, affect on public services and the demand for a particular land use versus the available land zoned for this use. These factors plus other factors must be considered when reviewing a request for rezoning for a particular parcel of land.

A general description of the various land use recommendations is described in this section. These recommendations are illustrated on the future land use map. As background information to the planning process, the following narrative provides an explanation of the relationship of land use planning to zoning.

THE RELATIONSHIP OF PLANNING TO ZONING

The relationship between land use planning and zoning is important. Planning is basically the act of planning the uses of land within a community for the future while zoning is the act of regulating the use of these lands by ordinance. The laws of the State of Michigan require that a community engage in land use planning activities, including the preparation of a comprehensive plan, prior to the initiation of a zoning ordinance within the community. Since communities are dynamic in nature and the pace of growth is not always foreseeable, the periodic updating of a community's comprehensive plan is a necessity in order to make the plan and its zoning ordinance realistic and in turn with every-changing demands of modern day society.

In order to provide a better understanding of the terms of planning and zoning, the following definitions are provided:

Land Use Planning

The process of guiding the future growth and development of a community. Generally a document is prepared known as the Comprehensive Plan which addresses the various factors relating to the growth of a community. Through the process of land use planning, it

is intended that a community can preserve, promote, protect and improve the public health, safety and general welfare. Additional considerations include: comfort, good order, appearance, convenience, law enforcement and fire protection, the prevention and overcrowding of the land, and the avoidance of undue concentration of population, facilitation of adequate and efficient provision of transportation, water, sewage requirements and services, and the conservation, development, utilization and protection of natural resources within the community.

Zoning

The process of partitioning a community into districts each of which permits certain uses of land for the purpose of conserving and promoting the health, safety, convenience, and general welfare of the people within the community. A zoning ordinance is often adopted which contains regulations controlling land uses, densities, building heights and bulk, lot sizes, yard and open spaces, setbacks and accessory uses. A zoning ordinance consists of two distinct parts, a written text and a district map. The text sets forth the purposes, uses and district regulations for each district and the standards for special land uses and the administration of the ordinance. The map denotes a specific zoning district for every parcel of land within the community.

Zoning is one of the instruments, along with capital improvements programming and the administration of local subdivision regulations which implements the goals and policies of the comprehensive plan. The enactment and administration of the zoning ordinances are legislative and administrative processes conducted by local units of government relating to the implementation of the goals and policies of the comprehensive plan.

PLAN ASSUMPTIONS

The goals and policies previously outlined and analysis of the Township's physical, social and economic makeup have allowed the formulation of seven broad assumptions that were used in the development of a long-range development plan. These include:

1. The majority of Township residents prefer living in a rural or a rural residential setting.
2. The population is expected to increase over the next two decades at a fairly significant rate.
3. Development in the Township will focus on high quality residential development arranged to preserve natural features and access to viewsheds.
4. Non-farm development should be discouraged from infringing on those portions of the Township characterized by productive farmlands.

5. Public water and wastewater services should be provided to all developments with more than one dwelling per acre located in the Utility Service Area.
6. Flexible and innovative development techniques will be encouraged to promote the preservation of natural resources and open lands and to provide appropriate transitions between uses of varying intensity.
7. The Township will strive to accommodate all types of housing development that are compatible with the desires of community residents and the character of the community.

LAND USE CATEGORIES

Rural/ Agricultural Preservation

This land use classification is designed to contain a minimum lot size recommended at 2-1/2 acres with a 165 foot lot width. The lot size and permitted uses within this category are intended to satisfy a demand for a rural life style on land which for the most part is not considered to be prime agricultural from a soils standpoint, or in areas where parcels are already fragmented to the extent that farming is difficult. The planning area does contain many active farms. The plan considers farms and scattered home sites on parcels of at least 2-1/2 acres compatible. While farming is considered important it is not regarded as a necessarily permanent land use. Public water and sewer service is not anticipated to serve this area.

The characteristics utilized in establishing the general boundaries and extent of the rural conservation district includes soils that are generally unsuitable to support intensive development due to severe topography and septic system limitations, as well as areas of farm land, wooded areas and open space.

The primary objectives of this land use classification are:

1. To preserve woodlands and wetlands which are useful as water retention and ground water discharge areas and which have important aesthetic and scenic value.
2. To encourage development at very low densities where soil conditions, topography, and vegetation preclude higher intensities of development.

It is recommended that existing lot size and use provisions applied relative to the "RP" Rural Preserve zoning district be continued in the Rural/Agricultural Preservation Planning District.

This plan recognizes several parcels in this planning area that are zoned to accommodate a smaller lot size. These areas are limited and are not proposed to be rezoned to accommodate a larger lot size unless initiated by the property owner.

Low Density Residential A

This land use classification recognizes existing single family platted subdivisions and makes provisions for new residential lot sizes ranging in size from 22,500 square feet to one acre. The land use category is intended to preserve and promote single family dwellings as the predominant land use. LDR development should be located close to schools, parks, places of worship, and recreational uses, which are considered compatible and beneficial to the LDR classification.

Due to poor soils in many of the areas, many existing homes within the Low Density Residential A planning area have experienced septic problems. For this reason, it is recommended that the minimum lot size for new dwelling units that are not served by public sewer be increased to one acre. For developments that can be served by utilities, the minimum lot size requirement of 22,500 square feet is recommended.

It is not recommended that the rezoning of lands identified on the Land Use Plan for LDR be zoned to allowed Low Density Residential A development unless public utilities are provided. Therefore, the boundaries of the low density residential district are intended to represent the ultimate extent of the land use category within the planning period. To avoid leapfrog development, it is recommended that the rezoning of additional land to the low density designation be done incrementally within the planning period based upon the need and availability of land within this category. It is envisioned that some of the land in this category will therefore be zoned in the Rural Preserve category for an indefinite period of time, until such time that it is desirable to create additional Low Density Residential A lands.

Medium Density Residential A

This land use classification is intended to accommodate single family, two-family, single story attached dwelling units at densities of up to 3.5 units per acre. Other types of housing could be considered when appropriately located in these areas such as assisted living, adult care facilities and similar types of housing. The category recognizes the current medium density residential areas that have been zoned and developed, and establishes several new MDR planning areas.

The new MDR areas are situated in the M-11/I-96 area as well as along Lake Michigan Drive between 8th Avenue and the east Township boundary, extending approximately one (1) mile north and south. These areas are intended to serve as buffer or transitional uses between non-residential uses and low density or rural/agricultural preservation areas. Public water and sewer are necessary to serve this type of use and these areas should not be zoned or developed until proper utility service can be extended to accommodate the high densities.

While the Medium Density Residential A category is intended to provide for slightly higher densities of single family homes and duplexes, it is also intended that such developments remain compatible in housing style and appearance as those in adjacent low density single family home sites. MDR development should also be located close to schools, parks, places of worship, and recreational uses, which are considered compatible and beneficial to the MDR classification.

It is recommended that the Township adopt and maintain Planned Unit Development provisions within the zoning ordinance that will allow flexibility in the design of Medium Density Residential developments. Such provisions should be flexible enough to allow a variety of building styles, mixed uses and densities to permit compatibility with adjacent land uses. This can be accomplished through the use of landscaped buffer strips, increased building setbacks, and variable densities within the development.

High Density Residential A

High Density Residential A areas are intended for multi-family dwelling units, such as apartments (renter occupied) or condominiums (owner occupied). A maximum density of 8 units per acre is recommended for this land use category which should be served by public utilities. The HDR areas identified can serve as transition zones between commercial/industrial areas and lower density residential development. All such developments should be located on or near major arterials and shopping areas.

Two areas of the Township are included in this category. The availability of sewer and water service coupled with access to major transportation systems play an important role in the designation of these areas. Areas adjacent to Lake Michigan Drive were not found to be desirable due to the existing high traffic volumes and existing land use mix. Areas near I-96

and Ironwood Drive are found to be more suitable since utilities are reasonably available and the proximity to I-96. The intersection of Johnson/Kenowa/Ironwood will need to be improved prior to this area developing with high density residential uses. This effort needs to be coordinated with the City of Walker.

It is recommended that the Township adopt and maintain Planned Unit Development provisions within the zoning ordinance that will allow flexibility in the design of High Density Residential A developments. Such provisions should be flexible enough to allow a variety of building styles, mixed uses and densities to permit compatibility with adjacent land uses. This can be accomplished through the use of landscaped buffer strips, increased building setbacks, and variable densities within the development. HDR development should also be located close to schools, parks, places of worship, and recreational uses, which are considered compatible and beneficial to the HDR classification.

Town Center

This classification, which encompasses the historical platted areas in the town on Lamont, is intended to preserve the existing tranquil residential character of the settlement. At the same time, this plan recognizes that opportunities exist for the community to prosper and grow in a manner that, if fostered in a controlled fashion, would retain the community's unique flavor.

In light of concern that the existing minimum lot size and other dimensional requirements imposed by the existing zoning provisions are overly burdensome on existing properties within Lamont, it is recommended that a separate zoning district and/or provisions that reduce the general requirements be created for the area. In developing such regulations, it is recommended that the following guidelines be utilized:

1. Flexibility of building setbacks and yard area requirements should be incorporated in ordinance language for use in the regulation of existing platted lots of record.
2. Establish provisions whereby new development at densities consistent with the densities of nearby existing home sites can occur. Such provisions should be applied to undeveloped portions of the area, provided that public health concerns can be addressed by the provision of public water or sewer.
3. Establish provisions that would allow limited forms of commercial development, such as bed and breakfast establishments, coffee shops, and other limited tourist-oriented business, provided such businesses are in keeping with the historical character of the area and do not materially alter the residential character. Such uses could be permitted as special uses under strict locational and mitigative standards.

Mining

The Mining classification outlines the major area of the Township within which the majority of gravel extraction activity has occurred and will continue to occur in the future. The Land Use Plan recognizes the continued demand for valuable gravel deposits while at the same time recognizing that such use is considered temporary in nature.

The objective of this planning area is to promote and ensure ultimate land uses that are consistent and compatible with surrounding land uses, while taking advantage of the water features typically created as a result of the mining activity. It is felt that, if planned in advance, these areas will become very attractive for residential/recreation oriented types of development.

For the above reasons, the Mining District is intended to be a Residential District that would accommodate densities consistent with the Low Density Residential District. It is recommended that prior to the authorization of new or expanded extraction operations, the Township require the property owners to develop plans that detail how the land will be put to a final desirable use when the mining activity is completed. Such plans should be detailed enough to ensure that appropriate access, circulation, and public safety will be achieved and ensure that previously mined areas are reclaimed in a timely fashion.

The Plan recognizes this area is outside the Utility Service Area and the recommendations in the Plan involving lot sizes. Each rezoning application will need to be judged on its merits considering the size of the project, proposed methods of waste water treatment, water supply, impact on surrounding uses and the future development potential of adjacent parcels given the proposed project. Public utilities will not be a requirement in this area, but information will need to be provided indicating adequate and safe methods are available to supply a proposed project with sewer and water services.

To promote desirable end uses and allow flexibility in the design of the ultimate use of such areas, it is recommended that the Planned Unit Development approach be utilized in approving new resource extraction operations. In this manner, the timing and phasing of the mineral extraction can be linked directly to the ultimate use and design of the property.

Commercial Land Use

Typically, commercial establishments seek out major streets with high traffic volumes to maximize their visibility and to encourage drive in trade. However, when a major street begins to develop commercially, traffic congestion too often occurs and conflicts result between through traffic and vehicles entering and existing driveways.

This plan recognizes that the demands for commercial development in Tallmadge Township are likely to increase within the planning period as more and more residents move into the

area. These demands are most likely to be greatest along M-45 between 8th Avenue and the eastern Township boundary line, and in the M-11/I-96 interchange area where traffic volumes are greatest and where commercial establishments can take advantage of passing motorists.

It will be important to direct commercial development in a manner which avoids the generally undesirable effects that commercial strip development can bring. Therefore, retail and service types of commercial development should be directed toward the two areas that are natural attractions for commercial development. The only commercial area recommended elsewhere within the Township is one existing commercially zoned area along M-45 near the Grand River. It is recommended that this area not be expanded within the planning period but remain as a small neighborhood-oriented commercial area.

The objectives of the Commercial Land Use Plan are to:

1. Accommodate commercial facilities that provide sufficient amounts of goods and services to meet the daily needs of a growing township population.
2. To promote the physical clustering of commercial establishments rather than extended strip development, thereby providing for joint use of parking facilities, more convenient shopping, and minimized extension of utilities as they are needed.
3. To provide for efficient accessibility to retail uses through shared driveways and commercial access roads thereby minimizing traffic conflicts.

Unless careful site planning and access controls are instituted, conflicts between uses can occur. Opportunities for integrated uses can be lost, and the capacity of a street can be greatly reduced. It is therefore recommended that the rezoning of land designated by the Land Use Plan for commercial purposes be done incrementally to help assure that development is not done prematurely or haphazardly, with disregard for the lack of utilities and the uses that are in existence or which could develop on adjoining sites. Implementation of the commercial land use plan should therefore involve the following recommendations:

1. The development of flexible planned unit development zoning provisions that would allow the review and approval of proposals incorporating integrated mixed uses, joint accesses and alternative access characteristics.
2. The institution of zoning standards and site plan review processes which promote desirable objectives and a careful scrutinization of site plan features such as:
 - a) Water, Sewer and Drainage: Until public or collective systems for these utilities are provided it is recommended that major development not be

permitted unless careful consideration is given to the individual methods to handle expected water usage, wastewater generation, and runoff.

- b) Driveway location and spacing: Driveways should be located as far from street intersection as possible to avoid left turn conflicts and businesses should be required to share driveways whenever possible. Driveways should be a minimum of 150 feet apart to reduce conflicts and provide gaps in traffic for safer ingress and egress. It is recommended that new commercial parcels have a minimum of 200 feet of street frontage to promote adequate driveway spacing, if shared driveways are not feasible.
- c) Landscaping: Commercial development should provide landscaping along the street edge to enhance aesthetics and to screen parking areas. Specific landscaping requirements should be incorporated into the zoning ordinance to ensure adequate and uniform landscape treatment among all business.
- d) Primary Access: Commercial development should be served by a commercial access road or service drive or similar alternative that is generally parallel or perpendicular to the major street it accesses.
- e) Alternate Access: A secondary means of ingress and/or egress should be provided if possible. Such alternative access could take the form of access to an intersecting street for corner parcels, access across adjacent parking lots or access to another street to the rear of the property.
- f) Signs: The number, size and location of signs should be controlled and kept to a reasonable minimum to avoid motorists confusion and to ensure individual business identify.

Industrial Land Use Plan

The Industrial Land Use classification as depicted on the Land Use Plan is intended to provide and reserve adequate land for future industrial development. In so doing, it is recognized that industrial development will be important to the economy and tax base of the community. The areas designated are, for the most part, consistent with existing zoning and land uses and are located to provide easy access and to minimize potential conflicts with residential uses.

Intensive industrial development within the area shown would require the provision of public sewer and water. Therefore, only light industries that require very little demands for such uses should be considered.

The objectives of the Industrial Land Use Plan area as follows:

1. To encourage industries to locate in an industrial park setting.
2. To promote diversification of the local tax base.
3. To provide nearby entrepreneurial and employment opportunities for Township residents.

The following guidelines are intended for use in implementing the industrial land use plan:

1. Incrementally expand the availability of industrial zoned properties within the planning period based on the Land Use Plan Map and on the needs over the entire planning period. Development without public utilities should be limited and carefully monitored.
2. Improve site plan review standards relative to industrial uses to ensure building and site design quality and that those industries being proposed without public sewer and water facilities will not jeopardize environmental quality.
3. Encourage the creation of an industrial subdivisions rather than piecemeal development to help assure development and collective use of necessary roads, drainage and other improvements.
4. Incorporate provisions in the zoning ordinance that would discourage extensive outdoor storage and activity areas that would detract from the character of the Township.
5. Encourage the landscaping of industrial sites through site plan review.
6. Discourage the development of heavy industries which because of their scale or type of operation could have severe environmental implications or overburden public services.
7. Incorporate access control mechanisms similar to those recommended for the commercial areas into zoning provisions relative to the industrial zone.

Natural Features Preservation

Based on the Citizen Land Use Questionnaire and discussions with the Planning Commission, the preservation of the rural character of the Township is a high priority among residents. One important aspect of the community's rural character is the natural features found in the Township. These include hills, wetlands, water resources and soils. The importance of these features however, goes well beyond natural beauty. Taken collectively, these features form an interrelated, high quality and well-balanced environment that should be protected from potentially disruptive development practices and land uses.

The following objectives and guidelines should be applied throughout the Township, and coupled with recommended land uses and densities outlined in the previous sections, are intended to promote a balance between the need to accommodate continued development and the desire to protect the natural environment.

In order to preserve the rural character of the Township and protect the quality of the environment, the Plan makes the following recommendations:

1. Through site plan review, subdivision regulations and a public education program:
 - Encourage the construction of roads that follow contours rather than running against them.
 - Encourage minimum grading and cut fill activities on steep slopes.
 - Encourage the concealment of buildings located on prominent hillsides.
 - Discourage the filling of wetlands.
 - Evaluate soil suitability for the proposed use.
 - Discourage the over improvement of building sites in rural areas that would replace natural vegetation with large manicured lawns, and other forms of urban landscaping.
 - Encourage the use of natural drainage ways versus channelization or underground drains.
2. Cooperate with Ottawa County Drain Commission to ensure strict enforcement of the Soil Erosion and Sedimentation Control Act. If necessary, adopt and enforce a local ordinance.

3. Inform residents and farmers of the problems of over fertilization of lawns and fields near water bodies and drainage ways.
4. Inform residents of measures that should be taken for proper septic tank and trainable maintenance and operation.
5. Inform residents with livestock and other domesticated animals of the hazards of locating feeding areas and animal runs where nutrients from animal waste can readily enter surface waters in the form of runoff.
6. Maintain the current floodplain overlay zoning provisions.
7. Support State and County laws and administrative programs which help to protect natural resources. The following list of State and County approvals is directed toward the major environmental protection needs of the area.

Feature of Concern

Agency of Approval Requirement

Wetlands

State wetlands permits issued by the Michigan Department of Natural Resources are required for alteration of any wetland contiguous to lakes, streams, and other water bodies, and for wetlands which are five acres or more in size.

Proper septic system location and installation for surface water and groundwater quality protection.

Permit required from the Ottawa County Health Department

Erosion control during

An earth change which is within 500 feet of a lake or stream or is one or more acres in size requires a permit from the Ottawa County Soil Erosion and Sedimentation Control Agency.

This agency presently administers the provisions of the Michigan Soil Erosion and Sedimentation Control Act within Tallmadge Township.

Adequate drainage facilities minimize flooding

The Ottawa County Drain Commissioner reviews all subdivision plats to assure adequate drainage facilities.

Proposals for developments with storm water outlets to county drains, as well as mobile home park proposals, are also subject to approval by the Drain Commissioner's office. On-site retention of storm water is often required.

Roadside drainage

The Ottawa County Road Commission review all subdivisions for conformance with Road Commission standards. For large lot developments, surface drainage to roadside ditches is allowed.

If the development is not a subdivision but results in a drainage discharge to a roadside ditch, approval from the County Road Commission is required. Runoff must be restricted and retained on-site to assure an agricultural rate of runoff.

Spill prevention plans at industrial sites

The Michigan Department of Environmental Quality reviews and approves Pollution Incident Prevention Plans submitted by businesses. Businesses are required to submit such a plan if they store or use critical materials on the "Critical Materials Register", salt, or large quantities of fuel.

Wastewater treatment systems with discharges of more than 10,000 gallons/day of sanitary sewage

The Michigan Department of Environmental Quality issues groundwater discharge permits when discharges of more than 10,000 gallons/day of sanitary sewerage (or other discharges) are proposed. The provisions apply to large-scale septic systems and other type of wastewater facilities. Proposed discharges must meet requirements of the Part 22 Rules of the Water Resources Commission Act.

Wastewater treatment systems which discharge into lakes and streams require a federal NPDES permit (National Pollutant Discharge Elimination System permit), which is issued by the Michigan Department of Environmental Quality.

8. Developers should be encouraged to contact state and county agencies at the earliest possible point in the site plan preparation process and to incorporate state and county agency requirements for resource protection into site plans presented to the Township.

TRANSPORTATION

The road system serves as the backbone for growth and development of any community. By providing a means for internal and external circulation, it serves the community by helping shape the intensity of land use. Thus, this costly and highly visible element of the community's infrastructure is one of the most dynamic features of the community's on-going development.

One major problem with the street system is increased traffic volume on unpaved rural collectors. Other factors that will become increasingly significant as growth continues include the need for better traffic and access controls along M-45 and M-11 to avoid traffic and land use conflicts, which result in an incomplete grid pattern of the street system.

The following transportation related recommendations are intended to address existing problems and to avoid problems in the future:

- Work with the MDOT and Ottawa County Road Commission to ensure the timely implementation of needed improvements to M-45 and County primary roads, as previously identified.
- Within zoning and subdivision regulations institute access controls intended to reduce traffic conflicts along the major and minor arterials thereby preserving their volume and function.
- Continue the process of establishing improvement priorities. Through cooperation with the Ottawa County Road Commission, monitor traffic volumes and road conditions as part of a program to establish road improvement priorities. In this way, the Township can objectively allocate its limited resources to those areas already having the greatest need.
- Consider the ability of existing roadway conditions to handle projected traffic volumes resulting from new development when reviewing site plans and rezoning requests.
- Implement the Land Use Plan. This document contains specific land use recommendations which reflect the adequacy of the existing roadway system. Taken collectively, the incremental implementation of the various land use proposals will, over the long term, minimize the need for road improvements.
- It is recommended that zoning and subdivision controls officially recognize the hierarchy of the road network by taking into consideration the traffic volume, noise, speed and clear vision requirements of each roadway class. Thus, requirements such

as larger minimum lot frontages and building setbacks along major streets than those along local platted streets should be considered.

- It is recommended that minimum standards for the construction of private roads be implemented.