



Comprehensive Plan

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Prepared for:

**Miami Township,
Clermont County, Ohio**

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1. Introduction

Project Purpose

The Miami Township Comprehensive Plan is designed to guide the Township's future growth, development, and enhancement by providing a clear statement of the community's preferred future characteristics. The Plan provides a foundation for the community's future decisions by helping the community understand its existing conditions and likely future events, recognize and establish its Vision, evaluate its opportunities for reaching that Vision, and develop the tools necessary to implement the recommendations resulting from that Vision.

Miami Township has evolved over the late 20th and early 21st centuries from a largely rural Township to a suburban community that includes a wide cross-section of residential, commercial and industrial developments. The Township has experienced significant population growth in recent decades, resulting in both new residents and parks and new pressures on the features that attracted many residents to the community. To protect and maintain the community's unique character in the face of these local and regional pressures, it is vital for the Township and its residents to:

- Accurately understand its physical conditions, current issues and probable future trends;
- Clearly articulate the characteristics of the community that residents want to live in into the future; and
- Evaluate and select the land use planning and land use management tools that will help the community achieve these goals to the greatest extent possible.

This Plan was designed to meet these needs.

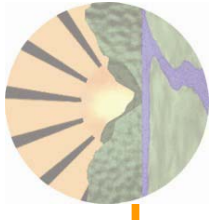
Planning Process

The Miami Township Comprehensive Plan was initiated by the Township Trustees in June 2004. The process began with the selection of a consultant team and the appointment by the Trustees of a Steering Committee to guide the Plan's development. The Steering Committee's membership consisted of citizens of the Township, many of whom also represented neighborhood or local community organizations, local businesses and local organizations. These participants were joined by Township and County elected officials and Township staff. The Steering Committee was responsible for reviewing the community's existing conditions and public feedback, formulating the Plan Vision, and participating in the development of Plan elements that fit the community's needs.



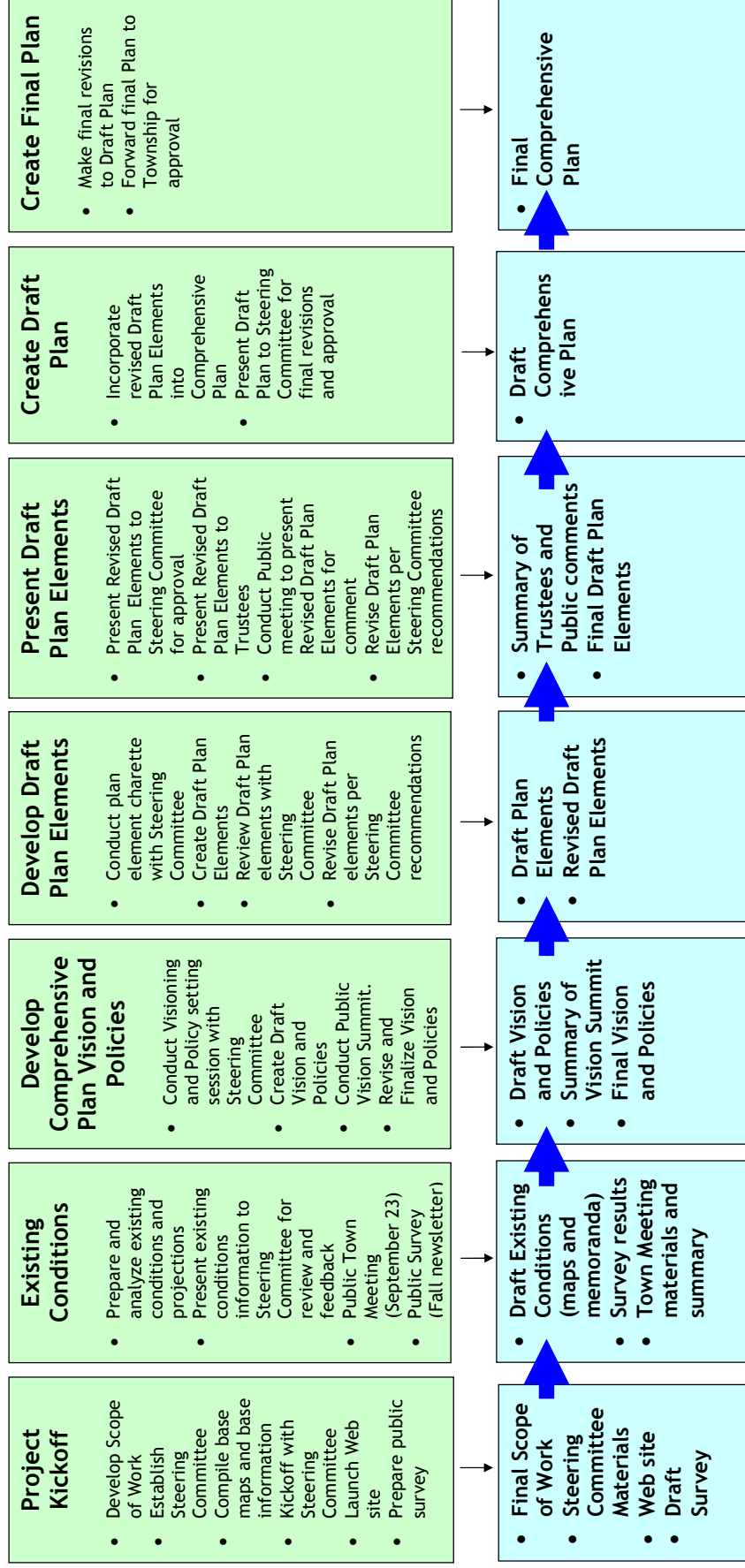
The work program for the Miami Township Comprehensive Plan (See Figure 1) involved several elements, including the following:

- Regular working meetings with the Steering Committee
- Participation in a series of preference and priority feedback activities
- Review of the results of the public survey and public feedback events held in September 2004 and January 2005
- The development of a Vision statement that provides a clear policy foundation for the Plan
- The development of a series of Goals to further refine the Vision statement into built environment characteristics;
- The review and revision of the Preferred Development Strategies and Preferred Land Use Plan, including map and text revisions;
- The review and development of additional policy strategies relating to potential development regulations, transportation improvements and other strategies
- The development of a system of prioritization for the existing Township Pathways plan;
- The development of an Implementation Strategy, and
- The creation of a draft and final Comprehensive Plan document



Planning Process

Figure 1





Public Participation and Feedback Activities

In addition to working with the Steering Committee throughout the process, the Miami Township Comprehensive Plan benefited from an extensive array of public feedback opportunities throughout the process. The Plan's major public participation initiatives are summarized below; additional information is available in the Supplemental Appendix to this Plan.

- At the beginning of the Plan process, the Township established a web site within the Township web site focusing on the Comprehensive Plan. The web site contained two primary sections: a public section accessible from links on other pages within the Township site that provided meeting information and finalized Plan elements, and an additional site that allowed Steering Committee participants to download materials for review in advance of meetings.
- On September 23, 2004, the Plan process commenced with a public open house at the Township Administration building. Attendees had the opportunity to review a series of existing conditions maps, learn about the major goals of the Plan and the expected process, and participate in a priority survey and a community Strengths, Weaknesses, Opportunities and Strengths (SWOT) analysis.
- In October 2004, a survey of issues and priorities were mailed to all residents in the Township through the Township's quarterly newsletter. This two-page survey asked residents to answer the following questions:
 - **What do you think is the most important issue facing the Township today?**
 - **Which of the following changes in Township policy would you support?**
 - **What is Miami Township's greatest strength?**
 - **Why do you live in Miami Township?**
 - **What else do you want to tell the Township?**

The first four questions above asked the respondent to select from a list of potential responses and/or write in their own. The last question was open-ended. The Township received nearly 300 returned surveys. The results of the survey were compiled and presented to the Steering Committee and Township officials and were published in the Township newsletter.

- During fall 2004, the Consultant staff completed key person interviews with eight Miami Township residents and stakeholders to gain more detailed insight into the Township's issues and potential needs. Interviewees were selected by Township officials and staff, and included neighborhood association leaders, participants in former planning initiatives, elected officials, leaders of community organizations, developers and business owners. The results of these interviews were summarized and provided to the Steering Committee.



- On January 11, 2005, the Township hosted a Vision Open House at the Lemming House. Attendees at the Vision Open House were invited to review the results of the October newsletter survey and participate in a wide variety of feedback activities. These included the following:
 - A Visual Preference Survey, which gave participants the opportunity to review photographs of a wide variety of types of land use and development design and specify their preferences on a numerical scale.
 - A Scenario Quiz, which gave participants the opportunity to review a series of realistic development review scenarios, such as the Township Trustees or Zoning Commission might encounter, and then specify how they would respond if they were serving in one of those positions.
 - An activity entitled “Which Do You Prefer?” This station gave participants the opportunity to select from an assortment of photographs and paste on a board the ones that represented types of land use and design that they wished to see in the community;
 - A cognitive mapping board, which provided a base map with landmarks and invited participants to mark their ideas on the map.

During their January meeting, the Steering Committee also participated in the same activities. The results of all of these feedback items were summarized and compared, and the results provided to the Steering Committee and officials and posted to the Plan web site.

The information gathered from these initiatives played a pivotal role in developing the Plan’s Vision and Goals and evaluating plan options.



2. Existing Conditions

This section provides a brief introduction to general conditions and common characteristics existing in Miami Township at the time of this Plan's initiation. Existing Conditions analyses identifies physical characteristics, such as existing zoning and natural features such as steep slopes, that impact existing land use patterns and may be expected to impact future land use trends. This information was reviewed by the Steering Committee and used to guide the development of the Vision Statement and Goals and to evaluate land use planning recommendations.

Regional Location

Miami Township is located along the western border of Clermont County, adjacent to the East Fork Little Miami River. The Township is bordered by two municipalities, Milford and Loveland, and by Goshen and Stonelick townships in Clermont County. Union Township in Clermont County is located to the south of Miami Township across the Little Miami River; while nearby Hamilton County communities include the Village of Terrace Park, the City of the Village of Indian Hill and Symmes Township. Miami Township includes several commonly-recognized unincorporated communities, including the historic river communities of Miamiville and Branch Hill along its northern Border, the former summer retreat community of Epworth Heights, and the predominately residential communities of Mulberry, Day Heights, Mt. Repose and Perintown that developed along the roads that later became state routes 28 and 131 and U.S. 50.

Miami Township is served by three exits from Interstate 275: Wards Corners Road, State Route 28 and U.S 50. In addition, Loveland Madeira Road provides highway access for a substantial number of Miami Township residents. Primary east – west routes through the Township consist of State routes 28 and 131 and U.S. 50, which follows the Little Miami River along the Township's south border. Additional County or Township roads that accommodate east-west movement, particularly in the northern portion of the Township, include Loveland-Miamiville and Wards Corners roads. Primary north-south routes consist primarily of county roads, including Branch Hill-Guinea, Buckwheat and Wolfpen-Pleasant Hill roads.



Existing Land Use (Figure 2)

Existing Land Use, as the term is used in planning, refers to the primary activities that are pursued on a given parcel of land. It is essential to note that existing land use is a categorization of current uses. Land use categories do not indicate either existing zoning or any planned future land use. Current zoning for any given property may be entirely different from the existing land use; zoning only comes into effect when a property changes its land use through redevelopment or adaptive reuse. Similarly, land uses that may be planned for the future do not necessarily reflect the existing land use.

The following land uses are currently designated within Miami Township:

Single Family	Public Utility
Multi-Family	Non-Profit
Condominium	Churches
Mobile Home Park	Agriculture
Industrial	Golf Course
Retail / Commercial	Parks & Open Space
Office	Transportation/Roads
Schools	Township Land
Hotel	County Owned Land
Nursing Homes	Cemetery
Lodges	Vacant

Existing land use classifications are based on site surveys, aerial photography and rezoning records.

Table 1 shows the distribution of existing land uses within Miami Township. The largest existing land use category in the Township (approximately 49% of the total land) is Single Family Residential. Vacant Land and Agriculture are the second and third largest land uses respectively (16.8% and 10.6%).



Table 1

Existing Land Use Distribution					
Land Use Category		Percentage	Land Use Category		Percentage
Vacant		16.8%	Single Family		49.1%
Agriculture		10.6%	Condominium		0.6%
Industrial		1.4%	Open Space		1.5%
Multi-Family Apts		1.3%	Transportation/Roads		2.2%
Nursing Homes		0.1%	County Owned Land		0.5%
Mobile Home Park		0.8%	Township Land		1.3%
Retail/Commercial		3.0%	Schools		1.5%
Office		1.2%	Non-Profit		4.4%
Golf course		1.6%	Churches		0.7%
Lodges		0.1%	Cemetary		0.3%
Public Utility		0.1%	None		1.0%



Figure 2: Existing Land Use



Existing Zoning (Figure 3)

Zoning is the primary mechanism used by Townships to regulate the permissible types of land uses and the manner in which those land uses are distributed throughout the community. While zoning is a reactive tool (districts are typically put in place upon the request of an applicant), it can be proactively used to implement the policies of a land use or growth management plan. It is important for the community to enforce an up-to-date set of zoning regulations that permit the community to implement plans and studies that guide their future. Communities with outdated regulations often find that they are put in difficult position of denying a project that they desire, or accepting a project that they do not necessarily want.

The current Miami Township Zoning Resolution was last amended on April 15, 2005. The Zoning Resolution establishes minimum standards for application throughout the Township by means of Districts or Zones. The districts currently being applied in Miami Township are as follows:

- | | |
|--------------------------------|--|
| "A" Agriculture | "PUD" Planned Unit Development |
| "B-1" Neighborhood Business | "R-1" Single Family Residence |
| "B-2" General Business | "R-2" Single Family Residence |
| "H" Resort | "R-3" Multi Family Residence |
| "I" Planned Industrial | "R-4" Planned Multi Family |
| "MU" Mixed Use Institutional | "R-PUD" Residential Planned Unit Development |
| "O-1" Professional Office | "T" Mobile Home Park |
| "PBD" Planned Business Overlay | |

Table 2 below shows the distribution of existing land uses within Miami Township. The largest existing zoning classification in the Township (approximately 58% of the total area) consists of the two Single Family Residential districts. Agriculture and Planned Industrial districts represent the next largest zoning districts, with nine to 10 percent of total land respectively. Chart 1 presents the same information graphically.



Table 2

Existing Zoning Distribution		
Designation	Zoning Type	Percentage
A	Agriculture	9.9%
B-1	Neighborhood Business	1.1%
B-2	General Business	3.1%
H	Resort	3.2%
I	Planned Industrial	9.3%
MU	Mixed Use Institutional	1.4%
O-1	Professional Office	0.1%
PBD	Planned Business Overlay	0.2%
PUD	Planned Unit Development	2.3%
R-1	Single Family Residence	33.3%
R-2	Single Family Residence	24.9%
R-3	Multi Family Residence	6.4%
R-4	Planned Multi Family	0.1%
R-PUD	Residential Planned Unit Development	3.9%
T	Mobile Home Park	0.8%
Total		100.0%

Chart 1

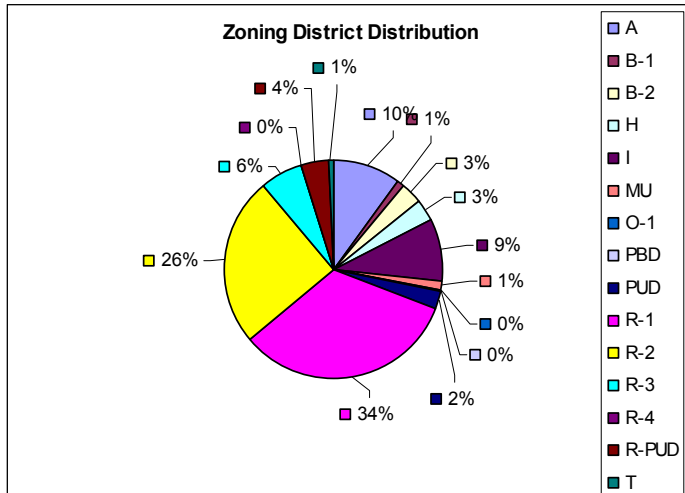




Figure 3: Existing Zoning



Slope Analysis (Figure 4)

Slope analysis is a method for analyzing and depicting the relative slope of the terrain in a specific location by calculating the amount of horizontal distance covered between changes in elevation. Extreme changes in elevation affect various aspects related to development, including the types of construction possible and factors that will impact the construction of infrastructure, particularly water, sewer, and road systems.

Figure 4 illustrates the relative slope of the Township’s land. Darker colors indicated steeper slopes, while the lightest colors indicate relatively flat terrain. The percentages indicated refer strictly to the degree of angle and do not indicate whether the topography is rising or falling in a specific location.

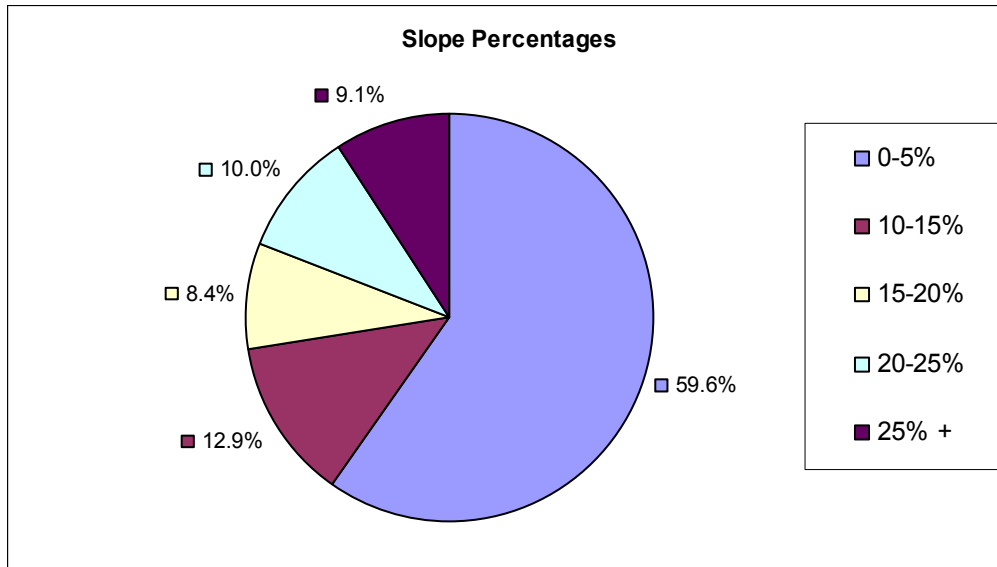
Table 3 summarizes the percentage of land within Miami Township that falls within various slope categories. The majority of the Township (approximately 60%) has 0–5 % slope. The second and third largest categories are 10-15% and 20-25% slope (12.92% and 10.02%) respectively. Approximately 9% of the Township land surface has 25% or greater slopes. Chart 2 presents the same information graphically.

Table 3

Slope Category Distribution	
Slope	Percentage
0-5%	59.6%
10-15%	12.9%
15-20%	8.4%
20-25%	10.0%
25% +	9.1%
Total	100.0%



Chart 2





Insert Slope Analysis, Figure 4



Existing Water Lines (Figure 5)

Public water infrastructure is in place in the majority of the Township, although not every existing property may be tied into the system at this time. Areas that do not have existing water lines are generally those that have steeper slopes, which make water line construction more challenging. Lines indicated are main lines and do not generally include lateral lines that serve specific properties.

Existing Sanitary Sewer Lines (Figure 6)

Sanitary sewer infrastructure is in place in the majority of the Township. Areas that do not have existing sewer lines are generally those that have steeper slopes, which make sewer line construction more challenging, or are in areas where existing wastewater treatment systems do not have adequate capacity to address more distant areas. Current initiatives to upgrade several wastewater treatment facilities in the area, including the facility at Miamiville, will make it likely that sanitary sewer capacity will be available to the entire Township within the time frame of this Plan. Lines indicated are main lines and do not generally include lateral lines that serve specific properties.



Insert Water lines, Figure 5



Insert Sewer lines, Figure 6



Existing Hydrology (Figure 7)

Figure 7 indicates areas that may be subject to flooding pressures, as well as the watersheds that intersect the Township.

Figure 7 identifies Floodway and 100-Year Flood Plain areas, as established by the Federal Emergency Management Agency (FEMA). A floodway is the area directly surrounding a river, lake or ocean that is likely to flood during heavy precipitation events. A flood plain is the area adjacent to an open waterway that is subject to flooding when there is a significant rain. Statistically, a 100-Year Flood Plain has a 1% chance of flooding in any given year. Actual experience over time, however, seldom exactly reflects this expectation, and development upstream from a given site may raise its likelihood of flooding by changing water flow patterns. Flood Plain designations, however, do provide the official basis for FEMA's determination of a property owners' eligibility for flood insurance. The largest area of FEMA-defined Floodway and 100-Year Flood Plain in Miami Township is located along the Little Miami River.

Figure 7 also identifies Miami Township's watersheds. A watershed is defined by the Environmental Protection Agency (EPA) as the area that drains to a common waterway, such as a stream, lake, estuary, or wetland. Miami Township has nine watersheds, all of which drain to tributaries of the Little Miami River.



Insert Hydrology, Figure 7



Hydric Soils & Wetlands (Figure 8)

Figure 8 identifies locations where existing soil conditions will play a significant role in determining the feasibility and characteristics of future development. Wetlands are defined as areas that are inundated or saturated by surface or ground water at a frequency and duration that supports specific types of vegetation and is adapted for various types of wildlife. Wetlands exist in scattered areas in Miami Township, primarily near existing open water.

Hydric soil is a category name for a wide variety of soils types that drain poorly and may be prone to flooding and/or ponding. Although hydric soils can generally tolerate some level of construction, they often require additional site and/or building engineering to ensure stability. In Miami Township, hydric soils are concentrated largely to the east of Wolfpen-Pleasant Hill and Branch Hill – Guinea roads, including the vicinity of several existing subdivisions.



Figure 8: Hydric soils



Demographic Characteristics

The following maps illustrate selected demographic trends that are likely to impact Miami Township's future development. Data represented by the maps was derived from US Census Bureau Year 2000 Census Block Data, which is the most reliable and detailed, source available at this time for the analysis of population distributions and characteristics. Although some slight changes in Miami Township's population are likely to have occurred since 2000, the data represented here is likely to closely reflect current and foreseeable future characteristics.

Figure 9: Population per Acre

Within Miami Township, the majority of the population is concentrated in the center of the Township. The highest densities occur in the Oasis/Miami Trails, Wood Creek/Paxton, and Day Heights areas. Lower density areas include the Sugar Camp/Dry Run and the East Miami vicinity.

Figure 10: Population Median Age

The Oasis/Miami Trails and Wood Creek/Paxton areas have the youngest median age and the Sugar Camp/Dry Run, Route 50, and Lower Price Road areas have the highest median ages.

Figure 11: Population Age 50 and Over

A more detailed look at population age distributions indicates a higher percentage of residents 50 years of age and older within the southern portions of the Township. The Route 50, Sugar Camp/Dry Run and Day Heights vicinities have the highest percentages of residents 50 and older. The Oasis/Miami Trails, Wood Creek/Paxton area and the riverfront communities have the lowest percentage of residents 50 years of age and older.

Figure 12: Population Age 21 and Under

The youngest residents of the Township are most commonly found in its northern areas. The Oasis/Miami Trails and Wood Creek/Paxton areas have the highest concentration of residents under the ages 21 and under. The lowest percentages of residents ages 21 and under are in the Route 50, Lower Price Road, Sugar Camp/Dry Run and Day Heights vicinities.



Figure 9



Figure 10



Figure 11



Figure 12



3. Plan Analysis

Population Projections and Capacity Analysis

Introduction

In a comprehensive land use plan, it is important to determine the future pressure that growth may exert on a community. Growth pressure will affect numerous aspects of Miami Township, including infrastructure, educational systems, economic systems, recreational facilities, and government. To develop a sense of this likely pressure, a capacity analysis is prepared. A capacity analysis is a future scenario, or a model of a possible future development pattern, that projects the future development of the Township if population growth trends and existing zoning remain the same for the next 20 years. The capacity analysis compares the projected population to the current zoning regulations, and identifies the amount and type of development that the Township could anticipate accommodating 20 years into the future.

A population projection provides one of the basic elements of the capacity analysis. A population projection is an estimate of the future increase in population of a community. This figure is forecasted into the future, most often shown in five or ten year intervals. A population projection is created by examining a community's past and current population, recent population growth and the potential impacts of various aspects of the community's growth patterns and trends on this growth rate.

Readers should note that a population projection is not a guarantee of a future population number, and a capacity analysis is not a predictor of a specific pattern of development. Both analyses are conducted in order to identify the range of likely outcomes if population trends do not change and if zoning, subdivision and other land use regulations do not change. Neither analysis should be read as a definitive statement of the future, but they may be understood as representing a possible outcome if current growth trends and regulations continue.



Population Projection

Population projections indicate the potential future needs of a community. These needs may include land development, infrastructure, economic systems, school capacity, recreational resources, governmental services, etc. The purpose of population projections for land use planning is to provide an understanding of the general trend of population growth that may be expected over the planning period, rather than to specify the exact number of residents the Township will have in the future. Projecting population is not an exact science. Population projections are almost never identical to actual population growth, since the analyst cannot foresee all of the factors that will influence population growth in the future. However, population projections give the Township the opportunity to plan for this growth by having the proper tools to meet the needs of the future population.

The data used for the Miami Township population projection is derived from the following sources:

- The Ohio State University Extension Data Center (OSU – EDC)
- The U. S. Census Bureau (Census)
- The Ohio Department of Development (ODOD)

Tables 4 to 8 present the projected populations of both Miami Township and Clermont County as a whole. Each table includes the following data (from left to right):

- The year of the data source or projection
- The known population in previous years and the projected population in years after 2004
- The percent change of population from one projection year to the next
- The annual growth rate, which is the percent change between projection years divided by the number of years from one projection to the next

Township Population Trends

Table 4 contains the Miami Township population as recorded by the U.S. Census for the years 1960 to 2000. From 1960 through 1970, the Township experienced a growth rate of 5.4% annually. The average annual growth rate for the Township's population from 1960 through 2000 is **3.4%**. Due to the gradual decrease in annual growth rate, it is important to look at the most recent decade



for which we have data between 1990 and 2000 for population projections. The population growth trend has slowed somewhat between 1990 and 2000 to an annual growth rate of **3.0%**. Some of this deceleration in growth can be attributed to areas of Miami Township that have been annexed by surrounding communities, where public water and sewer were readily available, as well as to a decreasing number of parcels available for new development.

Year	Population	Percent Change	Annual Growth Rate
1960	11,492	-	-
1970	17,683	53.9%	5.4%
1980	23,382	32.2%	3.2%
1990*	28,199	20.6%	2.1%
2000*	36,632	29.9%	3.0%
Average Annual Growth Rate			3.4%
<i>* Actual Census Population</i>			
<i>Source: The Ohio State University Extension Data Center</i>			

Clermont County Population Trends

Since Miami Township lies in Clermont County, and since the Township constitutes a significant portion of Clermont County’s historic population growth, an examination of the Township’s population growth trends should include the County’s trends as well. Table 5 presents the Clermont County population count for the censuses of 1960 through 2000. The highest growth rate for the County is from 1970 through 1980, at 3.4% annually. The trend for the County, as well as the Township, has also slowed in the recent decade from the 3.4% to 1.9%. The average annual growth rate for the County’s population from 1960 through 2000 is **2.2%**. This is comparable to Miami Township because it contains the second highest population and people per square acre in the County, second to Union Township.



Year	Population	Percent Change	Annual Growth Rate
1960	80,530	-	-
1970	95,725	18.9%	1.9%
1980	128,483	34.2%	3.4%
1990*	150,187	16.9%	1.7%
2000*	177,977	18.5%	1.9%
Average Annual Growth Rate			2.2%
* <i>Actual Census Population</i>			
<i>Source: The Ohio State University Extension Data Center</i>			

Clermont County Population Projections

When formulating population projections, it is important to compare the local rates to a broader geographic area to provide a frame of reference in which to evaluate the local growth rates. In Miami Township, Clermont County provides the most relevant local comparison. Although Clermont County is relatively rural, Miami Township contributes to a large portion of the County’s growth.

Two sources have provided population projections for Clermont County: The Ohio State University Extension Data Center and The Ohio Department of Development. Both population projections indicate an annual growth rate of **1.1%**. By comparison the County’s most recent annual growth rate between 1990 and 2000 is **1.9%** (See Tables 6, 7 and 8).



Table 6: Clermont County Projection 2000 - 2030			
Year	Projection	Percent Change	Annual Growth Rate
2000*	177,977	-	
2005	190,231	6.9%	1.4%
2010	202,829	6.6%	1.3%
2015	213,806	5.4%	1.1%
2020	225,342	5.4%	1.1%
2025	234,830	4.2%	0.8%
2030	245,003	4.3%	0.9%
Average Annual Growth Rate			1.1%
<i>* Actual 2000 Census Population</i>			
<i>Source: The Ohio State University Extension Data Center</i>			

Table 7: Clermont County Projection 2000 - 2030			
Year	Projection	Percent Change	Annual Growth Rate
2000*	177,977	-	
2010	202,830	14.0%	1.4%
2020	225,340	11.1%	1.1%
2030	245,000	8.7%	0.9%
Average Annual Growth Rate			1.1%
<i>* Actual 2000 Census Population</i>			
<i>Source: The Ohio Department of Development</i>			



Year	Projection	Percent Change	Annual Growth Rate
1990*	150,187	-	-
2000*	177,977	18.5%	1.9%
<i>* Actual Census Population</i>			
<i>Source: The U. S. Census</i>			

Township Population Projections

The average annual growth rate for Miami Township’s future population projection used by EK is **2.1%**. This percentage was determined by taking the average of all annual growth rates shown in Figures 4 to 8 and adjusting to reflect the likelihood of a slowing growth rate over the next twenty years of Miami Township, comparable to the growth rate between 1990 and 2000. The projected population shown in Figure 6 was calculated by multiplying the 2000 Census population (36,632) by 2.1% each year. The projected population is shown in Figure 6 below in five year intervals to demonstrate more progression than a ten-year interval projection would.

Since population growth cannot be predicted this accurately, the Township should assume that its 2025 population is likely to be between 55,430 and 67,748 (a range of variation of 10% from the 61,589 projection above).

As calculated using the number of new residential construction permits from 2000 though August 31, 2004 (1,395)¹ and the U. S. Census average household size (2.83), Miami Township’s existing population is estimated at 40,580 and is projected to reach between 55,430 and 67,748 in the year 2025. The difference between the estimated current population and the projected 2025 population is 14,850 to 27,168 persons.

¹ Clermont County Permit Central.



Capacity Analysis

A capacity analysis is conducted in conjunction with a population projection when it is necessary for a community to determine the future development pressure that is likely to exist due to increased population. The purpose of the capacity analysis is to provide an understanding of the potential amount of available vacant land that may be consumed by new development over the course of the planning period, and to provide advance warning of any potential implications that may result from expected growth. This future pressure is predicted by comparing the projected population to the amount of developable land available.

For the purposes of this capacity analysis, a few basic assumptions are necessary. First, the capacity analysis assumes that the existing zoning pattern will remain in place. This assumption is necessary to provide a basis for determining the amount of population that specific areas will absorb. Second, this capacity analysis assumes that all of the undeveloped land in the Township will be potentially available for development, except for that land necessary for roadways, floodplain, wetlands, and slopes 20% and greater.

A capacity analysis is also not an exact science. Growth almost never occurs exactly as the planner anticipated for a variety of reasons, and as a result a capacity analysis should not be interpreted as an absolute prediction of future growth.

Developable Land

The estimates of land capacity presented in this memorandum are based on data provided by Miami Township and Clermont County. The data was analyzed using a Geographic Information System (GIS) application to determine the net amount of vacant or undeveloped land available for future development after removing the environmental constraints: wetlands, floodways and floodplains, and slopes 20% and greater. The process begins with a calculation of the total number of acres within Miami Township (approximately 21,000). Then the total acres of existing developed land, wetlands, floodplain, and slopes 20% and greater is subtracted. From this subtotal, 15% is subtracted to allow for existing road right-of-way. The end result is the amount of potential developable land, which equals approximately 2,250 acres.



Capacity Analysis

Figure 7 presents the following data:

- Existing Zoning Designation and Zoning Type,
- Number of Developable Acres within all parcels that have this Zoning Designation.
- Number of Developable Acres minus 15% for Right of Way (ROW),
- Average Parcel Size in Acres ,
- Existing Minimum Lot Area specified in the Zoning Code,
- The number of New Units

The Minimum Lot Area is determined via one of three methods, depending on the structure of the underlying zoning:

- If the existing zoning specifies a certain minimum lot size, this number is give directly and the cell is colored yellow for ease of reference.
- If the existing zoning permits a variety of lot sizes and setbacks depending on site-specific characteristics, the average size of all existing parcels in this zoning category was identified as the minimum lot area for the purposes of this analysis. These cells are presented in pink.
- If the existing zoning permits a variety of lots sizes but specifies setbacks and zoning lot standards minimum lot area was estimated based on these criteria. These cells are shown in green.

In a few instances, minimum lot areas could not be estimated because the amount of developable land in that category is too small to accommodate significant development or because the property with this designation has already been zoned as “planned” district, which will permit highly flexible development criteria. (PBD, PUD, R-PUD).

The Number of New Units possible per zoning designation was calculated by comparing the identified minimum lot size to the amount of developable land available.



Table 9: Capacity Analysis

Existing Zoning Designation	Zoning Type	Available Acres	Acres less ROW (15%)	Average Parcel Size (Acres)	Existing Minimum Lot Area / Zoning Code	Number of New Units
A	Agriculture	258.10	219.38		Single Family Dwelling = 40,000 sq ft (0.92 Acres)	239
B-1	Neighborhood Business	38.93	33.09	0.81	No Minimum Lot Size Required	40
B-2	General Business	104.98	89.23	1.01	No Minimum Lot Size Required	89
H	Resort	2.68	2.28			
I	Planned Industrial	329.51	280.08	6.38	No Minimum Lot Size Required	44
MU	Mixed Use Institutional	39.65	33.70			
O-1	Professional Office	7.68	6.52	0.66	No Minimum Lot Size Required	10
PBD	Planned Business Overlay	5.46	4.64			
PUD	Planned Unit Development	11.30	9.61			
R-1	Single Family Residence	745.58	633.74		Single Family Dwelling = 20,000 sq ft (0.46 Acres)	1,380
R-2	Single Family Residence	672.70	571.80		Single Family Dwelling = 12,800 sq ft (0.30 Acres)	1,946
R-3	Multi Family Residence	321.43	273.21		Estimated 4 units per acre	1,093
R-4	Planned Multi Family	0.01	0.01			
R-PUD	Residential Planned Unit Development	85.51	72.69			
T	Mobile Home Park	31.30	26.60		Estimated 6 units per acre	160
Total		2,654.81	2,256.59			5,000

Legend:	Existing Zoning Minimum Lot Size
	Calculated Average Parcel Size
	Estimated Parcel Size



Conclusions

According to this analysis, the Township has enough land currently zoned residential to accommodate approximately 13,200 residents. The amount of developable land capacity is lower than the low range figure give for projected population in 2025 of 14,850. Therefore, Miami Township’s developable land for residential units under the existing zoning designations is likely to be built out by the year 2025.

Figure 7 also lists the number of new units possible within non-residential zoning designations. These are summarized below.

B-1	Neighborhood Business	40 New Units
B-2	General Businesses	89 New Units
I	Planned Industrial	44 New Units
O-1	Professional Office	10 New Units
T	Mobile Home Park	160 New Units



Concept Areas

The development of Concept Areas in a comprehensive plan is commonly pursued to help the participants understand the full range of the community's environments, particularly those that they may not encounter on a regular basis. The Steering Committee formulated and revised the Concept Areas between October 2004 and January 2005.

The Concept Areas are presented on Figure 13. The following sections provide a summary of the key factors that differentiate these concept areas from others, as well as an explanation of the additional symbols.

Oasis/Miami Trails Concept Area (Yellow)

- Almost exclusively residential development and includes primarily R-1 and R-2 zoning districts
- Predominance of recently-constructed, higher-value housing.
- Predominately located in Loveland School District
- Development pressure predominately coming from Loveland
- Some remaining rural pockets.
- Minimal traffic circulation network; predominately two-lane rural roads experiencing high peak traffic volumes
- Small amount of commercially-zoned land at Loveland-Miamiville and Branch Hill Guinea roads; commercial development currently under construction; mixed-use development undergoing approval process; other vacant land at intersection.
- Adjacent to Grailville, which is not included in the Concept Area.



Wards Corner Interchange (Brown)

- Interchange of I-275 and Wards Corner Road
- Contains a combination of industrial, commercial, and office uses including:
 - International Paper
 - United Dairy Farmers
 - Frisch’s Restaurant
 - Wards Corner Business Center
- Zoned “I” Planned Industrial and “R-1” Single Family Residence
- Remaining vacant properties total approximately 110 acres (Ranging from .5 to 17.25 acres in size)
- This area has minimal roadway connections. Wards Corner is the only road that actually crosses I-275.
 - Pine Lane and Lewis Road are both residential streets that originate from Branch Hill-Miamiville and Wards Corner Roads respectively. Both of these streets end abruptly within the Wards Corner Interchange Concept Area.
 - Contains six residential cul-de-sac’s
 - Contains two industrial cul-de-sac’s
- Nearby communities include: City of Montgomery, Village of Indian Hill, and Loveland

Wood Creek/Paxton Area (Pink)

- Predominately residential
- Houses predominately date from 1970s – 1980s
- Largely built out
- Includes Cincinnati Zoo CREW facility
- Some street network connectivity west of Branch Hill – Guinea Road; little connectivity east of Branch Hill – Guinea Road.
- See Oasis/Miami Trails Area regarding development at Loveland-Miamiville and Branch Hill Guinea roads.



Route 50 Concept Area (Purple)

- Predominately commercial/industrial development
- Includes Park 50 Tech Center
- Relatively high vacancy rates, particularly in Park 50 Tech Center. Relatively convenient highway access
- Significant presence of commercial/industrial buildings over 30 years old – some concerns regarding obsolescence.
- Non-Class A office space
- Some available developable land at top of hill in Park 50 Tech Center
- Multiple private owners.
- Primary access is U.S. Route 50
- Southern portion of concept area adjoins the East Fork of the Little Miami River.

Sugar Camp/ Dry Run Area (Dark Green)

- Rural character
- Most rugged terrain in Township
- Generally low-density residential
- Minimal road network
- Non-standard road surfaces and structures
- Lack of sewer and water infrastructure except on Sugarcamp Road
- Includes historic community of Perintown



East Miami Area (Orange)

- Less developed at present than other portions of Township
- Development occurring quickly; subdivision projects under development and under construction.
- Includes Miami Meadows Township Park
- Remaining agriculture-related businesses, including Shaw's Farm
- Current lack of sewer network
- Generally frontage development; some subdivisions
- Relatively level topography; some hydric soils.
- Proximity to Goshen and Stonelick townships
- Increasing traffic on State Route 131

Day Heights Area (Light Blue)

- Predominately residential, except for Route 131 frontage areas.
- Spans both sides of Route 131.
- Significant concerns regarding traffic congestion on Route 131
- Older residential development, generally larger houses, some newer residential development
- A small number of large undeveloped parcels.
- Generally good street connectivity within neighborhoods.
- Improvements currently underway to the intersection of Route 131 and both Naomi Drive and Day Circle.
- Widening of State Route 131 is currently underway from Sherwood Drive to Mt. Vernon Drive.



River Communities Area (Dark Blue)

- Includes several historic river communities interspersed with subdivision development:
 - Miamiville
 - Branch Hill
 - Epworth Heights
- Predominately residential; small amount of commercial at center of Miamiville and Branch Hill; some industrial development along State Route 126.
- Subdivisions outside the historic river communities are generally 30 to 40 years old.
- Little Miami State Park (Bike Trail) extends through most of Concept Area
- Dan Beard Boy Scout Reservation at south end of Concept Area
- **Miamiville**
 - Historically oriented to Milford
 - Stable property values; reinvestment and historic preservation occurring
 - Largest and highest visibility of River Communities
 - Some tourist-oriented commercial activity (antiques, etc.)
 - Miami Boat Club
 - Odor issues resulting from existing sewage treatment facility; concerns over expansion of sewage treatment facility.
 - Headquarters of Little Miami, Inc.
 - Has own post office
 - Nearby residential subdivisions (off Branch Hill – Miamiville Road): stable, little undeveloped land, concerns regarding rough terrain and stormwater management



- **Branch Hill**

- Similar historic character to Miamiville; smaller and less visible. Separated from remainder of township by Branch Hill – Loveland Road.
- Historically oriented to Loveland
- Stable property values; not significant reinvestment
- 100 year floodplain follows western border
- Predominately older population
- Water service constructed in 2004 via CDBG grant
- Sanitary sewer service not generally available; apartment buildings using package plants.

- **Epworth Heights**

- Unique historical development (Methodist summer camp)
- Physical isolation from rest of Township.
- Lack of sewer system
- Extremely small lots
- Varying quality of existing building maintenance
- Concerns regarding illegal dumping
- Nonstandard roadway system

Lower Price Road (Light Green)

- Isolated from rest of Township due to surface road network, I-275 and Boy Scout facility
- Oriented to Milford
- Predominately residential development
- Most development more than 30 years old.
- Lack of sewer infrastructure



Route 28 Corridor Area (Red)

- Most visible and most heavily-traveled area of Township
- Area most closely identified with Township
- Includes historic communities of Mt. Repose and Mulberry
- Includes I-275 Interchange area and Route 28 Bypass
- Includes area addressed in the S.R. 28 Redevelopment/Transformation Plan
- Predominately commercial development; largest concentration of commercial development in Township
- Significant redevelopment needs.
- Concentration of residential development along road frontage in Mt. Repose area.
- Increasing traffic volumes and congestion outside bypassed area
- Current Township/County plans relating to ownership transfer and roadway improvements
- Complete existing infrastructure

Key Entry Points

- Locations at which significant volumes of traffic enter the Township on a regular basis (includes Township residents and residents of other communities)
- Include interchanges and surface roads
- Gateway signs located at some locations; generally small sign on signpost

Key Intersections

- Locations that have high traffic volumes and high visibility
- Most, although not all, have existing commercial development
- Concerns in most locations regarding traffic volumes and traffic congestion, including access management and roadway capacity.
- Often the defining intersection or center of identity for the surrounding area.



INSERT CONCEPT AREA MAP – FIGURE 13



Future Expectations

In order to determine feasible alternatives for future development in Miami Township, it is necessary to develop a shared understanding of likely future trends in Miami Township. These trends will establish the likely context in which our Plan may be implemented.

The following statements summarize general trends and conditions that may be reasonably expected to develop in Miami Township over the next 20 years. These statements were reviewed and revised by the Steering Committee in May 2005.

- Most of Miami Township's existing undeveloped property will be developed by the end of the 20-year period, unless it has been restricted from development.
- Undeveloped property in Miami Township will generally increase in value as it becomes more scarce. Increasing land values will create pressure for more intensive development and redevelopment.
- Demand for higher-quality commercial development will be met. As existing commercial areas in eastern Hamilton County and southern Warren County become saturated, commercial developers will find themselves in search of new development opportunities. Miami Township is likely to provide such an opportunity, especially as the existing market potential becomes more established and well known and as populations and income levels in both Miami Township and townships to the east continue to rise.
- The Township will experience pressure over time for expanded services: Fire, Police, EMS and Public Works.
- The relatively small amount of undeveloped land in Miami Township will build interest in redevelopment of existing properties with marginal uses. Redeveloped properties, regardless of their land use type, will be more intensive than their previous uses.



- Road capacity and road connectivity will continue to be strained by both existing and new development. The existing roadway network will be required to carry more vehicles, both as a result of Miami Township traffic and through and destination traffic from surrounding areas.
- Adequate sewer and water infrastructure will be available to almost the entire Township.
- Most of Miami Township's existing residential neighborhoods will remain viable for the duration of the 20-year Plan period. Most existing subdivisions will not experience substantial changes in land use or density during this period.
- Ohio Townships, particularly home-rule townships, will become able to exercise powers that are not clearly available to them at this time. The nature and extent of these powers is not yet known.
- Demand for parks and community or recreational facilities will continue to grow as the Township's population and income levels increase.
- Miami Township will continue to find itself in intense competition within the region for office and light industrial activity.
- Miami Township and other local governments will continue to face intense pressures to expend public funds as efficiently and effectively as possible.



4. Comprehensive Plan Vision and Goals

One of the most important tasks that the Miami Township Comprehensive Plan Committee performed was developing the Plan's Vision and Goals. These two sets of statements establish the overall direction of the Comprehensive Land Use Plan Update and set in place the foundation upon which the Plan's recommendations were formed. All of the elements of this Plan are designed to reinforce this Vision statement. Figure 14 following demonstrates the interrelationships between the Vision and Goal elements. The Supplemental Appendix includes some of the items developed by the Comprehensive Plan Committee during the process of developing these statements.

The Comprehensive Plan Committee formulated and refined this Vision and Goals over the course of several meetings in early to mid-2005. The Vision and Preferred Development Characteristics were accepted by consensus on April 25, 2005.



Vision

In 2025, people will know Miami Township for.....

- Industries and businesses that enhance the community environmentally, socially and economically***
- Outstanding indoor and outdoor recreational resources***
- Excellent Schools***
- A wide range of incomes and housing***
- Distinctive riverfront communities***
- High aesthetic standards and high quality appearance of public spaces***
- An effective transportation and infrastructure system***

Most importantly, Miami Township will be known as a community where people want to live, work, shop and play.



Goals

To achieve this Vision of the future, Miami Township will pursue the following Goals:

- **Development of a Town Center with a wide range of business and residential activity**
- **Construction of sidewalks and trails connecting all of the Township's neighborhoods and destinations**
- **Development of a strong commercial base**
- **Development of a revitalized Route 50 industrial area**
- **Improved roads and traffic movement**
- **Connected roadways that expedite traffic and development**
- **Pursue all available strategies to strengthen the community's ability to meet future challenges**
- **Attract quality industrial development**
- **Develop planned open spaces**
- **Integrate community and school programs, including communications and programs for all ages**
- **Improve housing stock in declining areas**
- **Create consistency in public landscaping and streetscaping**
- **Build a Community Center**
- **Foster awareness, education and enforcement of property maintenance codes**



- **Develop higher education opportunities**
- **Develop Park 50 Tech Center as a center for public and private entrepreneurship**
- **Enhance Recreational Opportunities, including a Community Center, expanded park system and other facilities**
- **Develop of mixed use destinations that foster a sense of community**
- **Support safe and effective stormwater management**
- **Pursue underground utilities in conjunction with infrastructure improvements**
- **Excellent water quality management through proactive use of the best available technology**
- **Adequate water supply and distribution systems**
- **Adequate sewage collection and treatment systems**



INSERT VISION AND GOALS COMPARISON – FIGURE 14



INSERT VISION AND GOALS COMPARISON – FIGURE 14



5. Preferred Land Use Plan

The Steering Committee reviewed and developed the Preferred Land Use Plan using a two-phase process that extended from April to August 2005. First, the Township was generally divided into a series of Development Potential categories as a means of differentiating between areas that were expected over the course of the Plan period to experience new development, areas that were expected to experience redevelopment or revitalization needs, and areas that were expected to remain stable in terms of their land use characteristics. The Development Potential is presented in Figure 15.

This analysis was then used to determine preferred land use strategies for the areas that were expected to experience new development, redevelopment or revitalization. The resulting Preferred Land Use Plan is presented in Figure 16, and items on this map that require additional explanation are identified below. Readers should note that the land use designations below and on Figure 16 are general in nature and do not represent existing or proposed zoning.

Development Potential

As noted in the capacity analysis, Miami Township has a relatively small amount of remaining undeveloped land; the majority of the Township's land is already occupied by some kind of development. Conventional models of land use planning usually focus on changes to future land use, assuming that most of the land uses that exist at present will have the potential to change over the time frame of the plan. However, the majority of Miami Township's land is not only developed, but it has been developed recently enough, and at a high enough level of quality, that it is unlikely to change over the Plan's 20-year period. As a result, a comprehensive plan for Miami Township must not only anticipate new development, but it must account for the character of existing development and support the continued quality of life available in existing developments.

For this reason, the Miami Township Comprehensive Plan frames the various areas of the Township in terms of four main policy strategies. The Plan Strategies identify broad land use policies that should be applied in areas that fall under these classifications. These strategies provide the primary framework for the Plan, and more specific strategies will be applied to particular areas.



These strategies were determined on the basis of existing and anticipated future development trends and the Vision and Goals developed by the Steering Committee. The areas identified on the map are approximate and do not follow specific parcel boundaries.

Maintain Present Character (Yellow)

The majority of the Township's lands fall under this category. These areas are dominated by existing development that may be reasonably expected to continue for the 20-year window of this Plan, such as newer residential subdivisions. In Maintain Present Character areas, the existing land use patterns should be perpetuated in order to protect the value, stability and quality of life of the surrounding areas.

Maintain Present Character areas do contain undeveloped parcels and parcels that may become available for redevelopment during the 20-year period, but these are not the predominant existing land use and they tend to be interspersed among existing developments. As these properties are developed or redeveloped, it will be vital to ensure that they support the continued viability of the surrounding areas. In general, land uses and gross densities of new development in these locations should be compatible with surrounding properties. The use of clustering strategies will often be appropriate in order to preserve open space, foster walkable neighborhoods and promote efficient infrastructure, but total densities of such developments should be comparable to that of surrounding properties. Whenever possible, open space that is preserved in a clustered development should be placed between the developed area and surrounding developments, particularly if the net density of the developed area is significantly greater than the surrounding properties.

Maintain Present Character areas are also high priorities for the acquisition and development of park and community recreation facilities, as land suitable for these uses becomes available. These areas will continue to house the majority of the Township's residents over the 20 year period, and are likely to produce the most demand for recreational amenities.

The Sugar Camp Road area in the southernmost section of the Township is included in this strategy despite the fact that it is relatively undeveloped. Although it is likely that additional homes will be built in this area over the 20 year period, significantly changing



the land use or increasing the density of development in this area would require substantial and potentially costly infrastructure investments, including extensive road reconstructions and sewer and water extension through difficult terrain. Since the costs of these investments will be substantial and the resulting impact on the Township's residential offerings and fiscal capacity will be minimal, the funds that would be necessary would be more prudently expended in areas that can accommodate more intensive land uses.

New Development (Green)

New Development areas are those remaining portions of the Township that are largely undeveloped. Although some of these areas have few development constraints, others may be characterized by relatively steep slopes, minimal existing roadway systems and other limitations that have prevented development to this point. However, these constraints are likely to become less of a barrier to development over the course of the 20 year period, as the remaining undeveloped parcels in the Township become more valuable due to their scarcity and the local market's increasing potential.

New Development areas will generally develop in a more intensive manner than the Maintain Present Character areas, both because of the prices they will demand and because they will be designed to differentiate themselves from their surroundings. Many New Development areas will provide opportunities for types of land uses that are new to the Miami Township market, such as mixed use developments that combine housing with office or commercial space. Evaluating and accounting for potential traffic impacts will be particularly vital to the success of many of the New Development locations, as they may generate a higher number of vehicle trips than many types of conventional development.

Redevelopment (Pink)

Redevelopment locations are those where substantial land use change is likely to occur, and where land use change may be appropriate because existing development is being rendered obsolete by changes in the regional economy, traffic patterns, real estate market or other factors. Regardless of the condition of existing land uses, Redevelopment areas have significant advantages, such as regional access, visibility, relatively large parcels, or other factors.



New land uses in Redevelopment areas will be generally more intensive than the previous land uses, although their intensity may be measured in terms of the built environment or their level of commercial activity. Since Redevelopment areas may include preexisting characteristics that could have negative consequences is perpetuated, such as numerous curb cuts or conflicting adjoining land uses, detailed site development and access management controls will be necessary to ensure that their redevelopment supports the Township's quality of life.

Revitalization (Blue)

Revitalization areas are those where existing development patterns are fundamentally sound, but additional improvements should be encouraged to foster the area's long-term viability and benefits to the Township as a whole. Revitalization areas are likely to require some public sector investment in order to facilitate their improvement, although these investments may range from entrepreneurship seed grants to large scale infrastructure construction.

Two of the Revitalization areas identified are historic riverfront communities located on the Little Miami Scenic Trail and surrounding residential areas. These communities provide a small-town quality of life that is attractive to many residents. Efforts to support and upgrade residential facilities and amenities will support this population and provide a unique lifestyle opportunity within Miami Township. In addition, these communities have the potential to function as regional destinations for bicycle trail users and others looking for a small-town environment. Both communities provide opportunities for goods and services that can be oriented to visitors; at the same time such businesses will enhance residents' quality of life by providing convenient goods and services that the local population alone might not be sufficient to support.

The other two Revitalization areas include the Township's two major employment centers. Both the Park 50 Tech Center and the Wards Corners interchange area have existing viable businesses, but both have additional capacity that has not yet been capitalized upon. In both cases, efforts to support new development and ongoing investments in existing development will have substantial impacts on the fiscal viability of the Township, the school districts that serve the Township, and Clermont County.



Insert Development strategies Figure 15.



Preferred Land Use Plan

Figure 16 presents the Preferred Land Use Plan as approved by the Steering Committee by consensus in August 2005. The map generally identifies the preferred land uses for each of the Redevelopment, Revitalization or New Development areas identified on Figure 15. The color of the overlay hatching indicates general land use characteristics that are further described on the labels.

Some of the land use descriptions on Figure 16 require additional explanation, as noted below:

Light Industrial

Light industrial land uses include any type of for-profit operation for which direct sales are not the primary purpose and that can be conducted without creating significant nuisances for surrounding parcels. Light industrial uses generally include facilities that manufacture, process, fabricate, assemble, package, or provide incidental storage and distribution of previously prepared materials, finished products or parts. Land used primarily in the Light Industrial land uses would typically have all processing within buildings, require limited exterior storage, generate small amounts of truck traffic, and be reasonably free of hazardous or objectionable elements such as noise, odor, dust, smoke, glare, or other pollutants. Light industrial land uses should be compatible with a variety of adjacent non-industrial uses, particularly commercial and office uses.

Potential Light Industrial land uses can include the following:

- Food & Drink Processing, Distribution and Storage
- Manufacturing & Assembly, Light (e.g., electronic product assembly or packaging)
- Greenhouses, Vegetables & Floriculture
- Small Shops (Machine, Tool & Die, assembly, etc.)
- Flex Industrial Center (office attached to distribution or assembly operation)
- Mini Warehouse
- Research and Development Facility



Unique Housing

Unique Housing is particularly noted in the Preferred Development Scenario in the Riverfront Redevelopment area. Due to the geologic and environmental concerns located in this area, as well as the potential high demand for housing development in this location, this location has the potential to support a higher price point housing product and will need to do so in order to address needs relating to the aquifer, the Little Miami River and any brownfields² in this location. The Riverfront Communities Concept Area, which includes Riverfront Redevelopment area between Miamiville, Branch Hill River Road and the I-275 overpass, is a distinctive area worth attention.

Although the type of unique housing that may be feasible will depend on market characteristics, potential types of unique housing may include the following:

- Tightly clustered homes in a development that also provides extensive recreational amenities
- Ridgeline development with access to a public riverfront park.

Architectural guidelines for new construction that reinforce the unique character of the Little Miami riverfront area may also be appropriate.

Visitor Services

Miamiville and Branch Hill's physical character and developing reputation as an attractive stop on the Bikeway will provide opportunities for a variety of services that may be oriented to passerby. In addition to conventional small-scale retail and services, potential visitor services may include:

- Services and retail oriented to visitors, including canoe and bicycle rental, repairs and supplies
- Information services, such as a kiosk or tourism information center.

² Brownfields are "abandoned, idled, or underused industrial or commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination." (U.S. Environmental Protection Agency)



Recreational

Recreational land uses throughout Miami Township can include both active and passive uses. Active recreational uses include the various sport fields (baseball, basketball, football, and soccer), playground equipment, exercise trails, etc. Passive recreational uses incorporate leisure activity spaces such as: walking trails, gardens, and seating areas. A greenway could also be considered a recreational use and would be considered a passive use.



INSERT FIGURE 16 == Land Use Plan



General Policy Statements

Finally, the Preferred Land Use Plan is presented with the understanding that it also recommends the following general policies.

Hillsides

Much of Miami Township is characterized by hilly topography, particularly near the Little Miami River and in the Route 50 and Sugar Camp road areas. This hilly terrain provides a high level of visual interest and lends these areas a unique and attractive character. Like much of southwestern Ohio, Miami Township's hills tend to be composed of soft clays and glacial till and can be highly susceptible to slips and landslides, particularly if development increases loads on the hillside without reinforcement of downhill areas. Additionally, hills and hillsides are frequently a key defining characteristic for specific areas. Between Miami and the Wards Corner interchange area, for example, a hillside demarcates the historical boundary between the 19th century river community and the outlying areas that were developed in the 20th century.

To the extent possible, Miami Township's hillsides should be preserved for their environmental and aesthetic values. To the extent possible, hillsides should not be substantially altered in the process of development; development should be clustered and arranged to preserve the natural character of the site. This preference for the preservation of hillsides is not intended to preclude creative or innovative development. Areas that are extremely hilly, including the Sugar Camp Road area and the Happy Hollow vicinity, should not be subject to intensive development. Hillsides in Miami Township should only be altered when all geological characteristics have been accommodated through industry standard site analysis and engineering.

Community Center

The survey that was conducted during the early stages of this Plan development indicated a relatively high level of interest in the concept of a community center, a topic that has been discussed in Miami Township for several years. Despite this interest, it is not clear whether Miami Township residents would support financial investment in a Community Center, or what kinds of facilities such a center should offer.

Miami Township's residents and officials should continue to evaluate options for Community Center development and determine residents' willingness to support development of a community center.



6. Transportation System Analysis

Miami Township's transportation system consists of a combination of township, county and state roads, with many of the most significant corridors and intersections being partially or entirely under the jurisdiction of entities other than the Township. As a result, Miami Township must work with a variety of partners, including the County and the Ohio-Indiana-Kentucky Council of Governments (OKI) to ensure that its transportation issues are addressed.

Thoroughfare Plan (Figures 17& 18)

Figure 17, Proposed Thoroughfare Plan, indicates the existing classification of major roadways in the Township under the 1997 Clermont County Thoroughfare Plan, which is in the process of being revised as of this writing. Figure 17 also indicates potential revisions to the County Thoroughfare Plan that would benefit the Township in terms of improving traffic circulation, alleviating congestion and providing alternate routes. These recommendations were developed by the Steering Committee between June and August 2005. Figure 18 presents typical cross-sections that illustrate the built characteristics of the different thoroughfare classifications. Although some of these cross-sections indicate a center median, turn lanes may be appropriate in particular circumstances.

Proposed Transportation Improvements (Figure 19)

Figure 19, Proposed Transportation Improvements, identifies improvements that are scheduled between fiscal years 2006 and 2009 in the OKI Transportation Improvement Program. These projects are scheduled for completion during this period. Table 10 provides a brief description and proposed scheduling for the projects.

Despite these planned improvements, it appears at this time that several intersections will require additional attention during the Comprehensive Plan period as a result of current conditions and anticipated future growth in the vicinity of these intersections. Although design recommendations for these intersections are not feasible at this time, intersection improvements at these locations may include turn lanes and storage lanes; access management standards and traffic signal coordination. These intersections include:

- Branch Hill-Loveland and Branch Hill- Guinea roads;
- Cook and Branch Hill –Guinea roads;
- Branch Hill-Guinea and Ward Corners roads;
- Loveland-Miamiville and Wards Corners roads near I-275.



In addition, the segment of State Route 48 that extends from the Loveland corporation limit to State Route 28, passing through Miami Township and Goshen Township appears likely to function in the future as a major regional circulation route, as population in northern Miami Township and Goshen Township continued to grow. Access management standards and intersection improvements will be necessary to ensure adequate levels of service and appropriate access to local routes and destinations. Additionally, the Traffic Mitigation strategies recently developed by the Trustees, which are designed primarily to facilitate communication and traffic routing surrounding road construction, will play a vital role in easing Miami Township's traffic congestion and circulation concerns, particularly as the improvements identified above are pursued.



Insert Figure 17 – most recent Thoroughfare plan version.



Figure 18



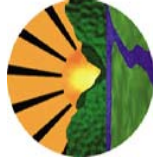
Insert Figure 19 – Improvements Map.

OKI TRANSPORTATION IMPROVEMENT PROGRAM

FISCAL YEARS 2006 - 2009

Second Draft 3/28/05

Miami Township Improvements



Imagine Miami
VISION2025
Table 10

Project ID	Facility	Location	Description	Program Cost	Total Cost	Fiscal Year
1, 2	SR 126	4.14 mi east of US 22 to 4.24 mi east of US 22; 1.95 mi east of US 22 to 2.03 mi east of US 22	Rehab bridges CLE-126-0211 & HAM-126-2186 over Little Miami River (coll revenue credits)	STP \$578,000	\$578,000	2008
3	SR 28	Bridge No. CLE-28-0225, SFN: 1300016. Bridge carries SR 28 over I-275	Bridge Repair	State \$391,000	\$391,000	2010
4	SR 28	0.1 mi South of Deerfield Road	Minor rehabilitation of four culverts	State \$152,000	\$152,000	2007
5, 7*	CR 21	Branch Hill-Guinea Pike at Wards Corner Road	Intersection Improvement	OKI-STP \$627,000 Local \$157,000	\$784,000	2007
6	CR 21 (Branch Hill-Guinea Pike)	Branch Hill-Guinea Pike at Loveland-Miamiville Road	Intersection Improvement (LPA)	Deleted 5/20/2003 Contract Let		
8	SR 48	From 2.62 mi north of SR 28 to 2.72 mi north of SR 28	Landslide repair project (identified by Clermont County Manager)	State \$211,000	\$211,000	2005
9	SR 28 Business	SR 28 to Cook Road	Widen to 4 through lanes with turn lanes at signalized inter-sections and landscaped median	OKI-STP \$3,000,000 Local \$3,000,000	\$6,000,000	2008
10	SR 28	1.56 mi east of I-275 to 1.98 mi west of SR 48	Widen to 5 lanes	STP \$2,400,000 OKI-STP \$3,500,000 Local \$400,000	\$6,300,000	2006

* Location #7 (Branch Hill-Guinea at Cook Rd) grouped with Location #5

June 3, 2005





Recommended Access Management Techniques

This section provides an overview of strategies that Miami Township can use to facilitate access management in new development and redevelopment. The following statements are general guidelines; the Township will need to determine how it wishes to put them into action.

What is Access Management?

The term “access management” relates to a variety of site development strategies and roadway design techniques that can be used to facilitate the flow of traffic on streets. Access management strategies operate on a simple principle: if drivers encounter fewer instances in which other vehicles are moving in a direction or a speed *other* than the direction and speed of traffic, then traffic will flow more freely, and there will be less congestion and a higher level of traffic safety.

Contrary to popular assumptions, roadway congestion is not strictly a factor of the number of cars using the road, although congestion does generally increase as the number of cars increases. Two other factors also impact roadway congestion:

1. The design characteristics of the roadway itself – not only its width and number of lanes, but also traffic signal timing, sight distances from intersections and driveways, and locations and characteristics of turn lanes.
2. The activities of motorists attempting to enter or exit the roadway, which are impacted to a great extent by the character of the vehicle access provided by properties adjoining the roadways, as well as the activities that must be undertaken by motorists to move against traffic.

As a result, access management strategies fall into two groups: strategies designed to maximize the flow of traffic on existing roadways, and strategies designed to make the process of moving on and off the roadway as smooth as possible.

Access management strategies can be developed for all types of roads. It is important to note that the access management strategies in this Plan are designed to facilitate the flow of traffic on existing surface roads in the Township, not to change their functional classification or dramatically limit access to roadways.



The Township and County Engineer's Roles in Access Management.

In Ohio Townships, the County Engineer is generally responsible for developing access management standards for public roads, as well as reviewing and preparing permits for new driveway access to roads under their jurisdiction. As a result of the passage of House Bill 366 in 2003, all County Engineers are required to prepare access management regulations. Any Township decisions or recommendations relating to these issues should be in conformance with the County's access management regulations.

At present, Miami Township has considerable opportunities to influence the use access management strategies proposed in coordination with new development. Miami Township's site review process provides relatively extensive opportunities to evaluate the access management characteristics of proposed developments, and its site planning guidelines include a variety of access management considerations, such as the potential for deceleration lanes and avoidance of vehicular conflict points. Depending on the Township's preference, some of the access management strategies identified below may be implemented more effectively if the existing Zoning Code is revised to incorporate them.

How Should these Strategies be Used?

The following access management guidelines can be used to reinforce the Township's administration of its site review process, or they can be incorporated more directly into its development requirements. Townships do have the authority under the Ohio Revised Code to implement access management requirements if they choose, but they must also be approved by the County Engineer.³ At this writing, one known Ohio Township with limited home rule is developing its own access management regulations.

Access Management Strategies

- **A Traffic Impact Study will continue to provide a rational basis for determining what level of access management strategies may be needed.** A Traffic Impact Study evaluates access points and major intersections within a specified distance from the proposed project. The study determines current traffic volumes and traffic projections and evaluates the

³ Under current interpretations of the Ohio Revised Code, Townships with limited home rule can take on the responsibility for permitting driveways, but such permitting is still under the review of the County Engineer.



impact that the proposed development may have on future traffic volumes, based on the characteristics of the proposed development and an estimated number of vehicles trips associated with it. The Traffic Impact Study can then be used to develop recommendations relating to future improvements intended to minimize the impact of traffic generated by the development on the community's roadways.

Miami Township's current zoning code does provide the opportunity to request a Traffic Impact Study in conjunction with a wide range of development types. According to Chapter 27, Site Plan Review and Approval, "The Township may require a traffic impact study if one or more of the following conditions exist:

- If the proposed development or redevelopment may increase the number of trips entering or leaving the property by ten percent or more;
- If the proposed development or redevelopment may adversely change the type of traffic generated within the property, for example, addition of truck traffic;
- The scale or use of the proposed development might cause deterioration of service levels on the street and/or deterioration of safety or service levels at intersections in the vicinity;
- The proposed development is in the vicinity of a street or intersection with a history of safety and/or accident problems; and
- The geometry of existing or proposed improvement might cause a safety hazard."

This provision of the Zoning Code should be invoked whenever appropriate to ensure that the staff, Zoning Commission and Trustees have adequate information to evaluate access management requirements.

- **Constructing turn lanes, both right and left, into primary development entrances will lessen the impact on through traffic by moving the**



turning traffic out of the through lanes. Some turn lane criteria will be determined by the County access management plan; others may be considered as a condition of Township approval when possible. Whenever possible, the developer should be financially responsible for providing the necessary improvements to the roadways that will be impacted by the development's traffic generation. The Township's existing site design guidelines, as codified in Chapter 27, does give the Township the right to require acceleration, deceleration and left turn lanes "if the Township finds that they are necessary to preserve safety and/or the traffic-carrying capacity of the existing street." (27.04 D3(a))

- **Minimize curb cuts to the greatest extent feasible.** Overabundant, non-controlled curb cuts are one of the primary site-related causes of access conflicts. A proliferation of curb cuts not only provides for more locations for unpredictable vehicular traffic, but it can create confusion for the driver who must choose between several driveways. Figure 1 demonstrates the conflicts created by uncontrolled access, which Figure 19 illustrates the impact on roadway congestion and safety resulting from minimizing curb cuts. Figure 2 also illustrates the use of turning lanes to further facilitate traffic movement into adjoining development.

Curb cut minimization can be primarily achieved through the use of the site review process. Whenever possible, only the minimum necessary number of curb cuts should be permitted.



Figure 20: Uncontrolled Access

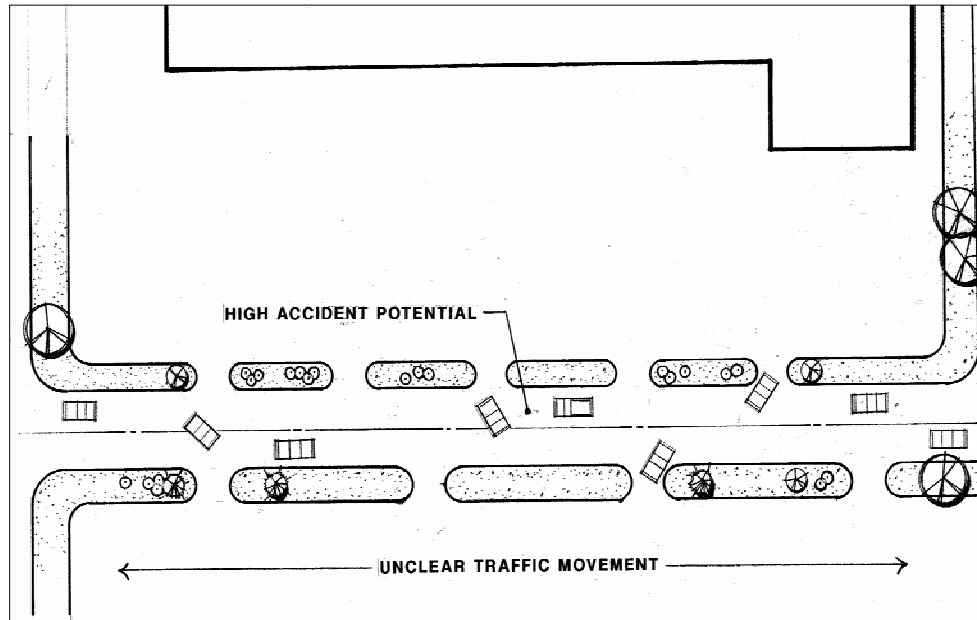
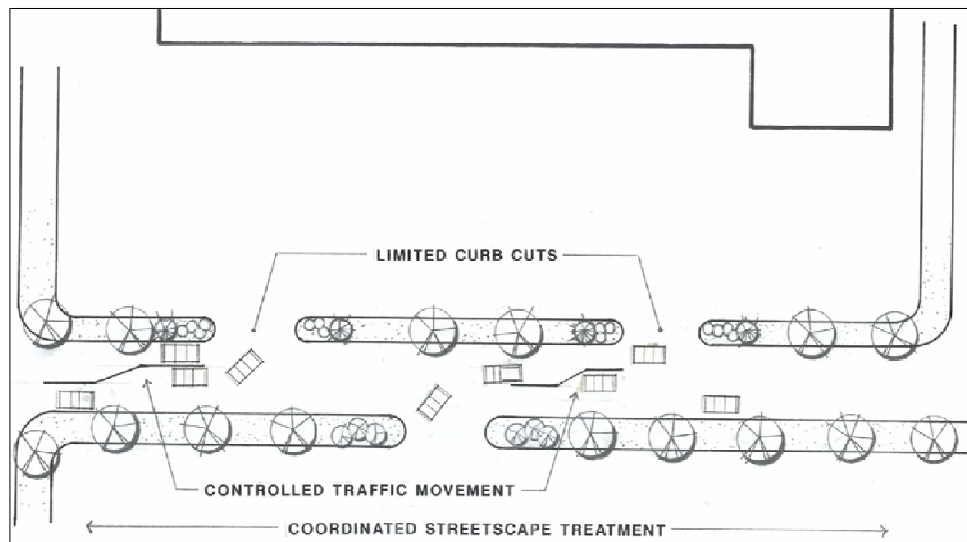


Figure 21: Minimized Curb Cuts

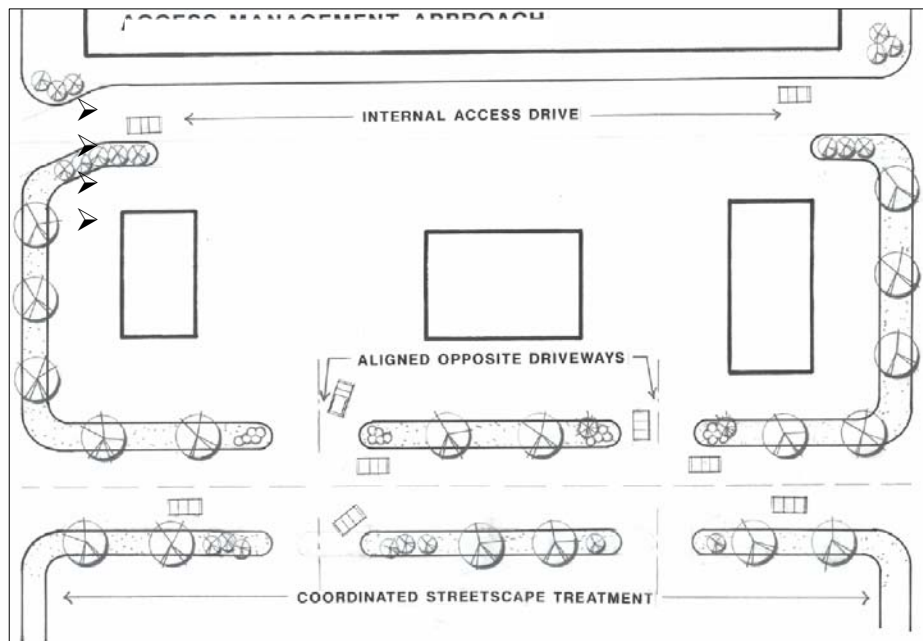




- **Coordinate driveway placement with driveways of properties on the opposite side of the roadway, particularly if uses are compatible.** One of the most common sources of traffic congestion is vehicles moving into the public roadway in order to drive a short distance to access another property. The access management issues described previously are compounded in this case by the number of entrances to and exits from the roadway, as well as the fact that the vehicle moving between nearby driveways is not likely to travel at a speed compatible with through traffic. By coordinating the placement of driveways, as show in Figure 1, these traffic conflicts are reduced.

Applicants for developments requiring site plan review should be required to align new driveways with existing curb cuts on the opposite side of the street, if any such opportunity exists.

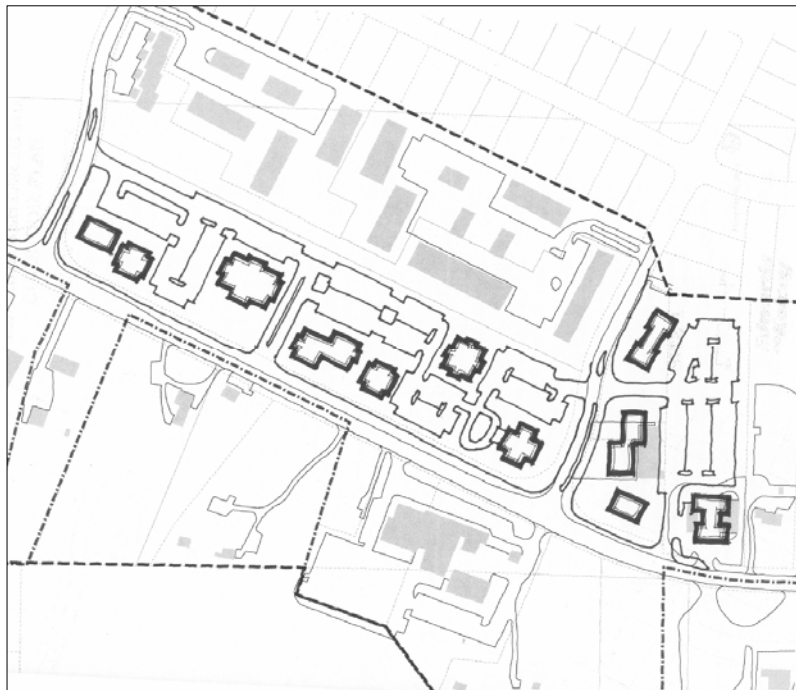
Figure 22: Aligned Driveways





- **Providing secondary access from side streets will help facilitate access IF this access will not adversely impact adjoining land uses. (See Figure 23.)** Secondary access, such as may be used by employees to access rear parking lots, is particularly appropriate if adjoining land uses are also non-residential and the majority of traffic leaving the site will be moving to the primary street. The Township will need to use particular discretion in evaluating whether secondary access from side streets should be permitted in any given development, and the Township may find it prudent to impose limitations on the type and use of the access permitted.

Figure 23: Internal Circulation and Side Street Access.



- **When adjoining properties have compatible uses, cross-easements between properties will improve traffic movement. (See Figure 24 and**



25). Although cross-easements cannot be required between two separate property owners, it may be possible to require that a cross-access location be made available for future connections. It is possible in some locations that site conditions (such as steep grades) will make cross easements unfeasible.

Although it may not be feasible to regulate cross-easements that do not involved public property, the Township may find it useful to offer incentives in exchange for cross easements. The Township may also find it beneficial to offer to construct cross-easement access as an incentive to the property owner for providing the cross-easement.

Figure 24: Cross Easement

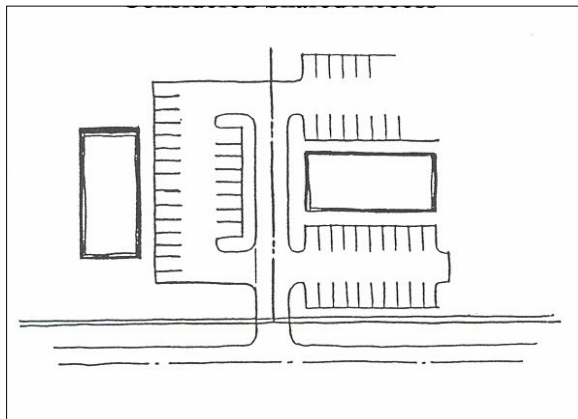
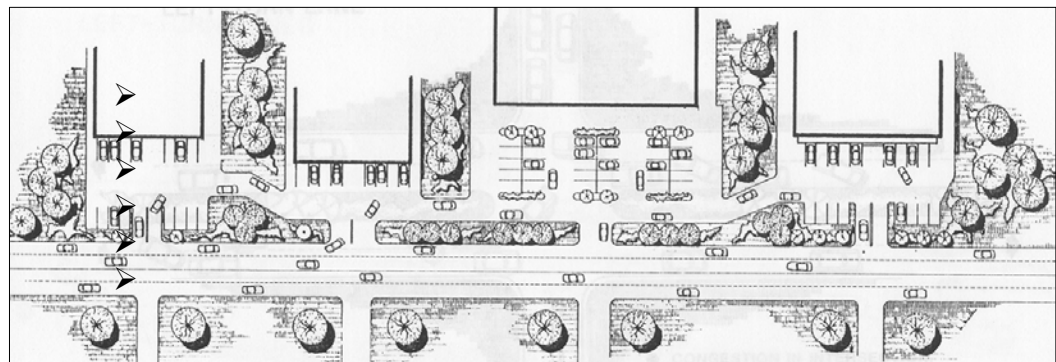


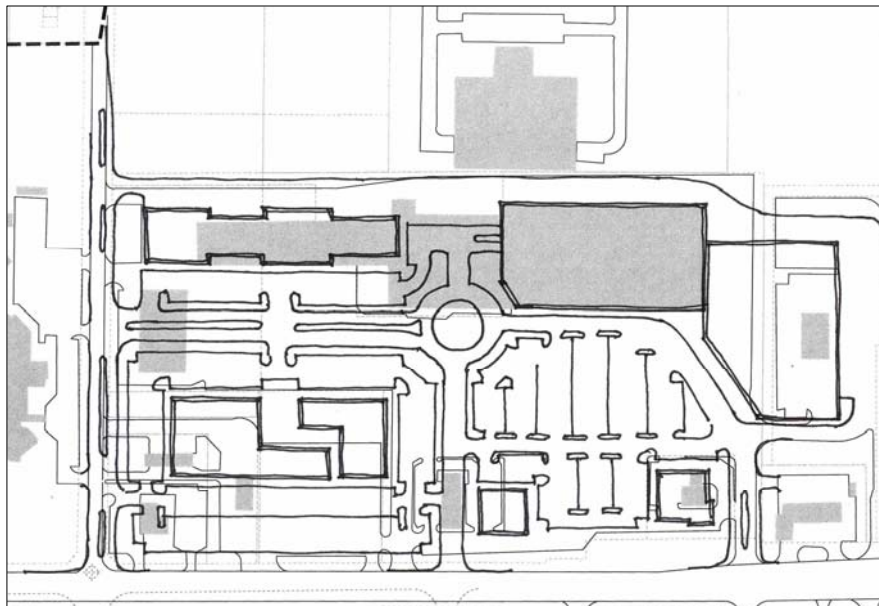
Figure 25: Multiple Cross Easements





- **Multi-building developments should provide complete and rational internal circulation within the development.** Figure 26 provides an example of a development that includes a fully-developed internal circulation system. Motorists should find internal circulation systems that are demarcated by striping, landscaping islands and signs, which will discourage drivers from simply cutting across parking lots and lessen the amount of short-trip traffic that the public roadway must accommodate.

Figure 26: Internal Circulation Concept



- **Depending on its size and shape, every residential, commercial or industrial subdivision should provide at least two means of direct access to the public roadway system.** Large subdivisions may require more access points; specific criteria may be developed by the Township in coordination with the County Subdivision Regulations. It may be appropriate to incorporate such standards into the existing site review process. Multiple access points are necessary for a variety of reasons:



- They distribute the volume of traffic entering the subdivision in order to minimize the impact on traffic congestion. This is particularly true when collector streets are involved and when large numbers of entrants may be expected to be turning left.
- They are necessary to provide adequate access for service and emergency vehicles, including ambulances, snow removal equipment and school buses.

The number and location of access points to a subdivision will depend on a variety of factors, including the number of houses, the configuration of the subdivision, the traffic characteristics of existing roads, and the internal layout of the subdivision.

- **Residential subdivisions should be designed to provide access points between adjoining subdivisions, and new subdivisions should include connections with adjoining subdivisions.** Traffic that must move between adjoining subdivisions on collector or arterial road can add significantly to traffic congestion, not only by adding unnecessary traffic, but also by adding to the number of cars that are traveling at speeds below that of through traffic and increasing the number of turning movements being executed. Providing routes that permit drivers to travel between points within subdivisions without entering the collector road system will support the community's traffic access goals.
- **Residential subdivisions should have an internal street system that provides enough alternative circulation options to ensure adequate connectivity.** Subdivisions that do not provide adequate internal circulation options often result in locations where traffic becomes congested at particular times of day or where service and emergency vehicles cannot efficiently navigate. Extremely long cul-de-sac streets should be avoided, and the use of cul-de-sacs should be generally minimized.



7. Pathways Plan Prioritization (Figure 27)

In June 1999, a committee of Miami Township residents developed the Miami Township Pathways Plan, a document that identified the need for more extensive pedestrian, bicyclist and other non-motorized transportation routes throughout the Township. The Pathways Plan particularly identified a need for non-motorized travel opportunities along major roadways and between residential centers, schools and parks.

The Comprehensive Plan Steering Committee reviewed the Pathways Plan after completion of the Preferred Land Use Plan and Transportation Analysis to determine whether the Pathways identified were still appropriate in terms of existing and future land use and to determine general levels of priority for different routes. A three-level determination of priorities was developed in order to help the Township focus its efforts on designing and constructing the most needed pathways. This analysis did not determine the appropriate method of pathway construction, a process that requires detailed engineering evaluation.

The Pathways Prioritization is presented in Figure 27.



Insert Revised Pathways map – Figure 27



8. Implementation

The creation of this Comprehensive Plan has allowed Miami Township to develop a shared Vision for its future and determine the actions necessary to achieve this Vision. However, the Miami Township Comprehensive Plan is just the first step toward achieving the Vision established throughout this planning process. A strong set of implementation strategies is necessary to make certain that the Township has the full set of tools needed to achieve its goals. The following recommendations will help ensure that the Township's Vision will be realized.

- The Trustees should organize an informal committee on an annual basis consisting of department heads, Zoning Commission members, Board of Trustees, and citizens to review the progress of the Plan implementation and recommend amendments or new initiatives, if needed. The primary purpose of this annual review is to evaluate progress toward, or variance from, the Plan's Vision and Goals.
- Convene a committee to comprehensively review the Plan every three to five years to determine if additional updates are necessary or if further issues need to be addressed. Regular review and updating of the Plan will ensure that the Township's policies match its needs, and will give the Township an opportunity to address any issues that cannot be foreseen at this time. The Committee should be similarly configured to the original Comprehensive Plan committee in its inclusion of a wide cross-section of residents, business operators, local organization representatives and Township and County officials and staff.
- Use the Vision and Goals developed in this Comprehensive Plan to help shape Township policies where appropriate.
- Evaluate the existing Zoning Ordinance and Map systematically to determine the most effective means of implementing the Preferred Land Use Plan. Although some of the Township's existing zoning categories may be readily used to reflect the Preferred Land Use Plan, some revisions and potential new zoning categories or overlays may be necessary. In particular, the Township could consider more extensive mixed use development regulations to address the Preferred Land Use Plan's recommendations for the State Route 28 Corridor and the Miamiville and Branch Hill areas. In preparing the Purpose Statement for any new or revised zoning



category or overlay district, references to the Vision and Goals and the Preferred Land Use Plan will be beneficial.

- Use the Thoroughfare Plan and the Traffic Mitigation Plan developed by the Trustees to continue to communicate the Township's transportation improvement and management needs to the Clermont County Engineer and, where appropriate, the Ohio Department of Transportation. As the Traffic Mitigation plan identifies, a continuation of the Township's strong working relationship with the County, and consistent communication between the Township and these two entities, will be necessary to address the Township's local transportation needs.
- Update the Pathways Master plan on the basis of the Pathway Priorities map.
- Use the priorities identified on the Pathway Priorities map to identify and pursue grants sources, such as the Ohio Department of Natural Resources' NatureWorks grants and the trails grants associated with the Clean Ohio Fund and Transportation Enhancement Grants to seed the Township's pathway system.
- If grant funding does not permit satisfactory pathway system development, then evaluate opportunities for increasing the Township's available funding for pathways development. Possible strategies may include Tax Increment Financing (TIF) or similar districts, voluntary funding districts, or a small levy. Close coordination with the County Engineer will be necessary to evaluate construction feasibility.
- Continue to acquire land as available for parks and recreational facilities, especially when doing so will reinforce the development and redevelopment patterns identified in the Preferred Land Use Plan and the updated Pathways plan.
- Upgrade the Township's Gateways by designing a more substantial gateway marker and installing them at appropriate locations (see the Preferred Land Use Plan). A hierarchy of major and minor gateways will be appropriate. Continue to negotiate the placement of the Township's name on other appropriate markers, including water towers and appropriate commercial signage. The Township should also consider placement of appropriately-scaled gateway markers on the Little Miami Scenic Trail and other regional trails as they may be developed.



- Evaluate opportunities to strengthen Miami Township’s efforts to attract new businesses, particularly to the commercial redevelopment areas identified. For example, it may be beneficial to team with the Milford-Miami Township Chamber of Commerce, the Clermont County Chamber of Commerce and the County Economic Development Department to develop information sheets regarding available sites and make those available to potential commercial redevelopers.
- Examine opportunities for facilitate economic development. For example, the Township may wish to consider targeted tax incentives or abatements to meet specific economic development goals.
- Continue to pursue public relations efforts to establish the Township’s identity through Township and regional media.