Manchester Township

Growth Management Plan

Adopted March 2004



Dear Citizens of Manchester Township:

This Growth Management Plan (referred to as the GMP or The Plan) is presented to the citizens of Manchester Township and others having an interest in future land development in the Township. In this way, all may have an opportunity to see in summary form what background materials have been utilized in the formulation of the Growth Management Plan (GMP), as well as to be able to review the Plan itself.

The GMP for Manchester Township is intended to serve as the guide for future development and preservation of the unique character prevalent within the Township. It is important to note that the GMP is not a zoning map, but is to be used as a broad base for making zoning decisions. The GMP is intended to deal primarily with long-range needs, and in that context serves as a continuing reference to guide developers, businessmen, farmers, residents, and the Township's officials in the carrying out of their responsibilities.

The process that produced the GMP provided substantial opportunity for citizen input through:

- 1. Futuring sessions, open to all Township residents, designed to focus citizen views on the community of the future.
- **2.** Numerous Planning Commission work sessions analyzing data and formulating policies contained within this GMP.

Through out this process, the Planning Commission has kept in the forefront the Township's unique character, its precious environmental resources, and the constraints of the Township's infrastructure as determinants of appropriate land usage in the future.

The Planning Commission members wish to thank all the public-spirited citizens who have provided suggestions and expressed interest in, or concern for, specific issues addressed in this GMP. The Planning Commission is grateful for the support of the Township Board of Trustees.

We therefore adopt this document as a land use guide for goals, objectives, and policies that will retain the integrity and character of our Township as its citizens look forward to the beginnings of a new century.

James Samonek, Chair Manchester Township Planning Commission

Table of Contents

| PART 1 | INTRODUCTION | |
|--------|----------------------------------------------------------------------|------|
| 1.01 | Relation to the 1991 Plan. | 1-2 |
| 1.02 | Principal Characteristics of the Growth Management Plan | 1-2 |
| 1.03 | Planning Commission and Township Board Roles in the Planning Process | 1-4 |
| 1.04 | Citizen Input | 1-4 |
| 1.05 | Regional Setting | 1-7 |
| 1.06 | County Setting | 1-8 |
| PART 2 | MAJOR ISSUES TO BE DEALT WITH IN THE GROWTH MANAGEM PLAN UPDATE | ENT |
| 2.01 | Protection of Natural Features | 2-1 |
| 2.02 | Loss of Agricultural Land | 2-1 |
| 2.03 | Population and Housing Growth | 2-1 |
| | Table 1 Population | 2-3 |
| | Table 2 Building Permits | 2-4 |
| 2.04 | Control of Rural Housing | 2-5 |
| 2.05 | Need for Commercial Development | 2-5 |
| 2.06 | Property Value | 2-6 |
| 2.07 | Tax Base | 2-6 |
| 2.08 | Intergovernmental Cooperation | 2-6 |
| 2.09 | Sewer and Water Service. | 2-6 |
| 2.10 | Transportation | 2-6 |
| 2.11 | Response to Regional Development Proposal | 2-6 |
| 2.12 | Precedents Affecting Land Use Policy | 2-7 |
| PART 3 | NATURAL FEATURES | |
| 3.01 | Introduction | 3-1 |
| | Table 3 Land Cover | 3-1 |
| 3.02 | Woodlands | 3-1 |
| | Table 4 Woodlands | 3-2 |
| 3.03 | Floodplains | 3-3 |
| 3.04 | Groundwater Recharge | 3-3 |
| 3.05 | Wetlands | 3-6 |
| 3.06 | Topography | 3-8 |
| 3.07 | Drainage | 3-10 |
| 3.08 | Soils | 3-10 |
| 3.09 | Conclusions | 3-12 |
| 3 10 | Goals Objectives and Policies | 3-12 |

| PART 4 | AGRICULTURAL LAND USE |
|----------------|----------------------------------------------|
| 4.01 | Introduction |
| 4.02 | Township Issues. |
| 4.03 | Goals, Objectives, and Policies |
| 4.04 | Agricultural Preservation Plan. |
| 4.05 | Implementation Strategies |
| 4.03 | implementation strategies |
| PART 5 | RESIDENTIAL LAND USE |
| 5.01 | Introduction |
| 5.02 | Residential Guidelines |
| 5.03 | Goals, Objectives, and Policies |
| 5.04 | Implementation Strategies |
| PART 6 | COMMERCIAL LAND USE |
| | |
| 6.01 | Introduction |
| 6.02 | Commercial Guidelines |
| 6.03 | Goals, Objectives, and Policies |
| 6.04 | Implementation Strategies |
| PART 7 | EMPLOYMENT CENTER LAND USE |
| 7.01 | Introduction |
| 7.01 | Industry/Employment Zone |
| 7.02 | Goals, Objectives, and Policies |
| 7.03 | Implementation Strategies |
| 7.04 | implementation strategies |
| PART 8 | TRANSPORTATION |
| 8.01 | Introduction |
| 8.02 | Transportation Guidelines |
| 8.03 | Goals, Objectives, and Policies |
| 8.04 | Implementation Strategies |
| PART 9 | FUTURE LAND USE PLAN |
| | |
| 9.01 | Introduction |
| 9.02 | Planned Land Use Categories |
| PART 10 | PLAN IMPLEMENTATION |
| 10.01 | Introduction |
| 10.01 | Zoning Regulations |
| 10.02 | Regulation of Land Division |
| 10.03 | Infrastructure |
| 10.04 | IIII asu uciui c |
| PART 11 | PLAN MONITORING PROGRAM |
| 11.01 | Introduction |
| 11.01 11.02 | IntroductionBenefits of a Monitoring Program |
| 11.07 | DEHELIN OF A MOUNOTHIS FIOSIANI |

| 11.03 | Description of the Program | 11-1 | | | |
|-------------------------------------|--------------------------------------------------------|------|--|--|--|
| | TABLES | | | | |
| Table 1, I | Population and Households, 1990-2000, 2020 Projections | 2-3 | | | |
| Table 2, I | Building Permits, Manchester Township Summary | 2-4 | | | |
| Table 2A | , Number of Parcels, 1996 to 2003 | 2-5 | | | |
| Table 3, I | Manchester Township Land Cover | 3-1 | | | |
| Table 4, V | Woodlands | 3-2 | | | |
| | MAPS | | | | |
| Map 1, L | ocation | 1-9 | | | |
| Map 2, S | chool Districts | 1-10 | | | |
| Map 3, Ground Water Recharge Areas. | | | | | |
| Map 4, Woodlands and Wetlands | | | | | |
| Map 5, Topography/Slope | | | | | |
| Map 6, S | oil Limitations | 3-11 | | | |
| Map 7, 10 | 0 Acre Parcels or Less | 4-3 | | | |
| Map 8, Road Classifications | | | | | |
| Man 0 F | utura Land Usa | 0.4 | | | |

Manchester Township GROWTH MANAGEMENT PLAN

PART 1

INTRODUCTION

The Manchester Township Growth Management Plan is a comprehensive statement of community policy for preservation and enhancement of natural resources, the unique character of the Township and future development within the Township. The GMP is an attempt to reflect the aspirations and goals of the total community, which promotes the health, safety, convenience, prosperity, and general welfare of the public, Township residents and property owners as well as those who conduct business in the Township. The plan's aim is to achieve optimum compatibility and efficiency between these elements.

VISION STATEMENT

In the future, we would like our Grandchildren and Great Grandchildren to describe Manchester Township as follows:

Manchester Township is a thriving and safe community with a rich history of agriculture and small town life. Historic properties in the township are maintained and historic structures are preserved. A safe and efficient transportation network is available for both motorized and non-motorized travel. The River Raisin and other Township lakes are safe, clean and protected. The Village of Manchester is our commercial center and the Township and Village is strengthened through interaction at both planned social events and unplanned recreational activities. Community interaction by public safety has reduced crime and fires in the Township. All age groups within the Township are provided both passive and active recreational opportunities. Housing opportunities are available to all age groups and income levels. Commercial and industrial growth is encouraged in limited designated areas. Manchester Township's government continues to be responsive to the needs of its residents.

The primary purpose of this Growth Management Plan is to establish public policy to guide governmental and private decision-making concerning the preservation, growth, and development of Manchester Township. The GMP is intended to direct development in a coordinated and harmonious manner to meet the current and long-range needs and aspirations of the Township, to effectively and efficiently maintain, enhance and utilize the resources of the area, and to create a more satisfying environment for its citizens. Therefore, the GMP is comprehensive and long-range in scope, rigid in basic principles, yet flexible and adaptive to changing conditions. The GMP, as adopted, serves as an overall long-range guide, which enables evaluation of individual proposals and rational decision-making on such proposals as they arise.

The GMP, as specified in the State of Michigan Township Planning Commission Act, is a prerequisite to adoption of regulations for land development including zoning and subdivision regulations. Furthermore, the GMP is increasingly becoming a prerequisite for State and Federal

grants to local governments for capital improvements. The GMP is based on the conclusions of various technical studies and working papers, community involvement, established Township goals, policies, and strategies and the synthesis of these with commonly accepted planning principles.

1.01 RELATION TO THE 1991 PLAN

The Township's first "General Development Plan Map" was adopted in 1975. That Plan was replaced by the adoption of the "General Development Plan" in 1991. Thus, Manchester Township has had twenty-seven (27) years of experience with preparing and using comprehensive plans in making decisions on land use, streets, and public facilities and services. These previous plans were used extensively in guiding Township Planning Commission and Township Board decisions. Numerous development pressures from outside the Township, changed conditions within the Township since 1991, and the age of the Plan, resulted in a decision to update and revise the 1991 Plan.

Review of the 1991 Plan revealed that much of the Plan was still valid. New developments, some of which are still in process, have followed these policies. Nevertheless, some of the data in the Plan was out of date and some policies have become obsolete by evolving events. The new Plan is therefore a refinement as well as an update of the 1991 Plan.

This Growth Management Plan, upon adoption, replaces the 1991 Plan and all amendments thereto.

1.02 PRINCIPAL CHARACTERISTICS OF THE GROWTH MANAGEMENT PLAN

Experience in using the previous General Development Plan over the past twelve (1) years has proven the utility and wisdom of that Plan and that many of the principal characteristics and policies of the 1991 Plan should be retained. The following are the principal characteristics of the revised General Development Plan.

- A. The Plan is a policy type Plan; that is, it describes the Township's policies regarding the future nature and character of the Township. The policies are aimed at the fundamental issues that the Township expects to face in the future.
- B. Since the Plan concentrates on policies, the Plan is general in nature. That is, the Plan shows how the Township Board and Planning Commission intend to respond to various issues, and the approaches that will be followed in those responses. The Plan does not prescribe nor predict uses for specific parcels of land, except in a few circumstances. Instead, the Plan describes the intended uses of general areas. The Plan is not intended to be a "blueprint" or a picture of the Township at some future date and it should not be interpreted in this fashion. Similarly, the Plan does not dictate that a specific action will be taken at a future time. The Planning Commission may amend any part of the GMP, or the overall GMP as necessary and appropriate.
- C. The Plan provides guidelines for making decisions or recommendations in the future. For example, the Plan will provide the framework for Planning Commission recommendations to the Township Board on rezoning petitions and subdivision plats, and for Board decisions on those matters. It will provide guidelines for Planning Commission decisions on site plans. Decisions will be made on a case-by-case basis at the time necessary and within the context of the Plan.
- D. The Plan recognizes that the future is uncertain and cannot be predicted, and that current perceptions of future conditions might change. The major issues also might change over

time, and policies designed to respond to them might have to be modified or replaced with new ones. The Planning Commission intends to periodically review, refine, and otherwise modify the Plan as events unfold. Refinement might be in the form of restating, deleting, or adding to the issues, goals, or policies set forth in the following pages. It might also be in the form of detailed policies for specific areas of the Township. These changes might result from:

- 1. An analysis of a specific development proposal, such as a rezoning petition.
- 2. A capital improvement proposal by Manchester Township or other government entity.
- 3. A periodic review of the Plan by the Planning Commission.
- 4. From the detailed study of a part of the Township by the Planning Commission.

This approach can be viewed as a series of successive attempts to adapt the Plan as well as the planning process to changing conditions.

- E. The Plan is an overall guide to decisions, but continual use of the planning process, not just use of the Plan itself, will assure that decisions regarding land uses, development, and facilities will be the best possible. It is the Township Board and Planning Commission's intent to continually improve the planning process as well as the Plan.
- F. In preparing this Plan, the Planning Commission decided to indicate "*ultimate*" uses for all parts of the Township, even though such a designation would extend well beyond the normal time frame for the Growth Management Plan. The Plan designates future land uses for the entire Township rather than projections for a specific time period.
- G. The maps in the Plan are intended only to illustrate some of the policies described in the Plan. The maps are generalized and show general locations of uses and features. The text of the Plan should be consulted for a description of policies that apply to specific areas, features, or subjects.

1.03 PLANNING COMMISSION AND TOWNSHIP BOARD ROLES IN THE PLANNING PROCESS

The Township Planning Act gives the Township Planning Commission sole authority to prepare and adopt the Growth Management Plan. However, the Township Board is an important part of the Plan preparation and overall planning process. The Board makes all land use and development decisions via the rezoning and the subdivision review processes; approves expenditures for public improvements; provides funds for Planning Commission activities, and appoints Planning Commission members. Most importantly, however, the Board is elected by the citizens of Manchester Township and is therefore directly responsible to the public for planning decisions and represents the public's interest in planning matters. It therefore follows that the Township Board should play a key role in preparing the Growth Management Plan and in keeping it up to date. This Growth Management Plan was prepared with this in mind and it reflects Township Board policies as well as those of the Planning Commission.

1.04 CITIZEN INPUT

A. CITIZEN COMMENTS

Since 2000 more than fifty (50) Planning Commission meetings have taken place. Although the GMP was not discussed at many of these meetings the Planning Commission listened to land use issues and concerns that are incorporated into this plan. In general the following attitudes have been expressed at the majority of these meeting. These attitudes were also expressed in a comprehensive survey completed more than decade ago.

- 1. Generally, the Village and particularly the Township feel that the rate of residential growth is too fast.
- 2. Rural living and the natural environment as having influenced their decision to live in Manchester Township.
- 3. Commercial growth should be supported in downtown Manchester.
- 4. Local industry is proportionate to the size of the community.
- 5. Industrial development should be allowed with appropriate regulations.
- 6. The natural environment is an asset worth protecting.
- 7. The Township's surviving history is of significant importance.
- 8. There is concern about commercial "strip development" along the entrance corridors.

B. FUTURING SESSION

On September 7, 2000 a futuring session was held with the Township Board, Planning Commission and Township and Village residents. The results of this session have also been used in the review and updating of the Township's Land Use Plan. During the futuring

session the Board, Commission, and public present were asked to provide their thoughts regarding:

- The Strengths and/or Positive aspects of the Township.
- The Weakness and/or Negative aspects of the Township.
- The Opportunities that is present within the Township.
- The Threats that may be present within the Township.

After lists were completed for each of the four (4) above topics, the participants voted on each of the lists to produce a priority of topics contained within the lists.

Following are the results, shown by priority (number of total votes), for the futuring session:

Strengths

- (10) Rural living.
- (9) Clean environment.
- (8) Scenic landscape.
- (7) Quiet community.
- (5) Accessibility to urban areas.
- (5) Active community.
- (5) Safe community.
- (5) School achievement.
- (5) Good fire and rescue.
- (4) Community works together.
- (3) Land availability.
- (3) Human scale town.
- (2) Family orientated.
- (2) Selection of churches.
- (2) Good government.
- (1) Close to town.
- (1) Friendly.
- (1) Recreational opportunities.
- (1) Presence of agriculture.
- (1) Fine dining.
- (1) Historical heritage.
- (1) Good TV reception.
- (0) Community identity.
- (0) Opportunistic atmosphere.
- (0) Support for community activities.

Weaknesses

- (12) Roads.
- (10) Poor use of land for housing.
- (10) New residents with city attitude.
- (9) Loss of farmland.
- (8) Police protection.
- (5) County government.
- (5) Distance from medical facilities.
- (4) Downtown traffic congestion.

- (4) Noise pollution from industry.
- (3) Limited shopping.
- (3) Limited utilities sewer and water.
- (2) Lack of local control.
- (2) Old school buildings.
- (2) Growing number of inactive residents concerning community involvement.
- (1) Noise from racetrack.
- (0) Taxes too low.
- (0) Lack of community funding of schools, etc.
- (0) Traffic from racetrack.
- (0) Lack of natural gas.

Opportunities

- (12) Plan and maintain rural character.
- (10) Preserve Farmland and Open Space.
- (9) Become involved in community.
- (8) Know community officials.
- (8) Preserve historical nature of community.
- (7) Land for expansion.
- (7) Individual can be heard.
- (5) Joint venture with other governments.
- (5) Learn from others mistakes.
- (4) Buying building site for new house.
- (3) Raise a family.
- (1) Develop more community involvement.

Threats

- (15) Vulnerable to large power interests.
- (12) Continuing loss of rural character of the Township.
- (11) Loss of constitutional rights.
- (10) Loss of local control.
- (6) Poor planning.
- (5) Development sprawl.
- (4) Loss of individual rights.
- (4) Noise/light pollution from development.
- (3) Degradation of quality of life within Township.
- (3) Negative impacts of growth.
- (3) Increased traffic/speed of traffic/accidents.
- (2) Take over from other governments.
- (2) Regulation without compensation.
- (2) Poorly constructed high-density housing developments.
- (2) Ground water pollution from development.
- (1) Crime.
- (1) Apathy of some Township residents.
- (1) Loss of recreational opportunities.
- (1) Loss of County Police protection.
- (0) Over population of the Township.
- (0) Increased traffic congestion.
- (0) Social implications coming into Township such as drugs.
- (0) Unfunded mandates from outside government.
- (0) High price of gas.

As depicted above, wide individual and group review as well as public input served as the basis for the substance of the current General Development Plan. The opportunity for citizen participation improved and refined the GMP before its adoption. It is advisable that the plan be reviewed annually to determine whether additions or amendments are necessary based on established goals and sound planning principles. Periodic revision, as well as total evaluation of the plan every five years, is essential if the GMP is to be a continually reliable guide for community development and preservation of resources.

1.05 REGIONAL SETTING

The State of Michigan is currently divided into thirteen (13) planning regions. Manchester Township located within Washtenaw County is part of Region 1 commonly known as the South-East Michigan Council of Governments (SEMCOG). The Region consists of Wayne, Macomb, Oakland, St. Clair, Monroe, Livingston and Washtenaw Counties (see Map 1). Historically, the center of this Region in terms of population and economy has been the City of Detroit.

Although there is considerable influence from the SEMCOG Region on the Manchester area, Region II Planning including Jackson, Hillsdale and Lenawee Counties have regional significance when evaluating statistics relevant to place of employment and regional shopping patterns. Manchester Township, located on the extreme southwest fringe of the SEMCOG Region, identifies with overlapping school districts, telephone exchanges and retail shopping centers located outside the SEMCOG region.

1.06 COUNTY SETTING

Manchester Township is located in the southwest corner of Washtenaw County (see Map 1). Manchester Village is wholly contained inside of the Township and serves as the community center for the surrounding area. A Village resident is also a Township resident in all respects except planning, where each is served by its own planning commission and jurisdiction. Although community orientation is heavily weighted toward Manchester, Ann Arbor and Washtenaw County, many other factors serve to define other orientations.

The Township is approximately equal distance from Jackson, Adrian and Ann Arbor and is divided by Manchester, Clinton, and Columbia (Brooklyn) school districts (see Map 2). Direct access to U.S. 12 and M-52 connects residents to Saline, Tecumseh, Chelsea, Ypsilanti and Wayne County for work and shopping. The telephone service in the southern portion of the Township is divided between the Manchester, Clinton, Tipton and Brooklyn exchanges, which are all long distance from one to the other. Additionally the southwest corner of the Township is informally regarded as part of the Irish Hills area.

The Township itself is considered rural with a historically agricultural base. However, a picturesque, rolling topography has favored residential use and over the last thirty (30) years the Township has seen the number of residences double as the land is increasingly viewed as rural residential. Pressure for residential growth is expected to continue with agricultural uses remaining steady or declining.

Major Issues To Be Dealt With In The Growth Management Plan Update

MAP 1

MAP 2

PART 2

MAJOR ISSUES TO BE DEALT WITH IN THE GROWTH MANAGEMENT PLAN UPDATE

Recent conditions in and around Manchester Township raise major issues affecting the future of the community. These issues must be the focus of the Growth Management Plan if the plan is to be an effective means of achieving the Township's desired goals. These issues affect the entire Township, but the greatest effect will perhaps occur along the roadway corridors of Austin Road, US-12, M-52, around the peripheral areas of the Village of Manchester, and central interior areas of the Township where large land areas could be susceptible to pressures for conversion and development.

The following is a general listing of issues considered at this time to be the most important in the foreseeable future. Issues have a tendency to change over time and new issues will arise. These present issues however will serve as the basis for the plan.

2.01 PROTECTION AND PRESERVATION OF NATURAL FEATURES

Manchester Township has a variety of natural features -- wooded areas, streams, wetlands and varied topography. It is important that these features be integrated into the development pattern so that they will be preserved where possible and properly respected where some encroachment from development is inevitable. However, protection and preservation will be difficult because encroachment or loss occurs slowly, and the impact at any one time may seem minimal. Wooded areas might be removed to make way for development. Streams will be subject to pollutants and sediments from surface runoff and by flooding caused by increased runoff. Wetlands can be adversely altered or destroyed by changing drainage patterns and by disruption of the ecosystem. Topographic features may be subject to modification to provide building sites and roadways, thereby upsetting natural drainage ways, increasing erosion potential, and destroying visual character.

2.02 LOSS OF AGRICULTURAL LAND

Loss of agricultural land to development is occurring in Manchester Township and will likely continue in the future. The principal threat to local agricultural land is rural housing, generally in platted subdivisions or site condominiums, but more pervasively on scattered lots, which increases property tax burdens on farmland. Agriculture, at least long term operations, cannot compete successfully with housing for the same land, or even for the same general area. The presence of only a few rural residences can adversely affect the stability of an agricultural area.

2.03 POPULATION AND HOUSING GROWTH

Manchester Township will be an increasingly attractive area for new residents, which could lead to pressure for relatively rapid growth in both population and housing. In 1990 the Township had a population of 1,739, which by the year 2000 had grown to 1,942, resulting in an increase of 203 or 11.7%. See Table 1.

Between 1990 and 2000, Manchester Village's population increased by 415 or 23.7%, from 1,753 to 2,168. While the Township could experience accelerated growth due the Village's increased popularity as a place to live, good access from Austin Road, M-52, US-12, and other regional transportation networks will also contribute to an accelerated rate of growth within the Township.

Major Issues To Be Dealt With In The Growth Management Plan Update

Projections for additional households by 2020 are closely related to population growth. According to the Southeast Michigan Council of Governments (SEMCOG), Manchester Township's population is projected to grow by almost 40% or 773, from 1,942 to 2,715 by 2020. By comparison the Village's population is projected to grow by 53% or 1,158, from 2,168 to 3,326. In regard to households the projection indicates an increase of 378 households or almost 53% between 2000 and 2020 for the Township. The Village is also expecting double-digit growth in households for the same period, with an increase of 498 or 55%. It is anticipated that the vast majority of these additional households will be expressed through construction of single-family housing units.

Overall, Washtenaw County's population increased from 282,937 to 322,895, an increase of 39,958 or 14% percent between 1990 and 2000. Households increased from 104,527 to 125,327, an increase of 20,704 or 19.8% for the same period. Projections of population and households for Washtenaw County are scheduled to increase, however, not as dramatically as the Township and the Village. Population is expected to increase to 410,748, an increase of 87,853 or 27% from 2000, while households are expected to increase to 169,913, an increase of 44,681 or 35%. See Table 1.

Table 1
Population and Household Growth

| Communi | 1 | Populatio | on | Cha 1990 - | nge - 2000 | Char 2000 - | _ | Н | ousehol | ds | Chai 1990 - | _ | Chai 2000 - | \sim |
|----------------------|-------------|-----------|---------|---------------|---------------|----------------|------|-------------|---------|---------|----------------|------|----------------|--------|
| ty | 1990 | 2000 | 2020 | # | % | # | % | 1990 | 2000 | *2020 | # | % | # | % |
| Mancheste r Twp. | 1,739 | 1,942 | 2,715 | 203 | 11.7 | 773 | 39.8 | 586 | 717 | 1,095 | 131 | 22.4 | 378 | 52.7 |
| Mancheste r Village | 1 / 5 4 | 2,168 | 3,326 | 415 | 23.7 | 1,158 | 53.4 | 651 | 900 | 1,398 | 249 | 38.2 | 498 | 55.3 |
| Washtena w County | 282,93 7 | 322,895 | 410,748 | 39,95 8 | 14.1 | 87,853 | 27.2 | 104,52 8 | 125,232 | 169,913 | 20,704 | 19.8 | 44,681 | 35.7 |

Source: U.S. Bureau of the Census, 1990, 2000. SEMCOG:

*Forecast: SEMCOG

Another way to gage growth is by examining building permit data. Building permit data collected by SEMCOG indicates that Manchester Township had a net gain of thirty-four (34) housing units constructed in 2000. See Table 2. In the last seven (7) years, 1996-2002, the Township has averaged twenty-six (26) dwelling units per year. At this rate the Township would have an additional five hundred and twenty (520) housing units by the year 2020, for a total of 1,289 housing units. This exceeds the SEMCOG projection of 1,095 housing units by one hundred ninety four (194) residential units.

Table 2

Building Permits

Manchester Township Summary

| | New Units | | | Unit | s Demoli | shed | Totals | | | |
|--------------------------|------------------|---------------|-----------------|------------------|---------------|-----------------|--------------|---------------|-----|--|
| Year | Single Family | Two Family | Multi Family | Single Family | Two Family | Multi Family | New Units | Demo Units | Net | |
| 1996 | 18 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 18 | |
| 1997 | 15 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 15 | |
| 1998 | 19 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 19 | |
| 1999 | 27 | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 27 | |
| 2000 | 35 | 0 | 0 | 1 | 0 | 0 | 35 | 1 | 34 | |
| 2001 | 32 | 0 | 0 | 0 | 0 | 0 | 32 | 0 | 32 | |
| 2002 | 41 | 0 | 0 | 1 | 0 | 0 | 41 | 1 | 40 | |
| Totals Over Period | 187 | 0 | 0 | 2 | 0 | 0 | 187 | 2 | 185 | |

Hand in hand with the number of issued building permits, is the number of parcels created from year to year. Table 2A, below, illustrates the increase in the number of parcels from 1996 to 2003. Table 2A reveals that for seven (7) of the eight (8) years, between 1996 and 2003, increases remained between 2% and 5%. 1999 was a watershed year, in that the number of parcels increased by fifty -57% or 854 parcels, over the previous years paltry 2.3% increase for a total of 34 parcels. The increase in parcels from 1996 to 2003 is 94% or 1,329. This represents an average of 166 parcels per year. At this rate, by 2011 the Township will contain 4,081 parcels.

Table 2A Number of Parcels 1996-2003

| Year | Number of Parcels | Change | |
|------|----------------------|--------|-------|
| 1996 | 1,414 | # | % |
| 1997 | 1,463 | 49 | 3.5% |
| 1998 | 1,497 | 34 | 2.3% |
| 1999 | 2,351 | 854 | 57.0% |
| 2000 | 2,388 | 37 | 1.6% |
| 2001 | 2,505 | 117 | 5.0% |
| 2002 | 2,612 | 107 | 4.3% |
| 2003 | 2,753 | 141 | 5.4% |

Source: Washtenaw County Tax Equalization, March 2004

2.04 CONTROL OF RURAL HOUSING

Rural housing is becoming increasingly popular. Communities around Manchester Township have seen this trend take place along main routes of transportation. Pressure for such housing will likely occur in areas with natural amenities such as wooded areas and lands with rolling topography. Also pressure will continue in agriculture areas where this type of housing can be a major cause of sprawl.

The principal issue is to locate rural housing in suitable areas and prevent it's scattering into agricultural areas.

2.05 NEED FOR ADDITIONAL COMMERCIAL DEVELOPMENT

The unique location of Manchester Township and its relationship to the Village of Manchester has resulted in a situation where the current and primary commercial needs of Manchester Township residents are being adequately met. Assuming that a certain amount of residential development will continue within the Township and within Manchester Village, it is likely that additional commercial centers will be needed. Additional commercial centers should occur with access to Austin Road and M-52, adjacent to Manchester Village.

2.06 PROPERTY VALUE

It is understood that as properties develop within the rural area of the Township that adjacent property values will increase. Assessment of agricultural land will be impacted by residential infringement into agricultural areas. The central portions of the Township have not been impacted to the same extent by non-agricultural land uses. It appears that at present a continuation of productive agricultural lands should remain in the central and southern portions of the Township.

2.07 TAX BASE

The Growth Management Plan will strive to direct potential growth into appropriate areas based upon the future needs and physical resources of Manchester Township. This will permit the Township to utilize its resources more effectively in serving the needs of residents. Distinct efforts will be made to restrict growth in the essential agricultural areas. The creation of a balanced Township economy is a vital goal of the Growth Management Plan.

2.08 INTERGOVERNMENTAL COOPERATION

Land use and development policies of Manchester Township will be affected by events and decisions in adjacent municipalities and the potential policies of regional planning bodies within southwest Washtenaw County and the Clinton region. Township plans regarding various types of development and preservation policies will be impacted by the urban presence of Manchester Village and to a lesser extent the village of Clinton as well as surrounding townships. It will be increasingly essential for all concerned that the planning policies of the several municipalities be coordinated. The Southwest Washtenaw Council of Governments (SWWCOG) is an important group actively involved in planning issues.

2.09 SANITARY SEWER AND WATER SERVICES

The Township presently has extremely limited service from the Village of Manchester. Future sewer and water service may be considered for two (2) main reasons: 1) The physical need of existing development and 2) The need for sewer or water service to areas of the Township, adjacent to the Village that could experience urban types of growth. Adequate service potentially could come from the Village of Manchester. Additional analysis will be necessary to determine capacity and probable infrastructure to make this determination.

2.10 TRANSPORTATION

The main route of transportation through the Township is Austin Road and M-52. US-12 is a regional arterial roadway that provides regional access along the southern portion of the Township. These transportation systems allow access to other regional highway networks and freeway systems including I-94 to the north, US-23 to the east and US-127 to the west. These transportation systems will continue to be the principal means of access within and through the Township.

2.11 RESPONSE TO AND ROLE IN LARGE REGIONAL DEVELOPMENT PROPOSAL

Manchester Township could be susceptible to large-scale or multi-use development proposals on various parcels in the future. It is not possible at this time to address their location or acceptability in relation to Manchester Township's character or adopted development policies. Such a proposal would have to be analyzed on an individual basis considering specific site criteria. This Growth Management Plan contains land use relationship policies that should be utilized in such a situation.

2.12 PRECEDENTS AFFECTING LAND USE POLICY

Major Issues To Be Dealt With In The Growth Management Plan Update

This Growth Management Plan is based upon significant analysis by the Planning Commission and sound planning policies and principles. The Commission will enforce these policies when evaluating requests for specific zoning changes and other land use proposals. The established character of specific areas of the Township will be reviewed in relation to development proposals brought before the Planning Commission. The Planning Commission will view negatively proposals leading toward any unwarranted alteration of this character or likely to establish unwanted precedents.

PART 3

NATURAL FEATURES

3.01 INTRODUCTION

Manchester Township is distinguished by a wide variety of natural features. The Township offers a diversity of woodlands, streams, wetlands, and topographic features which are valued within potential development and the existing rural settings. Following is the location, extent, and characteristics of these and other natural features. Table 3 below allows comparison of both natural and man-made land cover.

Table 3

Manchester Township

Land Cover

| Land Use Type | 1990 Acres | 1995 Acres |
|------------------------------|--------------|--------------|
| Single-Family Residential | 1,225 (5%) | 1,279 (5%) |
| Commercial and Office | 19 (0%) | 19 (0%) |
| Institutional | 20 (0%) | 20 (0%) |
| Industrial | 11 (0%) | 11 (0%) |
| Transportation, | | |
| Communication and Utility | 39 (0%) | 39 (0%) |
| Cultural, Outdoor Recreation | | |
| and Cemetery | 16 (0%) | 16 (0%) |
| Cultivated, Grassland, and | | |
| Shrub | 15,530 (66%) | 15,469 (65%) |
| Wetland | 3,104 (13%) | 3,095 (13%) |
| Woodlands | 3,105 (13%) | 3,094 (13%) |
| Extractive | 41 (0%) | 59 (0%) |
| Water | 520 (2%) | 523 (2%) |
| Total Acres ⁷ | 23,630 | 23,624 |
| | | |

^{*1990} and 1995 total acres may not be the same due to rounding errors and precision differences between 1990 and 1995 GIS layers.

Source: Michigan Resource Information System (MIRIS)

3.02 WOODLANDS

Approximately 13% of Manchester Township is presently woodland. There are a total of fifty-nine (59) separate woodlots within the Township. Four (4) of these woodlands are five to ten (5-10) acres in size, thirty-one (31) are eleven to forty (11-40) acres in size and twenty-four (24) have forty (40) or more acres. Areas defined as woodland refer to lands that are at least ten (10%) percent stocked by trees capable of producing timber or other wood products. Forty-one (41%) percent of Manchester Township's woodlots are over forty (40) acres in size. Woodlots of this size can support various types of wildlife and can act as a community within themselves. See Table 4. Source: MIRIS

Table 4
Woodlands

| Number Of Woodlands | Size |
|---------------------------|-------------|
| 4 | 5-10 acres |
| 31 | 11-14 acres |
| 24 | 40+ acres |

Source: MIRIS

Woodlands are important for a number of reasons:

- A. They create a varied and rich habitat for plant and animal life. When connected with other woodlands or fencerows, they provide migration paths for animals and birds.
- B. They are a source of timber.
- C. They are a source of aesthetic enjoyment and provide areas for recreation.
- D. They moderate climatic extremes by providing shade and transpiring water.
- E. They protect watersheds from erosion by reducing the impact of rain on soil and by holding soil in place.
- F. They help recharge groundwater by holding precipitation, giving it time to percolate into the ground. The woodland floor also helps to filter the percolating water.
- G. They filter the air by absorbing pollutants.
- H. They absorb sound and act as buffers between land uses.

Therefore woodlands are a valuable natural resource from environmental and aesthetic points of view. They play an important role by stabilizing soil and slowing runoff and erosion resulting from flooding and high winds. Careful management of woodlands must be of prime concern. Needless destruction of trees and the conversion of woodlands to other uses should be discouraged. Uses and development patterns, which permit the land to remain forested, are encouraged. Woodlands are dispersed throughout Manchester Township and are depicted on Map 4, Woodlands and Wetlands.

3.03 FLOOD PLAINS

A flood plain is an area adjoining a lake, stream, river, or pond that receives excess water from flooding. Floods are a natural occurrence in the hydrologic cycle. A well-defined flood plain is produced when flooding recurs on the same area, which then becomes important in flood situations where excess water requires a natural reservoir. Water exceeding the normal average level is stored as a temporary lake across a flood plain. As long as the overflow remains on the flood plain, this volume is not added to the floodwater moving downstream. When flood plain storage is prevented by restricting the water flow to a channel, the volume and size of the flood may be increased downstream, causing higher water levels and more damage.

Flood plain areas are measured or "delineated" to indicate the chance of a flood occurring at a given location. This measuring or delineating is done regarding the probability of flooding, usually once in fifty (50), one hundred (100), or five hundred (500) years. Flood plain delineation is required for home and business construction loans and the Federal Flood Insurance program. The National Flood Insurance Program accepts the one hundred (100) year flood plain as the minimum standard for protection. A one hundred (100) year flood is a flood, which has a probability of reaching a given elevation once in one hundred (100) years, or a one (1%) percent chance of occurring in any given year.

The River Raisin drainage system within the northeastern portion of Manchester Township is the most prominent watercourse to have a designated one hundred (100) year flood plain. Other drainage systems including Iron Creek has a unique character and is quite extensive, extending through the central portions of the Township.

3.04 GROUNDWATER RECHARGE AREAS

Water which is stored in and slowly filtered through geologic formations is referred to as ground water. An aquifer is a geological formation that contains sufficient ground water to supply wells, lakes, springs, streams and/or wetlands. Precipitation reaches an aquifer by downward percolation from the surface. A land surface which readily permits water to move downward into an aquifer is referred to as a ground water recharge area. Groundwater recharge areas are highly generalized and it must be emphasized that the boundaries are not precise.

Underground aquifers serve three (3) major functions:

- A. They are natural reservoirs of groundwater for human consumption and for irrigation.
- B. They are natural filters for groundwater, but they can be easily polluted by unsound land use practices in the recharge area.
- C. They interconnect with surface water systems and help stabilize surface water levels. They help reduce high water levels during wet periods and add water to surface water bodies during dry periods.

Several groundwater recharge areas were delineated within Manchester Township, some of which are classified as highly sensitive to pollution. The most extensive areas that are highly sensitive to pollution are in the north central and southwestern portions of the Township.

Groundwater recharge areas that are moderately sensitive to pollution are located adjacent to the most sensitive areas in the northern portion of the Township. The largest recharge area in the

Natural Features

southwestern portion of the Township in Sections 29, 30, 31, and 32. On-site evaluation and analysis should be undertaken to determine the extent and susceptibility of the areas designated on Map 3.

Map 3

3.05 WETLANDS

Wetlands are transitional zones between dry land and aquatic systems. The water table is usually near or covering the surface. They are characterized by very low topographic change, poor drainage, specific types of vegetation, and standing water. Marshes, swamps, and bogs are well known terms, which have historically referred to wetlands. Since wetlands are among the most environmentally sensitive lands, it is important to have reliable information that defines and classifies these sensitive areas. Wetlands perform the following basic functions:

- A. Wetland habitats are essential to the breeding, feeding, and survival of many species of fish and wildlife. In their natural condition, wetlands are among the most productive of land areas when the total quantity of animal and plant matter produced is considered. They also provide valuable predator escape cover, and a wide range of vegetative communities.
- B. They influence the quantity of water stored in a watershed and act to retain water during floods, and to reduce fluctuations in the water table level. Wetlands retain water during wet periods and release it slowly during dry periods. During dry periods, wetlands help keep the water table relatively stable. Wetlands also recharge the ground water supply by allowing surface water to percolate into the aquifers.
- C. Wetlands protect water quality by trapping and storing nutrients from upland runoff, and by serving as settling basins for silt from upland erosion. This function can only be performed if the nutrients and silt are not excessive in amounts. Excess runoff and nutrients due to development and agricultural activities can overload wetlands and result in the eventual destruction of their filtering function. The principal threats to the long term health and stability of wetlands includes:
 - 1. Dredging and filling of wetlands for development, agricultural, or mining purposes.
 - 2. High volumes and rates of surface water runoff, usually caused by upstream development.
 - 3. Surface runoff from fertilizers and other pollutants.
 - 4. Siltation caused by upstream erosion.

Wetlands were mapped using U.S. Geological Survey Quadrangles and Washtenaw County data, and then compared with aerial photographs. The most important wetlands within the Township are those that are contiguous to lakes, rivers, and streams, and that are important for stormwater storage. These wetlands, shown on Map 4, cover various areas of Manchester Township, and are most extensive along the River Raisin system.

Map 4

3.06 TOPOGRAPHY/SLOPE

The term topography is used to refer to slope. The natural stability of a slope is dependent on the interaction of vegetation, climate, soil, and underlying geology. In general, the greater the slope - the greater the sensitivity to disturbance. Natural slopes that have not been disturbed by human activity are generally stable, at least in the short run. Improper development practices on sensitive slopes can incur great economic and environmental consequences. Soil type, particle size, permeability, vegetative cover, organic matter, and moisture content will vary the rate of erosion on a particular slope. Slope of land is an integral part of the natural drainage system. Slope adds visual contrast to the landscape.

Significant slope and attractive topography is concentrated in the southwest corner of the Township. This area is part of the Irish Hill system of topography that is a major tourist destination.

Within Manchester Township, topography ranges from relatively flat areas to gently rolling areas. As can be seen from Map 5, slopes greater than twelve (12%) percent are found throughout the Township.

Map 5

Natural Features

3.07 DRAINAGE

Other than the River Rasin system, the major drainage system within Manchester Township is the Iron Creek system. This system drains the southern half (1/2) of the Township. The remainder of the Township is characterized by small tributaries and drainage ways.

3.08 SOILS

One aspect of soil analysis regarding natural resources is to identify soils that should not be disturbed from an environmental standpoint. Soils of this nature are usually organic by nature, classified as muck, and contain high water tables. These soils are often found in wetlands and floodplains. Due to the sensitive nature of these soils and the environmental function they perform, they should not be subject to development or alteration. These soils pre-dominate the Township and are shown on Map 6. This analysis is general and is to be used only as a guideline regarding possible development. It is recognized that the unsuitability of a soil could relate to a slope factor as opposed to an organic or high water table condition. Wetlands and flood plains most often characterize these soils.

Map 6

3.09 NATURAL RESOURCE CONCLUSIONS

- A. Significant natural features, including woodlands, wetlands, topographic features, and waterways, exist within Manchester Township and contribute to the Township's unique character and wildlife habitat. These features should be protected.
- B. There are large, mature forested areas within Manchester Township that should remain undeveloped. These areas enhance the rural nature of the Township, contribute to a unique environmental character, and provide significant areas for wildlife habitats and timber production.
- C. Limited areas of organic soils are found within the Township. These soils should remain untouched and in their natural state to allow positive interaction with the water table.
- D. Wetlands are scattered throughout the Township. Even though most are small, they should be protected due to their influence on water quality and the habitats they create for wildlife. Special attention should be given to the Iron Creek drainage system regarding the continual presence of wetlands adjacent to and in close proximity to its drainage course.
- E. Ground water recharge areas should be maintained in their natural state as much as possible. They are natural reservoirs for groundwater. Anything that could potentially pollute these areas should be avoided.
- F. Drainage ways are common in the Township. They often link various types of natural resources such as wetlands, wooded areas, and organic soils. This encourages an overall, continuous open space system throughout the Township.

To accomplish the preservation of natural features within Manchester Township, the following goals, objectives and policies are set forth.

3.10 GOALS, OBJECTIVES AND POLICIES

GOAL The preservation and management of natural features.

To accomplish this goal the following objectives are set forth:

A. SURFACE WATER PROTECTION.

Protection of the quality of surface water.

1. POLICIES.

a. Flood Plain.

Development shall be prohibited within the one hundred (100) year flood plain of existing watercourses or wetlands.

b. Surface Water and Wetlands.

- 1) Surface water, stream corridors, and wetlands shall be preserved in their natural condition.
- 2) Disruption of the hydrology, alignment, topography or vegetation shall be prohibited

3) Discourage mitigation of wetlands.

c. Storm Water Run-off.

1) Storm water run-off shall be managed to retain the quantity and quality of water in surface water features.

d. Private Waste Water Treatment Facilities.

1) Private community sanitary sewage treatment systems shall be prohibited.

e. <u>Land Use.</u>

- 1) Land use patterns shall be established that limit potential adverse impact on water features, including:
 - a) topographical disturbance, including grading and/or filling;
 - b) bio-chemical pollution;
 - c) thermal pollution;
 - d) stream channel alteration; and
 - e) loss of vegetative buffers.

f. Erosion.

- 1) Erosion shall be controlled during construction and after construction by:
 - a) Limiting stripping of vegetation and soil removal,
 - b) Minimizing the duration of exposure of disturbed areas,
 - c) requiring the use of temporary vegetation, mulching, or other techniques to protect exposed areas,
 - d) requiring establishment of permanent vegetation or other techniques to prevent erosion; and
 - e) installation of temporary erosion control barriers.

B. GROUND WATER PROTECTION.

Ensure the quality of ground water through protection of the hydrological qualities of ground water recharge areas.

1. POLICIES.

a. Ground Water Recharge Areas.

- 1) A description of ground water recharge areas and rough delineation of their borders shall be required as part of the site plan review process.
- 2) Control site coverage by impervious materials over ground water recharge areas.
- 3) Storm water retention facilities shall be required to maintain water supply to ground water recharge areas in quantity and quality to match existing conditions.
- 4) Surface vegetation shall be protected where needed to purify or retain stormwater run-off.

b. Land Use.

- 1) Land uses that limit the potential for ground water contamination or harmful impact on the operation of the underground water system shall be encouraged. Certain land uses may be permitted on ground water recharge areas, taking into consideration:
 - a) potential for contamination from on-site septic systems;
 - b) percent of site coverage by impervious surfaces;
 - c) potential for water contamination from surface use of fertilizers and pesticides;
 - d) potential for water contamination from spills of hazardous substances; and
 - e) potential for contamination from road de-icing materials.

C. ENVIRONMENTAL CONSERVATION.

Encourage the establishment and protection of an interconnected system of natural environmental areas, including wetlands, woodlands, and open fields (in either prairie or agricultural use), which provide a diverse, viable habitat for wildlife and rare native plants.

1. POLICIES.

a. Land Use.

- Land uses shall be established that minimize the potential for adverse impact from development in designated environmental conservation areas.
- 2) Low density residential land uses may be permitted within environmental conservation zones
- 3) Cluster development that protects designated natural features within environmental conservation zones shall be encouraged.
- 4) Establishment of binding and permanent conservation easements and deed restrictions to protect designated natural features shall be encouraged.

b. Wildlife Habitat.

- 1) Environmental features, including wetlands, woodlands, hedgerows, prairies, and meadows, that support a viable wildlife habitat within designated environmental conservation areas shall be protected.
- 2) Natural links between protected areas within environmental conservation areas shall be retained to facilitate movement of wildlife between areas.
- 3) Identification of fragile natural features within environmental conservation zones shall be required as part of the site plan review process for any development within designated conservation zones, including:
 - a) wetlands;
 - b) woodlands:
 - c) hedgerows;
 - d) prairies or meadows; and
 - e) other fragile features, such as breeding grounds.

C. Recreational Uses.

- 1) Development of public and private open space and recreational uses shall be coordinated with environmental conservation areas where the requirements for the recreational use are compatible with the requirements for environmental conservation.
- 2) Development of pedestrian, bicycle, and horse trails shall be coordinated with environmental conservation areas.
- 3) Consider the establishment of a Township wide parks and recreation plan.

D. WOODLANDS PROTECTION.

The protection of woodlands, upland brush, and landmark trees.

1. POLICIES.

a. Land Use.

- 1) The impact of development on woodlands shall be minimized by means of the following methods.
 - a) Low density residential development may be permitted in designated woodlands.
 - b) Clustering of developments may be allowed to minimize the impact of development on woodlands.
 - c) Permanent protection and expansion of woodlands and areas of upland brush through the establishment of deed restrictions and easements shall be encouraged.

b. Wildlife Habitat.

- 1) The diversity and quality of wildlife habitats and their associated flora and fauna shall be protected, including:
 - a) encouraging the protection of landmark and historic trees,
 - b) limiting the deforestation of significant areas and concentrations of trees,
 - c) protecting areas of miscellaneous native and mature trees and shrubs located at the edge of woodlands and in environmentally sensitive areas.

E. OPEN SPACE FOR CONSERVATION AND/OR RECREATIONAL USE.

Protection of strategic open space for nature conservation and/or recreational use.

1. POLICIES.

a. Public Open Space.

Strategic properties should be identified and dedicated for open space or recreational use. Properties may include:

- 1) conservation areas within urban, suburban, and rural residential areas;
- 2) environmentally sensitive sites that are potentially endangered; and
- 3) sites to buffer land uses.

b. Private Open Space.

1) The provision of private open space in new developments shall be encouraged and/or required, with such open space to be a significant feature, especially in planned unit developments and residential cluster subdivisions.

F. STREETSCAPE CREATION AND PROTECTION.

Attractive natural streetscapes along all Township roads and streets.

1. POLICIES.

a. Existing Vegetation.

- 1) Existing landmark trees and hedgerows located adjacent to Township roads shall be protected.
- 2) Landscaping shall be required along Township roads for all new development where applicable.
- 3) Streetscapes along special corridors (i.e., roadways with a recognized scenic or historic character) shall be protected and/or enhanced.
- 4) The location of overhead and underground utilities shall be coordinated to minimize their impact on existing vegetation and wetlands.

G. PROTECTION OF STEEP SLOPES.

Protection of slopes of twelve (12%) percent or greater from adverse impact from development.

1. POLICIES.

a. Slope Protection.

- 1) Slopes of twelve (12%) percent or greater shall be protected from erosion to:
 - a) maintain slope stability,
 - b) control amount and velocity of run-off; and
 - c) maintain existing positive aesthetic qualities.
- 2) Development shall be limited to low densities in areas of steep slopes and other sloping areas where soil conditions create serious erosion potential.
- 3) The natural contours, vegetation, and drainage patterns shall be maintained or enhanced when development occurs in areas of steep slopes.
- 4) Development on slopes of eighteen (18%) percent or greater shall be discouraged.

H. PROTECTION OF OPEN SPACE AND AGRICULTURAL LANDS

Protection of strategic open space and designated agricultural lands from development.

1. POLICIES.

a. Land Trust.

1) Public, non-profit land trust with the power to buy property, establish deed restrictions, and sell property shall be encouraged.

b. Parks Commissions.

1) Donation of land to Manchester Township or to public or private land trusts for open space, recreational, or agricultural use shall be encouraged.

C. <u>Deed Restrictions and Easements.</u>

 Donation or sale of deed restrictions, view easements, and development casements to a public or private entity empowered to hold them (e.g., P.A. 116 Local Open Space and Development Rights Easements) shall be encouraged.

- d. <u>Planned Unit Developments and Cluster Development.</u>
 - 1) The use of planned unit developments and cluster residential developments to establish permanent easements for open space use on common lands shall be encouraged or required.
- e. <u>Enabling Legislation.</u>
 - 1) The Township should work with the State legislature or appropriate agencies to establish enabling legislation for tools to restrict development potential within designated agricultural and environmentally sensitive lands.

I. IMPLEMENTATION STRATEGY.

- 1. Require the following information for site plan review for all proposed development:
 - a. one hundred (100) year flood plain,
 - b. lakes, ponds, stream courses, and wetlands;
 - c. on-site watershed for on-site water features;
 - d. slopes over twelve (12%) percent and slopes over eighteen (18%) percent;
 - e. organic soils;
 - f. vegetation in buffer zone (25 feet) adjacent to on-site and off-site surface water features, wetlands, and woodlands;
 - g. woodlands;
 - h. free-standing landmark trees;
 - i. areas of upland brush;
 - j. hedgerows; and
 - k. ground water recharge areas;
 - 1. storm water management.
- 2. Adopt ordinances to protect surface water features, wetlands, and woodlands. Place special emphasis on those features that provide viable wildlife habitat. Ordinances should include provisions for:
 - a. wetlands protection, including discouraging of mitigation;
 - b. features that are part of designated nature conservation areas,
 - c. twenty-five (25) foot buffer at edge of water feature or wetland;
 - d. protection of vegetation within the buffer zone;

Natural Features

- e. clustering provision to compensate for the loss of developable land for wetlands less than five (5) acres in size; and
- f. connections between protected natural features on the same property and those on adjacent properties.
- g. zoning standards to control density in woodland areas.
- 3. Work to identify strategic sites for recreation and environmental conservation. Delineate the sites on an Official Public Facilities Map.
- 4. Work with existing, or create, nonprofit land trusts to encourage donations and/or purchase of lands for open space, recreational, or agricultural use.
- 5. Actively pursue and support the preservation of Township land by the Washtenaw County Natural Features Preservation Program.
- 6. Adopt standards for setbacks and landscaping along Township roads in appropriate ordinances.
- 7. Establish review and landscape standards for site design in areas of twelve (12%) percent or greater slopes to prevent erosion.
- 8. Encourage and review applications for P.A. 116 Local Open Space and Development Rights Easements.
- 9. Work with the State legislature or appropriate bodies to establish enabling legislation for tools to remove development potential from agricultural and environmentally sensitive lands.

PART 4

AGRICULTURAL LAND USE

4.01 INTRODUCTION

Preservation of good agricultural land is a major land use issue. The changes to the agricultural landscape of Manchester Township in many instances are seen as positive and the changes taking place can merely be a response of changing market demands, shifts in population distribution, and various economic conditions. On the other hand, in the Township, certain factors can have such a drastic effect that agriculture can all but disappear resulting in idle lands or rural lot splits used for non-agricultural purposes.

In many ways, these situations can be documented within Manchester Township with specific economic, physical, cultural, and market data. Other cause and effect relationships may not be as easy to document due to specific characteristics of the farming population or forces directly influencing the farmer's decision-making process.

This section of the Land Use Plan will attempt to analyze the factors, which affect agriculture within Manchester Township.

A. HISTORICAL PERSPECTIVE.

Early settlers coming into the Township brought with them a specific expertise in farming, including type of crops, livestock and farming practices. Grain crops and livestock, most common with early residents, still are the predominant agricultural commodities within this area. Respectable acreage yields continue to be obtained from productive farmland within the Township and are competitive with other areas of the county and State.

It is evident that generally agriculture in Washtenaw County has been subjected to numerous physical and economic changes since settlement began in the County. Over the past several decades, Washtenaw County has experienced considerable loss in both farm acreage and the total number of farms.

B. NON-AGRICULTURAL LAND USE IMPACT.

One (1) of the major impacts on agricultural lands within the Township has been non-agricultural land use infringement. This factor has accounted for significant amounts of land going out of production, which to a degree affect the continued stability of adjacent parcels. As discussed in other parts of this plan, successful agricultural enterprises need stability in order to continue, make economic and physical investments, and adequately plan for the future. Non-agricultural land use infringement has taken several forms. One of the first indicators of a non-agricultural infringement is a reduction of lot size. Lot splits tend to reduce the stability of an agricultural area, especially when the split results in a single-family dwelling being constructed which has no correlation with the farm operation.

Large agricultural properties that have been split into smaller segments affect taxation practices due to the lots acquiring developmental rather than agricultural potential. As well, the lot splits often result in the lots being too small to be utilized for viable agricultural operations.

Agricultural Land Use

The size of land parcels in areas suitable for agriculture can affect the long-term viability of these areas for farming purposes. Map 7 depicts existing parcels in the Township that are ten (10) acres or less in size. Many of these parcels contain a single-family dwelling. When parcels are split from large parent parcels, intended to be used for activities other than agricultural, they will diminish long-term prospects of continued agricultural production. This loss of productive agricultural lands has partially resulted from the numerous single-family dwellings constructed within agricultural areas, primarily along the rural roads of the Township.

MAP 7

C. REALITY OF AGRICULTURAL PRESERVATION.

The desire to preserve the remaining agricultural lands within the Township must be evaluated in light of certain obstacles that could have a bearing on the continuation of agriculture within the Township, some of which are beyond the Township's control. They include:

- 1. The quality of soils for agricultural production within the Township as they are compared to other regional areas.
- 2. Attitudes and characteristics of farmers; desire to remain in agriculture or sell off parcels of land.
- 3. The appeal of residential development in rural areas with notable natural resources that have good regional access to arterial roads such as US-12, M-52, and Austin Road.
- 4. Close proximity and quick access to urban land uses and new jobs created in the Ann Arbor, Clinton, and Saline areas.

4.02 TOWNSHIP ISSUES

A. FROM AGRICULTURE TO A SUBURBAN CULTURE.

The northern portion of Manchester Township, generally along Austin Road, continues to change from a primarily rural, agricultural community that existed through the 1960's and 1970's to a predominantly suburban one with numerous residential developments taking place. This area comprises a landscape of gently rolling vistas and did not possess the physical composition of soils for highly productive agricultural use. Due to these factors, this area has continued to develop with a residential character.

B. AGRICULTURAL STABILITY.

Historically, the Township had a significant representation in the livestock industry, primarily sheep. Over the years this agricultural industry diminished has been replaced by cash crops. The central, western, and southeastern portions of Manchester Township continue to remain characteristically agricultural. It is anticipated that a continuation of these agricultural activities will continue to take place within these areas of the Township. This is based upon the following findings:

- 1) The quality of soils within these areas continue to support stable and productive agricultural activities.
- 2) These agricultural areas have remained reasonably stable for agricultural activities; however scattered parcel splits have taken place.
- 3) Parcel sizes continue to remain large in these areas of the Township, which tend to indicate the continuation of long-term agricultural operations.

C. AGRICULTURAL CONCLUSIONS.

- 1. Agriculture has changed from a predominance of livestock to an orientation toward cash crops.
- 2. Soils that are adequate for agricultural production are found in the central, western and southeast, portions of the Township.
- 3. These lands continue to support a large number of existing agricultural activities.
- 4. Few non-agricultural land use infringements have taken place within these areas.
- 5. The parcel size has remained large within these areas of the Township.
- 6. Numerous non-agricultural land use infringements have taken place within the northern portion of the Township. This area has historically not been of prime agricultural classification due to the type of soils and the rolling nature of the landscape.
- 7. The level of assessed valuation for parcels throughout the Township will impact long-term agricultural production.
- 8. A continuation of agricultural crop production will remain viable in certain portions of the Township; however a change of the type of agriculture from cropland and/or livestock to more intensive agricultural activities may be seen. Intensive agriculture, such as truck gardening and nursery operations, can be achieved on smaller parcels, and could withstand, to a greater extent, varying economic conditions.

Through goals and policies contained within this Land Use Plan, preservation of designated productive agricultural lands within the Township, for long-term use, can be achieved. Since agriculture places few demands on Township services it is of economic benefit to the Township and should be encouraged. Non-rural development will continue to be directed to areas of the Township designated for non-agricultural use and away from areas of the Township designated for agricultural and rural use.

4.03 GOALS, OBJECTIVES, AND POLICIES

GOAL The preservation of agricultural and open space land use.

To accomplish this goal the following analysis and objectives are set forth:

A. AGRICULTURAL LAND USE.

It is the goal of this Land Use Plan to maintain existing agricultural activities in designated areas of the Township and to retain the agricultural use of prime agricultural soils in recognition of the importance of the sustenance and economic benefits provided by the agricultural industry to the residents of Manchester Township.

- 1. Productive agricultural lands should be preserved and protected from encroachment by high density residential and non-residential land uses.
- 2. All available programs directed at agricultural land preservation should be investigated and assessed to determine their applicability to Manchester Township's unique set of circumstances.

- 3. Preserve and enhance the rural and agricultural character of Manchester Township.
- 4. Establish a Transfer of Development Rights program that will provide a fiscally viable means for owners of agricultural property to preserve their property as agricultural land in perpetuity.
- 5. Promote the economic benefits of being able to sell a properties development rights either publicly or through private treaty agreements.
- 6. Because the transfer of development rights may not be economically attractive to fully developing land, the township may work to develop an appropriate means to offset the economic shortfall to encourage the preservation of agricultural land. This may include options such as granting "bonus" development rights when the TDR process is utilized.

B. RESIDENTIAL LAND USES IN AGRICULTURAL LANDS.

- 1. Efforts shall be made to direct non-agricultural use away from areas of the Township characterized as Agriculture.
- 2. Residential land uses, however, may be permitted on agricultural lands with the stipulation that, in order to preserve agricultural activities, residential lots are:
 - a. Taken from land unsuited for farming where available.
 - b. Clustered to allow continued agricultural use of the remainder of the acreage. Clustered housing shall:
 - 1) Establish a lot size in accordance with Washtenaw County Environmental Health Department standards while maintaining a minimum density of two (2) acres per dwelling unit for designated agricultural areas.
 - 2) Require that the housing sites be positioned to allow continued agricultural use of the remainder of the acreage. Density bonuses will be considered for residential development that preserve agricultural land through deed restrictions.
 - 3) Require that a buffer of existing or new natural features be created between housing sites and agricultural acreage so that residential use will not interfere with agricultural activities.
 - 4) Require that a buffer of existing or new natural features be created between housing sites and highways to preserve and enhance the visual character of rural areas.
 - 5) Permit only agricultural or open space use of the acreage outside of the residential cluster through zoning, deed restrictions, and conservancy standards.
 - 6) Provide density incentives for establishment of permanent deed restrictions on agricultural and open space acreage.

C. LAND OWNERSHIP.

- 1. Ownership of land by farmers or entities committed to long-term agricultural use of the land shall be encouraged.
- 2. Applications for P.A. 116 should be encouraged and approved.
- 3. The re-use of historically significant agricultural building for non-intensive commercial uses shall be supported
- 4. The establishment of agricultural/open space deed restrictions or easements to create permanent agricultural or open space reserves shall be encouraged.

D. UTILITIES.

- 1. Extension of, public sewer or water: service into designated agricultural, shall be limited.
- 2. Any extension of public facilities shall include a detailed impact study of required capital costs including police and fire protection.
- 2. Private wastewater treatment facilities may be considered in designated agricultural zones, but only through PUD procedures.

E. ROADS.

- 1. A system of slow-moving, low-traffic roads should be retained to permit movement of farm equipment between noncontiguous farm parcels.
- 2. Access to new development shall be from existing paved roads wherever feasible.

4.04 AGRICULTURAL PRESERVATION PLAN

A primary focus of this Master Plan document is the preservation of agriculture and the rural character of the Township. The importance of farming and open space is reflected in the Goals and Policies section of this Plan.

This section of the Plan is designed to identify the areas within the Township, which are essential to the conservation of the agricultural and rural character of Manchester Township. This analysis provides supporting documentation to the importance of agricultural lands.

The following characteristics should be used in determining which areas should be preserved as Agriculture on the Land Use Plan.

- **Prime Farmland**: Prime farmland contains soils identified by the Soil Conservation Service as composed of the best combination of physical and chemical characteristics for producing food, forage, fiber, and oilseed crops.
- Contiguous Farmland: In close proximity to other parcels of existing agricultural land that when viewed as a whole will provide significant acreage within the Township to maintain a viable agricultural base.
- **Major Farmsteads**: Existence of large contiguous properties, and historic large farmsteads depicted should be preserved.
- **Public Act 116 Agreements**: Properties identified through state and local records as enrolled in the farmland and open space program in 2000. Identified farmers (or land owners) who have

an interest in remaining in agricultural production or allowing their property to remain as open space.

- Centennial Farm Registration: Farms registered with the Michigan State Department of History as a Michigan Centennial Farm. These farms have historical importance to the community, and should be recognized as part of an agricultural conservation program.
- **Historically Significant**: Farm buildings and other structures of a historically significant nature should be recognized as part of an agricultural conservation program.

If typical development patterns continue in Manchester Township, there will be a gradual disintegration of agricultural farm tracts. This in turn will deface the rural character of the Township. To counter this trend, the Township emphasizes larger lots and promotes open space housing options that meet lot size requirements. The clustering of residential home sites in conjunction with agricultural preservation strategies will help maintain and preserve the Township's agricultural and rural character.

The formulation of specific land use strategies and actions should be enacted by the Township. These strategies are listed below:

- Control single-family subdivision or site condominiums in agricultural areas unless allowed under state mandated open space housing provisions.
- Support and maintain Public Act 116 Farmland Preservation applications if located within areas designated agricultural uses.
- Continue support of innovative zoning approaches such as Transfer of Development Rights and Purchase of Development Rights.
- Consider amending the Zoning Ordinance to allow the open space residential option within the Agricultural Zoning Districts and allowing a density bonus for approved Open Space residential plans.

TRANSFER OF DEVELOPMENT RIGHTS

The Transfer of Development Rights (TDR) is a planning tool that allows landowners to transfer the right to develop one parcel of land to a different parcel of land to prevent farmland and open space development. TDR programs establish "sending areas" where land is to be protected by agricultural conservation easements and "receiving areas" where land may be developed at a higher density than would otherwise be allowed by local zoning. Landowners in the sending area sell development rights to landowners in the receiving area, generally through the private market. When the development rights are sold on a parcel, a conservation easement is recorded and enforced by the local government. In some cases, the local government may establish a "TDR bank" to buy and sell development rights. State legislation allows a TDR as part of Planned Unit Development project.

Advantages

- The transfer protects wetlands, woodlands and other ecologically or agriculturally significant features of the land without curtailing development in a community;
- TDR's allow land to remain in the private sector while avoiding undesirable development;
- TDR's do not typically require the expenditure of public funds for acquisition, but have the same effect; and

Agricultural Land Use

• TDR's may result in a reduced property tax assessment of the "sender" land after transfer of the development credit.

SOURCE: Texas Parks and Wildlife

PURCHASE OF DEVELOPMENT RIGHTS (PDR)

A PDR program should not be confused with a Transfer of Development Rights program. A PDR is typically identified as a transaction between a landowner and public agency or charitable organization. Under a PDR program, a landowner voluntarily sells his or her rights to develop a parcel of land to a public agency, charitable organization interested in natural resource conservation. The landowner retains all other ownership rights attached to the land, and a conservation easement is placed on the land and recorded on the title. The buyer (often a local unit of government) essentially purchases the right to develop the land and retires that right permanently, thereby assuring that development will not occur on that particular property. The landowner is generally compensated for the value of the right to develop the land through the following formula.

| Appraised Value | | Appraised Value | | Appraised Value |
|-----------------|---------|------------------|----------|--------------------|
| for | >minus> | for Agriculture/ | >equals> | of |
| Development | | Conservation | | Development Rights |

Agricultural Land Use

When considering where PDR fits into a community's land conservation plan, Manchester Township should consider the cost involved in purchasing development rights on a significant amount of land. In areas with high growth pressure, the cost of a PDR program can be high as the difference between development value and conservation value increases. Used strategically, however, a PDR program can be an effective tool to help maximize a community's conservation efforts. Money for PDR programs can be raised through a variety of means, including bonding initiatives, private grants, and various taxation options. Many communities have found matching dollars from state and federal sources.

SOURCE: 1000 Friends of Minnesota

- PDR's protect farmland permanently, while keeping it in private ownership.
- Participation in PDR's programs is voluntary.
- PDR's can be implemented by state or local governments, or by private organizations.
- PDR's provides farmers with a financially competitive alternative to development, giving them cash to help address the economic challenges of farming in urban-influenced areas.
- PDR's programs can protect ecological as well as agricultural resources.
- PDR's limit the value of agricultural land, which helps to keep it affordable to farmers.
- PDR programs involve the non-farming public in farmland protection.

SOURCE: American Farmland Trust

4.05 IMPLEMENTATION STRATEGIES

- A. Adopt zoning that designates farming and farming-related activities as the primary land use for areas of the Township designated as Agricultural Lands.
- B. Identify the areas within the Township, which are essential to the conservation of the agricultural and rural character of Manchester Township.
- C. Further explore the technique of Transfer of Development Rights.
- D. Examine other Purchase of Development Rights Ordinance's adopted by townships in Washtenaw County and tailor one to the needs of Manchester Township.
- E. Encourage and approve applications for P.A. 116.
- F. Adopt a Capital Improvements Plan that allocates no funds for paving roads serving agricultural lands or allowing the extension of sewer or water lines into designated agricultural zones.

PART 5

RESIDENTIAL LAND USE

5.01 INTRODUCTION

The attractiveness of Manchester Township for single-family development is quite apparent based on the number of single-family dwellings found within the Township. Concentrations of single-family dwellings exist along major highways passing through the northern portion of the Township or in close proximity to these roads via collector streets from rural subdivisions. This scattering of residential dwellings has infringed into agricultural areas and in many cases contributed to the loss of agricultural land within the Township.

The current popularity of a rural lifestyle will continue to contribute to additional dwellings being constructed within the Township. The Township's physical amenities (woodlands, wetlands, rolling topography, agricultural character, etc.) will continue to attract additional residential development. Further, the Township's access to regional transportation networks and accessibility to near by urban centers makes the Township a highly attractive place to live.

Residential objectives, policies, and strategies are directed toward concentrating rural residential into certain areas of the Township. This would contribute to the preservation of remaining agricultural activities by reducing potential conflicts between agricultural and residential uses.

5.02 RESIDENTIAL GUIDELINES

The designated rural residential area is generally near the Village of Manchester. Portions of this area are currently developed as single-family residential generally at a density of one (1) acre per dwelling unit. The rural area is expected to be substantially developed by the year 2020. The following general guidelines apply to this area.

- A. Single-family detached dwelling are expected to be the predominant use. Agricultural activities will also be permitted in this area, either as principal uses of undeveloped land or on residential parcels.
- B. Rural housing would take place with a minimum lot area requirement of one (1) acre, typically subdivided and platted or developed through site condominium procedures.
- C. In order to emphasize the rural character of this area and to permit property owners to utilize the allotted residential density, clustering of dwelling units on small parcels will be encouraged. The remaining land in the total parcel would be held in common ownership; it could remain as open space or be used for agricultural purposes. Clustering of rural residences will be permitted in accordance with the following:
 - 1. Each residence should be a single-family detached dwelling unit.
 - 2. The minimum lot area may be half (1/2) acre or the minimum necessary to obtain County Health Department approval of a water supply well and drain field.
 - 3. Each lot for each dwelling unit should have at least one (1) lot line that abuts the commonly owned open space or agricultural land.

4. PUD zoning will be required.

Provision of public sanitary sewer services in this area would be incompatible with the low density of development and the intended character of the area. Therefore these services will not be extended into the designated rural area. Private wastewater treatment systems or common water supply wells may be permitted under certain PUD conditions.

Existing natural features in this area, such as, wetlands, woodlands, and stream corridors should be preserved. They are essential components of the rural environment and should not be modified or removed for the purpose of either residential construction or conversion of land to agricultural use. The low density of development and clustering of dwelling units will permit all natural features to be saved.

5.03 GOALS, OBJECTIVES, AND POLICIES.

GOAL – Single-family residential, located within desirable residential settings.

To accomplish this goal the following objectives and policies are set forth:

A. ENVIRONMENTAL CONSERVATION.

Natural features, including wetlands, groundwater recharge areas, woodlands, streams, hedgerows, slopes, and agricultural lands, shall be protected from adverse developmental impact, and shall be enhanced.

1. POLICIES.

a. Agricultural Land Use.

1) Residential development shall be directed away from the Township's agricultural lands.

b. Land Capacity.

- 1) Land capacity shall be considered when determining the appropriate density of development. The density shall be established at a level that will neither damage environmental features nor intrude upon agricultural lands.
- 2) The installation of private wastewater treatment systems may be considered in lakefront areas only in terms of environmental protection. They shall not be considered in order to increase density.

c. Natural Features Preservation.

- 1) Dwelling units shall be placed on portions of the site most suited to development in order to preserve natural features.
- 2) Measures that protect the environment during and after development shall be instituted and implemented.

B. NEIGHBORHOOD AND COMMUNITY IDENTITY.

Strong, cohesive neighborhoods that contributes to a positive community identity.

1. POLICIES.

a. Community Stability.

- 1) New residential development shall be compatible in density and character with existing residences and neighborhoods in the immediate area.
- 2) Stability of a community is dependent upon a variety of housing types of mixed density and use. Within residential areas near the Village a variety of housing, including senior housing, will be supported and promoted.

b. Neighborhood Design.

- 1) Residential development shall be organized around natural features or recreational amenities, and site and architectural design that will create neighborhoods of lasting value and stability shall be encouraged.
- 2) All residential development that consists of twenty (20) net acres or greater, shall be developed under a planned unit development, cluster residential development or similar zone, thereby providing its own open space and recreational facilities.

C. GROWTH MANAGEMENT.

Land uses best suited to the land and existing conditions, at a rate of growth that can be financially absorbed by the Township Government.

1. POLICIES.

- a. Density Calculations and Exclusions.
 - 1) The following shall be excluded from the total acreage used in calculating the density of dwelling units:
 - a) Existing rights-of-way and easements,
 - b) Rights-of-way and easements of proposed public and private roadways, and rights-of-way of local and collector streets;
 - c) Flood plains, swamps, and other wetlands, and stream corridors;
 and
 - d) Lands to be purchased for public use.

b. Development Character.

- 1) Encourage comprehensive pedestrian circulation systems,
- 2) Encourage organization of residential development around focal points such as open spaces or village greens; and
- 3) Encourage open space buffers from adjacent agricultural land uses.

5.04 IMPLEMENTATION STRATEGIES

A. See Natural Features Section of this GMP for environmental protection policies and implementation strategies.

B. Adopt zoning provisions that:

- 1. reflects the ability of the land to support residential development without damaging natural features.
- 2. encourage and/or require the use of planned unit development zoning and allow the option of cluster residential development where appropriate to the character of the area, to protect natural features and provide neighborhood recreational facilities; and
- 3. consider innovative housing designs and zoning techniques such as clustering, single-family attached, zero lot line, and semi-detached housing units, where appropriate to the character of the area, to protect natural features and provide neighborhood recreational facilities.
- 4. provide recreation activities for new residents by supporting the donation and creation of open space and park land within residential developments. Promote the purchase and transfer of development rights for future development of recreation land.

PART 6

COMMERCIAL LAND USE

6.01 INTRODUCTION

Commercial activities within Manchester Township originated within the present Village of Manchester within the northeastern portion of the Township. The Village was originally and continues to be the historical focal point for settlement and serves as the regional commercial center for Manchester Township and the surrounding area.

Future commercial uses will continue to be concentrated adjacent to Village of Manchester along designated areas having access to M-52 and Austin Road. The following concepts will be encouraged with any new commercial development within the Township:

6.02 COMMERCIAL GUIDELINES

- A. Commercial Development is expected and preferred within the Village of Manchester limits with availability of public water and sewer.
- B. Commercial uses should not compete with Downtown Manchester Village commercial uses and will be confined to limited designated areas; strip commercial development without controlled access points, extensive landscaping, without consolidated parking, and without controlled pedestrian access will not be permitted.
- C. Most commercial development will be in shopping center configurations. Vehicular and pedestrian interconnections will be required in new developments to permit travel between adjacent parcels, where such movement is considered appropriate. Driveways should be combined and existing extra driveways eliminated, where feasible, to reduce the number of turning locations on access streets.
- D. The largest part of any commercial development, whether individual lots or a shopping center, is the parking lot. While adequate parking is essential to the viability of a commercial business and convenience of its customers, large pavement areas have adverse impacts, such as heat and glare, high rates and volumes of surface water runoff, transmission of pollutants from the surface of the parking lot directly to surface waters, and general unsightliness. Parking areas should be reduced to the minimum necessary to serve commercial establishments. Excess spaces should be held in landscape reserves, to be constructed only if experience on the site shows they are needed. Parking spaces in parking lots of larger commercial centers that are intended to be used for employee parking, or overflow parking during the one (1) or two (2) peak business periods of the year, should be reduced in size to reduce pavement area and to increase landscape area. These reductions in the size and number of spaces should not be used as an opportunity for increasing building area on a site; the purpose of these reductions is strictly to reduce pavement area and to increase landscape area.

- E. Commercial sites should be landscaped. Parking lots especially should be landscaped, both along the perimeter and in the interior to reduce the adverse effects of paved areas. Loading areas and the rear parts of commercial sites should be screened from view from streets and neighboring residential properties.
- F. Designated commercial areas abut residential areas in certain situations in Manchester Township. In these situations the commercial areas should provide landscaped transition zones that will create visual and sound barriers for protection of the residential areas.
- G. Commercial developments should be accessible by sidewalk and pedestrian/bicycle paths. The interior of shopping centers and larger commercial sites should be attractive and convenient for pedestrian movement, both between the parking lots and stores, and between stores, sidewalks along abutting streets, and adjacent properties, where appropriate.
- H. Outside lighting of commercial developments should be designed to create a balance between efficiency and safety for commercial properties and customers on the one hand, and to reduce light pollution in the general neighborhood on the other.
- I. Commercial uses should be located only where sanitary sewer service can be provided by the Village of Manchester. The effluent from commercial operations should be discharged only into a public wastewater treatment system where proper treatment is certain; it should not be discharged into septic tanks and drain fields where no monitoring or control is possible. No commercial areas are designated to have on site septic facilities.

New commercial areas, beyond those discussed herein, should not take place within the Township. It is anticipated that existing major commercial centers in the Villages of Manchester, Clinton and Chelsea will provide the primary commercial services to Township residents. It is not likely that additional commercial development within the Township could challenge the market dominance of these commercial centers, nor is it sound regional planning policy to encourage duplication of services, which can result in vacant commercial space, as well as unnecessary expansion of expensive infrastructure. Any new commercial development, however, will be encouraged to locate in shopping centers. New commercial development on individual lots will be limited to existing lots of record that are located in designated commercial areas either as new development, fill-in, or redevelopment of existing sites.

Commercial uses can also be located in mixed-use areas - areas that have industrial and office uses, such as business parks. Commercial uses will be considered as secondary to designated permitted uses, both in terms of number of establishments and percentages of total floor area. Therefore mixed-use areas are considered to be more industrial/technology or office in character than commercial. Commercial uses may be allowed in such areas, especially business/technology parks, to serve employees, customers, and visitors.

6.03 GOAL, OBJECTIVES, AND POLICIES

Commercial land uses integrated with surrounding land uses to serve the needs of Township residents.

To accomplish this goal the following objectives and policies are set forth:

A. CONCEPT.

The intent of focusing more intensive development around the Village of Manchester is to permit commercial diversification, while meeting the needs of travelers along arterial roadways passing through the Township. Manchester Township's policy is to direct this type of growth to these defined areas where there has been precedent for commercial and employment zone land use to take place. The regional transportation networks will be the central focal point for these areas and serve as an attractor for additional development. Physical limits of potential development can be defined by the transportation system and physical buffers, present within and around these areas.

By planning a logical area in which to concentrate potential intensive, largely non-residential development, Manchester Township seeks to restrict unwanted non-residential development from other areas of the Township in order to preserve the established character of the Township.

Existing land uses would be allowed to remain and would be buffered from potential new developments using existing woodlands and other natural features.

B. LOCATION.

Commercial land uses located to maximize their benefit to the Township and to minimize potential adverse impacts on the Township and its environment.

1. POLICIES.

a. Natural Features.

- 1) Commercial land uses shall be permitted only where adverse impact to natural features will be avoided.
- 2) Existing natural features shall be integrated into the site design for commercial land uses.

b. Roads.

1) Commercial land uses shall be permitted only where the road system is adequate to serve anticipated traffic.

c. Utilities.

 Commercial land uses shall be located only where public water and sanitary sewer systems can be made available from the Village of Manchester.

C. EXISTING COMMERCIAL.

Existing commercial establishments located in areas not designated in this plan for commercial land use may be permitted to continue, but shall not be permitted to expand.

D. CHARACTER OF DEVELOPMENT.

Commercial land uses that reflect the character of and are integrated with adjoining residential areas.

1. POLICIES.

a. Scale and Character.

- 1) Commercial development shall be organized into compact, unified commercial centers that complement the scale and character of existing development or that promote the desired character for areas where new development is planned.
- 2) Piecemeal or scattered development shall be avoided and uncoordinated commercial strip development shall be prohibited. Where individual parcels of land are to be developed for commercial uses, coordination with adjacent properties, including common parking and driveways, shall be encouraged in order to reduce the number of access points to public roads.

b. Parking.

- 1) Parking areas for new commercial development shall meet normal expected parking requirements. Alternative arrangements to meet peak demands shall be encouraged.
- 2) Parking areas shall be located, designed, and landscaped to minimize the visual impact.

c. Other Environmental Characteristics.

1) Commercial centers shall be landscaped and, where necessary, should be screened by landscaping from adjacent residential areas to reduce heat and glare from pavement areas, to partially screen parking areas from view, to control noise, and to increase the attractiveness of such centers. It is the intent of Manchester Township that commercial centers not be wastelands of buildings and pavement. The overall design of each commercial center should be in keeping with the existing and planned future visual character of the surrounding areas.

6.04 IMPLEMENTATION STRATEGY

- 1. Commercial development will be according to planned unit development regulations as required within the Manchester Township Zoning Ordinance. Additional zoning districts may need to be incorporated into the Township's Zoning Ordinance to implement the planned use of this area.
- 2. Lands designated for commercial development will be dependent upon a coordinated interior road system with controlled access points onto M-52 and Austin Road. Future development will only be permitted where the road system is adequate to serve the anticipated traffic.
- 3. Development will only be permitted where adverse impact to natural features will be avoided. Natural features located within these areas will be preserved and integrated into the site design.
- 4. Extensive landscaping and preservation of natural features, found throughout these areas, shall be incorporated into development site plans. This type of buffering would also be used between land uses within these areas and surrounding agricultural or residential land uses.
 - Extensive landscaping would be required along M-52 and Austin Roads within these areas.
- 5. It is understood that the intent of development as outlined is not established to seek uncontrolled development of these areas. It is a response to the possibility that arterial roadways, adjacent to the Village of Manchester may attract future development due to its location as a focal point for highway access within Manchester Township and the region. If development is proposed within these areas, the strategies outlined within this Section should be incorporated as a way to ensure it is appropriately developed at the same time adequate public services are available.

PART 7

EMPLOYMENT CENTER LAND USE

7.01 INTRODUCTION

Locations of employment operations have historically developed according to the following guidelines within the Township:

- A. Within the Village of Manchester.
- B. Along major transportation corridors. The M-52 roadway runs through the Township providing access to adjoining communities and regions. This roadway has allowed suitable locations for this type of development. Future employment center development will continue to develop at major access points within the Township that have access to M-52 and Austin Road.

7.02 INDUSTRY/EMPLOYMENT ZONE

Industry/research/technology uses will be concentrated with access to these two (2) transportation arterials within the Township; however, the primary industrial area in terms of acreage and future expansion will be between Logan and Parr Roads, south of the Village of Manchester and west of M -52. Industrial operations in this area will range from single user sites to park type developments.

The following guidelines will be followed when industrial development is proposed within the Township:

- A. Industrial uses will be permitted only in the designated industrial area. Scattered and isolated industrial sites will not be permitted.
- B. Industrial uses will be required to locate in a sanitary sewer service area so that effluent can be monitored and controlled. Industrial effluent should not be discharged into septic tanks and drain fields.
- C. Industrial operations that use large amounts of water in processing will not be permitted. Therefore uses will be limited to research, and the light, high technology types of industrial operations that do not use large volumes of water in industrial processing.
- D. Park or campus type settings will be encouraged for new industrial areas, with infrastructure and landscaping provided for each development.
- E. Support activities such as commercial and office services will be encouraged in larger industrial/technological developments for convenience of employees, customers, and visitors. These services should be designed into the overall setting of the industrial areas; they should be incidental to the industrial character of the development.

- F. Industrial uses in the Township should not create dangerous, injurious, noxious, or otherwise objectionable conditions, either within the industrial areas or in neighboring areas.
- G. Where industrial areas abut residential property buffers should be provided to protect the residential areas. The buffers may consist of topography, trees, shrubs, and vegetated berms. Existing natural features should be utilized as part of the buffering system where possible.
- H. Commercial support services are encouraged in industrial parks provided these services are strictly incidental to the office character of the development and are intended for the convenience of employees and customers.

7.03 GOAL, OBJECTIVES, AND POLICIES

Employment zones that are integrated with surrounding land uses to serve the demonstrated needs of Township residents, and that neither create hazards for the Township's environment nor create adverse impacts on existing or proposed residential or agricultural uses.

To accomplish this goal the following objectives and policies are set forth:

A. TYPES OF EMPLOYMENT CENTER USES.

1. **OFFICE.**

- a. **Definition**: Business and professional offices, such as legal, engineering, financial, insurance, accounting, and stenographic services; executive and administrative offices; medical and dental offices and related laboratories; government offices; non-profit organization offices; and financial institutions but not including drive-up windows.
- b. **Policy:** Office development shall be permitted in areas designated for use as employment zones. Within employment zones, office development shall be encouraged as a buffer between adjacent residential and agricultural areas and other employment center uses. Such uses shall not create hazards for the Township's environment or adverse impacts on existing or proposed residential or agricultural uses.

2. HIGH TECHNOLOGY RESEARCH.

- a. **Definition:** Research activities that produce an insignificant amount of heat, noise, glare; offensive odors, and similar environmental disturbances and that do not present a pollution hazard for the Township's environment, including office and prototype manufacturing operations in support of and incidental to the research activity.
- b. **Policy**: High technology research facilities shall be permitted in areas designated for use as employment zones. Such uses shall not create hazards for the Township's environment or adverse impacts on existing or proposed residential or agricultural uses.

3. LIGHT INDUSTRIAL.

a. **Definition**: Light manufacturing and non-manufacturing industrial operations that:

- 1) Emit a minimum of noise, vibration, smoke, dust, dirt, gasses, offensive odors, glare, or radiation.
- 2) Do not involve storage or handling of explosive or highly flammable gasses or liquids.
- 3) Do not store materials, supplies, products, equipment, or refuse outdoors.
- b. **Policy:** The location of light industrial uses within the Township is permitted within the Employment Zone. Such uses shall not create hazards for the Township's environment or adverse impacts o existing or proposed residential or agricultural uses.

4. MIXED USE.

- a. **Definition:** A combination of compatible office, high technology research, light industrial, and/or commercial support service uses.
- b. **Policy:** The development of mixed-use employment centers may be permitted within employment centers planned to function as cohesive units under Community Manufacturing or Planned Unit Development zoning. Such uses shall not create hazards for the Township's environment or adverse impacts on existing or proposed residential or agricultural uses.

B. LOCATION.

The employment zone is located to maximize its benefit to the Township and to minimize potential adverse impacts on the Township and its environment.

1. POLICIES.

- a. <u>Natural Features.</u>
 - 1) The employment zone shall be permitted only where adverse impact to natural features will be avoided.
 - 2) Natural features located on employment zone sites shall be preserved and shall be integrated into the site design.

2. UTILITIES AND INFRASTRUCTURE.

- a. Employment zones shall be permitted only where the road system is adequate to serve the anticipated traffic.
- b. Employment zones shall be located only where public sanitary sewer can be made available by the Village of Manchester.
- c. It is the desire and intent of the Township to prevent urban or suburban sprawl. Employment zones shall not, therefore, be located in areas of the Township where the existing or planned infrastructure is insufficient to support such centers.

3. ADJACENT LAND USES.

a. Employment centers shall be located only in areas of the Township where adverse impacts on existing or proposed residential or agricultural areas will be avoided.

4. EXISTING INDUSTRIAL.

a. Existing industrial properties not located within designated employment zones may be permitted to continue, but shall not be permitted to become nuclei for future industrial or other development. In areas where significant residential growth has occurred, and where infrastructure may have been anticipated but has not occurred and is not likely to occur, the appropriateness of existing industrial properties should be periodically reevaluated.

C. CHARACTER OF DEVELOPMENT.

Employment centers in campus-type settings that are compatible with adjoining residential areas.

1. POLICIES.

a. <u>Site Design.</u>

1) Employment centers shall be located within planned centers in Campus-type settings that include large open spaces, extensive landscaping, and preserved natural features.

b. Buffers.

1) Landscaping and/or natural feature buffers shall be provided between employment centers and adjacent agricultural or residential land uses and streetscapes.

c. Circulation Patterns.

1) Pedestrian and bicycle systems shall be provided and shall be integrated with the circulation systems (vehicular, bicycle, and pedestrian) of adjacent properties.

d. Other Environmental Characteristics.

1) Negative impacts of employment zones, including noise, air pollution, glare from night-lights and the visual impact of large parking lots, shall be minimized.

7.04 IMPLEMENTATION STRATEGIES

- A. Designate areas for future development as an employment zone on the Land Use Map only where the roads are adequate to serve the development and where municipal sanitary sewer systems are available to the property.
- B. Zone for planned employment zones only when municipal sanitary sewer systems are available to property within areas designated for future development as employment zones, and only in response to a showing of a regional need.
- C. Amend the Zoning Ordinance and adopt a site review ordinance to achieve the character of development described above.
- D. Work with landowners and developers to communicate Township standards and expectations early in the development process.

PART 8

TRANSPORTATION

8.01 INTRODUCTION

An integral part of the Growth Management Plan is the Township's internal transportation network. The degree to which land uses interact effectively is dependent upon this concept. The primary objective is to develop a roadway network, which provides safe, convenient and efficient vehicular circulation. The implementation of a functional transportation network depends upon a close cooperation between private developers, Township, County and State officials, and a strict adherence to sound planning principles and standards. Realignments, improvements, and new roadways must be of adequate right-of-way. Right-of-way easements must be obtained as soon as possible before new development makes them too costly or impossible.

Of primary importance in this GMP are streets designated as collectors, which by definition have limited direct access and minimal curb cuts, and are necessary to:

- A. Give greater traffic safety by reducing "start and stop" traffic on roads which are designed to have unobstructed flow.
- B. Increase speed and efficiency of arterials.
- C. Discourage the use of residential streets by through traffic, thereby increasing pedestrian safety.

Austin Road comprises Manchester Township's principal east-west roadway. US-12, at the very southern border of the Township, also provides principal east-west transportation. The principal north-south road consists of M-52 at the eastern edge of the Township. Sharon Hollow Road, to a lesser degree provided north south transportation through the central portion of the Township. These roads will continue to be the principal roads continuing to gain increased importance. See Map 8, Road Classifications.

MAP 8

8.02 TRANSPORTATION GUIDELINES

- A. All new streets in the designated development area should be paved. Existing unpaved streets in the Township should be paved as development occurs in areas other than agriculture, to provide safe and convenient access to adjoining properties.
- B. Streets located in areas subject to the potential of sanitary sewer service from Manchester Village should be constructed to Township standards, and if public, based on Washtenaw County Road Commission requirements for urban streets, including curbs and gutters. Exceptions will be considered for paving of existing gravel roads for interim periods, in order to obtain pavement on these roads at the earliest possible time.
- C. Plans for new development should provide for extension of streets to connect with existing or future streets at common boundaries where such extension is determined to be necessary for continuity in the public street system or to provide vehicular access to interior lands. Interconnection of streets is intended to be a means of creating physical integration of all parts of the community.
- D. Gates will not be permitted on any residential streets in Manchester Township.
- E. Through traffic should be routed around rather than through neighborhoods and other use areas. Local and through traffic should be separated to the extent possible by the design of the street system. In existing residential areas with grid street patterns, the street system should be revised where possible to discourage arterial traffic from cutting through neighborhoods.
- F. Each new development should be required to provide its share of street improvements.
- G. The number of driveway openings on arterial streets should be minimized in order to reduce the need for additional lanes and to improve traffic safety. The number of driveway openings on collector streets might also be limited in certain areas where necessary to obtain the same objectives. However, in residential areas on certain sections of collector streets, frontage of residential lots is not considered incompatible with the traffic carrying function of those streets.
- H. The design and character of streets should be consistent with and subservient to the desired character of Manchester Township. The location of M-52 could create a barrier between different parts of the community on the east and west side of the roadway due to inability to have direct access to this roadway. The right-of-way and number of lanes and pavement width of other streets should not be so large or dominant as to create barriers between areas on opposite sides of these streets.

8.03 GOAL, OBJECTIVES, AND POLICIES

A safe, efficient transportation system that facilitates movement within the Township while minimizing adverse impacts of traffic, especially of regional traffic, flowing through the Township.

To accomplish this goal the following objectives and policies are set forth:

A. HIERARCHY OF ROADWAYS.

A hierarchy of roadways to provide convenient vehicular circulation, to minimize congestion, and to minimize traffic on gravel roads.

1. POLICIES.

- a. Roadways should be designed and constructed according to the following functional classification system:
 - 1) Primary Roadway.
 - a) **Definition:** Primary roadways carry the highest traffic volumes in the Township and serve both regional and local traffic. Primary roadways connect local roadways with the interstate system and major roadways in adjoining communities. Some primary roadways also serve as special corridors. (See Special Corridors below.)
 - b) Policies:
 - (1) The following design standards should be established for primary roadways:
 - (a) one hundred twenty (120) foot right-of-way (R.O.W.), with exceptions as noted below;
 - (b) two (2) paved lanes minimum; and
 - (c) use of multiple residence driveways, shared driveways and access roads, where feasible, to minimize access points to primary roadways.
 - (2) Primary roadways should be designated as follows:
 - (a) East/West:
 - (i) Austin Road.
 - (ii) US-12
 - (b) North/South:
 - (i) M-52 Road.

2) Collector Roadways.

 a) **Definition:** Collector roadways primarily serve local traffic and distribute traffic from local roadways to primary roadways. Some collector roadways also serve as special corridors. (See Special Corridors below.)

b) Policies:

- (1) The following design standards should be established for |collector roadways:
 - (a) sixty-six (66) to eighty-six (86) foot R.O.W.;
 - (b) two 2 paved lanes minimum; and
 - (c) Minimal access to individual lots.
- (2) The following streets should be designated as collector roadways in Manchester Township:
 - (a) Sharon Hollow Road.
 - (b) Herman Road.
 - (c) Schleweis Road.
 - (d) Boetger Road between Schleweis and Logan Roads.
 - (e) Bowens Road between M-52 and Schleweis.

3) Local Roadways.

a) **Definition:** The primary function of local roadways is to provide access to abutting properties. Local roadways are intended to primarily serve local traffic, rather than regional or through traffic. However, some local roadways also serve as and should be treated as special corridors. (See Special Corridors below.)

b) Policies:

- (1) The following standards should be established for local roadways:
 - (a) sixty-six (66) foot R.O.W.
 - (b) two (2) lanes paved in new urban developments.
 - (c) two (2) lanes gravel in rural areas; and
 - (d) two (2) lanes gravel in very low-density residential developments with private roads.

- (2) The remaining existing roadways would be classified as local within the Township.
- (3) A system of slow-moving, low-traffic roads should be retained to permit movement of farm equipment between noncontiguous farm parcels.

4) Special Corridors.

a) **Definition:** Special corridors are roadways that have a recognized scenic or historic character that should be protected, and other roadways, such as Township entrances, that require special treatment.

b) Policies:

- (1) The character of special corridors shall be protected during maintenance. Special corridors shall not be improved, unless necessary and any such improvements shall not alter the character of the special corridor.
- (2) The natural landscape shall be preserved along Natural Beauty Roads that may be designated by the Washtenaw County Road Commission (WCRC). Preservation of the natural landscape shall also be encouraged along roadways characterized by significant natural resources or vistas. These roadways shall be designated as scenic roads. Natural beauty and/or Scenic roads in Manchester Township include:
 - (a) Mahrle Road
 - (b) Wellwood Road
- (3) Landscaping should be encouraged and/or required inside and outside of the right-of-way to retain a scenic quality along Special Landscape Corridors. These roadways may be subject to increased development in the future and/or are considered entranceways into and through the Township where scattered development has taken place. Special Landscape Corridors in Manchester Township include:
 - (a) M-52
 - (b) Austin Road
 - (c) Sharon Hollow Road
- (4) Historic sites and structures should be protected from adverse impact from traffic and road improvements.

- (5) The character of the major entrances to the Township shall be protected and enhanced. Entrances of particular concern are:
 - (a) Austin Road.
 - (b) M-52 north and south of the Village of Manchester.
 - (c) Austin Road east and west of the Village of Manchester.

B. IMPROVEMENTS TO EXISTING ROAD SYSTEM.

Safe and convenient vehicular circulation with minimal negative impacts on existing land uses.

1. POLICIES.

- a. Improvement of intersection of Austin Road and M-52.
- b. Improvement of the intersection of Boetger, Logan, and Sooten Roads.
- c. Improvement of the intersection of M-52, Kirk, and Logan Roads.
- d. Consideration of alternative north/south routes around the Village of Manchester. This includes but is not limited to the extension of south M-52 connecting to M-52 north of the Village of Manchester. All alternative route options should be studied and considered and right-of-way preserved.

C. ROAD SYSTEMS FOR NEW DEVELOPMENT.

1. IMPACT ON EXISTING ROAD SYSTEM.

- a. Because of the limited availability of State and Federal funding for road improvements, the Township is unable to ensure that proposed new development will have adequate and convenient vehicular access. Budgetary limitations should be taken into consideration during the planning process, and new developments should be appropriately scaled to road conditions.
- b. New developments shall be required to provide legally permissible street improvements if necessary to ensure safe and convenient traffic flow.

2. ACCESS.

- a. The number of curb cuts to primary streets shall be minimized.
- b. Joint drives or frontage roads shall be required, where feasible, to reduce the number of curb cuts.
- c. Access patterns should be designed to encourage placement of buildings to face primary and collector streets.

3. RESIDENTIAL ROAD SYSTEM.

- a. Plans for new development should provide for extension of roadways into new development areas where such extension is determined by the Township to be necessary for the continuity of the public street system or to provide adequate vehicular access to interior lands.
- b. Residential areas should be interconnected by public streets. Residential developments that are intended to be isolated from the rest of the community by a system of private streets and absence of street connections with adjacent parcels should be discouraged.
- c. Residential areas should be interconnected with local commercial areas in planned developments unless such connection disrupts the pedestrian environment or encourages through traffic in the residential area.
- d. Access to new development shall be from existing paved roads wherever feasible.

4. THROUGH TRAFFIC.

- a. Through traffic should be routed around and not through agricultural land use areas. Through and local traffic should be separated by the design of the street system.
- b. Consider a M-52 bypass should be constructed around the Village of Manchester to the east.

5. PRIVATE ROADWAYS.

a. Private roadways should be constructed according to the Townships Multiple Residence Driveways and Residential Private Road Ordinance standards.

6. ROAD STANDARDS.

a. Public roadways in new urban and suburban developments shall meet appropriate Washtenaw County Road Commission standards and specifications.

7. FINANCING ROAD IMPROVEMENTS.

- a. Roads within new developments shall be funded through developer financing with subsequent dedication to the public.
- b. Road improvements needed to serve more than one (1) property shall be funded through developer financing or through special assessment districts for all adjacent properties that substantially benefit from the road improvements. Provisions shall be included in such special assessment districts to exclude single-family dwellings and to exclude farmlands that are retained in farming for a predetermined period of time after the improvements are made, or to minimize the costs to such single-family dwellings and farmlands to the extent allowed by law.

D. PEDESTRIAN/BICYCLE CIRCULATION.

Transportation

Bicycle and pedestrian circulation systems to connect adjacent residential areas, residential areas with local commercial areas, residential areas with recreation facilities, and employment centers with supporting commercial areas.

1. POLICIES.

- a. <u>Urban Developments.</u>
 - 1) Sidewalks should be required as an integral component of the circulation system in designated development areas. They should:
 - a) Be provided along all urban streets.
 - b) Be separated from streets by landscaping or other amenities to provide for safety and pedestrian comfort.
 - c) Be barrier-free; and
 - d) Be coordinated with a bicycle system where feasible.

Transportation

- b. Suburban and Rural Developments.
 - 1) A cohesive pedestrian and/or bicycle circulation system should be required within residential developments.
- c. Bicycle Paths.
 - 1) The development of a safe, comprehensive bicycle circulation system to link areas of the Township with each other and with bicycle systems in adjacent communities should be investigated. Bicycle trails should be constructed, where feasible, to connect parks and open space areas. See Recreational Land Use Section of this GMP.

8.04 IMPLEMENTATION STRATEGIES

- A. Coordinate with the Washtenaw County Road Commission to:
 - 1. minimize the number of curb cuts requiring access from primary roadways,
 - 2. support designation of and cooperate in protection of natural beauty roads; and
 - 3. develop bicycle paths or lanes along Township roadways.
- B. Adopt criteria for landscape treatment along Special Corridors.
- C. Require construction of public sidewalks or bicycle paths along public rights-of-way for all new development in urban areas, and, where applicable, along collector and primary roads.

PART 9

FUTURE LAND USE PLAN

9.01 INTRODUCTION

The Future Land Use Plan is designed to recognize existing development patterns, and acknowledge relevant demographic trends and natural resource capabilities while taking into consideration the Township's long-range goals and policies as outlined in the Goals and Policy Guidelines.

The Future Land Use Plan Map, depicted on Map 9, is not intended to serve as a zoning map, nor dictate the use of individual parcels. It is intended to be used as a guide to aid public and private sector in making land use decisions.

9.02 FUTURE LAND USE DESIGNATIONS

AGRICULTURAL LAND USE.

It is the goal of this Land Use Plan to maintain existing agricultural activities in designated areas of the Township and to retain the agricultural use of prime agricultural soils in recognition of the importance of the sustenance and economic benefits provided by the agricultural industry to the residents of Manchester Township.

Residential land uses, however, may be permitted on agricultural lands with the stipulation that, in order to preserve agricultural activities, residential lots are:

- A. Taken from land unsuited for farming where available.
- B. Clustered to allow continued agricultural use of the remainder of the acreage. Clustered housing shall:
 - 1. Establish a lot size in accordance with Washtenaw County Environmental Health Department standards while maintaining a minimum density of two (2) acres per dwelling unit for designated agricultural areas.
 - 2. Require that the housing sites be positioned to allow continued agricultural use of the remainder of the acreage.
 - 3. Require that a buffer of existing or new natural features be created between housing sites and agricultural acreage so that residential use will not interfere with agricultural activities.
 - 4. Require that a buffer of existing or new natural features be created between housing sites and highways to preserve and enhance the visual character of rural areas.
 - 5. Permit only agricultural or open space use of the acreage outside of the residential cluster through zoning, deed restrictions, and conservancy standards.
 - 6. Provide density incentives for establishment of permanent deed restrictions on agricultural and open space acreage.

RESIDENTIAL LAND USE

The designated rural residential area is generally near the Village of Manchester. Portions of this area are currently developed as single-family residential generally at a density of one (1) acre per dwelling unit. The rural area is expected to be substantially developed by the year 2020. The following general guidelines apply to this area.

- A. Single-family detached dwelling are expected to be the predominant use. Agricultural activities will also be permitted in this area, either as principal uses of undeveloped land or on residential parcels.
- B. Rural housing would take place with a minimum lot area requirement of one (1) acre, typically subdivided and platted or developed through site condominium procedures.
- C. In order to emphasize the rural character of this area and to permit property owners to utilize the allotted residential density, clustering of dwelling units on small parcels will be encouraged. The remaining land in the total parcel would be held in common ownership; it could remain as open space or be used for agricultural purposes. Clustering of rural residences will be permitted in accordance with the following:
 - 1. Each residence should be a single-family detached dwelling unit.
 - 2. The minimum lot area may be half (1/2) acre or the minimum necessary to obtain County Health Department approval of a water supply well and drain field.
 - 3. Each lot for each dwelling unit should have at least one (1) lot line that abuts the commonly owned open space or agricultural land.
 - 4. PUD zoning will be required.

Provision of public sanitary sewer services in this area would be incompatible with the low density of development and the intended character of the area. Therefore these services will not be extended into the designated rural area. Private wastewater treatment systems or common water supply wells may be permitted under certain PUD conditions.

Existing natural features in this area, such as, wetlands, woodlands, and stream corridors should be preserved. They are essential components of the rural environment and should not be modified or removed for the purpose of either residential construction or conversion of land to agricultural use. The low density of development and clustering of dwelling units will permit all natural features to be saved.

COMMERCIAL LAND USE

Commercial activities within Manchester Township originated within the present Village of Manchester within the northeastern portion of the Township. The Village was originally and continues to be the historical focal point for settlement and serves as the regional commercial center for Manchester Township and the surrounding area.

Future commercial uses will continue to be concentrated adjacent to Village of Manchester along designated areas having access to M-52 and Austin Road. New commercial areas, beyond those discussed herein, should not take place within the Township.

LIMITED INDUSTRIAL LAND USE

Existing industrial properties may be permitted to continue, but shall not be permitted to become nuclei for future industrial or other development. In areas where significant residential growth has occurred, and where infrastructure may have been anticipated but has not occurred and is not likely to occur, the appropriateness of existing industrial properties should be periodically reevaluated.

EMPLOYMENT ZONE LAND USE

Industry/research/technology uses will be concentrated with access to the two (2) major transportation arterials within the Township; however, the primary industrial area in terms of acreage and future expansion will be between Logan and Parr Roads, south of the Village of Manchester and west of M-52. Industrial operations in this area will range from single user sites to park type developments.

Office development shall be permitted in areas designated for use as employment zones. Within employment zones, office development shall be encouraged as a buffer between adjacent residential and agricultural areas and other employment center uses. Such uses shall not create hazards for the Township's environment or adverse impacts on existing or proposed residential or agricultural uses.

RECREATION LAND USE

Existing public recreational opportunities are primarily within the Village limits and on Manchester Public School property. The extensive areas of woodlands and open space afford several options for private property recreation, such as hunting, fishing, and hiking. The residents of Manchester Township are able to take advantage of a variety recreational resources at the regional, county, and local levels, as well as privately owned facilities.

MAP 9

PART 10

PLAN IMPLEMENTATION

10.01 INTRODUCTION

Policies in the Growth Management Plan are implemented, for the most part, by day-to-day decisions by the Township's administration, Planning Commission, and Board of Trustees. A government agency might undertake a major project called for in the plan, such as, construction of a road or acquisition of a tract of land for a public school, park or other facility, but these are infrequent events and are not the primary means of policy implementation. To be effective the plan must be used in daily decisions. Used in this manner, the Manchester Township Growth Management Plan will provide advance notice to prospective users of land and assurance of stability to property owners and residents. The Growth Management Plan can be a forum for modifying certain policies, with all affected parties involved, when conditions underlying the Growth Management Plan change or new opportunities arise. Thus, in terms of policy implementation, the plan is both a communication and a reference document. Its continuous daily use will help assure that it will be kept current and viable. Manchester Township has used its Growth Management Plan in this fashion in the past and will continue to do so in the future.

10.02 ZONING REGULATIONS

The principal means of implementing comprehensive plan policies is the Zoning Ordinance. Zoning will be used in any one or combination of the following.

- A. **Zoning Districts**: Land should be zoned in a manner that is consistent with uses and densities designated in the Growth Management Plan. In many cases, land that is designated in the Growth Management Plan for various densities of residential use or nonresidential uses in the future is currently zoned for agricultural use. Since most landowners in these situations do not want their land zoned for other uses until they are ready to sell it or develop it, rezoning to a use district that is consistent with the designation in the Growth Management Plan should await petition by property owners.
- B. **Density Transfer:** This concept involves moving (transferring) proposed development (density) from one part of a site to another part that is considered to be more suitable for development. The process results in a portion of the site remaining undeveloped and the developed part having a higher net density, although the overall density of the site will not be increased. Density transfer may be used to preserve natural features such as wetlands, woodlands, open space, or stream corridors, while permitting a reasonable use of the entire property. This method is applicable to larger parcels and should be used only in conjunction with a special zoning district, such as the PUD district. Density transfer should meet the following standards:
 - 1. All lands involved in the transfer are located in Manchester Township and the owner has fee simple title to the lands.
 - 2. All lands involved are contiguous.
 - 3. The total number of dwelling units allocated to the total land area by the Growth Management Plan will not be exceeded.

- 4. The transfer is made as part of a single PUD or similar special zoning district that includes all lands involved in the transfer at the same time.
- 5. The land that receives that transfer of density will, with the additional dwelling units, be compatible with the existing and planned use of the neighboring area.
- 6. The transfer will not affect the township's contractual obligations for sanitary sewer services.
- C. **Planned Unit Development (PUD District:** The Township's current Zoning Ordinance contains a Planned Unit Development (PUD) district. A PUD includes such terms as cluster zoning, planned development, community unit plan, planned residential development and other terminology denoting zoning requirements, which are designed to achieve the following objectives:
 - 1. Provide flexibility in regulation of land development.
 - 2. Provide for a compatible mix of land uses.
 - 3. Encourage innovation in land use planning and development, especially in housing.
 - 4. Encourage variety in the design and type of housing, and to improve the quality of residential environments.
 - 5. Create more stable communities by providing a variety and balance of housing types and living environments.
 - 6. Encourage provision of useful open space and protect and conserve natural features.
 - 7. Encourage innovations in residential, office, and commercial development.

Special zoning districts should also be used for one or more of the following purposes:

- 1. To create a compatible mixture of uses on a site, where a mixture is desirable and consistent with adopted policies.
- 2. To fit a proposed use into an existing developed area in a compatible manner.
- 3. To condition zoning on an understanding between the petitioner and Township on uses, densities and layout.

The principal characteristic of the PUD district is its area plan. An area plan is a form of a site plan that is sufficient to describe the essential features of a proposed development. The features include land use densities, a list of specific uses, and the esthetic characteristics that will be incorporated on the site. Future use of the property, once the special district is approved, must be in accordance with the approved district. Major changes to any of these features will require a zoning amendment, which will create a new version of the special district. A request for a district modification must be presented to the Planning Commission and approved by the Township Board.

D. **Overlay Zones:** Overlay zones can be used to regulate the use of a specific part of a parcel of land. The regulations of the overlay district are in addition to and supersede the regulations of the underlying basic district. Overlay districts could be used to protect wetlands,

woodlands, stream corridors, flood hazard areas, and ground water recharge areas. An overlay zone might not be clearly identifiable at the time the zone is adopted and shown on the official zoning map. The boundaries of such areas, especially wetlands and stream corridors, seldom follow property lines or other features commonly shown on maps. In addition the boundaries of such areas might be somewhat indeterminate until detailed surveys are made. Therefore overlay district regulations should be designed to recognize this fact and to provide a mechanism for the property owner and Township officials to agree on a reasonable delineation of such features at the time of development or use review.

E. **Site Plan Review:** Site plan review is a means of ensuring that proposed developments will meet certain established standards of the township, including applicable policies in the Growth Management Plan. The review process should be a mechanism whereby the property owner or developer and township officials coordinate a proposed development to the specific site while remaining harmonious to immediate neighborhoods and to the policies in the Growth Management Plan. All new developments will be processed through site plan review except single-family detached residences or two family attached residences on individual lots and new farm buildings. Completion of all site improvements shown on an approved site plan will be assured by appropriate financial guarantees.

10.03 REGULATION OF LAND DIVISION

Land may be divided into smaller parcels by one of three methods: by metes and bounds descriptions, by platting under the Land Division Act, and as a condominium under the Condominium Act.

In the first method, review at the Township level is made by the administration to ensure compliance with the Zoning Ordinance and other Township regulations. This is usually a simple process; major issues regarding Growth Management policies are usually not involved. However, overlay-zoning districts might add some complexity to this part of the review process. Nevertheless, Planning Commission or Township Board review is not a part of this method of land division.

Subdividing, or platting, is a more complex method of land division and is regulated by the Land Division Act and the Township's subdivision ordinance. This method of subdividing involves technical review by the Township Engineer and Planner, Planning Commission recommendations, and Township Board action on the various stages of the plat. This process is aimed primarily at zoning compliance, compliance with the Growth Management Plan, proper vehicular and pedestrian circulation, future street extensions, buildable lots, proper relationship with neighboring properties, and provision of all public facilities and utilities. The Township's review should be coordinated with those of County and State agencies. Subdivision review should be used as a means for the Township to assure that proper infrastructure planning and construction occur without public expense and that natural features are protected.

The site condominium is the third method of land division. In this method, land ownership is divided through the Condominium Act. Purchasers acquire fee simple rights to described physical spaces in which dwelling units may be constructed. (Site condominiums may also be used for non-residential developments.) The site condominium is a variation on the principals of land division involved in subdividing. However, the Condominium Act does not provide a specific review process, as does the Subdivision Control Act. Since the issues and interests are the same from the Township's point of view in either approach to land division, the Township's review process for site condominiums should be as similar as possible to that exercised in subdivision review. The site plan review process should be used to review proposed site condominium developments. Completion of all improvements shown on an approved site plan will be assured by appropriate financial guarantees.

10.04 INFRASTRUCTURE

Plan Implementation

- A. **Roads:** All public roads in Manchester Township except M-52 are under the jurisdiction of the Washtenaw County Road Commission. Costs of road construction and maintenance are the responsibility of the Road Commission or MDOT. New developments must provide internal roads at the developer's expense. The developer should also be required to pay a reasonable share of any improvements to existing roads, or future roads proposed in this Growth Management Plan, which may be required to adequately and safely serve a new development. An example of this policy would be paving of unpaved roads. The developer and the agency with jurisdiction should negotiate the reasonable shares, and all agreements should be in place before the Township grants final development approval.
- B. **Public Utilities:** If at such time in the future a public infrastructure is needed by Manchester Township, developers would be required to construct, at their expense, lines and appurtenances from the Manchester Village needed to serve their properties.
- C. Stormwater Drainage: On-site retention of stormwater is a requirement of all developments. Large-scale retention areas serving several properties will be encouraged, in place of retention areas on each property. Drainage courses, retention areas, and outlets should be constructed at the developer's expense, and should be maintained at the expense of the property served by the facilities. Long-term maintenance of all segments of a drainage system should be established in an acceptable manner before the Township gives final development approval. Open drainage facilities, such as drainage courses and retention areas, should be designed as landscape features, maintained in a manner appropriate for the character and setting of the features, and should remain accessible for use by the property owners.

PART 11

PLAN MONITORING PROGRAM

11.01 INTRODUCTION

The planning process, in order to be effective, must be continuous, and must be part of the day-to-day decisions that affect the physical character of the Township. Thus, the Growth Management Plan must be in a form that encourages its regular use in the planning process. The Growth Management Plan is, in effect, the continuously changing representation of the Township's policies for the future. If the Growth Management Plan is to perform its proper function in the continuous planning process, it must be updated on a regular basis. The Growth Management Plan will be evaluated yearly to ensure that policies are consistent with the objectives of the Growth Management Plan. A major review of the comprehensive plan should be made at intervals no longer than five (5) years to enable the Planning Commission and Township Board to see the implications of accumulated annual revisions and to apply new perspectives to adopted policies. Annual reviews might indicate the need for a major review in less than five (5) years.

11.02 BENEFITS OF A MONITORING PROGRAM

There are several benefits to the Township from a regular monitoring program.

- A. The Growth Management Plan will be kept up to date.
- B. The maintenance program broadens the area of community agreement on basic development policies over time. The process invites reconsideration of alternatives to major decisions and encourages exploration of new issues and secondary questions.
- C. Annual review of the Growth Management Plan will keep current the Planning Commission and Township Boards' knowledge of the plan's elements. Along with the use of the Growth Management Plans in day-to-day decision making, the annual review process will assure that the Growth Management Plan will be a living document, that its policies will not be frozen in time
- D. Annual review will avoid delays that might otherwise be caused by calls for more study on certain issues before the basic plan is adopted. An annual review program assures that issues that require further examination will be studied at proper levels of detail at later times, and the policy changes resulting from such studies will be made in the plan.

11.03 DESCRIPTION OF THE PROGRAM

The maintenance program will have two (2) objectives:

- 1. to determine the extent to which the Township is actually implementing the policies of the Growth Management Plan; and
- 2. to determine that the Growth Management Plans policies are still desirable and appropriate in light of changing circumstances.

Plan Monitoring Program

The basis of the maintenance program will consist of an annual review by the Planning Commission. Such review might result in a change to a portion of the plan reflecting either a policy area or a geographic area. The results of the review will be forwarded to the Township Board in a report.

The actual components of an annual review will be determined by the Planning Commission at the start of work. The following should be among the elements studied by the Commission; others might be added as events suggest.

- A. Development proposals approved or denied rezoning petitions, site plans, and subdivision plats.
- B. Land use regulations Zoning Ordinance and subdivision ordinance amendments made in the past year or expected to be needed in the future.
- C. Building permits issued, by land use categories; estimate of the number of dwelling units, by type, added to the housing stock; estimates of the current population of the planning area.
- D. State equalized evaluation by assessor's categories; track changes in agricultural and development classifications.
- E. Traffic counts; relation to road capacities.
- F. Programmed road improvements.
- G. Land divisions, other than in approved subdivision plats and condominium site plans.
- H. Major zoning and land use changes on the perimeter of the planning area in the past year and those that are likely to occur in the coming year.
- I. Policy changes by adjacent municipalities that affect Manchester Township, in the past year and that are likely to occur in the coming year.