Introduction

The Village of Lawrence Planning Commission has prepared this master land use plan under the Authority of the Municipal Planning Act, Public Act 285 of 1931, as amended. Section 6 of the Act outlines the contents of a master plan:

The commission shall make and adopt a master plan for the physical development of the municipality, including any areas outside its boundaries, which, in the commission's judgement, bear relation to the planning of the municipality. The plan, with accompanying maps, plats, charts and descriptive matter shall show the commission's recommendation for the development of the territory, including, among other things, the general location, character, and extent of streets, viaducts, subways, bridges, waterways, floodplains, waterfronts, boulevards, parkways, playgrounds, open spaces, the general location of public buildings and other public property, and the general location and extent of public utilities and terminals, whether publicly or privately owned or operated, for water, light, sanitation, transportation, communication, power, and other purposes; also the removal, relocation, widening, narrowing, vacating, abandonment, change of use or extension of the foregoing ways, grounds, open spaces, buildings, property, utilities or terminals; the general location character, layout and extent of community centers and neighborhood units; and the general character, extent and layout of the replanning and development of blighted districts and slum areas; as well as a zoning plan for the control of height, area, bulk, location and use of buildings and premises.

Purpose of the plan

Section 7 of the Municipal Planning Act also indicates the surveys on which the plan should be based and the purpose of the plan:

The plan shall be made with the general purpose of guiding and accomplishing a coordinated, adjusted, and harmonious development of the municipality and its environs which will, in accordance with present and future needs, best promote health, safety, morals, order, convenience, prosperity and general welfare, as well as efficiency and economy in the process of development; including, among other things, adequate provision for traffic, the promotion of safety from fire and other dangers, adequate provision for light and air, the promotion of the healthful and convenient distribution of population, the promotion of good civic design and arrangement, wise and efficient expenditure of public funds, and the adequate provision of public utilities and other public requirements.

Thus, planning is a process that involves the conscious selection of policies relating to land use and development in a community. A master land use plan serves several functions:

- Provides a general statement of the community's goals and provides a comprehensive view of its vision of the future.
- Provides the statutory basis for the Zoning Ordinance, as required by the City and Village Zoning Act, Public Act 207 of 1921, as amended.

- Serves as the primary policy guide for local officials considering development proposals, land divisions, capital improvements, and other matters related to land use and development; thus, it provides a stable and consistent basis for decision-making.

Planning process

This Plan is the first update of the Master Plan, adopted in 2002. Using the Master Plan, the community has developed into a pleasant, quiet community where residents obviously take pride in the appearance of their property and the surrounding neighborhood.

The Village Planning Commission holds responsibility of regularly monitoring and updating the Master Plan. The sitting Commission began the process of complete review and updating in the 3rd quarter of 2015 and completing in the 3rd quarter of 2016. It is expected that a public workshop to gather input from citizens will be held in the fall of 2016 to review the draft plan and provide feedback on the goals and strategies as outlined in the plan. Once the Planning Commission has reviewed and incorporated public comment, entire draft document will be approved, a final public hearing will be held and the approved Plan will be sent to the Village Council for incorporation into the public record. It is expected this process will be completed before the end of 2016.

Plan organization

The master land use plan comprises three primary components. The background studies profile the demographic and environmental surveys and studies that were undertaken at the time the plan was prepared. The goals, objectives and policies provide the philosophical basis of the plan. The future land use plan describes the Village's vision of its future in written and graphic form.

Acknowledgements

This Plan is the result of many hours of effort on the part of the Village's Planning Commission and Council as well as the citizens who attended the workshop, public hearing and study sessions. We wish to acknowledge those officials in the Village who were directly responsible for creating this Plan by including their names below:

Village Council Members

David Quick, President
Cindy Nower, Clerk
Trustees:
Philip Glennie
John Gritter
Mark Keyser
Rick Weston
David Quick
Mary Webster

Village Planning Commission Members

Ryan Ransom, Chairperson
Michael Carpp
Annette Crandall
Phil Glennie
David Quick
Mary Webster
Dan Faulkner

Existing Land Use Profile

The Existing Land Use Profile details the location, type, and extent of land development in the community. Knowledge of existing land development patterns is an essential component of the comprehensive planning process. Without a clear understanding of current land development patterns and issues, it is impossible to prepare a sensible plan for future land development.

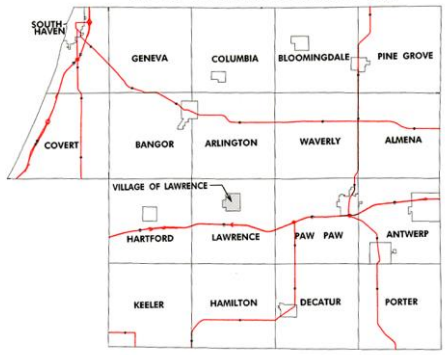
The information contained in this Profile will also serve as useful reference on land development as Lawrence officials consider future land development proposals as well as the need for public facility and infrastructure improvements in the context of the adopted Master Plan.

Physical Setting

The Village of Lawrence is located in the southwest quadrant of Van Buren County in southwest Michigan. It is approximately 8 miles west of the Village of Paw Paw (the county seat) and 22 miles west of the City of Kalamazoo.

Lawrence is regionally accessible via Interstate-94. *Other State or County roads that run through the Village include :County Roads . 365, 374, 215 and Red Arrow Highway. The existing rail line which bisects the Village has been abandoned by the owner and the rail bed's future is under discussion.*

FIGURE 1: REGIONAL LOCATION MAP



Survey Methodology

A field survey of existing land uses was completed in August 1999. Each parcel of property in the Village of Lawrence was inspected and the current use recorded on a property line base map. The use of each parcel was in turn categorized in accordance with a predetermined land use classification system, which is compatible with the Michigan Land Cover/Use Classification System (see Table 1) developed by the Michigan Department of Natural Resources (MDNR) and used by the Michigan Resource Information System (MIRIS). The field data was then entered into a computer-mapping file as an overlay to the Village's property line base map. Finally, the land coverage for each land use category was calculated.

Existing Land Use Inventory

As shown on the Existing Land Use Map, land use in the Village can be classified into seven major categories: single-family residential; multiple-family residential; mobile home park; public/semi-public; commercial; industrial; and vacant, other land, and rights-of-way. Table 1 summarizes the classification system used to categorize existing land uses in Lawrence.

The Village has generally developed within a framework of short stub streets that extend north and south from St Joseph St. Moreover, Paw Paw St. and St. Joseph St. form the supporting axis from which all local streets stem. Its origin is where the downtown developed to include a mix of commercial and public buildings. This area is referred hereafter as the Central Business District (CBD). Residential neighborhoods have generally developed in a concentrated area north of the *former* Kalamazoo & Chicago Railroad around the CBD in an east-west pattern. The periphery of the Village holds larger parcels that remain vacant or are used for public or industrial purposes. A state-certified industrial park was developed in 1998 at the South 365 Rd. interchange with Interstate-94.

Table 1
Land Use Classification System
Village of Lawrence

Single-Family Residential	Land occupied by single-family detached dwelling units, site condo development, seasonal dwellings, manufactured homes outside of designated mobile home parks, and their related accessory buildings such as garages.
Multiple-Family Residential	Land occupied by multiple-family dwelling units (structures which contain 3 or more dwelling units) such as apartments, townhouses, and the like, and accessory uses such as parking lots and small recreational facilities such tennis courts and swimming pools.
Mobile Home Park	Land occupied by manufactured dwelling units sited in a planned community and their related accessory service structures and recreational spaces.
Public/Semi-Public	Public uses are land and facilities that are publicly operated and available for use by the public. Examples include schools, government buildings, parks, sewer and water utilities, correctional facilities, hospitals, airports, and marinas. Semi-public uses are land and facilities which may privately owned or operated but used by the public or a limited number of persons. Examples include churches, cemeteries, and private clubs.
Commercial	Land that is predominantly occupied for the retail sale and\or service of products such as retail establishments, personal and business service uses, and repair service facilities. These uses may be located within a central business district, a planned shopping center, or a neighborhood commercial area.
Industrial	Land occupied by manufacturing industries, processing facilities, warehouses, and nonmanufacturing uses which are primarily industrial in nature. Lands so classified may include areas with or without buildings where raw or semi-finished materials are fabricated or those using or storing raw materials for primary production or extractive operations such as mining sites.
Vacant and Other Land and Rights-of-Way	Vacant and other land are undeveloped lands which includes forest land, water bodies, wetlands, and barren lands. Also included in this category are road rights-of-way.
Source: Wade-Trim and Michigan Land Cover/Use Classification System, 1976	

Table 2 details the distribution of each land use type by total acres, as well as the percent of total acreage and percent of developed acreage, which is occupied by that land use type. A discussion of the existing land use pattern follows.

a

Table 2
Existing Land Use, 1999
Village of Lawrence, Van Buren County, Michigan

Land Use	Total Acres	Percent of Total Acreage	Percent of Developed Acreage[A]
Single-Family Residential	172.6	18.9	46.1
Multiple-Family Residential	12.3	1.3	3.3
Mobile Home Park	9.6	1.0	2.6
Commercial	9.2	0.9	2.4
Industrial	23.5	2.6	6.3
Public/Semi-Public	147.2	16.3	39.3
Vacant & Other Land, R.O.W.	538.8	59.0	N/A
Total	913.1	100.0	100.0

[A] Total developed land area equals 374.3 acres.
Source: Wade-Trim field data collected August 1999.

Commented [PG1]: VBISD site condo addition increases this – Call ISD for development acreage

Single-Family Residential Land Use

Single-family residential land uses are found on relatively small parcels in neighborhood areas around the central business district north and south of St. Joseph St. Larger residential lots are found north of the Paw Paw River along Bangor Road and CR215 and along the outer edges of the neighborhood areas.

Commercial Land Use

Commercial land uses originated at the intersection of St. Joseph Street (Red Arrow Highway) and Paw Paw Street. From this intersection, the Central Business District (CBD) expanded north to Baker Street, east to Village Park and west to 1st Street. Outside the CBD, commercial land uses have developed primarily along South Paw Paw Street at **the *former*** railroad crossing and Corwin Road intersection.

Industrial Land Use

Industry inside the Village has developed on large tracts of land along the *former Kalamazoo & Chicago railroad line* generally at the Michigan Street and South Paw Paw Street crossings. A fully improved 110-acre industrial park, *The Lawrence-Crandall Business Centre was developed in 1997 northwest of the I-94 interchange with C.R. 365. Quality Assured Plastics was the first tenant to occupy the park in 1997, with American Cooler Technologies following in 2008.*

Public/Semi-Public

Public and semi-public land uses account for nearly 40-percent of the Village's developed land area. The Lawrence Public Schools and the Van Buren Intermediate School District facilities are the largest developments within this category. Park and recreation areas within Village are outlined as follows:

- *Village Park*

  The approximately 2.5-acre Village Park is located on a Village block and bordered by the Red Arrow Highway, and Baker, Elizabeth and Exchange Streets. The park is a traditional 'commons' area reminiscent of many small towns throughout Michigan. The park is bordered to its west by the Central Business District, and by single-family residential homes to its north and east. The park is one of the main attractions in the Village and offers residents a variety of recreational opportunities. There is an abundance of open space at the park with beautiful mature trees and benches for resting and viewing scattered throughout. The park contains a large playground area for children of various ages. There are also permanent restroom facilities. The park provides picnicking facilities, including tables, a shelter and grills. Village Park also contains two basketball courts.

- *North River Park*

  The North River Park is comprised of approximately 1.0-acre of land located on the west side of Paw Paw Street and adjacent to the Paw Paw River. The park contains open space, a few picnic tables and provides residents with fishing access in the Paw Paw River. The Department of Natural Resources has a small canoe launch in the area.

- Brausch Park
  The Robert Brausch Jr. Park, located at the Lawrence Crandall Business Centre, opened in 2010. The one acre park contains a parking lot, picnic table and 2 acre fishing pond.

- *Lawrence Public Schools*

  The Elementary, Middle and High School are all located on a 48.6-acre campus-like environment in the northwest part of town along W. St. Joseph Street. The school property has baseball fields, a football field, a track facility, and a nature trail as well as open space.

Vacant, Other Land, and Rights-of-Way

Approximately 50 percent of Lawrence Village is undeveloped (vacant or other land) or occupied by road rights-of-way.

Socioeconomic Profile

The statistical collection and analysis of socioeconomic data is undertaken to gain insight into the composition of a community's population, its economy, and general welfare in relation to the surrounding region. Statistical trend lines that show upward spikes or downward depressions are carefully examined for future impact on public services and land use.

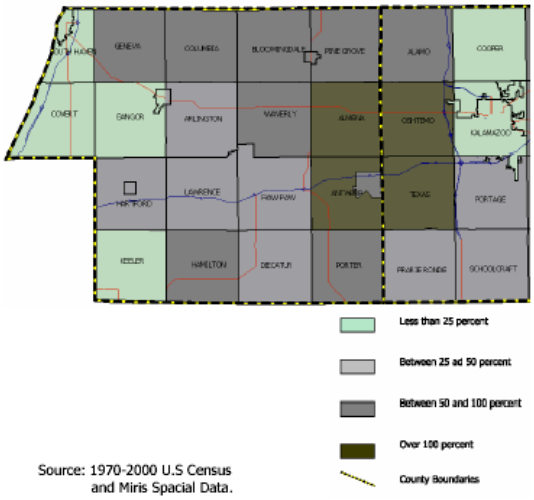
POPULATION CHARACTERISTICS

Historic population trends are used to predict future population growth and resultant needs. Fast growing villages require new or used land for development/redevelopment and accommodating services. Outward-bound villages need to develop strategies to retain and attract the necessary population and economic base to support their operation.

Historic Population Trends (1970-1990)

Figure 1 displays changes in population between 1970 and 1990 for communities in Van Buren County. Table 3-1 contains corresponding decennial census counts with numeric and percent rates of change.

Figure 1 Population Growth (1970-2000)



The fastest growing jurisdictions are townships found in the eastern half of the County. These communities are influenced by their proximity to the Kalamazoo metropolitan area and major transportation corridors that carry the commuting population.

Townships along Interstate-94 posted an increase in population of 25 percent or more during the previous three decades. Antwerp Township, the easternmost township along Interstate-94 in Van Buren County, saw the greatest population growth (3,977 persons or 172.0 percent, 1970-2000) in the County. Almena Township, immediately north of Antwerp, followed with an increase of 2,381 persons, or 129.1 percent.

The Village of Lawrence, unlike all other cities and villages in Van Buren County except Mattawan and Lawton, saw an increase of population that was greater than 30 percent between 1970 and 2000. The Village experienced a surge in population during the 1970s (115 persons) with a slight increase the following decade (11 people). The increase between 1990 and 2000

Commented [PG2]: "Due to the development of 3 apartment complexes"

gave an overall increase in population of 34.1 percent.

Population Forecasts

County-wide population projection data from 2000 through 2020, organized in five-year increments, were collected from two sources: the Michigan Department of Management and Budget (MDMB) and the Woods & Poole Economics, Inc., *1998 State Profile for Michigan*. The MDOT projections are generated using an employment and transportation regional model. The MDMB projections are based upon age-cohort survival methods. Woods & Poole Economics, Inc., a private demographic and economic consulting firm, based their projections upon an employment and transportation model. Both projections were averaged together and resulting average was used to project the Village of Lawrence's population in each five-year increment.

Population Overview				
	Actual		Projection	
Year	2000	2010	2015	2020
Village	1059	996	1007	1123
Van Buren County	76,263	83,510	86,645	89,745

Age-Life Cycle

As humans progress through life, they pass through stages of life that generally correspond to their age levels. Life-cycle analysis is used by demographers and policy makers to anticipate future changes in items such as consumption, housing, medical care, education and recreation. In this analysis, six life cycles are defined:

1. Preschool (Less than five years of age)
2. School (5 to 19 years)
3. Family Formation (20 to 44 years)
4. Empty Nest (45 to 64 years)
5. Senior (65 to 74 years)
6. Elderly (75 years or more)

Nation-wide, the single largest population group, the "baby boomers" born between 1946 and 1964, are in the family formation stage of life. This population group is large, comprising 82 million or 29.4 percent of the nation's total population in 2000. As this segment of the population moves through life, they "operate like a "pig in a python", slowly moving through "building-type cycles" leaving "predictable weakness' in the wake of those markets they have passed through"[1].

[1]Ellen Flynn-Heapes, "The Demographics of Demand: How to Select Strong Future Markets," *Marketer*, February 1994, p.1.

The younger boomers have greater demand for apartments and single-family starter homes. Older boomers move into larger homes, require more health care (maternity) and spur the construction of retail and manufacturing firms (production and consumption), offices and transportation improvements. As they age, boomers will impact leisure and recreation markets and move into smaller homes, especially homes they can age in. Moving into their senior and elderly years, boomers may begin moving to retirement communities, or even to a second home purchased many years earlier. In the near future as boomers swell the ranks of the seniors and elderly, demand for health care and "life care" services and facilities will increase[2].

As boomers mature, they will leave market weakness behind, but their children will repeat a similar demographic bulge and market demand by the first part of the next century. For example, the proportion of young adults (aged 25 to 34) entering the family formation stages is expected to decline 10 percent in the late 1990's[3]. The "echo boom" children, born between 1978 and 1995, "form a generation almost as large as the original baby boom" - 73 million. During the next ten to fifteen years, the echo boom generation will induce increased demand and need for education, recreation and consumer goods. By the year 2010, the pace of decline among the family formation population will slow as the echo boom begin to start their own families, moving from rented apartments to single-family starter homes[4].

Between 1990 and 2010, the Village saw a significant decline in its senior and elderly residents Overall, the Village experienced a 9 percent increase in population, which translates into an additional 66 residents.

Table 5
Village of Lawrence, Van Buren County, Michigan

Age Group	1990		2000		2010		Change 1990-2010
	No.	Percent	No.	Percent	No	Percent	No.
Preschool (0-4 yrs)	81	8.7	92	8.7	80	8.1	-1
School (5-19 yrs)	218	23.4	272	25.6	274	27.5	56
Family formation (20-44 yrs)	345	37.1	368	34.7	330	33.1	-15
Empty nest (45-64 yrs)	147	15.8	216	20.4	221	22.2	74
Seniors (65-74 yrs)	70	7.5	49	4.7	56	5.6	-14
Elderly (75+ yrs)	69	7.4	62	5.9	35	3.5	-34
Total	930	100.0	1,059	100.0	996	100.0	

[2]Ibid.

[3]Berna Miller, "Household Futures," *American Demographics*, March 1995, p.4.

[4]Ibid.

Source: 1990, 2000 and 2010 U.S. Census, STF 1A

Persons Per Household Trends

A trend occurring nation wide, and characteristic of today's population, is the declining size of households. A household includes all of the persons who occupy a housing unit. A housing unit is defined as a house, apartment, a mobile home, a group of rooms, or a single room that is occupied as a separate living quarter. Despite the nationwide decline in household size, it is not uncommon for communities to register a net increase in the housing supply while not experiencing a proportional population increase or, in some cases, even recording a population loss.

There are several factors which demographers have linked to the declining size of households, including the fact that people are marrying at a later age than a generation ago, postponing having children, and having fewer children when they do start a family. Nation-wide, married couple families still comprise the largest group of households, but the number of single parent (male or female) headed households is rising and is expected to grow. This trend will further reduce the average household size.

The Village of Lawrence follows the national trend. This may be attributable to the increase in the family formation population. Van Buren County saw a decline in household size (0.02 persons) during the same time frame. However, the household size is still larger at the County level than the Village (see Table 6 below).

Table 6

Comparative Persons Per Household Trends and Projections

Place	1990	2000	2010	2020
Village of Lawrence	2.56	2.68	2.52	2.75
County of Van Buren	2.73	2.71	2.62	2.65

[a] Consultant Estimate based upon historical PPH trends and Census data

Source: 1990-2010 U.S. Census, and Woods & Poole Economics Inc. *1998 State Economic Profile.*

Educational Attainment

The level of educational attainment reached by residents reveals insights into the capabilities of the workforce, income levels, and the overall economic vitality of the community. The U.S. Census compiles data on the educational attainment for people aged 25 years and over. It is important to note that the figures are not cumulative; rather they are independent from one another. For example, if a respondent had only a bachelor's degree, that person would check that answer only, even though a high school diploma was also attained.

Table 7 shows the level of educational attainment for the Village, County, and State. In comparison, the Village closely mirrors the County in educational attainment while the State as a whole has higher educational levels. In 1990, 37.7 percent of Village residents received a high-school diploma and did not proceed to college. Further, 22.6 percent of those who went on to college received an associates degree or dropped out, 6.9 percent were granted a bachelors degree, and 2.6 percent earned a graduate degree.

Table 7
Educational Attainment for Persons 25 Years and Over: 2010

	Village of Lawrence		County of Van Buren		Michigan	
Level	**No.**	**Percent**	**No.**	**Percent**	**No.[a]**	**Percent**
Not a High School Grad	134	18.9	12,322	28.2	1,357	23.2
High School Graduate	226	31.8	15,209	34.8	1,887	32.3
Some College/	240	33.9	10,930	24.9	1,584	27.2
Bachelor's Degree	97	13.7	3,336	7.6	638	10.9
Graduate Degree	1	1.7	1,961	4.5	376	6.4
Total	698	100	43,758	100	5,842	100

Source: 2010 U.S. Census, STF 3A
[a] Rounded and in thousands

Race and Ethnicity

The racial and ethnic composition of the Village's population is presented in Table 8 for the years 2010-2014. Overall, the predominant race in the Village was white. Those within all other categories experienced a decrease. This category includes persons reporting write-in entries such as multi-racial, multi-ethnic, mixed or interracial. Census data in 2010 revealed that 72persons residing within the Village were of Hispanic Origin. The majority of these reported Mexican descent. It is important to note that these figures include some persons also reporting themselves as white or mixed race. The census allows respondents to list their race as more than one category, making it difficult to accurately isolate the population of any single race.

Population by Race

	2010	2011	2012	2013	2014
White alone	919	861	909	939	872
Black or African American alone	27	35	34	26	24
American Indian and Alaska Native alone	48	28	21	23	9
Asian alone	0	0	0	0	0
Native Hawaian and Other Pacific Islander alone	0	0	0	0	0
Some other race alone	101	84	66	77	72
Two or more races	87	90	85	84	72
Total	1182	1098	1115	1149	1049

INCOME & EMPLOYMENT

The type and rate of growth and development in a community is largely dependent on its economic situation relative to the surrounding region. Affluent communities generally attract high-end shopping centers, specialty shops, and upscale services, while low-income communities may bring marginal corner businesses and general goods. Moreover, low-income communities commonly have low home ownership rates, blighted housing areas, and higher crime rates. Understanding where the Village is positioned in the economic spectrum will aid in addressing associated needs.

Median Income Measures

Households are the basic consumer unit and supplier of labor to the market. A household represents all persons (not necessarily related) who occupy a housing unit. A household may be made up of one or more persons. Median household income (that level of income at which half of all households earn more and half of all households earn less) is a broad measure of a community's economic health.

In 2014, the Village of Lawrence had a median household income of $27,407. This amount is significantly less than the County ($46,536) and the State ($49,087).

Family income data accounts for income earned by all members 15 years of age and older in a family. Because many households consist of only one person, the household income figures are in most cases lower than family income figures. The median family income for the Village in 2014 was $27,407. This figure is also significantly lower than County and State figures.

Poverty Rate

The poverty rate for the Village, County and State in 1979 and 1989 is shown in Table 10. Over one-quarter (27.7 percent) of Village residents were below the poverty level in 1989. This represents a substantial increase from 1979. The percent of population in poverty at the County and State level, however, only increased slightly. This information reveals that the Village is disproportionately burdened with a higher share of those in poverty compared to other communities in the County.

Table 10
1979 - 1989 Comparative Rates of Poverty

Place	Percent of Population in Poverty		
	1979	1989	2000
Village of Lawrence	11.6	27.7	21.0
County of Van Buren	13.5	15.1	13.3
Michigan	10.4	13.1	12.1

Sources: 1980 and 1990 U.S. Census, STF 3A

Employment

This section examines employment trends within the Village of Lawrence in terms of occupation and industry. Occupational information describes the kind of work a person does while on the job. Industry information relates to the nature of the business in which a person is employed.

Understanding the composition of the workforce may provide insight into how a community may be impacted by a sudden change in the economy. For example, a plant or office closing may economically devastate a community that relies on a particular industry for its employment.

Table 11 shows employment by selected occupation in the Village of Lawrence for 1980-2000. The period saw a reduction in operators, fabricators, and laborers from 26.8 percent to 14.7 percent of the workforce. Village residents employed in the farming, forestry, and fishing occupations saw growth while other occupational groups remained relatively stagnant.

Table 11
1980-2000 Employment by Selected Occupation

	1980		1990		2000	
Occupation	**No.**	**%**	**No.**	**%**	**No.**	**%**
Managerial & Professional Specialty	48	15.0	68	18.8	76	15.4
Technical & Administrative Support	57	17.8	57	15.8	70	14.2
Private Household & Protective Service Occupations	3	0.9	16	4.4	19	3.8
Sales Workers	16	5.0	22	6.1	38	7.6
Service Workers	54	16.8	57	15.8	135	27.4
Farming, Forestry, Fishing	9	2.8	32	8.9	26	5.0
Precision Production, Crafts, Repair	48	15.0	46	12.7	63	12.8
Operators, Fabricators, Laborers	86	26.8	63	17.5	73	14.7
Total	321	100.0	361	100.0	494	100.0

Source: 1980-2000 U.S. Census, STF 3A

Table 12, following, details 1980-2000 employment by industry figures for workers in the Village of Lawrence.

Table 12
Employment by Selected Industry

Industry	1980		1990		2000	
	No.	Percent	No.	Percent	No.	%
Agriculture, Forestry, Fisheries, & Mining	12	3.7	26	7.2	26	5.3
Construction	23	7.2	27	7.5	44	8.9
Manufacturing	93	29.0	54	15.0	73	14.8
Transportation, Utilities, Comm.	25	7.8	17	4.7	27	5.5
Wholesale & Retail Trade	46	14.3	72	19.9	56	11.3
Finance, Insurance, Real Estate	12	3.7	6	1.7	17	3.4
Business & Repair Services	16	5.0	25	6.9	26	5.3
Personal, Entertainment, Recreation Services	5	1.6	22	6.1	67	13.6
Professional, Health, Education, Related Services	79	24.6	99	27.4	134	27.1
Public Administration	10	3.1	13	3.6	24	4.9
Total	321	100.0	361	100.0	494	100.0

Source: 1980-2000 U.S. Census, STF 3A

Total Housing Units

Table 13 compares the distribution of year-round housing structures by type in the Village of Lawrence and Van Buren County 1980-2000. Single-family homes (one-unit structures) remained the largest housing segment in the Village between 1980-2000. Two to nine-unit structures and mobile home units represent the next two largest housing segments in the Village. Housing structures containing ten or more units have comprised the smallest portion of the Village's housing stock.

Overall, between 1980 and 1990 the Village had considerably less growth in its total housing stock than the County, 0.5 percent compared to 28.5 percent. In 2000, the Village's total number of housing rose from 392 in 1990 to 434. Between 1980 and 1990, both the Village and

the County have received a tremendous amount of growth with respect to two to nine unit structures and mobile homes, these categories increased during that decade by 1200 and 30.8 percent in the Village and 51 and 92.9 percent in the County. The increases in these categories largely contributed to the overall growth of the housing stock in the Village and County.

Table 13
Total Housing Units Comparison

	Village of Lawrence						Van Buren County					
	1980		1990		2000		1980		1990		2000	
Units per Structure	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
1 unit	251	64.4	224	57.1	212	52.7	19,593	77.1	22,804	72.3	28,343	77.2
2-9 units	85	21.8	74	18.9	60	14.8	2,374	9.3	2,335	7.4	2,864	7.8
10 or more units	2	0.5	26	6.6	76	18.9	625	2.5	944	3.0	1,358	3.7
Mobile homes	52	13.3	68	17.4	50	12.4	2,824	11.1	5,447	17.3	4,516	12.3
Total	390	100	392	100.0	402	100.0	25,416	100.0	31,530	100.0	36,714	100.0

Sources: 1980-2000 US Census, General Population Characteristics

Tenure

Table 14 provides housing occupancy characteristics for the Village of Lawrence and Van Buren County. According to 2000 Census data, there were 402 units available for occupancy in the Village. Out of these 402 units, 360 units (91.3 percent) were occupied and only 42 units (8.7 percent) were vacant.

Table 14 2000 Housing Occupancy Characteristics Village of Lawrence and Van Buren County				
Category	Village of Lawrence		Van Buren County	
	No.	Percent	No.	Percent
Occupied Housing Units	**392**	**90.3**	**27,982**	**82.4**
Owner-occupied units	252	64.3	22,266	79.6
Renter-occupied units	140	35.7	5,716	20.4
Vacant housing units	**42**	**9.6**	**5993**	**17.6**
1990 Housing Tenure Characteristics Village of Lawrence and Van Buren County				
For rent	5	1.3	423	1.3
For sale only	7	1.8	319	1.0
Rented or sold, not occupied	1	0.3	436	1.4
For seasonal, recreational, or occasional use	6	1.5	4,098	13.0
All other vacant units	15	3.8	852	2.7
Sources: 1990 and 2000 US Census, General Population Characteristics				

Age of Housing Stock

Table 15 shows the age of Village housing stock by year of construction. According to Census data, 46.1 percent of the Village housing units were built after 1970. Another 36.8 percent of the housing units in the Village were built prior to 1939. Generally, the economically useful age of residential structures is approximately 50 years. Once a residential structure reaches this age threshold, the need for extensive housing repairs and maintenance repairs will increase. Therefore, at present 44.2 percent of the Village's dwellings are at this threshold.

Table 15
Village of Lawrence
Age of Housing Structure - 2000

	Number of Structures	Percent
1990-2000	42	9.7
1980-1990	68	15.7
1970-1979	90	20.7
1960-1969	17	3.9
1950-1959	25	5.8
1940-1949	32	7.4
1939 or earlier	160	36.8
Total	434	100.0

Sources: 1990 and 2000 US Census, General Population Characteristics

Natural Features

The natural features of a community include its wetlands, water resources and woodland areas. From an aesthetic standpoint, natural features are elements, which should be preserved and protected by whatever means possible. They lend character and uniqueness to the area, and allow residents to attribute a distinct "sense of place" about their community. From a development standpoint, it is important to identify where these elements are located, the extent of their boundaries, and how they relate to the overall landscape of the area. By assessing these factors, as well as others, community leaders working in tandem with planners are able to make more informed decisions regarding the course of community development in the future.

Climate

Survey data regarding climate for the Village of Lawrence was obtained from the U. S. Department of Agriculture's *Soil Survey of Van Buren County, Michigan* (1986). The average annual daily temperature for the Lawrence area is 48.1°F, with an average winter temperature of 25.5°F and an average summer temperature of 69.1°F. Proximity to Lake Michigan (approximately 17 miles due west) tends to moderate broad temperature fluctuations in this area. This moderating effect on the climate provides a good environment for extensive fruit tree production.

Total annual precipitation for the Village of Lawrence area amounts to 38.28 inches. Of this amount, about 56 percent usually falls between the months of April and September. Average seasonal snowfalls total 91.4 inches annually. Again, with the relative closeness of this area to Lake Michigan, precipitation and snowfall accumulations tend to be larger than those found in the eastern portions of the State.

Geology and Topography

The landscape of Van Buren County was formed through the complex actions of the Lake Michigan Lobe of the Wisconsinan Glaciation period, which took place during the last ice age approximately 10,000 years ago. Glacial activity which took place here resulted in the formation of five dominant landscape features – moraines, till plains, outwash plains, lake plains and drainageways. Areas on till plains were covered with muck and silt, deposited by ponded water. Some areas of moraines and till plains were modified by windblown sand, others were modified by shallow water.

Soils

Soil data for the Village of Lawrence was obtained from the U. S. Department of Agriculture's *Soil Survey of Van Buren County, Michigan* (1986).

Soils in the Lawrence Village area are characteristically well drained and found on nearly level to hilly lands. For the most part, these soils adequately support building site development, however, there are areas where slope and flooding are major concerns.

More specifically, urbanized areas of the Village lie on soils which are well suited for building

site development, although it is recommended that sanitary facilities be connected to a central sewer system or treatment facility, due to filtering capacity limitations.

Soils within the Paw Paw River floodplain tend to flood frequently and are poorly drained. Therefore, it is recommended that these areas be left in their natural state, as they are considered unsuitable for either intensive recreational use or building site development. Passive parks could be implemented in these areas if so desired.

Soils found in the southwestern portions of the Lawrence area are characteristically well suited for use as pasture and woodlands. They are not suitable for use as building sites, septic tank absorption fields or sewage lagoons due to frequent ponding of surface water. There are pockets of soils in this area that characteristically support building site development. However, it is recommended that structure conform to the landscape as much as possible, to alleviate the effects of slope. Alternatively, soils found in the southeastern portions of the Village tend to be very well suited for building site development as well as for recreational purposes. It is recommended that an on-site investigation take place before any type of development occurs on these soils to determine the actual suitability for a specific type of use.

There are areas directly south of the Village proper which are also well suited for building site development. Again, care should be taken to ensure that structures placed in these areas conform to the landscape as much as possible, minimizing the slope factor. These areas also tend to be well suited for either septic tank absorption fields or sewage lagoons, providing that distribution layouts for these facilities follow the natural contours of the land as well.

Water

The major natural water source for the Village of Lawrence is the main branch of the Paw Paw River. The River, along with its tributaries, drains the central portion of Van Buren County. The River follows a general east-to-west course across the County, ultimately emptying into Lake Michigan near the cities of Benton Harbor and St. Joseph in Berrien County. The watershed of the Paw Paw River is the largest in the County, encompassing approximately 346 miles. The other major waterway in the Lawrence area, Brush Creek, follows a northerly path along the eastern boundary of the Village, emptying into the Paw Paw River near the northeast corner of the Village limits.

Wetlands

In basic terms, a wetland is an area that is influenced by water in which certain water tolerant plants are likely to survive and reproduce. This may include areas that are *seasonally wet*, by a surface or ground water influence, as well as areas that are permanently saturated or ponded throughout the year[5].

Wetlands are important because there are a contributing factor to the quality of other valuable natural resources, such as inland lakes, ground water, fisheries, wildlife and the Great Lakes. Wetlands provide places for breeding, nesting and rearing of young waterfowl and other species

5 Source: U.S. Environmental Protection Agency. *Wetland Protection*. [Online]. Available from http://www.epa.gov/owow/wetlands/wetland1.html. Accessed 17 June 1999.

of birds, mammals, fish and reptiles. They intercept and hold flood or storm waters, naturally dissipating them over a period of time. They also intercept and retain excess nutrients from surface water, generated mainly by human practices such as agriculture or lawn fertilizing, sewage treatment or road salt application. Wetland systems filter these excess nutrients out of the surface runoff, lessening the occurrence of unwanted plant and algae growth in inland lakes and streams6.

Part 303 of the Michigan State Natural Resources and Environmental Protection Act, PA 451 of 1994, defines a wetland as:

"Land characterized by the presence of water at a frequency and duration sufficient to support, and that under normal circumstances does support, wetland vegetation or aquatic life and is commonly referred to as a bog, swamp, or marsh and which is any of the following:

- Contiguous to the Great Lakes or Lake St. Clair, an inland lake or pond, or a river or stream.
- Not contiguous to the Great Lakes, an inland lake or pond, or a river or stream; and more than five acres in size; except this subdivision shall not be of effect, except for the purpose of inventorying, in counties of less than 100,000 population.
- Not contiguous to the Great Lakes, an inland lake or pond, or a river or stream; and five acres or less in size if the department determines that protection of the area is essential to the preservation of the natural resources of the state from pollution, impairment, or destruction and the department has so notified the owner."

The Wetland Act authorizes the Michigan Department of Environmental Quality (MDEQ) to preserve certain wetland areas. The MDEQ may require permits before altering regulated wetlands and may prohibit development in some locations. Among the criteria used by the MDEQ when conducting a wetland determination are:

- Presence of standing water (at least one week of the year).
- Presence of hydric soil types that are saturated, flooded, or ponded sufficiently to favor wetland vegetation (usually black or dark brown in color).
- Predominance of wetland vegetation/plant material, or aquatic life, such as cattails, reeds, willows, dogwood, elderberries, and/or red or silver maple trees.
- Presence of important or endangered plant or wild life habitat or a rare ecosystem.
- The area serves as an important groundwater recharge.
- Size and Location - minimum size to be state regulated is five acres unless the wetland is contiguous to a lake, pond, river or stream, or is considered to be "essential to the preservation of natural resources of the state."

6 Ibid.

The determination that a site contains a regulated wetland can have several consequences:

- The MDEQ may issue a permit to fill the wetland.
- The MDEQ may require mitigation, such as replacing the wetlands. Sometimes this involves increasing the overall on-site wetland acreage by two or three times.
- The MDEQ may prohibit development in the wetland area if it is determined that there is a "prudent" alternative.

Wetlands identified on Natural Features Map were determined using maps and data obtained from the Michigan Resource Information System (MIRIS). Two significant areas of wetland are found in the Village of Lawrence Planning area. One is located in the north-central portion of the Village along Brush Creek, near the point where it joins the Paw Paw River. For the most part, this is considered a riparian-forested wetland. Riparian-forested wetlands are linear systems that are found along lakes, streams and rivers, which are saturated or inundated with water during the winter and dry in the summer, except during flood conditions. Riparian-forested wetlands are particularly productive ecosystems, receiving large inputs of water and nutrients from upstream sources during flooding. These areas contain primarily oaks, red maple, elm, ash, alder and willow.

The other significant wetland is located just to the west of County Road 215 as it leaves the Village from the north. This wetland is primarily considered a non-forested wetland. Non-forested wetlands include fresh-water meadows and inland marshes, wet prairies and open bogs. Plant species consist of cattail, bulrush, sedges, water lily, pickerelweed and arrowhead.

Woodlands

Woodlands are a very valuable natural asset for a community. They provide necessary functions such as: habitat for many wildlife species, climate moderators, watershed protection from siltation and soil erosion caused by storm water runoff, wind and noise buffers, as well as aesthetic and recreational enjoyment. To the extent possible, woodlands should be conserved during all future land development.

Woodlands identified on Natural Features Map were determined using maps and data obtained from MIRIS. The map indicates that the Village of Lawrence is dominated by a significant amount of lowland deciduous forestland that lies within the flood plains of the Paw Paw River and Brush Creek. Lowland deciduous forests consist of ash, elm, cottonwood and soft maple as well as other lowland hardwood species.

There are also upland deciduous woodlands of various sizes found within the north and south Village limits. These forests consist of a variety of broadleaved species such oak, maple, beech, birch ash, hickory and aspen. These areas may also be intermixed with stands of sugar and red maple, elm, basswood and cherry.

Transportation and Utilities Profile

This chapter examines the existing transportation and utility system within the Village according to capacity to support future development. The ease of access and availability of utilities have a significant impact on the future growth and development of a community. Even highly attractive properties can become unappealing when potential owners are faced with a perception of unsafe traffic conditions or a failed septic system in the area. Ideally, the extension and improvement of public streets and utilities should precede the demands incurred by increased development. A synchronous relationship should develop between transportation and utility improvements and changes in land use.

Transportation

Regional and local land use types directly influence the planning and construction of the local roadway system. Roadways, which carry heavy traffic volumes at a high rate of speed, need to be specifically engineered to handle this type of traffic. Roadways carrying light traffic volumes at low speeds need not be constructed to such stringent standards. Though roads constructed with concrete curb and gutters may be desirable, the cost may outweigh the benefits in certain areas.

To understand the impact transportation conditions have on future land use decisions, it is necessary to examine the characteristics of the existing roadway system. This chapter will review the hierarchy of roads in the Village, recent street improvement measures, safety concerns, and recommended transportation improvement techniques.

Hierarchy

Streets within the Village of Lawrence can be classified according to a three level functional hierarchy of service. The hierarchy is described as follows:

Local (minor) Streets

Local streets are primarily designed to provide access to immediately adjacent properties. Through movement may be possible, but is not encouraged by operational controls; it may be impossible in the case of cul-de-sacs. Part of the street width is usually allocated to vehicle parking without restrictions, although special snow emergency parking prohibitions may be necessary. Each abutting property may have a driveway connection to the street.

Examples of local streets are First Street, Elizabeth Street, Cross Street, and South Street.

Collector Streets

Collector streets are primarily designed to provide access to abutting land parcels, and also enable moderate quantities of traffic to move expeditiously between local streets and the major network.

Examples of collector streets are James Street and Blackman Street.

Major Thoroughfares

Major thoroughfares are primarily designed for the efficient movement of through traffic at speeds which are as high as can be reasonably allowed in view of safety considerations and the amount of access being provided. Capacity is obtained by provision of wide street cross sections and high capacity controls at intersections, or by elimination of intersections by grade separation. Speed results from provision of good horizontal and vertical alignments and removal of potential safety hazards, especially access friction. The primary purpose of a major thoroughfare is to carry high volumes of traffic over longer distances with minimal interruption.

Interstate-94, St. Joseph Street (Red Arrow Highway), Paw Paw Street (CR365) are examples of major thoroughfares.

Village Street Pattern

The Village of Lawrence has developed within a partial grid of rectangular streets networking through compact neighborhoods closely consistent with neo-traditional design objectives. According to design objectives, the optimal size of a neighborhood is 1/4 to 1/3 of a mile from center to its edge, a distance equal to a five to ten minute walk at an easy pace. Its limited area gathers the population within walking distance of many of its daily needs. Further, streets are designed to accommodate the needs of all modes of transportation. Moreover, a neighborhood consists of an interconnected network of small thoroughfares with smaller blocks to provide multiple routes. This pattern keeps through traffic off local streets.

Many of the residential streets within the Village of Lawrence are stubbed (i.e. the numbered streets stemming north from St. Joseph Street) and provide little opportunity for future interconnections. It should be noted that natural features, such as the Paw Paw River, hinder an expansion of residential development in the northwest quadrant of the Village, while Brush Creek may provide a barrier to expanded development in the northeast quadrant. These features should be viewed as assets rather than liabilities, and should be integrated into overall neighborhood design as a unique amenity that may provide future opportunities for public enjoyment.

Recent Street Improvements

During the past three years, a series of street improvements have been carried out in the Village. They are detailed below in Table 17.

DAN UPDATE Table 17 Recent Street Improvements 2000-2015		
Street	**Location**	**Improvement Measure**
West James Street	South of West St. Joseph Street	Chip Seal
South Exchange	South of W. James Street	Regrade end of Road
West James Street	From Railroad Crossing West to Michigan Street	Resurfaced
Michigan Street	From W. James Street to W. St. Joseph Street	Resurfaced
Crandall Parkway and Maple Drive	Lawrence-Crandall Industrial Park	New construction
Source: Wade-Trim/Facilities Management		

In addition to the major improvements listed above, many local roads have been slurry-sealed. Slurry-seal is an all weather road sealant alternative to the traditional chip sealant that has been used in the past. It use may prolong the life of the road for several years.

Safety Concerns

A major transportation concern inside the Village of Lawrence was the condition of two railroad crossings: one that crosses S. Paw Paw Street and one that crosses W. St. Joseph Street. Both of these roads handle high volumes of traffic including semi-truck and school bus. The railroad formerly abandoned the track in 2015 and removed the rail except at these intersections. In cooperation with the Intermediate School District, the Village was successful in converting these crossings to exempt status which allowed traffic to flow without stopping at these intersections.

Recommended Transportation Improvement Techniques

Two techniques widely used are recommended to effectively manage the development and operation of the local transportation system. The first deals with access management. An expansion of strip commercial development along Paw Paw Street may create a need to apply the recommended practices outlined below by the Michigan Department of Transportation. The second technique relates to traffic calming. This could emerge as a critical issue in neighborhoods unless adequate measures and improvements are made.

Access Management

Access management is defined as “a process that provides or manages access to land development while simultaneously preserving the flow of traffic on the surrounding road system

in terms of safety, capacity, and speed.[7]" The goal of access management is to achieve a safe and efficient flow of traffic along a roadway, while preserving reasonable access to abutting properties.

Six basic principles are outlined in the *Improving Driveway & Access Management in Michigan* handbook, prepared for the Michigan Department of Transportation, to achieve the benefits of access management. They are:

1. *Limit the number of conflict points*: When the number of potential conflict points between turning vehicles increases, so do the opportunities for traffic crashes. Intersections typically have the most points of potential conflict.

2. *Separate conflict points*: separating conflict points can reduce traffic conflicts. Effective ways include establishing minimum distances between intersections and driveways and establishing corner clearance standards that separate driveways from critical approach areas of intersections.

3. *Separate turning volumes from through movements*: Vehicles typically slow before turning. When turning vehicles are removed from the main flow of traffic, traffic speed is better maintained. In addition to maintaining speed, roadway capacity is preserved and accident potential is reduced. Separate right and left turn lanes, and frontage roads are access management design tools that serve this purpose.

4. *Locate traffic signals to facilitate traffic movement*: When a major road has poorly spaced and uncoordinated signals, traffic safety, road capacity and traffic speed can be severely hampered. Distances of one-half mile or more between signals are desirable.

5. *Maintain a hierarchy of roadways by function*: Access management standards consistent with roadway function protect investments in existing roads, businesses and residential areas. When a road combines high traffic volumes with too many conflict points, roadway function and quality decline, along with the ability to safely access abutting properties.

6. *Limit direct access on higher speed roads*: Access on higher speed roads should be limited to only signalized intersections or other public streets along the road – rather than at each abutting property – to preserve the public investment in the road. Consequently, fewer road widenings will be needed. This does not presently apply to the Village of Lawrence, but may become a future concern if the pace of growth continues to accelerate.

The above access management principles should be incorporated in the development review of major projects.

Traffic Calming

Traffic calming is a holistic, integrated traffic planning approach based on common sense that seeks to maximize mobility while creating a more livable place by reducing the undesirable side

[7] Michigan Department of Transportation, *Improving Driveway & Access Management in Michigan*

effects of that mobility.[8] Following are road design methods used to slow traffic taken from the Traffic Calming publication by the Citizens Advocating Responsible Transportation (CART):

- *Narrow Traffic Lanes*: Wide lanes encourage greater speed.

- *Interrupted Site Lines:* If motorists can see a long way into the distance, their speed increases. The interruption of sight lines with changes in the roads direction, roundabouts, "neck-downs" or breaking the road into smaller visual units with paved strips across the road causes the driver to slow down. It also means they widen their vision field becoming more aware of pedestrians and cyclists.

- *Changes in Road Surface*: Paved or cobblestone strips across a road cause a slight vibration in the car which causes the driver to slow down.

- *Paved Speed Tables*: A speed table is a slightly raised section in the road. It varies from a speed bump in that it must be wide enough for both sets of wheels to be on the table at once. They can be placed at pedestrian crossings or whole intersections at the same level as footpaths.

Employment of the above techniques are encouraged to calm traffic in neighborhoods and in the downtown area to improve safety and promote pedestrian activity.

Utilities

Because a community's growth patterns are closely tied to the presence of utility systems, their location and general condition must be carefully documented. This information, then, can be used to determine what growth constraints prevail due to the inadequacy of the existing systems.

Water

The Village of Lawrence is self-served with respect to water supply. The total number of water services metered is three hundred and ninety-six (396), which amounts to full Village coverage. There are only six residents that receive water service only (no sewer service) in the Village.

The Village is supplied with water through a series of three (3) groundwater wells and one (1) elevated storage tank, with a capacity of 150,000 gallons. Table 18 contains a listing of the location and pumping capacity for these facilities.

Table 18
Water Distribution System

Well	Location	Pumping Capacity
Number 1	Immediately north of James Street	550 gallons per minute
Number 2	Immediately north of James Street	500 gallons per minute
Number 4	At the terminus of South Blackman Street	550 gallons per minute

The is also a water booster station located nearby the industrial park on County Road 365,

[8] Citizens Advocating Responsible Transportation (CART), *Traffic Calming*, 1993.

which has three water pumps. This station provides water service to manufacturing and office firms located in the industrial park. One small pump has a pumping capacity of 50 gallons per minute. Two other larger pumps have capacities of 250 gallons each.

The average amount of water pumped in 2000 was 107,000 gallons per day. **UPDATE TO 2010**

Sewer

The Village of Lawrence is self-served with respect to sanitary sewer service. Three lift stations, located on Blackman Street, James Street and across from Lawrence Schools on W. St. Joseph Street, pump effluent to a main lift station, located at N. Paw Paw Street and Bangor Road (County Road 215). From there it is pumped to a lagoon treatment facility located northeast of the Village, which has three individual cells.

The main lift station has two pumps capable of pumping 500 gallons per minute each. It also is equipped with a natural gas engine, providing enough emergency power to operate one of the two pumps when necessary. Capacities for the three cells of the lagoon system are listed in Table 19.

Table 19
Sanitary Sewer System

Cell	Capacity
Number 1	14.6 million gallons
Number 2	6.85 million gallons
Number 3	8.94 million gallons

The average amount of wastewater pumped in 2000 was 113,000 gallons per day. . **UPDATE TO 2010**

Implementation

The implementation of capital improvement projects should be programmed based upon identified needs and cost efficiency. Carrying out these improvements in a strategic manner will help induce the preferred development pattern inside the Village. This requires a short-range capital improvements plan to be prepared in light of current development trends. Further, traffic impact studies should be reviewed on a case-by-case basis as development proposals are accepted.

Programming

The above recommendations for improvements should be considered for incorporation into a six year capital improvements plan linked to the municipal budget. This should be done in accordance with Section 9 of the Municipal Planning Act (P.A. 285, 1931), which states that:

"For the purpose of furthering the desirable future development of the municipality under the master plan, the city planning commission, after the commission shall have adopted a master plan, shall prepare coordinated and comprehensive programs of public structures and improvements. The commission shall annually prepare such a program for the ensuing six years, which program shall show those public structures and improvements, in the general order

of their priority, which in the commission's judgement will be needed or desirable and can be undertaken within a 6-year period."

Outside project funding for road improvements should be sought when windows of opportunity open up to the Village. For example, economic development funds should be procured from State and Federal agencies for the access loop in the planned industrial area.

Development Review

A traffic impact study should be an essential part of the development review process to assist developers and public agencies in making land use decisions, such as annexations, subdivisions, rezoning, special land uses, and other development reviews, where the proposal may have a significant negative impact on traffic and transportation operations. Ultimately, traffic impact studies could be used to help evaluate if the scale of development is appropriate for a particular site and what improvements may be necessary, on and off the site, to provide safe and efficient access and traffic flow.[9]

When faced with a rezoning request or Master Plan amendment, Planning Commissioners should use the following guidelines and require a study when:

- Requests for a rezoning consistent with the community's long range land use plan when community officials believe the timing of the change may not be appropriate due to traffic issues.

  This threshold is recommended only for a rezoning which permits uses that could generate 100 or more additional trips in a peak hour, or at least 1,000 more additional trips per day, than would be generated by the majority of the uses permitted under current zoning (example: a zoning change from agricultural to one which permits 120 homes).

- Requests for a rezoning which are inconsistent with the community master plan for a site which could generate at least one hundred (100) directional trips during the peak hours of the traffic generator or the peak hour on the adjacent streets or over seven hundred fifty (750) trips in an average day.

- Proposed rezoning along a roadway that the community or transportation agency has identified as a "critical corridor", "congested corridor", or "safety management corridor." This could be applied to all such zonings or only those, which would generate additional traffic.

- Proposed amendments to the future land use plan that would recommend uses, which generate higher traffic volumes.

[9] McKenna Associates, Inc, The WBDC Group, *Evaluating Traffic Impact Studies*, 1994

Market Assessment

The following section assesses the market potential for future residential, commercial, and industrial uses within the Village of Lawrence based on nationally recognized planning and design standards. This database will be used to determine the amount of each land use, which can reasonably be expected to be required in the Village by 2020. These figures are then adjusted to accommodate unique characteristics in the Village of Lawrence.

Residential Needs Analysis

The characteristics of the existing residential structures will largely determine the type of housing that will likely be constructed during the planning period. Housing unit projections are based upon existing and projected demographic patterns as well as existing housing characteristics. Demographic characteristics analyzed include projections of the total population and persons per household. Housing characteristics analyzed include vacancy rates and recent residential housing unit construction.

The projected housing needs for the Village of Lawrence is summarized in Table 20. This was calculated using the Village's projected 2020 population, and average persons per household rate. As previously mentioned within the Socioeconomic Profile chapter of this Master Plan, it has been determined that the planning year (2020) population would be projected through the use of two projection methods (Arithmetic and Constant county share). For planning purposes the larger of the two projections is used, resulting in a 2020 population of 1,256 persons. In making projections for future housing requirements it was also considered that the average person per household size is projected to increase by 7.0 percent from 2.68 in 2000 to 2.75 in 2020.

After estimating the impacts from population, and household size, it is also necessary to calculate how much of the total housing stock in the plan year will be vacant for sale or rent. Generally, five percent of a community's habitable housing stock should remain vacant to provide diversity in housing selection, permit housing rehabilitation or replacement activities, and to ensure that asking prices for housing are indicative of actual market conditions, while at the same time protecting private investment. Vacancy rates below five percent demonstrate a restricted housing environment, affording little opportunity for potential households to be absorbed by available units. In 2000 the vacancy rate in the Village of Lawrence was significantly higher than this standard at 9.7 percent. The planning year 2020 vacancy rate that has been used in order to project housing requirements is the ideal vacancy rate of 5.0 percent. This is due to the belief that the projected increase in population, coupled with the recommendations provided in this market assessment will bring the vacancy rate back to equilibrium.

Data in Table 20 summarize the projected changes to population, persons per household and housing stock through 2020. Based on this analysis, it is anticipated that an additional 97 dwelling units will need to be constructed by 2020 in order to house the projected population. This equates to the construction of approximately five units per year, over the 2000-2020 period. In addition, due to the eventual increase in the Village's employment base resulting directly from the completion of the industrial park, it will likely be necessary to increase the number of

residential units supplied. However, it has not yet been determined how many additional residential units will be required within the Village due to the creation of the industrial park. By contrast, according to the Villages building records, the number of building permits issued for the construction of new residential dwellings for the 1993-1999 period equates to 10 units, or 1.4 units per year.

Table 20
Village of Lawrence
2020 Housing Unit Requirements

Category	2000	2020	Change2000-2020	
			Number	Percent
Total Population	1,059	1,256	197	18.6%
Persons Per Household	2.68	2.75[a]	.07	2.6%
Total Occupied Units	392	506	114	29.1%
Vacancy Rate (%)[b]	9.7	5.0[c]	(4.7)	(41.9)%
Total Housing Units	**434**	**531**	**97**	**22.4%**

Data compiled by Wade-Trim.
Source: 2000 U.S. Census, and Tables 3-2 and 3-4, Socioeconomic Profile Chapter.
[a] Consultant Estimate based upon historical and 1970-2000 PPH trends
[b] Percent of total units vacant for sale or rent or rented/sold not occupied as reported in the 2000 Census.
[c] Ideal vacancy rate.

In projecting the number of multiple-family residences that will be required by the planning year 2020, it was predicted that the 1990 proportion of multiple family units to single family units would remain static. In 1990, there were a total of 100 multiple-family units within the Village, comprising 25.5% of the total number of residential units. By applying this rate to the total projected number of housing units for the year 2020, it is projected that a total of 28 additional multiple-family units will be required, this equates to the construction of 1.4 multiple-family units per year.

Commercial Needs Analysis

Commercial development is an important part of a community's economy. Commercial establishments provide goods and services to consumers, promote economic stability, and generally enhance the quality of life for area residents. However, if commercial districts are not suitably located and carefully planned, they can be a disruptive element and ultimately detract from the community. The extent of a community's commercial base is linked to the size of its potential market area and the regional location of the community itself.

There are three primary types of planned shopping environments: neighborhood centers, community centers and regional centers. Data in Table 21 present the typical shopping center standards for these three types of commercial centers.

Neighborhood centers generally require a site between three and five acres in area. Such centers often have a supermarket as the principal tenant with other stores providing convenience goods or personal services. The typical gross leasable area is 30,000 to 100,000

square feet. The required trade area population ranges between 2,500 and 4,000 people living within a 1 to 1½ mile radius or six minute drive of the center.

Community centers generally require a site that is ten acres in area. Such centers often have a junior department store (i.e. Meijer, Wal-Mart) or variety store as the major tenant in addition to a supermarket and other retail stores. The typical gross leasable area is 100,000 to 300,000 square feet. The required trade area population ranges between 40,000 and 150,000 people living within a three-mile radius.

Regional centers are typically constructed on a site of 30 to 50 acres in area. Such centers are built around a full-line department store with a minimum gross leasable area of 100,000 square feet. Regional centers may have a total gross leasable area of 300,000 to 1,000,000 square feet. Generally, the required trade area population is 150,000 people or more living within a 10 to 15 mile radius.

Due to the Village of Lawrence's proximity to both small and large urban centers, particularly: the City of Benton Harbor to the west and the Cities of Paw Paw, and Kalamazoo to the east, many of the retail demands on a community and regional level are already met. The Village should therefore not plan on capturing a large enough population to justify the development of a center with these scales. As an alternative, considering the Village's projected 2020 population of 1,123 persons, as well as the area from which the Village will draw, market based standards project that the Village of Lawrence could feasibly support the development of one neighborhood center, totaling three acres. Of special need to the Village residents would be the development of a large grocery store chain outlet to serve both Village residents and the surrounding townships.

Not all commercial uses are sited within pre-planned shopping centers; attention must also be given to uses which occupy freestanding structures or which are part of strip commercial areas. Most of these uses are considered highway-oriented businesses, since much of their trade results from exposure and accessibility to passing motorists. Data in Table 22 present the market base standards for many of these types of uses. For land use planning purposes, it is recommended that 10 acres per 1,000 people be allocated for such development. In the case of Lawrence, the amount of population afforded due to the interstate traffic cannot be ignored. The area in the southern end of the Village directly abuts I-94 and is likely to see development pressure for highway-oriented business. Development in this area will be valuable both in service to the local residents and motoring public and in the provision of needed income to the community.

Data in Table 23 also documents the population base necessary to support different types of office development (i.e. doctors, real estate, accounting, travel agencies, legal offices, and banks). To provide for such development, 3 acres per 1,000 people is the recommended guide.

Based upon these standards, the commercial needs analysis predicts that the Village of Lawrence will require approximately 16 acres of

commercial development (3 acres for a neighborhood center, 10 acres for non-centers, and 3 acres for offices) by 2020 to serve its population. These figures must be adjusted in situations such as found in Lawrence given the approximation to the interstate and the associated amount of traffic population.

Table 21 Typical Shopping Center Standards*				
Center Type	**Composition**	**Site Size**	**Population Base**	**Service Area**
Neighborhood Center	Supermarket as the principal tenant with other stores providing convenience goods or personal services. Typical Gross Leasable Area (GLA) of 30,000 to 100,000 square feet.	3-5 acres	Trade area population of 2,500 to 4,000 people.	Neighborhood, 6-minute drive time, 1 to 1.5 mile radius.
Community Center	Junior department store or variety store as the major tenant, in addition to the supermarket and several merchandise stores. Typical GLA of 100,000 to 300,000 square feet.	10 acres	Trade area population of 40,000 to 150,000 people.	3 mile radius.
Regional Center	Built around a full-line department store with minimum GLA of 100,000 square feet. Typical center GLA of 300,000 to 1,000,000 square feet.	30-50 acres	Trade area population of 150,000 or more people.	10-15 mile radius

*Urban Land Institute, *Shopping Center Development Handbook*, (Washington, D.C.), 1977.
[a] Urban Land Institute, *Development Trend*s, March 1989.

Table 22
Market Criteria for Selected General Commercial Land Uses

Store or Service Use	Population Base	Market Penetration	Rental Revenue Potential	Typical Building Size in Square Feet
Food Stores	4,000	low	low	20,000
Drug Stores	9,000	high	Medium	5,400
Liquor Stores	3,100	high	high	2,000
Restaurants & Taverns	Varies	low	high	3,300
Laundries (coin operated)	12,400[a]	high	low	1,600
Dry Cleaners	3,000	high	low	1,300
Beauty Shops	2,100	high	medium	1,200
Barber Shops	3,300	high	medium	750
Television Repair	5,300	medium	low	1,400
Real-Estate Offices	N/A	high	high	1,000
Branch Banks	4,500	low	high	4,000
Accounting Offices	N/A	N/A	N/A	N/A
Nurseries	16,200	high	medium	1,300
Travel Agencies	Varies	high	high	800
Women's Apparel Stores	6,000	low	medium	2,500
Sporting Goods Stores	18,000	medium	medium	N/A
Books & Stationary	6,500	low	medium	2,000
Furniture & Home	6,200	low	medium	10,200
Camera Stores	55,100	medium	medium	2,000
Automotive Service Stations	2,800	low	high	varies
Hardware, Paint & Building Supply	8,700	medium	medium	5,700
Convention Hotels	[b]	varies	N/A	varies
Bowling Alleys & Billiard Parlors	[c]	[c]	[c]	[c]
Doctors Offices	1,000	low	high	1,000
Legal Offices	6,000	low	high	800
Stock-Brokerage Offices	15,000	low	high	800

Note*: Population base refers to the number of actual customers each store or service requires for its support. Market penetration is each store's ability to withstand competition; a store with low penetration needs a greater number of residents in the area than one with the same population base and high penetration. Assume a 3:1 site to building size ratio to determine total land area need. Source: Darley/Gobar Associates, Economic, Real Estate, and Marketing Consultants, as published in* House and Home Magazine*, 1973.*

[a] Figure is approximate, depending on whether residents have their own machines.
[b] Not applicable; does not depend on residential population.
[c] Current figures not available. Popularity is declining.

Industrial Needs Analysis

The quantity of developed industrial land a community will need in the future is dependent upon its current employment base, utility availability, local political philosophy, as well as the myriad of other factors industries consider when choosing a location for a new facility. (Data in Table 23 list the more important location criteria industries analyze when selecting a site.) For land use planning purposes, it is necessary to estimate the amount of land that can reasonably be expected to be developed for industrial uses. This ensures that capital improvements will be programmed in advance and that an ample supply of land is available to support local employment opportunities.

However, with the creation of the new 110-acre certified industrial park, coupled with the pre-existing 23.5 acres of industrial land, it is believed that sufficient support has already been provided for all industrial needs through to the planning year 2020. Typically a village/city will have approximately eight percent of its total developed area designated for industrial uses; though with the creation of the industrial park, 35% of the Villages developed acreage will be allocated for industrial use. Although the park provides a significant amount of additional industrial acreage, it is not likely that this acreage will remain vacant due to the various incentives that have been incorporated into the site's marketing. A 50 percent tax abatement will be available to industries that qualify for assistance; the duration of the abatement will be determined by the local governing unit.

The impetus in the development of the industrial park is to provide a tool for local economic development. In addition to increasing the industrial tax base, it is hoped that the influx of industry will effectively increase the employment base; thereby creating positive spin-off effects in the economy (i.e. increased retail sales, property taxes). Table 24, Employment/Density Ratios for Estimating Industrial Land Use, provides standards used in projecting the number of employees per net industrial site acre. Through the application of this standard it is projected that between 880 – 3300 individuals will be employed within the industrial park upon full occupancy.

Although it has not been necessary to estimate the amount of industrial land typically established in an urbanized area due to the sufficient support already provided by the industrial park, several standards exist which serve these purposes. These standards have been included for reference purposes in tables 24, Employment/Density Ratios, 25, Land Use Ratios and 26, Population Ratios.

It is important to note that although some of the national standards (commercial and industrial) utilized for the purpose of this market assessment may not be current they have remained relatively constant. Specifically, particular types of commercial and industrial uses continue to require the same amount of land area as several decades ago. For this reason these standards are still very applicable to today's communities.

Table 23 Location Criteria Used by Industry	
Availability of Adequate Sites	The trend is to one-story plants with adequate space for parking, loading, a reserve for expansion, and, if the industry abuts a residential area, a landscaped buffer strip.
Reasonable Tax Rates	Two of the more frequently stated reasons for an industrial move are the lack of an adequate site or the lack of a reasonable tax rate.
Location of Production Material	Improved methods for moving bulk products are lessening the importance of this factor.
Power	Electric power is the type most often required today, and there should be no local problems in this respect.
Water	Many industries require large quantities of water, either raw or treated, in their manufacturing process, and some find it desirable to have water as a means of cheap transportation.
Waste Treatment Facilities	A prerequisite to industrial operations locating in a particular area is its ability to handle the disposal of wastewater. Either public utilities with readily available access to or on-site waste treatment facilities with sufficient capacity to meet operational requirements have become integral location criteria, requiring careful consideration.
Industrial Fuel	Industries requiring gas are limited as to their potential locations. If coal is required in large quantities, the industry should be located along railroads or waterways.
Transportation Facilities	The importance of rail sites has diminished for some industries. Many rely solely on major highways as the means of bringing in production materials and distributing the finished product.
Favorable Competitive Pattern	Certain industries are finding it worthwhile to establish branch plants and to decentralize in order to maintain competitive advantages.
Living Conditions	An industry will also investigate a community's resources in terms of educational and recreational facilities, housing, availability of professional services, nature of shopping facilities, and public attitudes.
Compatible Laws	Up-to-date industrial thinking recognizes the desirability of sound zoning, building, and other codes.
Site Characteristics	Such things as soil and topography, amount of grading required, drainage conditions, waste disposal service, etc., are important to certain industries.
Labor	The cost of labor as a factor of production is important to industries where added costs cannot be shifted to the consumer without sacrificing competitive advantage.
Compiled by Wade-Trim / Associates Inc.	

Table 24 Employment/Density Ratios for Estimating Industrial Land Use	
Industry Type	**Average Number of Employees Per Net Site Acre**
Intensive Industries [a]	30
Intermediate Extensive Industries [b]	14
Extensive Industries [c]	8
Source: Urban Land Institute, Industrial Development Handbook, 1975. [a] Industries include electrical equipment and supply; printing and publishing; apparel and textile products; transportation equipment; and similar uses. [b] Industies include lumber and wood products; furniture and fixtures; food and kndred products; chemicals; and similar uses. [c] Industries include tobacco products; petroleum and coal products; wholesale trade; and similar uses.	

Table 25 Land Use Ratios for Estimating Industrial Land Use	
Community Size	**Percent Industrial Land Average**
Small Cities & Towns (under 42,000 people)	8%
Large Cities (over 200,000 people)	12%
Source: American Planning Association, PAS Memo: Land Use Ratios, May, 1983.	

Table 26 Population Ratios for Estimating Industrial Land Use	
Category	**Ratio**
Total gross land required for all industry	12 acres per 1,000 population
Land required for light industry	2 acres per 1,000 population
Land required for heavy industry	10 acres per 1,000 population
Source: Joseph DeChiara and Lee Koppleman, Planning Design Criteria, 1969.	

Community Goals and Strategies

Before a community can actively plan for its future growth and development, it must first set certain goals and objectives that define the boundaries of its needs and aspirations and, thus, establish a basis of Master Plan formulation. These goals and objectives must reflect the type of community desired and the kind of lifestyle its citizens wish to follow, given realistic economic and social constraints. The following sets forth goals, which describe the ultimate purpose, or intent of the Village of Lawrence Master Plan, as well as objectives to help the community achieve the goals. Strategy statements are also provided to guide the future review of development proposals.

Formulation Process

The process of developing goals, objectives, and strategies for the Village of Lawrence Master Plan involved multiple steps, including background information on the Village's existing land use, natural features, transportation and utilities and housing characteristics. During March of 2000, the Planning Commission hosted a public goal-setting workshop to further identify the "strengths" and "weaknesses" of the community.

The following provides a summary of the development process used in generating the Village's goals.

Background Studies

Over the course of several meetings in the fall and winter, the Village Planning Commission reviewed background studies including socio-economics, natural features, housing, existing land use, utilities and transportation within the Lawrence area. These studies offered a "snapshot" of the community and of the residents who live here. These studies are used to assess future trends in population and the local economy, anticipated housing need, potential weaknesses in local infrastructure, as well as the identification of environmentally sensitive land. For these reasons the background studies are an invaluable information source that have been utilized in the development of a set of goals for the Village. These studies are included in the previous chapters in this Plan.

Visioning Session

In March of 2000, the Planning Commission and Village Council hosted a public Goal-setting Workshop at the Lawrence Conference Center. Approximately thirty (30) people attended the session, representing the Village and Lawrence, Arlington and Hamilton Townships. (A list of participants is included in the Appendix of this Plan.) The purpose of the workshop was to involve the public in defining key strengths and weaknesses in the Village and surrounding area. Approximately thirty residents and local officials from both the Village and the Township

attended the session, which used a Nominal Group Technique approach to help identify the strengths and weaknesses of the overall community. Participants were first asked to identify issues from a personal perspective and then as part of a small group. After the small groups shared their priorities with the entire audience, individuals voted for the three issues in each category they believed most important, starting with number one as the highest priority. In tabulating responses, number three was given a value of one; number two a value of two, and number one a value of three. Following, table 27 shows the total scoring of the issues as well as the actual number of ones, twos and threes each received.

Table 27
Results of the Community Goal-setting Workshop

STRENGHTHS					**WEAKNESSES**				
Issue	**#1**	**#2**	**#3**	**Total ♦**	**Issue**	**#1**	**#2**	**#3**	**Total♦**
Small, quiet rural community with parks	10	2	6	40	Loss of businesses and number of vacant buildings in downtown	8	0	2	26
Schools, Intermediate school district and churches	7	5	8	39	Building appearances (both facades and maintenance)	7	1	0	23
Industrial park with planned growth	8	2	3	30	Deficient (inadequate) infrastructure	6	1	2	22
Emergency services (EMT, fire)	0	10	2	22	Lack of grocery stores and other retail opportunities	1	7	3	20
Architectural building characteristics and diversity	2	7	0	20	Decay of downtown area; blight	2	5	3	19
The people	0	0	8	8	Lack of tax base	2	4	3	15
The *Acapulco*	0	0	1	1	Lack of industry in the industrial park	2	2	4	14
Cooperation between units of government and the provision of shared services (e.g. EMT/fire)	0	0	0	0	Lack of tolerance and cooperation by persons in power	2	1	4	12
					Lack of public information system (to increase participation)	0	5	0	10
					Lack of blight enforcement	1	0	4	7
					Out-of-date zoning regulations	0	0	1	1

♦ The total represents the weighted value of the responses.

Action Plan

The result of the formulation steps, summarized above, is the basis of the action plan. Below, goals are identified, each of which have objectives, or means for attaining the goal, and specific strategies to guide action on the objectives.

Community Goals

The Village of Lawrence Planning Commission adopts the following goals to guide future development in the area and to enhance the pleasant, small town atmosphere and character of the community.

Goals and Strategies Related to Quality of Life Issues

Goal

- Create an optimum living environment for the present and future residents of the Village, that will serve their physical needs and desires, avoid nuisance effects such as noise and water pollution, and which will offer variety, choice, as well as opportunity for change and individual growth.

Strategies

- Survey the residents to further define the most critical quality of life attributes of the Village and surrounding area.
- Promote an aesthetically pleasing Village by protecting the Village's historic character both in the residential and commercial areas.
- Preserve the Village's rural character by providing ample public parks and open spaces.
- Accommodate future growth and redevelopment within the Village while maintaining the traditional and compact character.
- Relate land use primarily to the long-term needs of the community (for example increased employment, services and population).
- Balance the rate of land development with the availability of public facilities and services such as roads and utilities.
- Define and implement the process to balance the rights of the individual property owner with the needs of the public interest.

- Commit to maintaining a safe, family oriented community by providing sidewalks, street lighting, crime prevention programs, and support of the local police.

- Continue to actively involve the public in the decision - making process.

- Develop and foster leadership training programs that will ultimately help produce informed future leaders in the community.

- Foster recreational opportunities that meet the needs of all area residents by maintaining the Village Master Recreation Plan and supporting the committee's efforts.

- Promote cooperation with other governmental units in the Van Buren County area through joint meetings and shared awareness of proposed development issues and areas.

Goals and Strategies Related to Residential Land Use

Goals

- **Provide for a range of residential styles and densities to meet the needs of the community's** diverse population.

- Encourage the expansion and redevelopment of residential neighborhoods which are well integrated into the existing landscape and complement the character of existing neighborhoods.

Strategies

- Encourage new residential developments, including urban, multiple family and mobile home parks, to be sited in a manner that promotes the community's traditional character and natural features by maintaining proper setbacks, landscaping and screening as appropriate.

- Encourage new residential developments to incorporate adequate open-spaces and pedestrian sidewalk systems that ultimately connect with abutting developments to keep the community walkable and connected.

- Provide the opportunity to develop specialized housing resources to meet the diverse lifestyle choices of existing and future residents.

- ❖ Complete an inventory of residential structures in the Village identifying the extent of physical improvement required.

- ❖ Explore the possibility of receiving any grant dollars that may be directed towards the revitalization of residential neighborhoods.

- ❖ Assist the rejuvenation of the downtown core by promoting the development of residential dwelling units atop storefronts.

- ❖ Promote concentrated code enforcement to maintain residential areas.

Goals and Strategies Related to Commercial Land Use

Goals

- ❖ Provide reasonable opportunities for the establishment of commercial uses that meet the needs of area residents.

- ❖ Encourage new commercial establishments that are developed to be compatible with the community's traditional and small town character and help to maintain the vitality of the Village's Central Business District (CBD).

❖ To encourage further interactive development to enhance the vitality of the CBD.

Strategies

- ❖ Stimulate the economic climate of the Village and increase the tax base by actively pursuing commercial development.

- ❖ Recognize and continue to promote properties within the traditional CBD area as the business center, serving both the local consumer population and subregional market base.

- ❖ Encourage reuse of older buildings and underutilized properties as an alternate to new construction.

- ❖ Develop landscaping and signage regulations to help ensure that new or expanded

businesses will compliment the traditional Village character and not hinder any adjacent uses.

- ❖ Encourage planned, orderly commercial development with attention to traffic issues, pedestrian safety and convenience of shoppers.
- ❖ Develop specific site plan review standards for home-based businesses to help preserve the character of existing residential areas.
- ❖ Promote policies that support commercial business development.
- ❖ Encourage the maintenance and restoration of structures and other facilities within the downtown area.
- ❖ Support and encourage activities of the Downtown Development Authority.

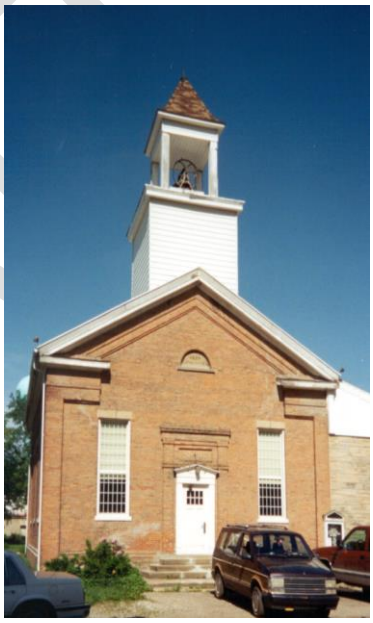
Goals and Strategies Related to Industrial Land Use

Goals

- Encourage industrial development that will give added value to the Village.
- Stimulate the economic climate of the Village and increase the tax base through industrial development while maintaining and enhancing the residential character of the community.

Strategies

- Actively pursue industrial development to locate within the planned industrial areas.
- Incorporate a series of comprehensive performance standards into the Village Zoning Ordinance to govern industrial uses.



Goals and Strategies Related to Public/Semi - Public Lands

Goals

- Provide for public and semi-public uses in locations appropriate for their development and utilization.

Strategies

- Maintain the Village Park and Recreation Master Plan to guide the growth and enhancement of future activities and facilities.
- Assist and guide semi-public and citizen groups (e.g. Scouts, local service clubs) in their efforts to provide needed community facilities.
- Maximize the utilization of public buildings and grounds for multi-functional services.

Goals and Strategies Related to Community Facilities, Services and Infrastructure

Goal

- Provide for the effective and efficient location of public facilities and delivery of public services.

Strategies

- Encourage the Village to adopt and maintain a Capital Improvements Program to create a schedule of repair, maintenance, and expansion of the Village's infrastructure.
- Plan, locate, and provide areas for publicly provided facilities based on a long-range general plan, short-range project plans, and capital improvements programming.
- Work cooperatively with other public agencies to facilitate the improvement or construction of public facilities, such as roads.
- Ensure that adequate public infrastructure exist, or require that it be installed concurrently with or prior to the initiation of any new residential, commercial and/or industrial land development.
- Update the Zoning Ordinance to ensure that the policies included in this Master Plan have a means of implementation.
- Provide sidewalks and bike lanes to create safe, non-motorized options for citizens.
- Create a quarterly or semi-annual newsletter to disseminate local issues to Village residents.

Summary

The goals and strategies that are detailed above for the Village of Lawrence are guidelines for future development. Through the utilization of the two information sources, the compiled background studies and data obtained from the community visioning session, a set of comprehensive goals have been created for the Village that encompass both the needs and desires of residents and local officials. It is evident that community desires have been an integral part in the development of the outlined goals, upon the realization that an individual restaurant establishment within the community, the Acapulco, has transpired into one of the aforementioned ranked strengths (Table 27). This directly indicates that the visioning process has evoked a genuine response from the participants. If the planning program is to be more than a confusion of varied opinions, it is essential that these goals and strategies be seriously considered. They will help maintain an orderly, prosperous, and attractive development pattern in the area. These statements are suggested as a starting point for the local officials, as the planning process progresses, the goals and strategies may be altered and new ones formed. Thus, these recommendations are flexible and need constant attention.

It is recommended that the goals and strategies be reviewed and updated as necessary, and adopted on an annual basis.

Future Land Use

This future land use (FLU) chapter consists of three essential elements that will serve as an overall framework for the management and regulation of future development in the Village of Lawrence. These elements include a description of each of the FLU categories included within the plan, recommendations to help ensure that the land use development enhances the Village's quality of life, and justification for the recommended future land uses in the Village of Lawrence.

The Municipal Planning Act, Public Act 285 of 1931, as amended, specifically gives Village Planning Commissions the authority to prepare and officially adopt a Plan. When prepared, officially adopted, and maintained, this Plan should provide an advisory guide for the physical conservation of certain areas and for the development of other areas into the best possible living environment for present and future Village residents. For this reason, it is necessary to provide a consistent, long-term basis for decision-making. Each of the components must be made comprehensive in their consideration of the relationships between land uses and natural features in the area and the Village's relationship to the surrounding Township. This was achieved by basing the Plan on studies of existing development patterns, natural feature conditions, demographic trends, and the community's goals and objectives, as outlined in the previous chapters.

Table 28
Future Land Use Acreage by Land Use Type

Land Use Category	Acreage	%
Urban Res.	394	43
Multi-Family Res.	8	<1
Mobile Home Park	10	1
Central Business District	19	2
General Commercial	22	3
PUD	264	29
Industrial	81	9
Public/Semi-Public	115	13
TOTAL	913	100

The nature of a FLU Plan involves planning development patterns for all areas of a particular community, with the inclusion of land situated within a Wellhead Protection Area (WHPA). Although it is considered essential to protect the environmental sensitivity of this natural area, it is believed that the careful consideration of the Wellhead Protection Plan (WHPP) recommendations can effectively negate any negative impacts that might have otherwise been caused by development.

PLAN RECOMMENDATIONS

The Future Land Use Map recommends a total of eight different land use classifications. The following descriptions of these future land use classifications explain the type of the proposed uses, while table 28 summarizes the land use classifications and the approximate acreages. It is important to note that a comparison of existing land use acreages and proposed acreages is difficult for two reasons: the existing land use acreages excludes the right-of-way and generally follows property lines whereas the proposed acreages includes all rights-of-way and is presented in a "bubble-type" format.

The general planning picture detailed within this chapter provides for a traditional development

pattern within the Village of Lawrence. The planning principles encompassed within this pattern include the development of higher density commercial and residential land use within the downtown core area and along major arterial roadways, the grouping of small pockets of compatible land uses within proximity to one another, resulting in the integration of commercial and public uses within residential neighborhoods, and permitting various intensities of residential development to neighbor one another. Each of these characteristics will be further elaborated within the description of the land use categories.

Urban Residential (Medium Density)

The single-family urban residential classification is intended to provide areas for residential development on relatively small lots of an urban nature, with the following objectives:

1. To protect the character of existing low-density residential uses by excluding activities and land uses which are not compatible such as, but not limited to, principal commercial and industrial uses;

2. To provide openness of the living space and to avoid over-crowding by requiring certain minimum yards and open spaces, and by restricting maximum land coverage and structural bulk;

3. To provide for access of light and air to windows, and for privacy, as far as reasonable, by controls over the spacing and height of buildings and other structures;

4. To protect residential areas from unnecessary traffic and to restrict the volume of traffic to the greatest degree possible; and

5. To encourage development within residential areas that is attractive, consistent with family needs, and conducive to constantly improving environmental quality.

The 394 acres reserved for medium density single-family development generally reflect the existing residential development pattern surrounding the Villages central business district. This residential category has also increased substantially due to the planned conversion of presently vacant land north of the Villages Industrial Park to urban residential. The recommended density for these areas ranges between four to six units per acre.

This land use category also includes the development of two-family houses; however, the indiscriminate placement of duplex units in these areas should be avoided. It is intended that new two-family residential development be permitted as a transitional land use between single-family homes and more intensive development (i.e., commercial or multiple-family developments). In addition, it is recognized that it may be necessary to permit the conversion of larger, older, single-family homes to permit occupancy by two families for housing preservation, or to provide specialized housing resources (i.e., accessory apartments for senior citizens). Such reuse should be permitted only after a case-by-case review.

Multiple-Family Residential (High Density)

Multiple-family residential developments are comprised of residential structures containing 3 or

more dwelling units; the recommended density for the multiple-family district is approximately 14 dwelling units per acre. Uses that are characteristic and compatible with this density include garden apartments, townhouses, elderly housing and convalescent or nursing homes.

Many benefits are derived from developing at higher densities, for this reason multiple-family housing is a very important element in all urban centers. Multiple-family housing is serviced more efficiently than lower-density homes due to its utilization of less land areas, for this reason the length of required infrastructure (i.e. roads and sewers) is significantly decreased. The development of an adequate amount of multiple-family homes helps to ensure a diverse population within a community with regard to age. Providing for a younger population that requires inexpensive housing is critical in ensuring the continued growth of a community, as well, such housing creates additional life-style options for older individuals. Supporting this rationale further, a residential land use goal has been incorporated into this Master Plan which states that the Village should "provide for a range of residential styles and densities to meet the needs of the community's diverse population." Another beneficial quality of multiple-family housing is its ability to complement other such higher density developments. Locating multiple-family dwellings adjacent to commercial areas directly benefits businesses by increasing the amount of vehicle and/or pedestrian circulation. Perhaps the most beneficial quality of higher density residential development is the fact that it promotes an "infill" pattern, as opposed to "sprawling" development into areas of established low density.

Multiple-family developments must be served adequately by essential public facilities and services such as water and sewers, drainage, and refuse disposal. In addition, they should be sited where ingress and egress is provided directly from a major thoroughfare or collector street, due to their higher density and trip generation potential. An added benefit of locating multiple-family developments in this manner is that they serve as transitional land uses which buffer one- and two-family units from commercial and industrial properties and the ill effects created by major travel corridors.

Approximately 8 acres of land area have been allocated for multiple-family development. This represents slightly less land than is now available.

Mobile Home Park

The purpose of mobile home parks is to encourage a suitable environment for persons and families who, by preference, choose to live in a mobile home rather than a conventional stick-built structure. The Mobile Home Park land use classification includes and is generally limited to land area within the Village which is currently occupied by a mobile home park and is expected to remain in the future. The park located on the south side of Corwin Road is planned to expand to the south. This would enlarge the present park by approximately 50%. No additional mobile home parks are planned.

In keeping with the occupancy characteristics of contemporary mobile homes, low-density standards should be encouraged. Development within this land use category is limited to mobile homes when located in a subdivision designed for that purpose or a mobile home park with recreational facilities, churches, schools, and necessary public utility buildings.

Approximately 10 acres of land area have been allocated for mobile home park development.

This amount is similar to the existing allocation.

General Commercial

The general commercial land use classification refers to larger-scale commercial development that includes neighborhood, community and/or regional retail centers. These centers often serve as an important element in a community by effectively drawing in residents from the surrounding township to the village to fulfill their retail needs, thereby contributing to the Village's economy. In addition, such large-scale commercial uses provide improved local services to residents, as well as increased tax base and increased employment opportunities. The extent of a community's commercial base is linked to the size of its potential market area and the regional location of the community itself. Although analysis within the market assessment chapter of this Master Plan has determined that the Village should only plan for marginal commercial growth, the rationale of this FLU plan is to guide for short and long-range development in the entire Village. Hence, an area of approximately eleven acres each has been identified along South Paw Paw Street for commercial neighborhood centers. Additional areas may be used for general commercial uses as other opportunities become available that do not fit into the planned character of the CBD.

General commercial areas should be developed with safe and convenient access. In those areas where commercial land abuts residential areas, either existing or proposed, an adequate buffer area between these uses should be implemented. This could include an earthen berm, landscaping, greater building setbacks and the shielding of outdoor lights. These will help reduce the effect of commercial uses on nearby residents.

Approximately 2.2 acres has been proposed for general commercial use is. This area is significantly higher than the commercial acreage presented within the Existing Land Use Inventory due to the planned neighborhood centers along South Paw Paw Street, and the aforementioned "bubble" format which broadly groups land use classifications. The proposed acreage is expected to be adequate for this type of use through the lifetime of this Plan.

Central Business District (CBD)

The Downtown District serves as the focal point and commercial center for the Village and surrounding Township area. The proposed 8.2 acres for this use is slightly less than the commercial acreage identified from the Existing Land Use Inventory due to the creation of two commercial categories for the FLU Plan (CBD and General Commercial).

This Master Plan provides several commercial strategies to support the preservation and upgrading of the Village's Central Business District; these will assist in assuring that the areas noted value strengthens. Further, the Plan calls for the Village to promote strategies that support downtown business areas and to encourage the reuse of older buildings and underutilized properties as an alternate to new construction. As much of the Central Business District is encompassed within the Villages DDA district, it is also important that recommendations outlined within the DDA Plan are actively adhere to.

A zoning overlay for the downtown should be drafted that preserves the existing scale, pattern, design, and location of buildings. Further, provisions for off-street parking should be developed to provide ample, but reasonable, parking area, invite pedestrian activity and reduce vehicular interference. Land uses within this planning area are intentionally not segregated to provide for a multi-dimensional, distinctive, dynamic and interesting downtown district.

Ground-floor space should be reserved for pedestrian-oriented retailing and services, with offices and housing above. Not only will this increased density assist retail uses in the area, but also the vitality of the area will be reinforced due to the increased pedestrian activity during the evening and night. The adaptive reuse of residential units for home occupations, specialty shops, and office uses is therefore encouraged. It is important for the Village to explore financing options, such as tax credits, grants, special assessment, and/or tax increment financing in an attempt to encourage businesses to locate within this district. Other appropriate uses may include places of worship, funeral homes, restaurants, coffee shops, service stations, lodging, etc. Industrial uses, however, should not be permitted to develop or expand within the downtown district.

Planned Unit Development Category (PUD)

The purpose of this category is to provide ample land for industry and highway-oriented commercial uses that require larger parcels of land as well as easy access to the interstate. This area generally encompasses the southern end of the Village. Because of the unique location and size of this park, it is recommended in this plan that the Village takes a flexible PUD approach to future development.

PUDs are intended to allow both developers and the government agency flexibility from the zoning regulations that regulate lot size, mixed uses and setback requirements. A PUD protects the Village by requiring a site plan as part of the approval process. This site plan, which should address such concerns as traffic and access management, open space provisions, landscaping, shared parking and site lighting, when approved will become a development contract between the Village and the developer. For this reason, it is important that the Village incorporate strong site plan review requirements and PUD procedures in the zoning ordinance as soon as possible following the adoption of this Plan.

In the Industrial District, uses are primarily confined within enclosed structures, although screened outdoor storage should be allowed in the industrial park. Uses to be permitted in this district, include:

1. Research, design, and/or development of pilot or experimental process or products including laboratories, training facilities and light assembly operations.

2. Single and multi-tenant office, R&D and light industrial buildings, including sales and manufacturer's representative's offices.

3. Data and word processing and related services.

4. Retail and Services facilities as allowed by right in the Commercial permitted uses of the Village of Lawrence Zoning Code.

5. Compounding, processing, packaging, assembly, or treatment of finished or semi-finished products from previously prepared materials.

6. Any uses or operations reasonably required to maintain or support the permitted uses described above, including maintenance shops, power generating (for emergency purposes only), and security operations, provided that these support uses do not generate any adverse environment.

7. Recycling businesses as approved by the developer.

8. Other uses similar to the above, as solely determined by the developer.

It is important that the Village work with the County and other public and private groups in attracting new business and industries to the Industrial Park. As the majority of the Industrial Park is situated within the WHPA (Wellhead Protection Area), it is critical that the WHPP (Wellhead Protection Plan) and applicable environmental regulations are adhered to (i.e. secondary holding tanks for hazardous materials) in order to ensure that the environmental significance of the area is not compromised.

Approximately 264 acres have been proposed for the future PUD classification. These lands, which are planned for industry and large-scale commercial uses, represent the largest planned increase of land use in the Village.

Industrial

This plan category recognizes those existing industrial land use areas in the Village but outside of the PUD/Industrial Park area. Uses in these areas should, to the extent possible, be limited to light industrial uses. Light industrial operations include those that are primarily confined to enclosed structures or whose outdoor storage needs can be easily screened. Typical light industrial uses include parts assembly, packaging, warehousing, tool and die shops, and small manufacturing operations.

Since it is the intent of the Village to encourage development in the industrial park and to also protect the character of residential neighborhoods, industrial uses outside of the industrial park should not be encouraged to expand beyond the limits shown in this Plan. Those uses which now exist should be allowed to continue and to be maintained in a manner which does not work to the detriment of the surrounding area. As uses change over time, care should be taken to assure that uses allowed in these areas are well maintained and provide minimal or no outdoor storage.

There are approximately 81 acres of land in this category.

Public/Semi-Public

This category is comprised of land devoted to governmental, institutional or similar activities

generally deemed to be in the public interest, such as public buildings, schools, churches and public recreation areas. As stated earlier within this chapter, a FLU plan allows for flexibility by broadly planning areas for development. Therefore, although several public/semi-public land uses may exist throughout the Village, they may not be identified upon the FLU map due to the prominence of another land use (i.e. residential) in the general area.

Several areas exist within the Village for recreational purposes, including active sport related areas such as those found in Village Park and at the public schools, as well as passive seating or observation areas such as the areas at North River Park. Although there are no areas upon the FLU map that depict new public/semi-public areas, it is important to realize that new facilities should be acquired by the Village as needed in the future.

It is recommended that the Village implements all scheduled park improvements and maintain the adopted comprehensive Park and Recreation Plan to help prioritize park improvements. This will help to guarantee that the recreation facilities and programs in the Village accurately reflect the needs of all residents, regardless of age or ability. It is recommended that the Plan is reviewed on an annual basis and the goals and strategies be updated and revised accordingly.

The total amount of land designated for public/semi-public use is approximately 115 acres. This acreage is less than the industrial land use acreage identified in the Existing Land Use Inventory due to the utilization of the aforementioned "bubble" format of the map and the broad grouping of land use classifications.

Rights-of-Way, Water bodies and Other

Acreages representing waterbodies and rights-of-way have remained constant from the Existing Land Use Inventory; however, vacant areas have been eliminated completely due to the nature of a FLU Plan, being that all areas of the Village are been planned for some form of development.

Wellhead Protection Plan

Introduction

When a community is dependent upon groundwater for its drinking water supply, it is easy to understand the necessity to keep that supply free from contaminants. The purpose of a groundwater protection program also referred to, as wellhead protection program (WHPP), is to prevent groundwater contamination before it occurs. The Village of Lawrence understands the importance of protecting the communities drinking water supply and has therefore initiated such a program. This WHPP is being completed in accordance with the Michigan Department of Environmental Quality, Wellhead Protection Unit Ground Water Supply Section Drinking Water and Radiology Division guidelines and recommendations and in accordance with the Federal Safe Drinking Water Act (SDWA).

History:

In order to develop a comprehensive WHPP it is essential that the plan be comprised of the necessary elements. These elements include the formation of a local team, mapping of the protection area, completing an inventory of potential sources of contamination, managing the protection area, and the creating of an adequate plan for the future. Following is a list and a description of the specific plan elements that have previously been completed.

Wellhead Protection Area (WHPA) Delineation:

The first step in minimizing the threats to the water system was to delineate the wellhead area. The term "wellhead" refers to the physical structure at the land surface through which groundwater is withdrawn from a subsurface water-bearing formation (aquifer). The wellhead protection area (WHPA), as defined by federal law, is "the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield." The Village of Lawrence has determined this delineation through the completion of the Hydrologic Study for Wellhead Protection performed by Peerless-Midwest, Inc. in 1994. The study developed the one-year, five-year, and ten-year time of travel capture zones using a General Particle Tracking Module (GPTRAC) model. This ten-year time of travel capture zone has been determined to be the area of greatest concern to the wellhead, its boundaries have subsequently been used to create the WHPA, as illustrated in the map on the following page. The WHPA encompasses much of the southern half of the Village, as well as a large part of Lawrence Township, some MDOT right-of-way for I-94, and Van Buren County road right-of-way.

Contingency plan:

A contingency plan has been developed for emergencies associated with the water supply system. Items such as preventative maintenance, equipment testing, identification of procedures and materials necessary for quick response to effectively mitigate emergencies, have been identified. Response protocol has also been developed which includes notification

procedures for handling emergencies. The contingency plan would specifically provide a course of action for chemical contamination potential within the Wellhead Protection Area. Wade-Trim Inc. has developed this plan with the assistance from the local WHPP team and Facilities Management, (a subsidiary of Wade-Trim Inc. that operates the local water supply and distribution system).

Potential Sources of Contamination:

In order to effectively manage the delineated protection area, it is necessary to identify any actual and potential sources of contamination. The Village of Lawrence, has completed an initial search for existing and potential contaminates that is required by the wellhead protection program. This search has identified multiple potential sources of contamination of various types (i.e. abandoned wells, businesses associated with hazardous materials). Instrumental in the undertaking of this search was the cooperation of several federal, state and local agencies, as well as the Village of Lawrence wellhead protection team comprised of village and township officials.

Public Education and Participation:

The local WHPP team, in conjunction with the Village Council and the assistance of Wade-Trim Inc. has developed a public education program. It is understood that community involvement is essential for the program to have success and for all the work outlined above to be of real benefit to the community and it's water supply. The public education component targets local groups of both public and private nature. This would include the surrounding Township Board, the Village's Planning Commission, the Village's Local Development Finance Authority, the Fire Department, Local Lion's Clubs, Rotary Clubs, etc. A computer generated slide show presentation has been developed which can be used to help educate all members of the community including the students in the school systems of the importance of protecting the Village's water supply system. This slide show is available to the public both at the Village Hall and through members of the Wellhead Team (team members are listed at the conclusion of this chapter).

Management Plan Goals and Objectives:

The WHPP is based upon the following goals and objectives.

Goals:

- Specify how actual and potential sources of contamination in a WHPA will be managed in order to prevent them from contaminating the Village's public water supply.
- Identify and minimize or eliminate land use activities which pose significant threats to ground water.
- Adopt appropriate land use planning and management regulations to assist in preventing contamination of the public water supply system.
- Promote community awareness of the need to protect groundwater quality and the

understanding that small actions will contribute to the quality of drinking water.

Objectives:

- Generate support from applicable local, county, state, and federal government agencies in order to effectively manage and regulate activities within the WHPA.
- Identify and utilize available local resources, including volunteer and Village resources, to address needs for wellhead protection area management.
- Motivate landowners within the wellhead protection area to take steps to reduce threats to ground water.
- Educate residents to the potential for contamination of groundwater by activities in the home, particularly activities involving used oil, lawn chemicals, solvents, paints and other household hazardous material.
- Require best management practices within the wellhead protection area (i.e. secondary containment for hazardous substance storage, proper floor drain connections, construction of grassed swales for onsite storm water management and sealing of abandoned wells), through appropriate regulatory tools. Compliance may be required by the Zoning Ordinance for new and expanding businesses.
- Complete hazardous materials surveys at existing businesses, and provide facilities with information about governmental requirements for hazardous waste management and wellhead protection.
- Restrict particular development types that have significant potential to harm groundwater quality from the WHPA and evaluate ways to direct new growth or redevelopment that supports wellhead protection. Sewer and water extensions, roads, and other infrastructure should be considered in the planning process.
- Coordinate implementation measures within the Village of Lawrence and Lawrence Township.

As part of this update, these management objectives, as well other land use and land protection measures will be incorporated into the Village's Master Plan.

Management Tools:

Once local and regional goals and objectives for wellhead protection have been defined, protection areas delineated, and sources of contamination inventoried and assessed, management tools and techniques can be developed. Several options are available, both regulatory and non-regulatory, to manage existing sources of contamination, ensuring that future land-use activities do not pose a threat to water quality.

Intergovernmental Coordination:

The Village of Lawrence's Wellhead Protection Area is not exclusive to the Village limits; the large majority of the WHPA is located in Lawrence Township. Because it is impossible for a community to implement control strategies for areas situated outside of their jurisdiction, it is encouraged that these two entities work collectively, either under a joint plan or implement some of the same control strategies for the WHPA that lies in the Township. For this reason, it is critical that the Village and the Township cooperate and coordinate their efforts to achieve the common goal of ensuring a safe public drinking water supply for future generations. In order to assist in the realization of this goal it is recommended that the Village encourage the Township to take appropriate actions regarding the safety of this water supply. The Village should encourage the Township to:

- Establish an ongoing mechanism for communication between the two public agencies. This might include joint Village/Township Planning Commission meetings.
- Conduct joint education programs informing residents of both jurisdictions how to most effectively protect the water supply.
- Adopt similar ground water protection site plan review standards.
- Create a formal information exchange with the Village identifying any development proposals that could potentially hinder the quality of the groundwater.

Public Awareness and Education:

The purpose of public participation in any planning or decision-making process is to allow for an exchange of ideas between the planning team and the stakeholders so that controversy can be minimized or avoided, and knowledge upon which good decisions are made can be improved. Interest groups and the public at large can provide valuable insights and information to any planning team, often bringing new ideas and a sound understanding of local conditions and aspirations. A public education program is scheduled to be developed and implemented as a part of this WHPP phase. This program should involve the community organizations, the public school system and the general public. As with several of the other plan elements (i.e. updating the potential contaminate source list), the public awareness element is an ongoing process that must be continued into the future to ensure lasting protection of the wellhead. Educating school children in the importance of this natural resource is one method which will assist in ensuring adequate levels of respect for the wellhead area into the future. As previously mentioned, a wellhead protection slide show has been created and should prove to be a valuable resource for such audiences.

In order to foster adequate levels of ongoing public participation it is recommended that the following actions be undertaken:

- Post signage at drinking water recharge areas, and at storm drain openings if drains discharge to the WHPA to inform individuals of the importance of WHPA's.
- Publicize the WHPP through: the local newspaper, community newsletters; municipal, and/or public access cable television; posters; library displays; school programs, etc.

- ❖ Continue to carry out hazardous material surveys through the Firefighter Right-To-Know program.
- ❖ Provide technical assistance to agricultural landowners (Farm-a-Syst for ground water protection).
- ❖ Conduct homeowner surveys on septic system maintenance, lawn care practices, etc., which can be followed-up with an informational brochure promoting Asafe @ home and lawn care practices to homeowners.
- ❖ Establish household hazardous waste collection programs, with special notice to residents within the WHPA.
- ❖ Organize a coalition of business owners to review options for pickups of small quantity Hazardous waste; sponsor open house for businesses; honor businesses that demonstrate waste reduction initiatives.
- ❖ Continue to distribute/publicize results of ground water monitoring from both municipal and private groundwater wells.
- ❖ Post "Village of Lawrence Wellhead Protection Area" signs at locations visible to the public.

Land Acquisition/Land Donation/Conservation Easements:

A community may undertake a land acquisition program in an attempt to have a direct involvement in how a parcel of land located within a WHPA is utilized. A community could make strategic purchases within the WHPA, and therefore ensure that said lands would not contribute to the contamination of groundwater. In addition, communities could undertake advance purchase of lands for new well fields, preferably in locations separate from current well fields so as to increase the likelihood of drawing uncontaminated water if other wells have indeed been contaminated.

Landowners are often able to donate parcels of land to communities or nonprofit organizations, possibly a land trust. Often, landowners find that donating the land for preservation costs them far less than expected, especially if various tax savings programs are considered.

Conservation easements are an affective means in protecting land from development by restricting a portion of a property to open space or limited development uses. The granting of a conservation easement does not involve the transfer of ownership of the land, however, it does means giving up certain development rights of the property (i.e. it could restrict the number of buildings upon the parcel, restrict the types of development permitted).

Ground Water Monitoring:

It is encouraged that the Village regularly monitors the ground water in the WHPA. This should include the monitoring of the three municipal wells and any other existing wells in the WHPA. In

the event of ground water contamination, such sampling practices would hopefully detect a problem in a timely manner and prompt corrective measures.

Health regulations:

Unlike zoning, health regulations can address both proposed and existing development and their impacts on water quality. These regulations would address likely sources of wellhead contamination including underground storage tanks, private small sewage treatment plants, septic systems, etc. General police powers are available under a community's home rule powers to protect the public health, safety, and general welfare.

Zoning Measures:

Zoning regulations are used to segregate different and possibly conflicting activities into different areas of a community. Although zoning controls are limited in that they are prospective, and do not apply to activities that are exempt or "grandfathered"; it is still a good mechanism for controlling future development. Typically, overlay districts, prohibition of various noxious uses (i.e. landfills), and large lot zoning are the common zoning tools that communities have utilized to protect groundwater resources.

Coordination of zoning regulations between the Village and Township is necessary to ensure an effective plan. It is recommended that the Township adopt a general ordinance to protect the wellhead area, following closely the Village's regulations.

- *Overlay Districts.* In creating a groundwater protection overlay district, a groundwater protection boundary is mapped upon the existing zoning map and specific legislation for land uses and development within these boundaries are enacted.

- *Prohibition of Various Uses.* Zoning legislation permits the prohibition of certain land uses from specific sections of the community. Prohibiting land uses such as gas stations, sewage treatment plants, landfills, or other uses involving the use, storage, and disposal of toxic materials from wellhead areas may be considered an initial step in creating a comprehensive wellhead protection strategy.

- *Special Uses.* Special uses can be used to regulate uses and structures that may potentially degrade water quality. The Village and/or Township Planning Commissions could utilize the special permitting process by evaluating the risks posed by particular uses (i.e. underground storage tanks) within the wellhead protection district.

- *Large Lot Zoning*. By zoning exclusively for large lots, building densities of particular areas can be decreased substantially, essentially reducing the number of septic systems within a WHPA, and also the potential for groundwater contamination.

- *Cluster/PUD Design*. Cluster zoning and Planned Unit Developments (PUD's) are alternatives to traditional types of development which attempt to distribute lots over an entire area of land. Cluster and PUD design decreases lot sizes resulting in land savings set aside in contiguous areas of open space. This design technique may enable the location of lots and associated septic systems outside a WHPA.

- *Environmental Impact Assessment (EIA).* Zoning ordinances could require developments greater than a particular size or of a potentially hazardous nature to submit an environmental impact assessment as part of the development application. Within the EIA, a community may require an applicant to identify sensitive water receptors on site and downgradient, describe existing conditions of these resources, list information concerning hazardous substance usage and list the potential effects of the proposed development on the WHPA.

- *Performance Standards.* Communities may implement performance standards which would have the indirect effect of limiting development by directly limiting the impact of development on water quality. Performance standards such as nitrogen and phosphorus loading limitations, could therefore by specified to keep contamination from a proposed subdivision below assimilation capacity of the downgradient water resource. This review technique could also be supplemented by an EIA requirement completed by the applicant.

- *Permit Requirements.* The Zoning Ordinance may also specify a requirement to receive a demolition permit for any existing structure. The proper abandonment of wells could be enforced and incorporated into this permit requirement.

- *Transfer of Development Rights (TDR's).* This program is based on the philosophy that property owners have an intrinsic right to develop their land. A TDR program allows a property owner to separate their development rights, as permitted by the Zoning Ordinance, from other rights that are associated with the land, and sell them. In implementing a TDR, a governmental agency would identify those lands which could sell their development rights and those lands which could purchase any additional development rights. The intent would be to send development rights from a WHPA to an area which could adequately support increased development densities. Although it is expected that such programs will be an alternative in the future, State of Michigan legislation does not currently provide for such a program.

Potential Sources of Contamination:

Abandoned Wells

One of the most critical items in the protection of the wellhead area is the proper sealing of abandoned wells. The Village should encourage these wells to have the capping process inspected to insure the proper procedures are followed. Upon the completion of the sealing of any wells in the area, they should be properly documented (utilizing the MDEQ Abandoned Well Plugging Record – Form # EQP 2044) and notification should be given to the following entities:

- Van Buren County Health Department.
- Village of Lawrence (WHP Committee).
- Lawrence Township (WHP Committee Representative).

Future Well Sites:

Future growth within the Village may necessitate the development of new well sites. New wells will be located and designed under the guidance of the WHPP because it can provide many of the necessary resources needed to ensure maximum well yield and minimum potential contamination, ultimately resulting in a safe public drinking water supply.

MDEQ Databases

MDEQ databases are updated regularly; it is therefore recommended that this information be utilized to also update the Potential Sources of Contamination List at least every 2 years. This update should also be included and coincide with the Village's Contingency Plan update.

Fire-Fighter-Right-To-Know Information Update

Presently, MIOSHA is scheduled to conduct Fire-Fighter-Right-To-Know surveys biannually of the surrounding businesses. However, because this has not occurred since 1994, the Township had conducted their own surveys of the businesses. Through these surveys the Lawrence Township Fire Department is made aware of all of the reported hazardous substances existing in the area. It is recommended that the Village formally contact the Township Fire Department requesting that upon completion of an update, information pertinent to the safety of the municipal wellhead be passed on to the Wellhead Protection Committee.

Program Implementation:

Tools for implementation of the WHPP include the following;

Communication:

For the WHPP to work effectively it is necessary to establish lines of communication to residents, developers, officials, etc. Such communication could be ensured through mailings, public meetings, questionnaires, and seminars. Clarifying the programs purpose and procedures to the public will make it easier to enforce permits and management plans, find volunteers to help monitor the resource, and will ultimately create support for the program within the community.

Financing:

The Village must rely on a range of financing mechanisms to support resource assessment, monitoring, and protection activities. These may include taxes; fines and penalties; fees; loans; grants; intergovernmental transfers; bonds; and private capital. These mechanisms are often used in combination to finance a comprehensive wellhead protection program. Each should be customized to the funding needs and particular goals of the Village.

Several grants are currently available within the State of Michigan to assist in wellhead protection, they are as follows:

- Michigan Groundwater Stewardship Farm-a-Syst
- Home-a-Syst
- Clean Michigan Initiative (CMI)
- Abandoned Well Management Program MDEQ *(www.deq.state.mi.us/dwr/gws/wcv/awmp/awmp.html)*

Commented [PG3]: Does this still exist?

Amendments to the Zoning Ordinance:

The Village should immediately follow the adoption of this Plan with a review of the current zoning regulations. Sections of the ordinance which are found to be in non-compliance with the recommended zoning measures included herein, should be amended. Said provisions should also follow the provisions established in PA 207 of 1921 (the City and Village Zoning Act).

Enforcement:

In order to effectively implement a WHPP it is essential that representatives of the community enforce the adopted policies and strategies. To avoid confusion, the WHPP should specifically identify the agency, board, or government entity with authority and jurisdiction over the management strategies involving rules or ordinances.

List of Contacts/References:

We would like to thank the following list of people for their aid in the process of tracking down those sites that potentially could threaten the wellhead protection area for the Village of Lawrence.

- Lisa K. Chadwick – MDEQ Ground Water Protection (Wellhead Protection Unit)
- Tom Lee – MDEQ Waste Management Division (Active Landfill Permits)
- Paul Massoth – MDEQ Environ. Response Division (Inactive Landfill Permits)
- Larry Grabowski – MDEQ Geological Survey Division (Oil and Gas Wells)
- Connie Pennell – MDEQ Waste Mgmt. Division (Hazardous Waste Generators)
- Andrea Zajac – MDEQ Storage Tank Division (UST and LUST)
- Environmental Protection Unit (Internet Data Base)
- EPA – Superfund Sites (Internet Data Base)
- Wellhead Protection Program Team:
- Jeromie Johnson – Director of Public Works Village of Lawrence
- Mark Keyser – DPW Committee Chairman
- Mike Anchor – Lawrence Township Fire Department
- Ken Barnett– Lawrence Township Supervisor
- Mary Webster– President Village of Lawrence
- Ken Schaut – Village of Lawrence Administrator

Emergency Notification

In the event that a wellhead related emergency does occur, it is recommended that an Emergency Notification Report Form be completed in order to record all pertinent information. This information could prove to be invaluable by providing a means to analyze past responses in order to perfect them in the future. The following page consists of a report form to be utilized

in such cases. However, this form should be revised as deemed necessary to improve emergency responses.

Emergency Notification Report Form

Part A. Facts related to the emergency

1. Person calling in emergency:
2. Date/time call made:
3. Location and address of emergency:
4. Nature of emergency (e.g., broken water main; chem. spill; lost press.; etc.):
5. Condition at scene:
6. Types/quantities of chemicals released, based on initial observation:

Part B. Emergency action taken

1. Emergency action taken:
2. Is immediate action: Permanent / Temporary
3. Additional action needed to bring water supply system back into operation:

Part C. Persons/departments notified of emergency, position/phone number and time

- Lawrence Township Fire Department (269) 674-8833
- County Sheriff (269) 657-3101
- State Police (269) 657-5551
- Local police (911)
- DPW Superintendent (269) 674-3226
- Village President (269) 674-8161
- Water Supply Division, MDEQ (517) 335-9216
  Wood Choi, District Engineer (517) 335-9948
- Environmental Response Division, MDEQ 1-(517) 373-9837

- Pollution Emergency Alert System, (PEAS) MDEQ 1-(800)-292-4706
- Agriculture Pollution Emergency Hot Line 1-(800)-405-0101
- Other

Plan Implementation UPDATE WITH PRIORITIES TABLE

In order to permit an adequate amount of flexibility in the placement of future development, the Future Land Use (FLU) Plan is intended to be general in scope. It is not intended to establish precise boundaries of land use or exact locations of future uses as zoning accomplishes. For this reason, FLU categories are broadly depicted upon the FLU map with rounded boundaries relating to general areas within the Village. In determining which land use regulations shall apply to a particular property which borders two areas, specific site analysis should occur at the time a rezoning or site development request is made.

To have a detailed understanding of why the FLU plan attempts to be broadly based, one must be knowledgeable of the differences between land use planning and zoning. The following narrative provides an explanation of the relationship of planning to zoning.

The relationship between land use planning and zoning is an important one. 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 in a community.

Planning

The process of guiding the future growth and development of a community. Generally, a document known as the Master Plan or Comprehensive Plan is prepared 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, prevention of the overcrowding of land and avoidance of undue concentration of population, facilitation of the adequate and efficient provision of transportation, water, sewage requirements and services, and the conservation, development, utilization and protection of natural resources within the community. The Master Plan is intended to guide land use and zoning decisions. The future land use map should be used in conjunction with the plan goals where reviewing rezoning applications. A Plan is a guide to development but it is not a legally enforceable document.

Zoning

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. Zoning regulations have the force of law. The enactment and administration of the zoning ordinance are legislative and administrative processes conducted by local units of government relating to the implementation of the goals and policies of the Master Plan. Suggested standards for considering rezoning include the following:

- Would the rezoning be consistent with the future land use map?

- Would the rezoning be consistent with the goals of the Plan?
- Are all of the permitted and conditional uses allowed in the proposed zoning district compatible with adjacent uses and zoning? (i.e., not just the "intended use," if there is one)
- Is there reason to believe that the property owner could not obtain a reasonable return on their investment with the current zoning? (this does not mean maximum profit, only reasonable)
- Can the existing infrastructure and services support all the uses under the proposed zoning?

A "yes" response to all the above suggests that the rezoning be approved. A "no" response to more than one suggest that the current zoning should be retained.

Below, Table 29 presents the differences between planning and zoning in an alternate format.

Table 29
Differences Between Planning & Zoning

MASTER PLAN	ZONING ORDINANCE
Provides general policies for the Village (e.g. attract new businesses to downtown, provide a mixture of housing, and replace park equipment).	Sets forth zoning regulations – the law. (i.e. notes locations where commercial uses are prohibited, stores must be setback 50 feet from the street right-of-way, maximum sign is 60 square feet)
Flexible, written to be able to respond to changing conditions.	Rigid, requiring formal amendment and details of how to administer the zoning ordinance.
Provides a background on the community, issues, goals, the citizen survey, and potential actions.	Deals just with physical development and how to administrate the zoning ordinance.
Enacted under the Municipal Planning Act (Public Act 285 of 1931, as amended	Enacted under the City and Village Zoning Act (Public Act 207 of 1921, as amended)
Adopted by the Planning Commission (unless the Village Council resolves to adopt)	Adopted by the elected body (Village Council)
Changes may be made by the Planning Commission.	Changes made by the Village Council. Appeals and variances to the Board of Appeals.

For this plan to serve as an effective tool in guiding new development within the Village of Lawrence, it must be implemented. Primarily this responsibility resides with the Village Planning Commission and Village Council. Following are those steps which should be undertaken to assist in the successful implementation of this Master Plan.

- The Master Plan is primarily a tool created for extensive use by the Village Planning Commission. It is therefore essential that the Commission refers to the Plan's Future Land Use Map to determine appropriate areas for future developments, and perhaps more importantly, study the Community Goals and Strategies and intent of the existing/proposed land use categories before making land use decisions. While the map provides as a guide, the detailed recommendations are to be found in the text.

- As previously mentioned, the Master Plan does not possess legal authority to regulate development. For this reason it is imperative that the Village ensure that adequate regulatory measures which coincide with the Master Plan's Community Goals and Strategies Chapter exist within the Village Zoning Ordinance.

- Due to the constant change in our social and economic structure and activities, the Plan must be maintained through periodic review and revision in order to be responsive to new growth trends and current community attitudes. It is recommended that the Planning Commission schedule a work-session early in each calendar year to review progress in implementing this Plan.

- Citizen participation and understanding of the general planning process and policies of the Plan are also critical to the success of the planning program. A well organized public relations program is needed to foster public support. A lack of citizen understanding and support could well have serious implications for the eventual implementation of planning proposals.

It is also important to note that there is no schedule to implement the recommendations contained here. The timing of a particular land use is dependent upon a number of factors such as availability of public utilities, provisions for adequate roadways, effect on public services, and the demand for a particular land use versus the available land zoned for this use. Those, plus other factors, must be considered when reviewing a request for rezoning a particular parcel of land.

Appendix

Attendees at "Visioning Workshop"
Legal Notice of Public Hearing
Minutes of Public Hearing
Resolution of Adoption by the Planning Commission
Transmittal Letters to County and Village Council

"Visioning Workshop"
Attendance List

1. Cynda Lou Carson
2. Sharon Crotser
3. Gene Puckett
4. Joy Smith
5. Kim Thompson
6. Mary Tinker
7. Shirley Van Galder
8. Mary Carpp
9. Bill Conklin
10. Nadine Rogers
11. Leroy Damaske
12. Monique Damaske
13. Andrew Jurczak
14. Diane Marler
15. Don Marler
16. Mark Thomas
17. Annette Crandall
18. Wayne Babcock
19. Lois Babcock
20. Paul Garrod
21. Charles Moses
22. Jan Petersen
23. Steve Petersen
24. Dale Gribler
25. Doug Harrington
26. Phil Blum
27. Paul Kolon
28. Kathleen Davis
29. Ken Fields