

IRA TOWNSHIP

MASTER PLAN

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IRA TOWNSHIP

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Four (4) pages of Resolutions inserted here -- not typed at CP&M Offices:

- Resolution #96-06, ADOPTION OF MASTER PLAN
- Resolution #96-07, ENDORSING MASTER PLAN and Certification of Clerk
- RESOLUTION TO ADOPT AMENDMENTS TO THE MASTER PLAN
- Resolution #98-02-03, MASTER PLAN POLICY GUIDE

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REGIONAL ANALYSIS

INTRODUCTION

The growth and development of a community and its resultant land use pattern depends, in large part, on its position within the region in which it is located. This regional location is important to the understanding of its historical growth pattern and current condition. Further, an understanding of regional influences provides a basis for anticipating future growth patterns and trends.

While control over most land use decisions remains a matter of local choice, development patterns are often strongly influenced by decisions made on a State and regional scale. Frequently, such decisions are not subject to direct local input or control. For this reason, land use policies need to take regional influences into account.

The purpose of this initial chapter of the Ira Township Master Plan is to identify those factors that influence growth in the southeast Michigan region and how they may impact future development patterns. This presentation will provide the background necessary to understand the dynamics of growth and change and provide a practical regional perspective for formulating future land use policies.

The following analysis will consider Ira Township's location relative to southeast Michigan's principal growth corridors and how these corridors have influenced, and will likely continue to influence, future growth patterns. The report will also examine relevant State, County and regional plans or policies that may have some impact on future planning activities in Ira Township.

HISTORICAL BACKGROUND

The current system of township government was a product of the Northwest Ordinance passed by Congress in 1787. This legislation created the Northwest Territory, which includes Michigan and its neighboring Great Lakes States. It also established Township boundaries and the grid-like division of land into one-mile square sections. The original land division practice established more than two centuries ago is still evident today.

The Township's first non-native inhabitants settled within the community in the mid-1800's. The Township of Ira was formally established in 1837, the same year Michigan obtained statehood. The Township's population numbered 202 at this time. When it was originally formed, Ira Township also included portions of Clay Township, Cottrellville Township and the City of New Baltimore. The current boundaries were established in 1864.

Throughout its history, Lake St. Clair has had a significant and lasting influence on the growth and development of the Township. When shipping was the principal means of transportation, Anchorville was one of the busiest ports north of Detroit. Ship building was once an important industry along the Lake St. Clair shoreline, including locations in Ira Township. Many early businesses settled near Swan Creek to take advantage of the convenient transportation access offered by this water course.

Access to the water also contributed to the development of a recreation and resort-oriented economy. Prominent early businesses included hotels, boat liveries, dance halls, restaurants and boat excursions. The Township's numerous marinas and ancillary businesses reflect an evolution of this original economic base. Many homes in the community were originally built as cottages for part-time or seasonal residents. Today, many of these homes have been either replaced or upgraded to year-round dwellings.

REGIONAL LOCATION

Ira Township is located at the southern end of St. Clair County, along the shoreline of Lake St. Clair. The Township shares a common boundary with Macomb County to the west. The Township lies approximately 40 miles northeast from Downtown Detroit. Dixie Highway (M-29) provides convenient access to the larger southeast Michigan region (see Illustration 1.)

REGIONAL DEVELOPMENT INFLUENCES

Southeast Michigan Development Corridors

Within the southeast Michigan region, there are several principal corridors along which growth has traditionally occurred. Each of these corridors begins in Downtown Detroit, the historic center of the region, and radiates outward into the surrounding communities along established transportation routes. These corridors originally followed major surface streets, like the spokes of a wheel, from Downtown Detroit. Today, they largely parallel the interstate freeway system. These historic corridors are identified as follows and shown on Illustration 2.

1. Detroit to Mt. Clemens and Port Huron, along I-94 east and Gratiot Avenue.
2. Detroit to Utica and Romeo, along M-53 north (Van Dyke Avenue) and Mound Road.
3. Detroit to Pontiac and Flint, along I-75 north and Woodward Avenue.
4. Detroit to Brighton and Lansing, along I-96 west, the Lodge Freeway, and Grand River Avenue.
5. Detroit to Ann Arbor and Jackson, along I-94 west and U.S.12 (Michigan Avenue).
6. Detroit to Monroe and Toledo, along I-75 south and Fort Street.

Macomb County Development Corridors

Ira Township is more directly influenced by growth patterns occurring in Macomb County, rather than St. Clair County where the largest concentration of persons is located in the Port Huron urban area located 20 miles to the northeast. Within Macomb County, growth traditionally occurred along the Lake St. Clair shoreline communities, which is consistent with historical urban settlement patterns. The establishment of Mt. Clemens as the County Seat also contributed to the predominant early development pattern along the eastern portion of the County.

Following the Second World War, communities surrounding the City of Detroit experienced a wave of population migration from the traditional central city. In Macomb County, this movement occurred along two corridors, the eastern most of which was parallel to the Lake St. Clair shoreline along I-94 and Gratiot Avenue. Population growth trends for those communities lying within this corridor are shown in Table 1.

For Ira Township's purposes, the most significant trend indicated by this growth involves the neighboring Macomb County community of Chesterfield Township. Over the past two decades, Chesterfield experienced population gains of 8,898 persons and 7,629 persons, respectively. Only Clinton Township grew more during this same period. The number of dwelling units in Chesterfield Township also increased substantially during this period. For example, between 1970 and 1980, 3,286 new dwelling units were constructed. During the following decade, the Township added another 3,519 units.

TABLE 1

I-94/GRATIOT AVENUE GROWTH CORRIDORS

1970 - 1980					1980 - 1990				
COMMUNITY	POPULATION		CHANGE		COMMUNITY	POPULATION		CHANGE	
	1970	1980	Number	%		1980	1990	Number	%
Richmond City	3,234	3,536	302	9.3	Richmond City	3,536	4,141	605	17.1
Richmond Twp.	1,719	2,453	734	42.7	Richmond Twp.	2,453	2,528	75	3.1
32 Mile to 38 Mile	4,953	5,989	1,036	20.9	32 Mile to 38 Mile	5,989	6,669	680	11.4
Lenox Twp.	2,869	3,028	159	5.5	Lenox Twp.	3,028	3,069	41	1.4
New Haven	1,855	1,871	16	0.9	New Haven	1,871	2,331	460	24.6
26 Mile to 32 Mile	4,724	4,899	175	3.7	26 Mile to 32 Mile	4,899	5,400	501	10.2
Chesterfield Twp.	9,378	18,276	8,898	94.9	Chesterfield Twp.	18,276	25,905	7,629	41.7
New Baltimore	4,132	5,439	1,307	31.6	New Baltimore	5,439	5,798	359	6.6
M-59 to 26 Mile	13,510	23,715	10,205	75.5	M-59 to 26 Mile	23,715	31,703	7,988	33.7
Fraser	11,868	14,560	2,692	22.7	Fraser	14,560	13,899	- 661	- 4.5
Clinton Twp.	48,865	72,400	23,535	48.2	Clinton Twp.	72,400	85,866	13,466	18.6
Mt. Clemens	20,476	18,806	- 1,670	- 8.2	Mt. Clemens	18,806	18,405	- 401	- 2.1
Harrison Twp.	18,755	23,649	4,894	26.1	Harrison Twp.	23,649	24,685	1,036	4.4
14 Mile to M-59	99,964	129,415	29,451	29.5	14 Mile to M-59	129,415	142,855	13,440	10.4
East Detroit	45,920	38,280	- 7,640	- 16.6	East Detroit	38,280	35,283	- 2,997	- 7.8
Roseville	60,529	54,311	- 6,218	- 10.3	Roseville	54,311	51,412	- 2,899	- 5.3
St. Clair Shores	88,093	76,210	- 11,883	- 13.5	St. Clair Shores	76,210	68,107	- 8,103	- 10.6
8 Mile to 14 Mile	194,542	168,801	- 25,741	- 13.2	8 Mile to 14 Mile	168,801	154,802	-13,999	- 8.3
TOTALS	317,693	332,819	15,126	4.8	TOTALS	332,819	341,429	8,610	2.6

Source: U.S. Bureau of the Census

While Ira Township is not directly in the path of Macomb County's eastern-most growth corridor, it is clearly in a position to be influenced by development occurring immediately to the west. The Township's consistent population growth over the past several decades offers evidence of the spillover or residual effect of the regional trends described earlier. The attraction of Lake St. Clair and the easy access offered by M-29 and Marine City Highway obviously contributed to this trend.

REGIONAL PLANNING INFLUENCES

Southeast Michigan Council of Governments (SEMCOG)

SEMCOG is the principal regional planning agency serving the seven-county southeast Michigan region. Its main role is to foster inter-governmental cooperation and to coordinate planning activities that are regional in scope. SEMCOG's principal planning

activities involve the following areas: transportation, community/economic development, water/air quality, solid waste disposal, sewage treatment, storm drainage, public safety and land use. SEMCOG also maintains the region's most extensive data base used for planning and economic development purposes. Several of SEMCOG's activities influence Ira Township, either directly or indirectly. Relevant regional plans and policies influencing the community are identified below.

Sewer Service Area Map

A revised sewer service area map was adopted by SEMCOG's General Assembly in March of 1990. This map was prepared in response to increased concerns regarding urban sprawl and the corresponding impact that this growth has on the cost of extending public utilities. The map recognizes that urbanization is highly dependent on the availability of utilities, and seeks to direct growth to areas where existing sewer lines and available treatment capacity are currently available. One of the principal applications of the Sewer Service Map is to evaluate proposals for sewer funding assistance under the Clean Water Act. Funding plans for these improvements are reviewed by SEMCOG for consistency with the Sewer Service Map.

Portions of Ira Township are located within existing sanitary sewer service areas. This service area is confined primarily to the Dixie Highway Corridor, extending the full length of the Township. A portion of the existing service area extends to Marine City Highway in the western portion of the community. The remainder of the Township lies outside of the areas designated for sanitary sewers.

Regional Development Initiative

In 1991, SEMCOG adopted the Regional Development Initiative, the purpose of which was to identify issues, stimulate discussion, and focus attention on future policy choices regarding growth and redevelopment throughout the seven-county southeast Michigan region. This report contains policies intended to address the land use, economic, transportation and infrastructure issues associated with urban sprawl.

Sprawl refers to a land use pattern characterized by low density and uneven physical development occurring at the fringe of the metropolitan area. It also refers to the disinvestment and abandonment of older urban areas. This phenomenon is the cumulative result of land use decisions made at the local level, which are frequently encouraged by regional or State-wide policies and market pressures.

Specific policies advocated by the Regional Development Initiative that impact local land use planning activities are identified as follows:

Develop Land Use and Planning Guidelines - These guidelines would be applicable to regional reviews and local land use planning and should promote the following objectives:

- Encourage more compact development patterns which conserve land and use infrastructure more efficiently.
- Protect environmentally sensitive land and valuable farmland.
- Improve the balance between the location of jobs and housing.
- Preserve existing infrastructure and encourage the redevelopment of older/urban communities.

Regional Planning Review - This refers to a mandatory regional planning review process for all proposed public and private developments that have a multi-community impact.

Require Concurrency for New Development - Concurrency requires that all necessary development infrastructure, including roads and utilities, be in place to maintain acceptable service levels while developments are completed.

Transportation Planning

Southeast Michigan's road system provides the physical linkage that ties the region together. By its very nature, this system is regional in scope. SEMCOG plays an important role in coordinating the regional planning process for expanding and improving this system.

SEMCOG's existing 2005 Transportation Plan was originally approved in 1984 and subsequently revised in 1989. This plan considered the region's transportation needs to the year 2005. It focused on existing and projected transportation deficiencies without considering the financial limitations associated with making these improvements. Among

the designated corridors identified as being deficient is M-29 from New Baltimore east to Algonac. This corridor appeared on the 1984 version of the Plan, but not the 1989 revision.

Adoption of the Intermodal Surface Transportation Efficiency Act (ISTEA) changes the regional transportation planning process. While the long-range Transportation Plan remains the primary policy document identifying the region's transportation needs, in addition to specific projects to address these needs, ISTEA changes the emphasis of the transportation planning process. Under ISTEA, the following features are incorporated into the transportation planning process:

- Links highways and mass transit forms of transportation.
- Emphasizes the maintenance of existing infrastructure.
- Requires plans and programs to be fiscally responsible.
- Requires attention to improving air quality in urban areas and examining land use impacts of transportation decisions.
- Moves much of the decision-making process from the Federal and State governments to local and regional levels.

In October, 1993, SEMCOG adopted a new 20-year transportation plan which considers the region's transportation needs to the year 2015.

Regional Development Forecasts

Every five years, SEMCOG prepares a series of population, household and employment forecasts on a regional, County and individual community basis. These forecasts are prepared for each five-year interval between 1995 and 2020.

The results of this process for Ira Township are reflected in Figure 1. The SEMCOG forecasts anticipate continued population growth for the Township through the year 2020, when the community will have an expected population of 8,937. During the same period, the number of households and total employment are expected to rise to levels of 3,192 and 2,331, respectively. These forecasts will be evaluated and compared to other available projections in a subsequent chapter of the Master Plan.

Michigan Department of Transportation and St. Clair County Road Commission

Future land use patterns are impacted and influenced by improvements to the regional highway system. Within St. Clair County, the Michigan Department of Transportation (MDOT) and County Road Commission exercise the greatest amount of control over future transportation improvements. Improvements to M-29 (Dixie Highway), for example, are the responsibility of MDOT. Any planned improvements to this road will influence land use patterns on either side of the road. The St. Clair County Road Commission has jurisdiction over all other public roads in the Township. The need for planned improvements to the Township's thoroughfare system will be explored later in the Plan.

St. Clair County Metropolitan Planning Commission

The County Planning Commission plays an important role in the local planning and development process. In addition to performing the statutory review of all local zoning changes, the Commission prepares numerous County-wide planning studies that are relevant to planning and zoning activities occurring at the local level. A summary of several such studies is offered as follows:

St. Clair County Comprehensive Development Plan - The County's comprehensive plan considers County-wide land use needs to the year 2000. While this Plan is nearly 20 years old and may no longer accurately reflect current development trends, it nevertheless offers a generalized view of Ira Township's future land use needs.

The Plan proposes a low density residential corridor extending the full length of M-29, with a planned density of up to five (5) units per acre. Higher density residential development between 5 and 13 units per acre is proposed near the Township's common boundary with New Baltimore. The Plan proposes two small concentrations of commercial development, one at Fair Haven and another at M-29 and Perch Road at the eastern end of the Township. Future industrial acreage, as well as land designated for utility purposes, are confined to portions of the Township's northern boundary along Marine City Highway. Land along Swan Creek is designated for recreational purposes. The remaining interior portions of the Township are planned for agricultural and rural residential purposes.

Solid Waste Management Plan - The Solid Waste Management Plan offers alternatives to meeting the County's future solid waste disposal needs. These include landfills, recycling, etc. The identification of existing and proposed future landfill sites is, perhaps, the single most important consequence of the solid waste plan for local planning purposes.

The County's Solid Waste Plan identifies five existing landfill sites in St. Clair County, nine of which are located in Ira Township. The closest existing site is in China Township, which serves the southern portion of the County. No additional planned landfill sites are identified in the Solid Waste Plan.

Recreation Plan - The County's Recreation Plan addresses County-wide recreation needs. It also qualifies the County to participate in recreation funding programs offered through the Michigan Department of Natural Resources. The Plan identifies a role for the County to coordinate recreation planning activities among existing units of government.

The County will also serve as an informational resource for recreation planning purposes. No site specific County recreation projects are planned for the southern portion of the County that would impact Ira Township.

Overall Economic Development Plan (OEDP) - The Overall Economic Development Plan is the result of a planning process intended to create employment opportunities and to foster a stable and diversified economic base. It also provides a formal mechanism to coordinate economic development activities on a County-wide basis. Adoption of the OEDP qualifies local communities to apply for economic development funding available through the Economic Development Administration.

The OEDP also identifies County-wide economic development organizations that are available to assist local communities. For example, the St. Clair County Economic Development Corporation promotes economic development activities and issues revenue bonds on behalf of local communities that do not have a local EDC. Other related organizations include the St. Clair County Industrial Development Corporation and the Community Growth Alliance. These organizations may assist the Township in the development of the Marine City industrial corridor.

Transportation Planning - The St. Clair County Metropolitan Planning Commission will assist SEMCOG in the preparation of the Year 2015 Regional Transportation Plan. The Planning Commission's efforts will also result in a 20-year transportation plan for St. Clair County. There is an obvious need to coordinate this Regional Transportation Plan with the recommendations contained in the Township Master Plan.

SHORELINE INFLUENCES

Because of its location, Ira Township is influenced by its proximity to Lake St. Clair, which is part of the larger Great Lakes system. Regulation of land use activities along the shoreline of Lake St. Clair and navigable waterways along this system is, in part, the responsibility of the U.S. Army Corps of Engineers and the Michigan Department of Natural Resources, which share permit responsibilities.

The Corps of Engineers has regulated activities along this Nation's waterway system since the latter part of the 19th century. Until 1960, the Corps' principal responsibility was to protect navigation. This responsibility has since been widened to include the long-term protection and utilization of our water resources. The Corps has regulatory responsibility in the following areas: 1) prohibiting the obstruction of navigable waters, and 2) the discharge of dredged materials. The Corps of Engineers' permit process is coordinated with the Michigan Department of Natural Resources.

The regulatory responsibility of both agencies impacts those property owners who have frontage on the lake or connecting navigable waterways. Any construction altering the shoreline, including filling, seawall, docks, or boat houses requires a permit prior to any construction taking place.

Ira Township is also influenced by the fluctuation of water levels in Lake St. Clair and periodic flooding levels along the shoreline. Periodic fluctuation in the level of Lake St. Clair, both seasonal and long-term, could have a significant impact on the community. The Township, however, has no control over the natural processes influencing lake levels.

To protect against damages caused by flood waters, the Township participates in the Flood Insurance Program offered through the Federal Emergency Management Association (FEMA). Areas of the Township susceptible to periodic flooding were mapped by FEMA in 1980. This mapping is a prerequisite to qualifying property owners for flood insurance.

The National Flood Insurance Program (NFIP) provides insurance to communities that enact and enforce floodplain regulation. To be eligible for this insurance, the community must adopt and enforce a floodplain management ordinance regulating development in flood hazard areas. These ordinances are designed to ensure that development will not aggravate existing flooding conditions and that all new buildings will be protected from flood damage.

The Community Rating System element of the Flood Insurance Program awards lower insurance premiums to communities who go beyond minimum flood protection measures. Qualifying activities include reducing flood damage to existing buildings, managing development in areas not mapped by NFIP, protecting new buildings beyond minimum protection measures, assisting insurance agents obtain floodplain data, and helping people obtain flood insurance. Considering the substantial amount of land currently located within designated flood hazard areas, strengthening existing regulatory measures may be appropriate.

LOCAL PLANNING INFLUENCES

In addition to the broader regional planning concerns identified in this report, Ira Township is also influenced by land use activities occurring in neighboring communities. Frequently, the planning policies of neighboring communities can have a significant influence on the future development of property on the opposite side of the municipal boundary. The master plans of those communities sharing a common boundary with Ira Township were examined to identify their potential impact on the community.

Five communities share a common boundary with Ira Township. These include the City of New Baltimore, Chesterfield Township, Casco Township, Cottrellville Township and Clay Township. China Township and Lenox Township adjoin Ira across common intersections. Relevant planning policies of these communities are summarized as follows.

Casco Township

Casco and Ira Township share a six-mile long common boundary along Marine City Highway. In 1985, Casco adopted a new Master Plan which designated a portion of this common boundary between County Line Road and Church Road for industrial purposes. The remaining portion of the Marine City Highway corridor frontage is considered prime agricultural land. This planning designation also allows for residential development on large parcels. Last year, the Township amended their Master Plan to extend the industrial designation one mile west to Meldrum Road. The expansion accommodates the Township's long-term industrial land use needs. The Master Plan allocates more than 700 acres of land for industrial purposes.

Cottrellville Township

Mayer Road forms the common boundary between Ira and Cottrellville Township to the east, extending from Marine City Highway on the north to Perch Road on the south, one-half mile short of the Township's southern boundary. The Township's 1970 Master Plan proposed low density residential development (one-acre lots) for the entire length of this common boundary, with one exception. Industrial development is proposed for the Marine City Highway and Mayer Road intersection.

In 1978, this plan was amended to incorporate several changes along the Township's western boundary. The previously identified industrial development remains at the northwest corner of the Township, with another industrial designation added at Mayer and Shea Roads. The Master Plan identifies a floodplain where Cottrellville, Clay and Ira Townships converge. The remainder of this common boundary is designated for low density residential purposes, with 1¼-acre minimum lot sizes.

Clay Township

Clay and Ira Township share a relatively short boundary. Dixie Highway (M-29) crosses this boundary, accounting for the relatively intense land use pattern on the Clay Township side. Portions of this common boundary are designated for single-family residential waterfront development, waterfront tourism and recreation conservation purposes.

The single-family waterfront designation recognizes the environmental and aesthetic qualities of waterfront and canal properties. This district permits the construction of single-family homes on canal lots, with a minimum front yard setback and a larger rear yard setback which takes advantage of the canal setting. Public water and sanitary sewers are a minimum requirement for this district.

Within those areas planned for waterfront tourism, the Master Plan encourages uses of a recreational, public, resort, commercial or waterfront nature which cannot be feasibly located elsewhere. Developed open spaces and municipal utilities are a prerequisite for this area.

The recreational conservation category includes that portion of the St. John's Marsh which abuts Ira Township. This planning designation encourages the preservation of natural resources and areas characterized by unique environmental features, which may include natural wildlife habitats, watersheds and reservoir areas, and public recreation sites.

The Clay Township Master Plan also offers more detailed planning recommendations for land located along the M-29 corridor. The corridor plan includes two separate planning designations along Ira's southern boundary. The existing single-family subdivision located on the east side of M-29 at the Township boundary is designated as a reuse area. Reuse areas refer to developed portions of the Township which should be upgraded to conform to contemporary design standards. The opposite side of M-29 is designated as a preservation area that should be maintained in its current use category.

Chesterfield Township

The boundary between Chesterfield Township, along County Line Road, is approximately one mile long. With the exception of commercial development proposed for the intersection of County Line Road and Marine City Highway, the remaining portion of Chesterfield's side of this boundary is designated for low density residential purposes (2-3 units per acre).

City of New Baltimore

The City of New Baltimore's Master Plan was adopted in 1994. Unlike Ira Township's other neighbors, New Baltimore and Ira Township are not separated by an existing road. Several different residential planning designations occur along this boundary. Between the Anchor Bay shoreline and M-29, the Master Plan proposes low density single-family, with a maximum gross density of three dwelling units per acre. This designation would permit single-family homes on 80-foot lots.

North of M-29, extending to Crapeau Creek, the Master Plan proposes multiple-family development with a planned density between six (6) and ten (10) units per acre. North of the Crapeau Creek floodplain, the Plan anticipates low density single-family uses with a maximum density of three units per acre.

Lenox Township

The Lenox Township Master Plan proposes local commercial development for the northwest corner of County Line Road and Marine City Highway. An area designated for moderate density residential development surrounds the planned commercial corner. The moderate planning designation anticipates the development of single-family homes, with lot sizes under one (1) acre; mobile home parks, with up to four (4) units per acre; or multiple-family units at higher densities.

China Township

The future land use pattern for the southwest corner of China Township, near the intersection of Mayer Road and Marine City Highway, is planned for agricultural and low density rural residential purposes by the Township's Master Plan.

CONCLUSION

There is an interaction between adjacent communities and the uses they place on one another's boundaries. Sometimes the influence is subtle; a corner commercial facility in one community may well spawn a similar use in the adjacent community. If there is not agreement on land use policy, neighboring uses may evoke a transitional or buffer response across boundary lines. Regional development influences provide opportunities for each local unit of government. Planning should be imaginative and foster a quality response to each identifiable regional initiative.

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PHYSICAL FEATURES

INTRODUCTION

The purpose of this study is to inventory those physical features in Ira Township that have the potential of influencing the location and character of development. Specific topics covered in this inventory include geology, topography, flood hazards, soils, water, woodlands and wetlands.

Existing physical features exert important influences in shaping the development of any specific area. They are nature's contribution to the Township's environment. Collectively, these features can determine the overall physical character of the community.

When integrated thoughtfully into development proposals, physical features serve to enhance the character and appearance of the constructed environment. Conversely, ignoring physical features, or misusing them, can have significant, long-term negative consequences. Some well-defined physical features serve as a barrier to development and may be difficult to overcome, except at considerable expense. It is usually better to design with nature than to attempt to substantially change an area's physical environment.

GEOLOGY

Michigan's physical setting, as we know it today, including the Great Lakes that surround the State, are the result of the interaction of glacial action on the bedrock formation that underlay the State. The bedrock formations of the State consist largely of sandstone, limestone and shale, which were particularly vulnerable to the weight and movement of the glaciers. The weight of the glaciers depressed the land mass surrounding Michigan, forming basins that would eventually become the Great Lakes.

Ira Township lies in an ancient lake bed covered by glacial material. This is part of a larger area known as the Erie-St. Clair Plain, which extends inland from the shoreline for a distance of approximately 25 miles. The plain stretches from Lake Huron on the north to Toledo on the south. It also extends east into Canada, encompassing the entire "panhandle" portion of southern Ontario. This plain is nearly level, rising gradually to the northwest. This plain was once the bottom of a large lake which existed during the last period of glacial action in the region. It is crossed by numerous channels which empty into the Great Lakes. These geological characteristics also explain some of Ira Township's other physical characteristics, most notably its topography and flood hazard areas.

TOPOGRAPHY

Topographic conditions can have a significant influence on land development patterns. Topography, for example, can impact the site location, orientation and design of buildings, roads and utilities. Where topography is extreme, slopes become an important consideration due to concerns relating to the ability of the land to bear the weight of buildings and the danger of erosion. Sometimes, topographic variations offer opportunities to appreciate the scenic environment. The absence of significant changes in topography can result in the need for man-made drainage improvements.

Ira Township's topographic features are a direct consequence of the geological conditions described earlier. The Township has a nearly level topography, with no significant changes in elevation. The highest elevation (620 feet above sea level) occurs in the northeast corner of the Township near the intersection of Palms Road and Marine City Highway. A low elevation of 580 feet is evident near the Lake St. Clair shoreline from Meldrum Road east to the Clay Township line. This 40-foot change in elevation occurs over a three-mile area, resulting in a modest slope of less than one percent. The only area of the Township where there is a noticeable change in elevation that may impact development is along Swan Creek.

WATER

Surface water exists in many forms, such as lakes, rivers, creeks and open storm drains. Ira Township's most prominent water feature is Lake St. Clair, which forms the community's southern boundary for a distance exceeding five linear miles. The Lake represents the Township's single most important physical asset. The presence of Lake St. Clair is of great potential value as it applies to both recreation and future development. Lake St. Clair has been a strong attraction for both its recreational and aesthetic value. The popularity of boating, fishing and other water-related activities will increase the Township's attraction in years to come. The presence of the Lake offers many unique planning challenges and opportunities.

ILLUSTRATION 5

TOPOGRAPHY
11 X 17

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Several drainage courses cross the Township in a north-south direction, the most significant of which is Swan Creek, which meanders its way through the central portion of the Township for a distance of 4.5 miles. Swan Creek empties into Lake St. Clair in the unincorporated area of Fair Haven. Other water courses crossing the Township generally parallel to Swan Creek include Marsac Creek and the Meldrum Drain.

The Township also includes numerous man-made canals perpendicular to the Lake St. Clair shoreline. These canals provide water access to many of the residential subdivisions and marinas located along the shoreline.

FLOOD HAZARD AREAS

Because of Ira Township's nearly level terrain and proximity to the Lake, it is subject to periodic flooding hazards. A floodplain is an area of land along a lake, river or other water feature that is susceptible to being inundated by water as a result of heavy rains, snow melt or other factors. Floodplains are naturally occurring physical features that provide temporary holding of this excess water until such time as the receiving channels are capable of accepting it again.

Extensive flood hazard areas are evident in Ira Township, as shown in Illustration 6. These maps show the limits of the 100 and 500-year floodplains taken from the National Flood Insurance Program maps prepared during the 1970's. These maps are prepared in order to designate areas of the Township that are eligible for Federal flood hazard insurance.

In Ira Township, floodplains are evident along the Lake St. Clair shoreline, as well as each of the three drainage channels that cross the Township before emptying into the Lake. The depth of the floodplain along the Lake varies significantly along the shoreline.

For example, the floodplain is relatively narrow from the Township's western boundary for a distance of approximately two and one-half (2½) miles. Beginning in the Fair Haven area where Swan Creek meets the Lake, the floodplain widens considerably. The entire area community, known as Swan Creek Point, is within a designated flood hazard area. East of Swan Creek Point, the Lake-associated floodplain extends from the shoreline to M-29 and even beyond the road at some locations.

Extensive flood hazard areas are also evident along Swan Creek, both branches of Meldrum Creek, and Marsac Creek. A large area of land lying south of Arnold Road, between Church and Meldrum Roads, is similarly influenced by the presence of an area prone to flooding.

The location of these flood-prone areas will influence future development patterns within the Township. Those areas of the community susceptible to flooding should not be encroached upon with uses that could be damaged by flood waters. These areas may lend themselves to more innovative design solutions, such as planned unit developments, which concentrate residential development only on upland areas, leaving flood-prone land as permanent open space.

SOILS

Soil characteristics have an important influence on the ability of land to support various types of land uses, including roads, buildings, utilities and agriculture. Four specific soil characteristics influence their ability to be used for various purposes. These include the following:

- **Bearing Capacity** – the ability to support the weight of roads, buildings or vehicles.
- **Erodibility/Stability** – the susceptibility of the soils to erosion hazards and the ability to accept weight, without causing mass movements such as mud flows and slides.
- **Drainage** – the capacity of soils to transit and receive water. This characteristic is especially important for determining the ability of soils to accept on-site waste water treatment systems. Soil drainage characteristics are influenced by particle composition and water content.
- **Resource Value** – the economic worth of the soil for agricultural purposes, or as a fill or mined material.

Ira Township's soil characteristics were identified as part of the larger St. Clair County Soil Survey conducted in the mid-1960's by the United States Department of Agriculture Soil Conservation Service. Categories of soils with different characteristics and physical properties were identified as part of the survey. This process resulted in a patchwork or jigsaw-like pieces that fit together to portray a larger overall picture of existing soil characteristics. A large number of individual soils types are present in the Township. These individual categories are grouped together into several generalized classifications of soils that share similar characteristics. A total of 12 of these grouped categories are located in St. Clair County. Three of these cover Ira Township. The characteristics of these categories are described as follows:

Latty Association

This category of soils occupies the northern and central portions of the Township. These soils generally occur on broad lake plains and areas that have little change in topography. Much of the land in this association has been cleared and is under cultivation. Dairy farms and cash crop farming are among the most common agricultural activities associated with these soils.

Soils within this association are very poorly drained and have slow permeability characteristics. Drainage improvements are needed to accommodate most uses. Because of the soil characteristics, however, these drainage improvements may be difficult to establish.

Allendale-Latty Association

These soils occupy a large portion of central Ira Township, south of Arnold Road and west of Swan Creek. This soil association can also be found along a portion of the Township's eastern boundary.

Allendale-Latty soils occur on level to gently undulating former lake plains. They have a seasonally high water table and require drainage improvements to accommodate most uses. These soils have low fertility characteristics and are subject to blowing and droughtiness during mid-summer months. They can be difficult to farm because of extreme differences in soil textures and conditions.

Wainola-Deford Association

This is the least extensive soil association in Ira Township. It only occurs in the southwest corner of the Township, extending as far west as Church Road. Soils in this association are found on glacial beaches or deltas and outwash plains.

Some areas characterized by these soils are cleared and cultivated for farming uses. Other areas are urbanized. That portion of the Township where these soils are located is largely developed for residential purposes.

These soils have low natural fertility and low available water capacity. They also have a seasonal high water table and need drainage improvements.

WOODLANDS

At the time southeast Michigan was originally settled, the area was covered with dense hardwood forests. As the number of inhabitants increased, these forests were cleared for lumbering and farming purposes. Today, the quantity of land still occupied by mature vegetation has diminished. Where large contiguous woodlands remain, however, they provide benefits that need to be considered in the planning process.

Woodlands are frequently only considered valuable as a visual amenity enhancing the natural or constructed environment. Trees serve many other useful environmental purposes that should be recognized for planning purposes. These include the following:

- Slope stabilization and erosion control
- Conserving water quality
- Maintaining a micro-climate
- Filtering pollution from the atmosphere
- Decreasing noise
- Providing a habitat for wildlife.

Recognizing these important physical properties and integrating woodlands into future development can improve the community's overall environmental quality and enhance the visual character of the constructed environment.

While not extensive, the Township does contain numerous large wooded areas. Many of these wooded areas are located along one of the drainage courses crossing the Township. Others are scattered elsewhere throughout the community. These areas are shown in Illustration 5. Wherever they exist, woodlots represent a valuable natural asset that should be thoughtfully integrated into the development process.

WETLANDS

Wetlands are an important element of Michigan's landscape. Before experiencing settlement in the late 18th and early 19th centuries, Michigan was thought to contain over 11 million acres of wetlands. Like the extensive forests that once covered the State, the unique physical characteristics of many of these wetlands were permanently altered as a consequence of the settlement of the State. This change occurred as forests were logged and swamps drained for farming purposes. Between 25 and 50 percent of these original wetlands remain in Michigan today.

Wetlands are areas characterized by the presence of water that either saturate the soil or cover the land most or all of the year. Because of this characteristic, wetlands have the ability to support unique varieties of plants and animals. Not all wetlands are similar, however. Several categories of wetlands are found in Michigan. These varieties are the result of differences in climate, bedrock geology, soil characteristics and landforms that are unique to different portions of Michigan. The characteristics of wetland vegetation provide the basis for making a distinction between different types of wetlands. The two basic types of wetlands are forested and unforested. The largest share of remaining State wetlands are of the former variety. Many of these forested wetlands have soils that are seasonally saturated with water. These wetlands are commonly referred to as swamps. Swamps differ from unforested wetlands more commonly known as marshes, wet prairies, wet meadows, fens and bogs.

Marshes are those areas that normally occur along the edges of lakes and streams. These areas are flooded for much of the year with average depths of under five feet. Commonly occurring vegetation in marshes include emergent plants such as bulrushes, cattails, sedges, grasses and floating or underwater plants.

Wet prairies consist of land located between marshes and abutting farm land. Their existence is a result of fluctuating water levels and Indian fires, which prevented the establishment of more permanent vegetation, including trees and shrubs. Few of these unique wetlands exist today. Many of these areas have been absorbed into the adjoining agricultural acreage. Wet prairies are recognizable by the striking vegetation that inhabit these areas, such as asters, goldenrods, mints, rare milkweed, Indian plantain and assorted prairie grasses.

Fens are a common herbaceous wetland located in areas characterized by saturated, lime-rich soils. Fens are commonly found at the bottom of ridges where poor drainage conditions exist resulting in muck soils. Like wet prairies, farming has absorbed many of these wetlands.

The remaining category of non-forested wetlands are known as bogs. The most striking feature of a bog is the thick acidic peat mats that cover these areas. These are formed as a result of the decomposition of sphagnum mosses and sedges. Many bogs have been permanently changed as a consequence of peat mining activities, especially those located in the more populated portions of southeast Michigan.

In spite of these differing characteristics, wetlands share some common physical properties that have important consequences for planning purposes. Wetlands serve a number of necessary environmental functions. These include the following:

- Protecting downstream water supplies by providing clean ground water as a result of the nutrient retention and sediment removal. Wetland vegetation traps these sediments and pollutants, thereby preventing them from being deposited in surface water bodies.
- Functioning as effective natural storage basins for floodwater. Wetlands may be considered sponges that absorb large quantities of seasonal precipitation, gradually releasing it when the receiving channels are able to accept it.
- Protecting the shoreline from erosion caused by wind and wave action and effectively serving as environmental shock absorbers.
- Providing a habitat for many types of plants and animals that thrive in the type of physical environment created by wetlands. These plants and animals provide an economic and recreational benefit as a result of hunting, fishing and other leisure activities.

Development in or around wetlands are regulated by several State statutes, the most prominent of which is the Goemaere-Anderson Wetland Protection Act (P.A. 203 of 1979). This Act regulates the development of wetlands if they meet one or more of the following criteria:

- Are contiguous to the Great Lakes or Lake St. Clair, an inland lake, pond, river or stream.

- Are not contiguous to one of the water features noted above, but are greater than five acres in area and are located in counties with populations exceeding 100,000 persons.
- Are less than five acres, not contiguous to any water feature, and are considered necessary to the preservation of the natural resources of the State from pollution, impairment or destruction.

Permits are required by this legislation for the following activities: 1) depositing or placing fill material in a wetland; 2) dredging or removing soil from a wetland; 3) constructing, operating or maintaining any use or development in a wetland; and 4) draining surface water from a wetland.

Specific categories of activities are exempt from the requirements of the Wetland Protection Act.

Other State statutes that have the effect of regulating wetland development include the Inland Lakes and Streams Act, the Floodplains Regulatory Act, the Great Lakes Submerged Lands Act, and the Shoreline Protection and Management Act.

Numerous wetlands are located in Ira Township. Many of these wetlands are located along existing water courses. The largest portion of the Township's wetlands are forested wetlands. Their locations are shown on a generalized basis on Illustration 6. These wetlands are identified on National Wetland Inventory maps prepared by the U.S. Department of the Interior. High altitude aerial photographs were used to identify wetland areas based on vegetation, visible hydrology and geography. On-site field investigations are needed to determine more conclusively the actual characteristics and extent of each identified wetland.

AGRICULTURE

Historically, agriculture has played an important role in southeast Michigan, including large portions of both St. Clair and Macomb Counties.

Farmland is often viewed as an inexhaustible resource, when in fact it is a finite one. Once an acre of land is converted to a non-farm use, its ability to be used once more for farming is severely diminished. The quantity of farmland in the United States is gradually being eroded by competition for other land uses. Other acreage is often idled prematurely because of unrealistic expectation regarding future development. The National Agricultural Lands Study, published in 1980, estimated that three million acres of farmland are lost each year to urbanization.

Major demographic shifts occurring in this Country explain this steady loss of farmland. The most significant aspect of this change was the movement of the population from central cities to suburban areas. Evidence of this trend is found in the population, housing unit and employment increases which have occurred in rural areas in recent years.

As a result of these trends, farming within St. Clair County in the past two decades has been typified by a decreasing number of farms. Generally, over the past few years, the farmer has increasingly rented more land for production and has hired specialized teams to fertilize or cultivate specific crops. Farm equipment has become such a major capital expenditure that the only way it can provide an economic return is to keep it in service each day as long as possible.

The suitability of land for agricultural purposes is directly related to soil characteristics. Some soils are better suited to supporting agriculture than others. The Important Farmlands Map, prepared by the U.S. Department of Agriculture Soil Conservation Service, identifies prime farmland based on soil capabilities. Large portions of Ira Township have soils capable of supporting agricultural uses. These soils are largely concentrated in the northern and eastern portions of the Township, as shown in Illustration 7.

CONCLUSION

As this chapter points out, the physical features of the community are nature's contribution to the Township's environment. For a variety of reasons, different communities have different endowments. Physical features appear to either enhance or limit development. Until recent times, development limitations were considered an adverse circumstance and engineered solutions were often employed to overcome natural limitations. Experience has proven that cooperation with nature, using imagination and creativity, is preferable to removing and/or paving over natural features. Because the Township is only partially developed, it should carefully examine each opportunity to maximize its design in a manner that enhances the community's livability. Planning can best assist in accomplishing this by encouraging designs that respect and work with nature.

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EXISTING LAND USE

INTRODUCTION

The character of our physical environment is influenced by many factors. Chief among these is the use of land, the distribution of uses within a community, and the relationship of these uses to one another. These factors strongly influence the overall character and image of the community. They also influence quality of life and our relative degree of satisfaction with our surroundings.

Land use characteristics and other relevant physical features are among the most important aspects of the land use planning process. These features establish the observable physical setting upon which the future of the community will be based. They also influence the development potential of the community.

The chief feature of this chapter is an examination of the Township's land use characteristics. Each of the Township's individual land use categories are discussed, including the amount of land devoted to each category and the distribution of the uses throughout the community. Current information will also be compared to previous land use surveys to illustrate trends.

METHODOLOGY

Ira Township's boundaries are a product of the Northwest Ordinance of 1787, establishing a uniform system of land divisions into a grid pattern. This system was devised to assist the eventual settlement of the vacant interior portions of the United States. Townships created as a result of this process were subdivided into 36 one-mile square divisions that are known as sections.

Ira Township's total area of 10,932.7 acres (17.1 square miles) is slightly less than one-half the size of the standard township created by the Northwest Ordinance. Lake St. Clair interrupts the pattern of land division established when the Township system of land organization was established in the late 18th century.

Original land division practices in Ira Township largely followed the grid-like pattern described above, with the exception of the waterfront where evidence of former ribbon forms or French claim parcels remain today. Parcels created as a result of this process typically have a narrow frontage along Lake St. Clair and extend a considerable distance to the north. This pattern of parcelization is evident along Dixie Highway between Bethuy and Church Roads, where parcels with narrow road frontages extend more than one-half mile in depth. Other similar, although somewhat less extreme examples of land division patterns are evident elsewhere along the Lake St. Clair shoreline.

Existing land use data for Ira Township was gathered during a field survey of the community conducted in the Spring and Summer of 1993. Land use features were recorded on a parcel-by-parcel basis on an updated Township base map. Aerial photographs and site plans were used as a secondary source of information and to verify the extent of land use patterns observed in the field. Information from both sources was subsequently transferred to a base map according to the individual categories shown in Table 2. Each category was measured to determine the amount of land area occupied by each individual land use class. The results of these tabulations are shown in Table 2 and described in the following pages.

In July of 2000 a supplemental field survey was conducted. The data collected from this field survey will be used to verify or contest 2000 Census results, as well as a means to assess growth in the Township since 1993. The 2000 field survey was not as involved as the 1993 survey in that acreage was not measured by individual use, however some general observations can be made. Since 1993 the only categories that have seen appreciable growth are the Single & Two family, Mobile Home Park, and Industrial.

TABLE 2
EXISTING LAND USE SUMMARY - 1993

<u>Land Use Category</u>	<u>Total Acres</u>	<u>Percent Total</u>	<u>Percent Developed</u>
Single & Two-Family	782.7	7.1	42.3
Multiple-Family	0.6	0.0	0.0
Mobile Home Park	189.3	1.7	10.2
Convenience Commercial	11.7	0.1	0.6
General Commercial	23.8	0.2	1.3
Industrial	114.3	1.1	6.2
Marinas	58.8	0.5	3.2
Semi-Public	84.7	0.8	4.6
Public	29.7	0.3	1.6
Road R.O.W.	586.5	5.4	31.2
Developed Total	1,882.1	82.8	17.2
Vacant Land	9,050.6	82.0	
Total Area	10,932.7	100.0	

SINGLE-FAMILY RESIDENTIAL

Single-family home sites occupy 782.7 acres of land, representing 42.3 percent of the Township's developed land area and 7.1 percent of the community's total area. Most of the Township's single-family homes have frontage on major section-line roads. Fewer homes front on subdivision streets. These subdivisions are located predominantly along or proximate to the Lake St. Clair shoreline. **The 2000 field survey noted the addition of the first subdivision north of the M-29 corridor. This development is located on Swan Creek road just south of Broadbridge Road and occupies approximately 25 acres.**

Existing single-family development forms two distinctive patterns. Residential neighborhoods near the shoreline are characteristically more densely developed than those located in the interior portions of the Township. Many of the platted lots along the shoreline are less than fifty (50) feet in width. This pattern results in home sites with minimal side yard setbacks between units. Lots sizes of one acre or greater are more common in the interior sections of the Township. These larger lot sizes contribute to a more rural residential character.

MULTIPLE-FAMILY RESIDENTIAL

The Township lacks any appreciable quantity of land developed for multiple-family purposes. Less than one acre of land is used for this form of housing. Existing multiple-family development consists of freestanding sites, each containing several apartments. These sites are located within the Dixie Highway (M-29) Corridor.

MOBILE HOME PARKS

Approximately 189.3 acres of land are currently developed for mobile home purposes in the Township. This accounts for 10.2 percent of the Township's developed land and 1.7 percent of the total area. The largest share of this land is located within the two Chateau Estate developments at M-29 and Bethuy Road. **The 2000 survey identified an additional 36 acres of park that had been developed since 1993. This new development is located in the Chateau Estates located east of Bethuy road.** The Chateau Estates sites are still not yet fully developed. As the development of these sites progress, the quantity of land used for this purpose will continue to expand. Potentially, the undeveloped portions of these two sites could add another 45 acres to the Township's mobile home park acreage.

Two smaller mobile home parks are located on the opposite side of the Bethuy Road from Chateau. Collectively, these two sites occupy less than five (5) acres of land. Several sites along Dixie Highway contain single mobile home units on individual lots.

COMMERCIAL

The existing land use survey identified two categories of commercial uses: convenience and general. These two categories are distinguished from one another on the basis of the types of

goods and services offered and the likely trade area of the business.

Convenience commercial uses are intended to meet the daily retail and service needs of nearby residential neighborhoods. General commercial uses customarily draw from a wider trade area that may extend beyond the boundaries of the community in which they are located. These type of commercial uses require freestanding locations along major thoroughfares and which rely heavily on easy visibility and convenient access.

Within Ira Township, commercial uses occupy a total of 35.5 acres of land, or less than two percent of the Township's developed land area. Convenience commercial uses account for 11.7 acres and general commercial uses 23.8 acres.

With a few exceptions, the Township's commercially developed land occupies sites within the M-29 corridor. The largest concentration is evident in Fair Haven. Another small pocket of commercial activity is evident in Anchorville at Church Road and M-29. Most of these commercial uses occupy freestanding sites with separate access. The Township lacks any consolidated shopping center sites.

INDUSTRIAL

In 1993 Industrial uses occupied 114.3 acres of land, or 6.2 percent of the Township's total developed land area. The largest share of this industrially developed land lies along Marine City Highway between County Line Road and Meldrum Road. Several industrial sites were also noted along Bethuy Road and M-29. **The 2000 survey identified approximately 10 additional acres of land being used for industrial purposes. Most of this recently developed land is included in a developing industrial subdivision located east of County Line Road and South of Marine City Highway.**

PUBLIC/SEMI-PUBLIC

This category includes cemeteries, schools, parks, Township sites, utilities, churches and related uses. Collectively, these uses occupied approximately 114.4 acres of land in 1993, with an approximate 16 acres of land identified in the 2000 survey. These uses are located throughout the Township. Three school districts serve the Township: East China, Algonac and Anchor Bay, with all three school districts operating an elementary school in the Township. The Township also contains one parochial elementary school. There is a new public park located behind the Township administration building and fire hall. The only other recreation facilities in Ira Township are confined to the four elementary school sites and the private Lions Club Park on Short Cut Road between Meldrum and Church Roads.

MARINAS

Land developed for marinas occupies 58.8 acres. While this accounts for a relatively small quantity of the Township's developed or total land area, these marina sites represent an important element of the community's total developed land use inventory. Many of these marinas are concentrated in the Fair Haven area and contribute to heavy volumes of traffic along M-29, especially during the boating season. The contribution that these marinas make to the landscape

and economy of the Township will be discussed in more detail in later chapters of the Master Plan.

RIGHT-OF-WAY

The quantity of land used for road right-of-way purposes is one indicator of a community's development. Right-of-way includes the path or corridor of land within which the actual road bed and paved or gravel surfaces are located. Section-line roads were assumed to have a right-of-way of 120 feet; local subdivision streets generally have 60 feet of land reserved for right-of-way purposes. Many of the residential neighborhoods located along the Lake St. Clair shoreline are served by roads with right-of-ways well under 60 feet.

The total quantity of land used for road right-of-way purposes amounts to 586.5 acres, or nearly one-third of the Township's developed land inventory and 5.4 percent of the community's total area.

VACANT

Approximately 9,050.6 acres of land, or 82.8 percent of the Township's total land area, is vacant. Little vacant, undeveloped land is available south of M-29 along the Township's Lake St. Clair shoreline. Large tracts of vacant land are evident throughout the interior portions of the Township, however. Some of this vacant land is currently being farmed.

ZONING

Zoning is a form of policy adopted by a municipality that often establishes the existing land use pattern. All of the various zoning districts and regulations should add up to a statement of policy regarding how land is to be used. Sometimes, this does not happen. Land use policy may become the result of the sum of many individual decisions, each arrived at separately over time. Elections have the effect of changing the persons who establish policy and such changes may make the charting of a consistent direction quite difficult, unless a Master Plan is followed. The quantity of land within each of Ira Township's 13 zoning designations is shown in Table 3.

TABLE 3
ZONING ACREAGE

<u>Category</u>	<u>Acres</u>	<u>Percent</u>
AEC, Agricultural/Estate/Conservation	7005.6	64.0
RS, Residential Suburban	1947.3	17.8
RU, Residential Urban	148.3	1.3
RM-1, Multiple-Family	8.2	0.1
RM-2, Multiple-Family	36	0.3
RM-3, Multiple-Family	25.7	0.2
MH, Mobile Home Park	272.2	2.6
B-1, Local Business	26.3	0.3
B-2, General Business	165.1	1.6
I-1, Light Industrial	272.6	2.6
I-2, Heavy Industrial	361.5	3.5
WM, Waterfront Marina	76.6	0.7
P-1, Parking	0.8	0.0
Sub-Total	10,346.2	94.6
Right-of-Way	586.5	5.4
Total	10,932.7	100.0

Approximately 87 percent of the Township's land area (minus right-of-way acreage), or some 9,022.2 acres, are zoned for residential purposes. More land is zoned Agricultural than any other category. Land zoned for this purpose accounts for two-thirds of the Township's total land area and 74 percent of all residentially zoned land. The two commercial designations total just under 200 acres; industrially zoned land amounts to 634 acres, or slightly less than one square mile.

LAND DEVELOPMENT CONCERNS

One of the purposes of the existing land use survey is to offer some insight on current land use patterns and the extent to which these patterns influence future development. These observations provide the basis for solutions to be included in subsequent chapters of the Plan.

Road Frontage Development

With several exceptions, most development in Ira Township occurs in a linear fashion along major road frontages. This pattern is most prevalent along M-29, and to a lesser extent along section-line roads. There are two common problems associated with this type of development. The first concerns access and the second influences the development of adjoining property.

Linear development patterns result in the creation of multiple access points for vehicles. An excessive number of driveways and inadequate spacing of driveways, especially when they are located along major thoroughfares, creates additional opportunities for accidents.

Another common problem associated with this type of development is the isolation of interior acreage, often with inadequate road frontage or access. This interior acreage subsequently becomes difficult to assemble, further complicating future development opportunities.

Inadequate Road Right-of-Way.

In those areas of the Township where subdivision roads provide access to land located off of major thoroughfares, the roads are not developed to accepted road planning standards. More often than not, road rights-of-way are less than the 60-foot wide standard. Actual road surfaces are frequently too narrow to accommodate two-way traffic flow. This is especially a problem for emergency vehicles. The pattern evident today is likely a consequence of property owners maximizing the opportunities for residential home sites along the waterfront.

Mixed Land Use Pattern.

A basic principle of land use planning is the separation of incompatible land uses. A related consideration involves maximizing the privacy of single-family property and limiting the encroachment of uses that detract from this residential character. There are some portions of the Township, especially along the waterfront, where dissimilar uses compete for available land. This mixed use pattern is most prevalent in the Fair Haven area. While a mixture of uses can create an ambience or unique character, when uncontrolled, it can be a blighting influence. Subsequent portions of the Master Plan will explore methods of capitalizing on the Township's diversity, while observing basic land use principles.

ILLUSTRATION 11
EXISTING LAND USE

11 X 17

Blank sheet to accommodate two-sided printing of 11 x 17 Existing Land Use

POPULATION AND HOUSING CHARACTERISTICS

INTRODUCTION

The characteristics of a community's population and housing are the key ingredients that require consideration in the long-range planning process. Historical and current population trends have several useful applications. They are especially relevant in identifying the need for various types of community facilities. Future land use and public utility demands are also related to demographic trends and characteristics.

The following report considers several items, each of which are important to more fully understand the characteristics of Ira Township's total population. These individual topics include the following:

- Population change over time
- Age characteristics.
- Household characteristics.
- Population projections.

The most current available population data for Ira Township is employed in the examination of each topic listed above. Wherever possible, comparable data for St. Clair County is also included. Information for this wider geographic area is provided for the purpose of understanding the relationship of the Township to the larger related geographical areas that it occupies in southeast Michigan. Conclusions and the potential planning policy implications of this data are also noted where relevant.

POPULATION CHANGE

National Trends

To more fully appreciate and understand the Township's population characteristics and trends, demographics need to be considered in relation to broader influences at the regional and national levels. These broader trends provide the backdrop or context within which the dynamics of population change occur locally.

At the National level, the United States population exceeded two million for the first time in 1970. In the subsequent two decades, the United States experienced continued population growth to 226 million in 1980 and 248 million in 1990. The 9.8 percent population gain that occurred during the past ten years was the smallest single percentage increase since the Depression.

Equally significant is the continuation of a 30-year trend that saw the Nation's population shift to the south and west. The 16 States comprising the southern portion of the country is the most populous portion of the Nation. While the midwest (including Michigan) remains the second largest region, its growth rate over the past ten years was only 1.4 percent, the slowest in the Nation. One important consequence of this shift is a loss of political influence through Congressional redistricting. Michigan lost two Congressional seats in 1992.

State Population Trends

During the 50-year period between 1930 and 1980, Michigan's population nearly doubled from 4.8 million to 9.2 million. The State's greatest periods of population growth over these five decades occurred between 1940 and 1970. During this 30-year period, Michigan gained more than one million people for each ten-year census interval. Since 1970, however, population growth has slowed considerably. Michigan grew by only 380,252 persons during the 1970's. Final 1990 U.S. Census data for Michigan gives the State a population of 9,295,297, or a 33,219 person increase over 1980 levels. This is an increase of less than one percent, continuing a percentage decline that has occurred since 1970.

Regional Trends

The modest population increases described for Michigan are likewise evident across the seven-county southeast Michigan region. Macomb, Oakland, St. Clair, Livingston and Washtenaw County each reported population gains since 1980. In each case, however, the increases were well below the levels noted ten years ago. Only Livingston County recorded an increase exceeding ten percent. Both Wayne and Monroe Counties lost population over the past decade. Wayne County's loss was largely the result of Detroit's

TABLE 4
COMPARATIVE COUNTY POPULATION
GROWTH TRENDS

<u>County</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>
Livingston	38,233	58,967	100,289	115,645
Macomb	405,804	625,309	694,600	717,400
Monroe	101,120	119,215	134,659	133,600
Oakland	690,259	907,871	1,011,793	1,083,592
St. Clair	107,201	120,175	138,802	145,607
Washtenaw	172,440	234,103	264,748	282,937
Wayne	2,666,297	2,670,368	2,337,891	2,111,687
Regional Totals	4,181,354	4,736,008	4,682,782	4,590,468

TABLE 5
COUNTY POPULATION CHANGE BY DECADE

<u>County</u>	<u>1960-70</u>		<u>1970-80</u>		<u>1980-90</u>	
	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>
Livingston	20,734	54	41,322	70	15,356	15
Macomb	219,505	54	69,291	11	22,811	3
Monroe	18,095	18	15,444	13	- 1,059	- 1
Oakland	217,612	36	103,922	11	71,799	7
St. Clair	12,974	12	18,627	16	6,805	5
Washtenaw	61,663	36	30,645	13	18,189	7
Wayne	4,071	0.2	- 332,477	- 12	- 226,204	- 10
Regional Totals	554,654	13.3	- 53,226	- 1	- 92,314	- 2

decline of 175,000 persons. For the region as a whole, there was a population decline of two percent. Removing the City of Detroit from this total, the region's population increased by a modest 1.8 percent. These figures provide evidence of a continuing trend of population migration from the historic centers of the southeast Michigan in the City of Detroit to the outlying counties.

This trend is evident in St. Clair County as well. In each of the past three decades, the County experienced population increases, the largest of which occurred during the 1970's, when the County's population increased by 18,627 persons. While the County's population continued to increase over the past decade, the rate of growth slowed. Between 1980 and 1990, St. Clair County grew by 6,805 persons, for an increase of five (5) percent.

Local Trends

Population change for Ira Township and its neighboring communities was examined over a 40-year period between 1950 and 1990 (see Table 6). During this period, the Township's population increased by 3,912 persons. The rate of the Township's population growth over this 40-year period is shown in Table 4. The community's growth averaged 978 persons per decade. This growth reached a peak during the past ten years when the population increased by 1,271 persons. The smallest increase occurred during the 1970's when the Township's population grew by 704 persons. Overall, the Township experienced fairly consistent population increases during this 40-year period.

To more fully understand the dimensions and extent of the Township's population growth over the past 40 years, the pattern of population change needs to be examined in relation to county and local trends. In 1960, Ira Township contained 2.6 percent of St. Clair County's total population. This proportion increased in each subsequent decade to 3.0 percent in 1970, 3.1 percent in 1980, and 3.8 percent in 1990.

TABLE 6
COMPARATIVE POPULATION GROWTH
1950-1990

<u>Community</u>	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>
Ira Township	1,675	2,746	3,612	4,316	5,587
Casco Township	1,562	1,863	2,065	4,331	4,552
Chesterfield Township	3,722	5,888	9,378	18,276	25,905
China Township	1,361	1,836	2,106	2,466	2,644
Clay Township	2,074	3,578	6,732	8,518	8,862
Cottrellville Township	1,458	1,834	2,194	3,075	3,301
Lenox Township	1,993	2,356	2,869	3,028	3,069
New Baltimore	2,043	3,159	4,132	5,439	5,798

With the exception of neighboring Chesterfield Township to the east, Ira Township reported more population growth than any other surrounding communities during the past decade. The vigorous growth evident in Chesterfield Township appears to be spilling over into Ira Township. The attraction of Lake St. Clair and the accessibility offered by M-29 (Dixie Highway) clearly contribute to this pattern of growth.

TABLE 7
POPULATION CHANGE BY DECADE

Community	1950-60		1960-70		1970-80		1980-90	
	Number	%	Number	%	Number	%	Number	%
Ira Township	1,071	64	866	32	704	19	1,271	29
Liberty Township	301	20	202	11	2,266	110	211	5
Chesterfield Township	2,166	58	3,490	59	8,898	95	7,629	42
Waukegan Township	475	35	270	15	360	17	178	7
Waukegan Township	1,504	73	3,154	88	1,786	27	344	4
Waukegan Township	376	26	360	20	881	40	266	7
Waukegan Township	263	18	513	22	159	6	41	1
Baltimore	1,116	55	973	31	1,307	32	359	7

AGE

Age characteristics are among the more important demographic variables. They are useful as an indicator of anticipated demand for various types of municipal services and programs, including parks, employment needs, job training, day-care, schools, and various services for the elderly. A community's future land use requirements are also related to its age characteristics.

Median Age

The steady aging of this Nation's population was among the more important trends dimensioned by the 1980 census. After reaching a high of 30.2 years in 1950, the median age for the Nation declined the following two decades to 29.5 years in 1960, and 28.3 years in 1970. These declines were largely a response to the high birth rates that occurred during the baby boom years following World War II. The aging of the baby boom children, during the 1960's and 1970's, partially explains the rise in median age revealed in the 1980 U.S. Census. Lower fertility rates and increasingly longer life spans have also contributed to the increase.

The aging trend is clearly reflected in the median age figures noted in Table 8. Each of the different geographic areas included below experienced an increase in median age levels between 1970 and 1990. The Nation's population reached a level of 30.0 years in 1980, according to the U.S. Census Bureau. Both Michigan and St. Clair County reported median age levels approaching the National level in 1980. Ira Township reported gradual increases in median age from 28.9 years in 1970 to 31.5 years in 1990. The Township's median age remains slightly below County, State and National levels.

TABLE 8
MEDIAN AGE

<u>Geographic Area</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>
Ira Township	28.9	30.8	31.5
St. Clair County	26.8	29.0	32.9
Michigan	26.3	28.8	32.6
United States	28.3	30.0	32.9

Population by Age

By reviewing the various age categories that make up the Township's population, it is possible to determine how various segments of the population have changed over time and which groups made the largest contributions to Ira Township's population increases over the past two decades.

The distribution of Ira's population into designated age categories is shown in Table 6 and Figure 6. Between 1970 and 1980, seven of the ten age categories reflected in Table 6 reported increases; two declined; and one stayed the same. Both declines occurred in the younger age groups. The number of children under the age of 18 declined by 90 residents during this ten-year interval. The single largest increase occurred in the 25-44 age category, which increased by 346 persons. Collectively, residents between the ages of 18 and 44 grew by 515 persons, accounting for 78.3 percent of the Township's total population increase. The remaining population gains occurred at the upper end of the age spectrum. The number of residents over 55 years of age increased by 243 persons.

Changes to the age structure of the Township's population between 1980 and 1990 differ significantly from those that occurred a decade earlier. Six of the age categories included in Table 9 expanded, while four declined. Like the previous decade, the single largest increase occurred in the 25-44 age group, which increased by 925 residents, accounting for nearly two-thirds of the Township's total population gain. On the whole, residents between the ages of 21 and 54 grew by a total of 1,015 persons, or 79.9 percent of the Township's overall population increase. Unlike the past decade, the number of children grew. The largest increase occurred in the 0-4 age group, which expanded by 237 persons. Children between the ages of 5 and 17 increased by 50 persons. The pattern of changes reflected over the past two decades is indicative of an in-migration of families.

TABLE 9
POPULATION BY AGE

	197		1980		Change 1970-80	1990		Change 1980-90
	<u>N</u> <u>u</u> <u>m</u> <u>b</u> <u>e</u> <u>r</u>	%	<u>Num</u> <u>ber</u>	%		<u>Number</u>	%	
305	84	273	6.3	- 32	510	9.1	+ 237	
940	261	882	20.4	- 58	932	16.6	+ 50	
177	49	264	6.1	+ 87	202	3.6	- 62	
224	62	342	7.9	+ 118	400	7.2	+ 58	
749	28	1,095	25.5	+ 346	1,920	34.3	+ 825	
442	12	442	10.2	-	574	10.3	+ 132	
218	60	235	5.4	+ 17	221	4.0	- 14	
185	51	233	5.4	+ 48	227	4.1	- 6	
255	71	369	8.6	+ 114	352	6.3	- 17	
117	32	181	4.2	+ 64	249	4.5	+ 68	
:	:	4,316	100.0	+ 704	5,587	100.0	+ 1,271	
:	(
:	(
:	:							
:	(

Age by Life Cycle Category

A more meaningful picture of the Township population's age distribution is possible when the individual age categories shown on the previous table are combined into a smaller number of groups, which more closely resemble identifiable stages of a normal human life cycle. Selected categories and the age intervals that they represent include: pre-school (0-4), school (5-17), family formation (18-44), middle-age (45-64), and seniors (65+). The percent of the Township's population that falls into each of these categories is shown in Table 10. Available information for 1970, 1980 and 1990 is shown. Similar data for St. Clair County is also provided for comparison purposes. Each of the life cycle stages reflected in Table 7 has important meaning for planning purposes.

The pre-school and school-age categories, for example, offer useful indicators of future school enrollment trends and the adequacy of existing facilities to meet these needs. In 1970, children under the age of five represented 8.4 percent of the Township's total population. This percentage declined to 6.3 in 1980, before increasing to 9.1 percent in

1990. This differs from St. Clair County's trend, which has declined between 1970 and 1980. 1990 percentages suggest a leveling off of this trend. The Township's percentage of school-age children declined from one-quarter of the population in 1970 to 16.6 percent in 1990. While St. Clair County also experienced a similar 20-year decline, the County has a larger percentage of school-age children than is the case for Ira Township.

TABLE 10
AGE BY LIFE CYCLE CATEGORY

<u>Category</u>	<u>Ira Township</u>		
	<u>1970</u>	<u>1980</u>	<u>1990</u>
Pre-School (0-4)	8.4	6.3	9.1
School (5-17)	26.1	20.4	16.6
Family Formation (18-44)	31.8	39.5	45.2
Middle-Age (45-64)	23.4	21.1	18.3
Seniors (65+)	10.3	12.7	10.8
<u>Category</u>	<u>St. Clair County</u>		
	<u>1970</u>	<u>1980</u>	<u>1990</u>
Pre-School (0-4)	9.3	7.7	7.6
School (5-17)	28.4	24.2	20.2
Family Formation (18-44)	32.0	38.4	40.8
Middle-Age (45-64)	20.4	19.0	19.1
Seniors (65+)	9.9	10.7	12.3

Collectively, the family formation and middle-age categories comprise the foundation of the community. They are the largest segment of property owners and taxpayers. They are also among the largest consumers of goods and services and, therefore, provide a catalyst for economic growth. These two categories accounted for 55.2 percent of the Township's 1970 population, 60.6 percent in 1980, and 63.5 percent in 1990. St. Clair County reports a similar trend; however, the County's percentages remain slightly below the Township.

The remaining category includes all residents over the age of 65. Improved medical care and longer life expectancy are responsible for the increasing number of seniors nationwide. Continued increases will generate demands for a variety of services targeted to this population category, including health care, transportation, housing and recreation, among others. In 1970, 10.3 percent of the Township's population was over the age of 65. This increased to 12.7 percent in 1980, before declining to 10.8 percent in 1990. St. Clair County's percentage of senior citizen residents has risen steadily since 1970. In 1990, 12.3 percent of the County's population were over the age of 65.

HOUSEHOLDS

Household Growth Trends

The U.S. Census Bureau has two categories that it uses to describe living arrangements: households and families. A household is one person or a group of persons occupying a housing unit. The number of households and occupied housing units are, therefore, identical. Families, on the other hand, consist of two or more persons, related to each other, living in a household.

Household characteristics, in general, and the rate of new household growth have become increasingly important indicators of demographic change within a community. Changes in the number of households and their composition are recognized as a more valid measure of community growth and vitality than absolute changes in the number of persons. Several reasons account for this view.

At the local level, households generate property tax revenues regardless of how many people are living within the household. Households also generate a demand for durable goods, including cars and appliances, as well as energy (electricity, gas and telephone services) which serve to stimulate local and regional economic growth. Local governmental services are impacted by household growth trends, especially the need for public utilities (water and sewage disposal), police and fire services, and solid waste disposal, among others. The number of households also influence traffic levels and the need for future transportation system improvements.

TABLE 11

HOUSEHOLD GROWTH TRENDS

	1970	1980	Change 1970-80	% Change	1990	Change 1980-90	% Change
Ira Township	1,144	1,602	458	40.3	2,143	541	33.8
St. Clair County	36,416	47,308	10,892	29.9	52,882	5,574	11.8

Ira Township experienced significant increases in the total number of new households and the rate of household growth over the past two decades. For example, between 1970 and 1980, the number of new households grew by 458, or 40.3 percent. This was higher than the County growth rate of 29.9 percent. This growth trend continued during the past decade when the number of new households increased by 541, or 33.8 percent. At the County level, the increase was only 11.8 percent. Nearly ten percent of all new household growth in St. Clair County between 1980 and 1990 occurred in Ira Township.

Household Size

Accompanying these increases in household growth was a decline in the size of the average household. At the National level, household size declined steadily since 1950, when it stood at a level of 3.37 persons per household. By 1990, it declined to 2.63 persons per household.

Consistent with broader national and regional trends, average household size in Ira Township declined over the past two decades. In 1970, the size of the average household was 3.15 persons. This declined to 2.69 persons in 1980, and again to 2.61 persons in 1990. Similar declines are observed for St. Clair County and Michigan. The size of the average household has been consistently lower than either the County or the State of Michigan over the past 20 years.

TABLE 12
HOUSEHOLD SIZE

	<u>1970</u>	<u>1980</u>	<u>1990</u>
Ira Township	3.15	2.69	2.61
St. Clair County	3.27	2.92	2.73
Michigan	3.27	2.84	2.63

Several factors are responsible for this decline which include birth rate patterns, the distribution of the population on the age spectrum, and life style changes. The first of these factors is referred to as the baby-boom echo. America experienced a well-documented population growth period following the Second World War, commonly known as the baby-boom. Children born during this period have reached the child-bearing years and are starting their own families, creating an echo of the earlier baby-boom. This baby-boom echo is not producing the same number of persons that occurred earlier due to significant declines in the birthrate. Women today are having fewer children than their mothers did. Fewer children mean smaller families and reduced household sizes.

Population distribution patterns also impact household size declines. The aging of the baby-boom generation has begun to increase the proportion of those persons that are no longer considered to be likely candidates for parenthood.

Finally, the increasing number of single-person households has contributed to this trend. Improved medical care has resulted in an increasing number of persons over the age of 65, many of whom are widows or widowers creating single-person households. Young persons have also shown a tendency to marry later and delay having children until later in their lives. Another consequence of this delay is a corresponding decision to have fewer children. Increases in the divorce rate has also increased the number of new households and contributed to the decline in their overall size.

Household and Family Characteristics

Since 1970, there have been many changes in the American family's composition. The data available for the most recent decade, 1980-1990, shows the continued decline in the "traditional" family. This is so even though the number of married couples grew nationally by 6.5 percent and the number of births was higher in 1984 than any time since 1964.

In the United States, the traditional family dropped from 31 percent to 26 percent of all households. Families headed by unmarried men and women grew 32 percent, and persons living alone or with unrelated people grew more than twice as fast as families. Families make up 71 percent of all households, but are smaller and less traditional than ever before.

In Ira Township, family households, consisting of household members related to each other, comprise approximately 72 percent of all Township households. This is only slightly lower than the County figure of 75 percent and similar to the State-wide percentage. Married couple families, or the traditional family unit consisting of a husband and wife living together with their own children, represent 57.8 percent of all Ira Township households. This is slightly lower than the equivalent figure for St. Clair County, but higher than Michigan's percentage. Finally, the Township's proportion of female-headed households is lower than either comparable percentage for St. Clair County or the State of Michigan.

TABLE 13

HOUSEHOLD CHARACTERISTICS

	<u>Family Households</u>	<u>Married Couple Families</u>	<u>Female-Headed Households</u>
Ira Township	72.0	57.8	10.4
St. Clair County	75.0	61.1	10.9
Michigan	71.3	55.1	12.9

HOUSING CHARACTERISTICS

Number of Units/Housing Type

Over the past 20 years, Ira Township's housing supply increased by 1,853 units. Between 1970 and 1980, there was an increase of 422 units, for a growth rate of 31.5 percent. Between 1980 and 1990 the Township experienced another increase of 634 units, or 36 percent above 1980 levels. This was higher than the County-wide growth rate of 10.8 percent. The past decade has seen an increase of 797 units for a growth rate of 33.2 percent.

TABLE 14

HOUSING CHANGE

<u>Year</u>	<u>Number</u>	<u>Change</u>	<u>Percentage</u>
1970	1,340	-	-
1980	1,762	422	31.5
1990	2,396	634	36.0
2000	3,193	797	33.2

In 2000 Single Family dwellings accounted for 1,319 units, while Mobile Homes accounted for 1,830. These numbers increased from 1,163 and 1,125, respectively, from 1990. Multiple-family units account for only 44 of the Township's total housing inventory.

The characteristics of the County's housing supply differ from Ira Township's. For example, 75 percent of all County dwelling units consist of single-family dwellings. Multiple-family units and mobile homes account for 15.6 and 9.7 percent of the County's housing supply, respectively. Approximately 21.1 percent of the County's mobile homes are located in Ira Township.

Housing Tenure

Home ownership is generally a good indicator of community stability. Home purchases often represent the single largest investment that a family will make and, therefore usually signifies a long-term commitment to community. Approximately 88.1 percent of Ira Township's total housing units are owner-occupied according to the 1990 Census. For St. Clair County as a whole, 75.7 percent of all housing units are owner-occupied. Ira Township's rate of home ownership has risen over the past 20 years from 78.5 percent in 1970 to 81.4 percent in 1980.

TABLE 15
HOUSING TENURE

	1970		1980		1990	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Owner-occupied	898	78.5	1,304	81.4	1,888	88.1
Renter-occupied	246	21.5	298	18.6	255	11.9
Total	1,144	100.0	1,602	100.0	2,143	100.0

Vacancy Rates

Vacancy rates are a significant indicator of conditions within a local housing market. They are particularly useful for evaluating the dynamics of the housing market. Vacancy rates between three and five percent are generally considered to be the evidence of a stable housing market. When vacancy rates drop below three percent, housing choice becomes restricted. High vacancy rates, on the other hand, are indicators of incipient housing problems.

Ira Township reported a total of 253 vacant housing units in 1990. This represents an increase of 93 units over 1980 figures. The Township's vacancy rate for owner-occupied units is 2.28 percent and 7.94 percent for renter-occupied units. On a County-wide level, the owner and renter vacancy rates are 1.0 percent and 7.32 percent, respectively.

Housing Value

The value of housing units is another useful measure of the quality of a community's housing supply. Ira Township's 1990 median, owner-occupied housing value is \$81,000. This figure is higher than the County figure of \$59,400.

TABLE 16
HOUSING VALUE DISTRIBUTION

	Ira Township		St. Clair County
	Number	Percent	Percent
Less than \$ 50,000	105	14.8	38.0
\$ 50,000 to \$ 99,999	392	55.0	45.9
\$100,000 to \$149,999	152	21.4	10.1
\$150,000 to \$199,999	41	5.8	3.3
\$200,000 to \$299,999	19	2.7	2.0
\$300,000 and over	2	0.3	0.7
Specified Owner-Occupied Units	711	100.0	100.0

PROJECTIONS

Projections provide a basis for anticipating future land use requirements and community service requirements. Among the principal factors influencing future population levels are household growth rates and the size of the average household. Growth will also be influenced, to a large degree, by the Township's relationship to the larger southeast Michigan region and broader trends that are occurring at the regional and State levels. While there is no precise way to absolutely predict future growth trends, past trends offer useful methods of anticipating expected changes in the number of households and future population levels.

Several different techniques are frequently used to project future household and population levels. Each technique used here is based on certain assumptions regarding previous trends being carried forward into the future. Projections available from regional planning agencies are also offered.

Southeast Michigan Council of Governments (SEMCOG) Small Area Forecasts

Every five years, SEMCOG prepares a series of Small Area Forecasts for each of 233 local units of government in the southeast Michigan region. The forecasts include the anticipated number of persons, households and jobs within each community for each five-year interval between 1995 and 2020.

SEMCOG's most recent forecasts show strong growth in both population (up 13 percent over the seven-county region) and jobs (up 18 percent) from 1990 through 2020. The two most significant trends in the forecast are the aging of our region's population and the continued outward spread of households and jobs. The aging population will result in more households without children (up 37 percent region-wide, 1990 to 2020) and fewer households with children (down 5 percent). With the forecasted 22 percent growth in households, the region will need to build over 400,000 new housing units between 1990 and 2020.

The largest amount of household growth will occur in the communities on the borders of the built-up, urbanized area of the region, with additional strong growth areas in the townships surrounding Ann Arbor, in central and eastern Livingston County, across northern Oakland and Macomb counties, and into St. Clair County.

Population growth parallels households. Because of a continued decline in household size (down from 2.66 to 2.47 persons per household for the entire region), many older suburbs will continue to add households, yet will lose some population.

TABLE 17
SEMCOG POPULATION AND HOUSEHOLD FORECASTS

	<u>1980</u> <u>Census</u>	<u>1990</u> <u>Census</u>	<u>2000</u>	<u>2010</u>	<u>2020</u>
Population	4,316	5,587	6,839	7,872	8,937
Households	1,602	2,143	2,534	2,863	3,192
Persons per Household	2.69	2.61	2.70	2.75	2.80

Constant Proportion

The constant proportion method assumes that the number of households in Ira Township will maintain the same ratio to St. Clair County's total households in the years 2000 and 2010 as they did in 1990. Applying this assumption yields the following projected household levels: 2000 - 2,629; 2010 - 2,991.

Growth Rate

The growth rate method is an alternative technique which assumes that the Township's household growth rate between 1990 and 2000 will be similar to that which occurred between 1980 and 1990.

This method further assumes that Ira Township's 1990-2010 household growth rate will be identical to what occurred between 1970 and 1990. Based on these assumptions, the anticipated number of households for the year 2000 is 2,867, and 4,014 for 2010.

Arithmetic Method

The arithmetic method is similar to the growth rate method, except that actual numbers rather than percentages are used. This method projects future household levels of 2,684 and 3,142 in the years 2000 and 2010, respectively.

Summary

A summary of each projection method, including the SEMCOG forecasts are included in Table 18 and Figures 15 and 16. Future population levels depend, in large part, on the rate of household growth and the size of the average household. For the purposes of this study, anticipated population levels are based on SEMCOG's year 2000 and 2010 household size estimates of 2.70 and 2.75 persons per household.

All four projection techniques anticipate continued population and household growth for Ira Township. Realization of these increases depend on a number of factors which include the following:

- The Township's policy toward development.
- The amount of vacant land allocated for various forms of residential development.
- Capacities of the public utility system.
- The image of Ira Township as a place to live.
- The condition of the southeast Michigan economy.

These projections will be reevaluated in relation to the Township's proposed land use pattern and stated policy objectives in subsequent phases of the Master Plan process.

TABLE 18

POPULATION AND HOUSEHOLD PROJECTION SUMMARY

	<u>1990</u>		<u>2000</u>		<u>2010</u>	
	<u>Pop</u>	<u>HH</u>	<u>Pop</u>	<u>HH</u>	<u>Pop</u>	<u>HH</u>
SEMCOG	5,587	2,143	6,839	2,534	7,872	2,863
Constant Proportion	5,587	2,143	7,098	2,629	8,225	2,991
Growth Rate	5,587	2,143	7,741	2,867	11,039	4,014
Arithmetic	5,587	2,143	7,247	2,684	8,641	3,142

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ECONOMIC BASE

INTRODUCTION

Understanding the characteristics of a community's economy is important in the comprehensive planning process. The amount of land being used for economic generation purpose, its distribution within the community, and the characteristics of these uses have broad impacts on the future of the community. Customarily, these uses provide a source of jobs for local residents and a substantial portion of a community's overall tax base used to finance community facilities and services.

The purpose of studying Ira Township's economy is to provide an understanding of the Township's economic characteristics and their relationship to the larger region within which it is located. Data available from the U.S. Census, as well as other sources, are reviewed to provide a perspective of Ira Township's economy and its role in community planning.

Three components of the Township's economy are considered: retail, industrial and labor force.

The first portion of this chapter examines the Township's retail characteristics, including the number of establishments by type. Future retail demands are also estimated based on previously projected households and assumptions regarding their spending patterns. This analysis also considers the Township's relationship to available retail opportunities in adjacent communities.

The industrial section considers the characteristics of the Township's existing industrial base, as well as the prospects for future industrial development. This examination occurs within the context of larger regional industrial growth patterns.

The concluding portion of this section of the Master Plan examines the characteristics of the Township's resident labor force, including industry of employment, occupational characteristics and labor force participation rates.

RETAIL CHARACTERISTICS

Inventory of Retail and Service Establishments

The land use survey of Ira Township, conducted in the Spring and Summer of 1993, revealed that approximately 35 acres of land were being used for a limited range of commercial purposes. Information on the type of businesses at specific locations was also noted as part of this survey. This information offers an opportunity to understand the type and character of existing commercial uses in the Township by examining the range of available retail and service opportunities.

A total of 69 individual businesses were identified in Ira Township. These businesses were divided into two general classes: retail businesses and service establishments. These classifications were further divided into specific retail and service categories to provide a more complete profile of the number of such businesses (see Tables 19 and 20).

TABLE 19
INVENTORY OF RETAIL ESTABLISHMENTS

<u>Category</u>	<u>Number</u>
Recreation	5
Specialty Retail	5
Appliances	1
Food/Convenience Stores	8
Restaurants	12
General Merchandise	2
Auto/Boat Sales	5
Other	1
Total	39

TABLE 20
INVENTORY OF SERVICE ESTABLISHMENTS

<u>Category</u>	<u>Number</u>
Recreation	2
Motel	3
Hair Care	3
Medical	3
Travel Agencies	1
Real Estate	2
Insurance	1
Bank	2
Engineering	1
Dry Cleaners	1
Printing	1
Auto Repair	3
Plumbing	1
VCR	1
Other	5
Total	30

As revealed by the existing land use survey, the quantity of land developed for commercial purposes in Ira Township is limited. The variety of retail and service businesses indicated in the preceding inventory is also limited. Many of these commercial uses have a marine orientation. It is unlikely that the Township's current population could support 12 eating and drinking establishments. Many of the businesses found in the Township are there to accommodate the market demands of boaters. Aside from restaurants, the inventory also includes other businesses which serve boaters, such as marine supply and repair establishments, scuba, bait and other recreation supply activities. The Township's convenience stores also likely depend on boaters for much of their business. These uses support the many marinas located along the shoreline of Anchor Bay. When these businesses are deducted from the inventory, the range of uses intended primarily to meet the retail and service needs of Township residents is limited.

Commercial development can assume several different physical forms. Common and easily recognizable forms include traditional central business districts, planned shopping centers, and general businesses located within linear corridors along major traffic arteries. The pattern of commercial development in a community has a strong impact on the community's success.

With several exceptions, all business activity in Ira Township is located within the M-29 corridor. Some concentration of commercial activity is evident in the Anchorville area at the intersection of M-29 and Church Road and in the Fair Haven area where M-29 crosses Swan Creek. In both areas, most businesses occupy freestanding sites. There are a few consolidated commercial centers within the Township where several businesses occupy a single site and share a common driveway parking lot and other development features. The Township's unique developed commercial characteristics can be explained by three principal factors: 1) the presence of Lake St. Clair; 2) the availability of retail opportunities in other neighboring communities; and 3) the distribution of the Township households. Each of these factors are a function of the Township's trade area.

Trade Area

A trade area is the geographical area from which a single business or group of businesses draws most of its customers. This concept assumes that if all factors are equal, the customers will travel to the nearest business. Trade areas are frequently defined as a distance from the business measured as a radius. A community's trade area can be considered to be a sum of the trade areas of businesses located throughout the community.

Realistically, this concept is subject to other influencing factors, which include physical barriers, accessibility, pricing policies, attractiveness, level of service, and the availability of nearby competing retail centers. In reality, a considerable amount of inter-community shopping trips are common. This is especially true within an urbanized region with easy access to competing retail centers in nearby communities. In this context, trade areas

ILLUSTRATION 12
TRADE AREA IDENTIFICATION

(8½ x 11)

will overlap and cross community boundaries. More important, larger commercial concentrations have a drawing power that penetrates the community's primary trade area. This is so because of their size, the variety of merchandise, and other factors including accessibility (travel time).

For the purpose of this study, those households residing and expected to reside in Ira comprise the Township's primary trade area. These households generate a demand for retail goods and services that can be absorbed either by locations within or outside of the Township.

Many of the Township's businesses, particularly those with a waterfront or tourist orientation, have a trade area extending well beyond the limits of the Township. Other businesses have a more limited trade area.

The proximity of Lake St. Clair to Ira Township has another influence on the Township's trade area. Trade areas are frequently shown graphically as a circle with the business located in the center and the trade area boundaries displayed as a radius from the center point or business location. Applying this concept to most commercial locations in Ira Township yields a trade area that includes large portions of Anchor Bay.

The quantity of commercial development in a community is generally related to the number of households, their location, and the availability of access. The dispersed pattern of residential development contributes to the linear pattern of most commercial uses within the community. The lack of any consolidated residential neighborhood, aside from the Chateau Estates Mobile Home Parks, limits the number of households and potential consumers within a designated trade area. The alignment of the Township's main highway corridor (M-29) along the southern boundary of the community, proximate to the Lake, further reinforces this pattern.

Finally, the availability of a sizeable quantity of commercial development in both New Baltimore and Chesterfield Township within five miles of Ira Township limits the demand for additional retail and service businesses in the Township. More than a half-dozen planned shopping centers are located on 23 Mile Road between I-94 and downtown New Baltimore. The trade areas for these centers likely extend into Ira Township. Dixie Highway provides convenient access to these businesses.

Estimated Retail Needs

In spite of the limiting factors described above, the Township's existing and anticipated future households create a demand for commercial uses that need to be recognized and accommodated in the Master Plan. Market potential is capable of being arrived at as a generally reliable commercial planning base through an understanding of economic characteristics. The methodology, however, is not capable of forecasting the location of actual retail sales. The retail sales which take place at any given location are contingent upon the willingness of consumers to patronize the particular businesses in the light of available merchandise and alternative shopping opportunities available elsewhere.

The point is that market potential can only describe the potential spending generated by a given group on the basis of buying power. The willingness of a consumer group to actually make purchases at a given location becomes a question of motivation. This generally involves specific locational characteristics, such as convenience, merchandising (advertising, service and pricing), access, parking circulation, beautification or aesthetics.

Other commercial developments outside of the immediate area can be expected to draw portions of their business from the same source, with the amount left to the subject commercial areas being termed that area's market penetration. The Township's buying power must be visualized as a dynamic phenomenon, with changing population characteristics responding to additional competition and changing shopping patterns reacting to site improvements and other opportunities.

It is possible to estimate the Township's future retail needs based on several assumptions regarding disposable income levels and spending habits, resulting in the acreage necessary to support a given quantity of retail floor area.

Household income levels have an important influence on the quantity of retail development that a community can support. For example, household income offers an indication of the variety of housing that a community can afford, as well as the amount of money that is available to purchase other goods and services. Household income, therefore, is among the variables used to forecast the quantity of commercial development that a community may be able to support.

According to the 1990 Census, Ira Township reported a median household income of \$30,844. Assuming that disposable income is equal to 60 percent of total household income, the Township's estimated disposable income for 1990 is \$18,506. Subsequent retail sales projections are based on constant 1990 dollars to allow for a comparison of anticipated changes in retail demand over time. The Township's estimate of total households for the years 2000 and 2010 are based on forecasts prepared by SEMCOG.

The next step in determining retail sales potential involves allocating the Township's estimated disposable income into various retail categories that can be related to commercial land use. Information on total retail sales for Macomb County for 1990 was broken down by percentage for ten separate retail categories. Data on spending patterns for Macomb County were used because of the Township's location within the assumed trade area for several shopping centers in New Baltimore and Chesterfield Townships. This percentage was then applied to the Township's disposable income of \$18,506 to indicate amount of sales by retail category (see Table 21).

The potential retail demand capable of being supported by the Township's existing and anticipated future households based on assumptions regarding disposable income and spending patterns is reflected in Tables 22, 23 and 24.

TABLE 21
ESTIMATED SPENDING BY RETAIL CATEGORY

<u>Retails Category</u>	<u>Macomb County</u>		<u>Ira Township</u>
	<u>Sales (\$)</u> <u>(x 1000)</u>	<u>%</u>	<u>Sales (\$)</u> <u>(per household)</u>
Lumber/Hardware	399,889	5.7	1,056
General Merchandise	872,616	12.3	2,276
Food	1,371,767	19.4	3,590
Auto	2,026,347	28.7	5,311
Gasoline	498,605	7.0	1,295
Apparel	321,475	4.5	833
Furniture	362,177	5.1	944
Eating/Drinking	642,832	9.1	1,684
Drugs	325,978	4.6	851
Other Retail	251,953	3.6	666
Total	7,073,639	100.0	18,506

The Township's estimated 1990 retail need is approximately 40 acres, less than five acres above the current inventory of 35 acres. Assuming increases in the number of households as projected, this demand can be expected to increase to 52 acres by the year 2010. These estimates suggest that there is a balance between commercial supply and demand. Because of the somewhat limited range of retail uses noted earlier, this may not be the case, however. Further, this estimate fails to account for the demand for more specialized recreation or waterfront-related commercial uses. It would appear that the Township's current households alone could support a greater quantity and variety of commercial uses than currently exist. Regional considerations, however, and the Township's physical setting limit these opportunities.

TABLE 22

IRA TOWNSHIP

ESTIMATED RETAIL NEEDS - 1990

Disposable Household Income: \$18,506

Number of Households: 2,143

<u>Retail Group</u>	<u>% of Retail Sales</u>	<u>Retail Sales from Study Area (\$000's)</u>	<u>Sales per Sq. Ft.</u>	<u>Sq. Ft. Supported by Study Area</u>	<u>Equivalent Commercial Acreage</u>
CONVENIENCE:					
Food	19.4	7,694	278.45	27,628	3.2
Drug	4.6	1,824	175.40	10,401	1.2
Lumber, Building, Hardware	2.9	1,150	84.13	13,670	1.6
Eat/Drink	4.6	1,824	140.42	12,992	1.5
Other Retail	1.8	714	101.01	7,067	0.8
Subtotals		13,206		71,758	8.3
COMPARISON:					
General Merchandise	12.3	4,878	133.24	36,610	6.7
Apparel	4.5	1,785	129.81	13,748	2.5
Furniture	5.1	2,023	102.81	19,673	3.6
Eat/Drink	4.5	1,785	136.70	13,055	2.4
Other Retail	1.8	714	117.43	6,079	1.1
Subtotals		11,185		89,165	16.3
GENERAL:					
Lumber, Building, Hardware	2.8	1,110	114.42	9,705	0.9
Auto	28.7	11,382	117.60	96,785	11.1
Gasoline	7.0	2,776	121.27	22,892	2.6
Subtotals		15,268		129,382	14.6
TOTALS		39,659		290,305	39.2

TABLE 23

IRA TOWNSHIP

ESTIMATED RETAIL NEEDS - 2000

Disposable Household Income: \$18,506

Number of Households: 2,543

<u>Retail Group</u>	<u>% of Retail Sales</u>	<u>Retail Sales from Study Area (\$000's)</u>	<u>Sales per Sq. Ft.</u>	<u>Sq. Ft. Supported by Study Area</u>	<u>Equivalent Commercial Acreage</u>
CONVENIENCE:					
Food	19.4	9,130	278.48	32,784	3.8
Drug	4.6	2,165	175.40	12,342	1.4
Lumber, Building, Hardware	2.9	1,365	84.13	16,222	1.9
Eat/Drink	4.6	2,165	140.42	15,417	1.8
Other Retail	1.8	847	101.01	8,386	1.0
Subtotals		15,672		85,151	9.9
COMPARISON:					
General Merchandise	12.3	5,788	133.24	43,444	8.0
Apparel	4.5	2,118	129.81	16,314	3.0
Furniture	5.1	2,400	102.81	23,345	4.3
Eat/Drink	4.5	2,118	136.70	15,492	2.8
Other Retail	1.8	847	117.43	7,214	1.3
Subtotals		13,271		105,809	19.4
GENERAL:					
Lumber, Building, Hardware	2.8	1,318	114.42	11,516	1.1
Auto	28.7	13,506	117.60	114,851	13.2
Gasoline	7.0	3,294	121.27	27,165	3.1
Subtotals		18,118		153,532	17.4
TOTALS		47,061		344,492	46.6

TABLE 24

IRA TOWNSHIP

ESTIMATED RETAIL NEEDS - 2010

Disposable Household Income: \$18,506

Number of Households: 2,863

<u>Retail Group</u>	<u>% of Retail Sales</u>	<u>Retail Sales from Study Area (\$000's)</u>	<u>Sales per Sq. Ft.</u>	<u>Sq. Ft. Supported by Study Area</u>	<u>Equivalent Commercial Acreage</u>
CONVENIENCE:					
Food	19.4	10,278	278.48	36,910	4.2
Drug	4.6	2,437	175.40	13,895	1.6
Lumber, Building, Hardware	2.9	1,536	84.13	18,263	2.1
Eat/Drink	4.6	2,437	140.42	17,357	2.0
Other Retail	1.8	954	101.01	9,442	1.1
Subtotals		17,642		95,866	11.0
COMPARISON:					
General Merchandise	12.3	6,517	133.24	48,911	9.0
Apparel	4.5	2,384	129.81	18,367	3.4
Furniture	5.1	2,702	102.81	26,283	4.8
Eat/Drink	4.5	2,384	136.70	17,441	3.2
Other Retail	1.8	354	117.43	8,121	1.5
Subtotals		14,941		119,123	21.9
GENERAL:					
Lumber, Building, Hardware	2.8	1,484	114.42	12,966	1.2
Auto	28.7	15,206	117.60	129,303	14.8
Gasoline	7.0	3,709	121.27	30,583	3.5
Subtotals		20,399		172,852	19.5
TOTALS		52,982		387,841	52.4

INDUSTRIAL CHARACTERISTICS

To more fully understand the Township's local economic base, its relationship to the larger southeast Michigan regional economy needs to be assessed. Southeast Michigan consists of more than 200 individual units of government. Economic activities within each of these communities collectively comprise the region's economic base. This larger regional economy transcends municipal boundaries and is the sum of many individual parts. This portion of the report examines Ira Township's position within the regional economy. The relationship will be considered with respect to the region's major economic centers and the labor force characteristics of Ira Township residents.

Economic Activity Centers

The Southeast Michigan Council of Governments (SEMCOG) has identified 13 separate economic activity centers in the seven-County SEMCOG region. Each center reports total employment exceeding 20,000 workers. Two of these centers are located in Macomb County and one in St. Clair County. Neither the Groesbeck Highway Corridor in Macomb County nor the concentration of economic activity in the City of Port Huron are positioned to directly influence commercial or industrial development in Ira Township. A corridor of industrial development is emerging within the Gratiot Avenue Corridor in Chesterfield Township. The Township's Master Plan envisions the eventual extension of this corridor as far north as 26 Mile Road.

Industrial Land Potential

While Ira Township is located outside of the region's identifiable economic activity centers, the Marine City Highway holds the potential for development as a smaller scale industrial corridor. Current land use and zoning patterns in the eastern portion of the corridor, particularly in Casco and Ira Townships, suggest the emergence of such a development pattern. For example, in Ira Township, approximately 114 acres of land are occupied for industrial purposes, with 634 acres zoned for this purpose. Most of this land is located along Marine City Highway. The designation of Marine City Highway as a County primary road and the availability of the interchange with I-94 west of County Line Road offers convenient transportation access, which is a prerequisite for the development of an industrial corridor.

The desire for industrial land is frequently the result of two concerns that are common to most communities: 1) providing employment opportunities for local residents, and 2) achieving a balanced tax structure. In an urbanized region like Southeast Michigan, a significant amount of commuting occurs across community boundaries for trips to and from work. In this type of setting where jobs are available throughout the region, it is not realistic to expect that the Ira Township's resident labor force will work at locations within the Township. However, because of the reciprocal nature of employment, job generation remains important. More important to community planning is the desirability of providing for industry as a source of taxes that support community facilities and services.

As a matter of policy, the Master Plan should consider the appropriate long-range use of the land within this corridor. Existing trends suggest that this corridor is best suited for continued use for industrial purposes. The Plan should, therefore, show how the Township can best utilize this land for industrial activities. Until now, all development within this corridor has been oriented to the Marine City Highway road frontage with small parcel development. A continuation of this trend will result in the isolation of interior acreage, thereby diminishing its potential value for industrial purposes. The development of industrial subdivisions with interior street systems providing access to Marine City Highway should be considered. Other opportunities for upgrading development within this corridor will be explained in subsequent chapters of the Plan.

RESIDENT LABOR FORCE

Labor Force Participation

The 1990 Census reported that Ira Township had a resident civilian labor force of 2,951 persons, which is approximately 70.6 percent of those Township residents over the age of 16. Since 1970, the size of the Township's civilian labor force nearly increased by 73 percent. This increase can be explained by two factors: 1) the increase in the number of persons living in the Township; and 2) increased participation by females in the labor force.

TABLE 25
IRA TOWNSHIP
LABOR FORCE PARTICIPATION

	<u>1970</u>	<u>1980</u>	<u>1990</u>
Civilian Labor Force:	1,705	1,962	2,951
Employed	1,556	1,661	2,639
Unemployed	149	301	312
Not in Labor Force	1,373	1,339	1,245
Labor Force Participation (in percentages):			
All Persons over Age 16	55.2	59.0	70.6
Females over Age 16	31.9	46.0	60.9
Females with Children under Age 6 in Labor Force	-	-	64.2
Females with Children Age 6-17 in Labor Force	-	-	71.8
Females as a Percentage of Total Labor Force	28.6	38.8	42.9

During the 1970's, the labor force participation rate for all persons over the age of 16 increased from 55.2 percent to 70.6 percent. Female participation in the labor force also increased from 31.9 percent to 60.9 percent. In 1970, females accounted for 28.6 percent of the Township's total labor force. By 1990, this increased to 42.9 percent.

Industry of Employment

Approximately 30 percent of the Township's resident labor force are employed in manufacturing-related industries. This is consistent with the characteristics of the County's overall labor force and reflects the dominance of auto manufacturing in the regional economy. Wholesale/retail trade and professional services are the next largest industry of employment categories, employing 23.3 and 16.2 percent of the Township's labor force, respectively. Ira Township and St. Clair County share similar industry of employment characteristics, as reflected in Table 26. The only differences noted in this comparative table are minor in nature.

TABLE 26
INDUSTRY OF EMPLOYMENT

<u>Category</u>	<u>Ira Township</u>		<u>St. Clair County</u>
	<u>No.</u>	<u>%</u>	<u>%</u>
Manufacturing	828	31.3	28.8
Transportation/Communication/Utilities	120	4.6	7.2
Construction	183	6.9	6.6
Wholesale/Retail	613	23.3	21.5
Finance, Insurance & Real Estate	129	4.9	4.5
Business, Personal & Entertainment Services	193	7.3	6.5
Public Administration	107	4.1	3.3
Professional Services	428	16.2	19.6
Other	38	1.4	2.0
Total	2,639	100.0	100.0

Occupational Characteristics

Almost one-half (47.3 percent) of the Township's resident labor force are employed in white-collar professions and defined as either managers/professionals or technicians, sales and administrative support. This is in line with the County figure of 46.2 percent. Ira Township and St. Clair County also share similar occupational characteristics, as reflected in Table 27.

TABLE 27

OCCUPATIONAL CHARACTERISTICS

<u>Category</u>	<u>Ira Township</u>		<u>St. Clair County</u>
	<u>No.</u>	<u>%</u>	<u>%</u>
Managers/Professionals	461	17.5	19.8
Technicians, Sales & Administrative Support	788	29.8	26.4
Service	354	13.4	14.0
Farming, Forestry & Fishing	29	1.1	1.5
Skilled Workers	842	31.9	28.8
Operatives, Laborers	165	6.3	9.5
Total	2,639	100.0	100.0

INCOME**Household Income Distribution**

Income data is frequently used as a measure of a community's affluence. It can also be a valuable indicator of the types of housing that a community can afford, the levels of retail development that it can support, and the ability to support different types of community services.

In 1990, the Census Bureau reported that Ira Township had a median household income of \$30,844. This is slightly higher than the County median income level, and lower than the equivalent figure for Michigan as a whole. The distribution of Ira Township's 2,187 households into various income categories is shown in Table 28.

A smaller percentage of Ira Township's households have incomes at the lower end of distributions reflected in Table 10 than is the case for St. Clair County. For example, 17.7 percent of the Township's households have incomes below \$15,000, compared to 23.5 percent for St. Clair County. For Michigan as a whole, however, nearly one-quarter of the State's households fall within this range.

One-half of St. Clair County's and Michigan's total households have incomes between \$15,000 and \$50,000 (see Table 10). Approximately 61.6 percent of the Township's households have incomes between \$15,000 and \$50,000, compared to 52.8 percent for the County and 50.3 percent for the State. A smaller percent of Township households have incomes above \$50,000 (20.7 percent). For St. Clair County and Michigan, the figures are 23.8 and 25.5 percent, respectively.

TABLE 28
HOUSEHOLD CHARACTERISTICS - 1990

	<u>Ira Township</u>		<u>St. Clair County</u>	<u>Michigan</u>
	<u>Number</u>	<u>Percent</u>		
Less than \$5,000	48	2.2	5.5	6.0
\$5,000 to \$9,999	134	6.1	9.5	9.6
\$10,000 to \$14,999	206	9.4	8.5	8.6
\$15,000 to \$24,999	385	17.6	16.7	16.4
\$25,000 to \$34,999	498	22.8	16.7	15.3
\$35,000 to \$49,999	464	21.2	19.4	18.6
\$50,000 to \$74,999	314	14.4	16.3	16.3
\$75,000 to \$99,000	78	3.6	4.6	5.4
\$100,000 to \$149,000	60	2.7	2.0	2.6
\$150,000 +	-	-	0.8	1.2
Total	2,187	100.0	100.0	100.0
Median Income (\$)	30,844		30,692	31,020

Source of Income

Wages and salaries are the principal source of household income for Ira Township's households. Approximately three-quarters of all households in Ira Township have this source of income. This is largely consistent with County and State figures. Average salary levels in Ira Township, however, are lower than similar figures reported for either St. Clair County or Michigan (See Table 29). The percentage of households receiving income from other sources are similar for the Township, St. Clair County and Michigan.

TABLE 29
SOURCE OF INCOME

	<u>Ira Township</u>			<u>St. Clair County</u>		<u>Michigan</u>	
	<u>Value (\$)</u>	<u>Households</u>	<u>Percent</u>	<u>Value (\$)</u>	<u>Percent of Households</u>	<u>Value (\$)</u>	<u>Percent of Households</u>
Wage/Salary	36,776	1,689	77.2	39,996	75.5	38,628	76.5
Non-Farm Employment	9,804	230	10.5	14,303	10.5	16,630	9.8
Farm Self-Employment	3,361	28	1.3	4,969	1.8	7,952	1.6
Social Security	8,034	553	25.3	8,191	28.3	8,200	26.7
Public Assistance	4,223	128	5.9	4,556	9.1	4,369	9.6
Retirement	8,435	355	16.2	7,298	17.2	8,228	17.4

Poverty Status

Ira Township reports a lower incidence of persons below the poverty line than is the case for either St. Clair County or the State of Michigan. Less than five (5) percent of the Township's total population and all families live below the poverty level. This is less than one-half of comparable figures for either St. Clair County or Michigan.

Families with a female head are more likely to be living in poverty than any other population group. Approximately 15.8 percent of all female-headed households in Ira Township live in poverty. The percentage for Michigan as a whole is even higher (35.8). Children living in families with a female head are also more likely to live in poverty than other children. One-quarter of all such children in Ira Township live below the poverty line.

TABLE 30
POVERTY STATUS

	<u>Ira Township</u>	<u>St. Clair County</u>	<u>Michigan</u>
All Persons	4.7	10.9	13.1
Persons 18 Years +	3.9	9.3	11.1
Persons 65 Years +	2.6	9.1	10.8
With Related Children under 18 Years	7.0	14.7	18.2
All Families	4.2	9.2	10.2
With Related Children under 18 Years	6.1	14.0	16.0
Female Householder Families	15.8	37.2	35.8
With Related Children under 18 Years	23.5	50.5	48.1

GOALS AND OBJECTIVES

INTRODUCTION

In the broadest sense, the Master Plan is a general policy. Presumably, the Plan contains several policies, each supported by a group of objectives designed to serve as a guide to consistent and rational public and private decisions in the use and development of land and public improvements.

Township decisions on planning and zoning issues are frequently criticized as being arbitrary and capricious. Clear and concise statements of policy can help minimize this perception by substantiating honest, intelligent decisions. Policy statements also offer the public with an overview of the policies that influence Township decisions on planning or zoning issues. To facilitate an understanding of the broad policy statements, the following statements explain the overall purpose of the Master Plan.

1. To improve the physical environment of the Township as a setting for human activities to promote the general health, safety and welfare by making the Township more functional, beautiful, decent, healthful, interesting and efficient.
2. To promote the public interest and the interest of the Township at large, rather than the interests of individuals or special groups within the Township.
3. To facilitate the democratic determination and implementation of Township policies and physical development. The Plan is primarily a policy instrument. The Plan constitutes a declaration of long-range goals and objectives and provides the basis for a program to accomplish the goals. By placing the responsibility for determining policies with the Planning Commission and providing an opportunity for citizen participation, the Plan facilitates the democratic process.
4. To affect political and technical coordination in community development.
5. To inject long-range considerations into the determination of short-range actions.
6. To bring professional and technical knowledge to bear on the making of political decisions concerning the physical development of the Township.

POLICY BASIS

Only through careful analysis of existing conditions and the forces which have brought them about, can the Township understand their interrelationship, identify their underlying purpose, anticipate future problems, and devise solutions.

Accordingly, the Township identifies its goals and objectives by relating them to current problems and issues and to tangible alternative solutions; at the same time, the Township must attempt to anticipate future problems and recommend the steps necessary to prevent their development or reduce their severity.

No statement of policy or set of objectives, however carefully and analytically developed, will be equally relevant at all times. Movements of people and the stimulation of activities relieve one set of problems and leave others in their wake. The challenge for the Master Plan is to anticipate future land use concerns and relationships and offer policies for dealing with these issues.

While policy formation in practice is not as tidy and logical as it is in theory, it is important to note that policy decisions tend to move in sequence from the general to the specific. In this chapter, less emphasis is being placed on the very general goals because it is presumed that they reflect universally accepted values (i.e., create a community of the highest quality in which to work, live and recreate, ensuring optimum protection of health, safety, welfare, etc.).

This section attempts to reflect the community structure and quality of community life which the Township desires. Decisions cited in this chapter and the resulting objectives are translated in a Master Plan that reflects Ira Township's key decisions in selecting future development patterns.

In this chapter, objectives mean those necessary steps, put into words, that amplify and implement broad policy and relate it to "short-range decisions," specific recommendations and finally, to detailed regulations.

VISIONING PROCESS

The Master Plan is not just a series of maps. Rather, it is a series of policy statements and objectives which support the land use, community facility and transportation recommendations offered in subsequent chapters of the Master Plan. The intent of the planning process is to provide a shared vision of the community's preferred future. An objective of the process is to anticipate how the community should look and function at some distant period of time.

In order for the Master Plan to be effective, it must represent and provide a clear vision of the future appearance and character of the Township. It must include specific statements and images of those places and landscapes identified as positive and desirable, as well as those that are negative and unacceptable. The vision is best formed through community consensus. The goal of formulating community consensus is to determine, with respect to the Master Plan, the goals, physical character, appropriate

intensity, street types and design vocabulary desired by the residents for the future of their community. Once determined, the vision of the community must be coded. The community vision must become a part of the planning documentation.⁽¹⁾

The process commonly used to articulate future preferences is called visioning. "Visioning is a process which focuses attention on positive future and community values. The process is direct, creative and participatory. Rather than simply projecting past trends, a futuring process encourages participants to leap ahead to their desired future. Characteristics of this process include the following:

- It should excite people by offering a picture in words.
- The vision should challenge people--a significant stretch from today.
- It should describe a state of the preferred future.
- It should reflect the beliefs and values of those who create it.
- Leadership should communicate the vision and related action plans."⁽²⁾

The Ira Township Planning Commission participated in a "visioning" process during the preparation of the Master Plan. Each Commission member was asked to visualize how they would like the community to look at a point in time 20 years distant. Comments offered by each Commission member and subsequent discussions and suggestions made during this process were then distilled into concise statements of planning policy. These statements were supplemented with other relevant planning objectives to form a coherent statement of planning policy for the Township.

Conceptual

Statement: Ira Township is a developing community subject to pressures from self-interest groups and individuals.

Goal: Aware that the accumulation of a number of short-range decisions may result in a patchwork development pattern, the Master Plan encourages the development of an attractive, balanced community in which to live, work, shop and recreate.

1. Place the general welfare of the community as a whole ahead of the purely self-interest of development.
2. Select and promote a defined direction for development from the array available to the Township.
3. Discourage development and policies that could be detrimental to the character of the Township.

⁽¹⁾ Nelessen, Anton Clarence, Visions for a New American Dream, Planners Press, American Planning Association. 1993.

⁽²⁾ Dean, Lillian, "Regional Land Use Visions for the Future: MSPO Workshop," News from MSPO.

4. Preserve natural and man-made features that contribute to the character of the Township, whenever possible.
5. Attract high quality, aesthetically-pleasing development.
6. Encourage the development of community focal points.

Residential

Statement: Ira Township is experiencing an increased demand for housing to accommodate persons who find the Township a desirable place to live. The attraction of the lake and the convenient accessibility to southeast Michigan contribute to the Township's attractive and inviting setting. This demand can be expected to increase in the future.

Goal: In order to accommodate the needs and desires of existing and future residents, the Township encourages the development of sound, high quality housing that meets the community's demographic characteristics.

1. Confine the development of mobile home parks to approved sites in the western portion of the Township.
2. Upgrade and rehabilitate existing older homes, particularly along the M-29 corridor.
3. Provide for the development of multiple family housing opportunities at some locations proximate to the M-29 corridor, including mid or high-rise structures that are suited for this type of residential development based on suitability of access, the availability of public utilities, and compatibility with surrounding development.
4. Encourage the development of housing opportunities for senior citizens.
5. Encourage quality housing in all forms.
6. Encourage a high percentage of home ownership for all forms of residential development.
7. Protect residential neighborhoods from the intrusion of incompatible uses.
8. Encourage the development of consolidated residential neighborhoods.
9. Encourage the use of innovative planning and zoning techniques, such as Planned Unit Developments, cluster development and zero lot line, that preserve environmentally sensitive areas of the Township, increase the quality of open space and limit urban sprawl.

10. Require that open space and recreation be provided for all forms of residential development and that these improvements be related to the type of households that will reside in individual projects.
11. Encourage residential redevelopment opportunities along the waterfront that result in more open space and better views of the lake.

Natural Resources

Statement: Ira Township's proximity to Lake St. Clair and other environmentally sensitive areas contribute to the quality of life for Township residents.

Goal: All future development should carefully integrate the Township's unique features into the development process, thereby preserving these features and enhancing the character and appearance of the built environment.

1. Preserve environmentally sensitive land along Swan Creek and provide an open space corridor along Swan Creek as it crosses the Township.
2. Preserve those portions of the Township that are being used for agricultural purposes and which are capable of supporting farming on a long-term basis.
3. Limit development in environmentally sensitive areas.
4. Maintain the Township's open, rural character.
5. Establish procedures and requirements that are intended to input environmental considerations into the land development process.
6. Strive to maintain a balance between development and environmental preservation.
7. Encourage the preservation of existing woodlands and the incorporation of wooded land into all new development.
8. Provide opportunity for agriculture to exist compatibly with single-family homes.
9. Minimize the premature conversion of productive farmland for urban uses.
10. Consider a range of appropriate alternative measures for preserving existing farmland.
11. Recognize that agriculture is the proper utilization of a natural resource.

Commercial

Statement: Commercial development needs are related to the market needs of those households located in the Township, suitability of access, and the availability of existing retail and service opportunities of nearby locations.

Goal: Recognizing the problems created by inappropriately located and an excessive quantity of commercial development, the Township will provide appropriate locations of sufficient size to accommodate anticipated retail and service needs of the Township's market area and which contributes to the image and identity of the Township.

1. Encourage the development of a consolidated commercial center in the Fair Haven area and a smaller satellite commercial district in Anchorville.
2. Provide a better mix of retail businesses and services in the Township and encourage the development of specialty-oriented retail activities that take advantage of the Township's waterfront location and expanded tourist-oriented trade area.
3. Upgrade the visual character of commercial businesses in the Township.
4. Establish a unified theme or design to guide the redevelopment of the Fair Haven and Anchorville commercial centers.
5. Limit the quantity of strip or linear commercial development outside of the Fair Haven and Anchorville areas.
6. Encourage commercial development only where it can be demonstrated that there exists a sufficient market area population or adequate draw from the region to support the development.
7. Recognize that Township residents have easy access to regional shopping centers that are located within a convenient driving radius from the community.
8. Upgrade commercial development standards to improve the curb appeal of all new commercial development in the Township as they relate to signage, landscaping, building appearance, setbacks and overall site design.
9. Make sure that all commercial development is appropriately located, with access to the Township's major road system and in relationship to the trade area being served.
10. Combine commercial curb driveways and parking lots and discourage excessive curb cuts along major roads.

11. Restrict the placement of large or inappropriately lighted signs along major thoroughfares.
12. Limit outdoor storage in commercial areas, particularly where it detracts from the character of development in designated commercial centers.
13. Provide for convenience commercial retail opportunities near the intersection of M-29 and Palms Road.

Industrial

Statement: Industrial uses are an important land use element that provide the Township with a measure of autonomy and independence by providing a source of jobs and contributing to the community's tax base.

Goal: Because Ira Township does not wish to be only a bedroom community for persons working in other municipalities, the Township shall allow for the development of a clean, high quality industrial base.

1. Limit industrial development to locations along the Marine City Highway corridor.
2. Cooperate with neighboring communities on the development of a industrial corridor along Marine City Highway.
3. Support the development of non-nuisance light industries and high tech/research facilities that do not have adverse environmental impacts or are offensive because of noise or visual characteristics.
4. Restrict more intense industrial uses with extensive outdoor storage requirements or other potentially adverse impacts to interior sites that are sufficiently buffered from any nearby residential uses.
5. Encourage the development of planned industrial subdivisions that provide necessary support facilities and encourage the development of interior acreage that lacks direct access to Marine City Highway.
6. Upgrade industrial development design standards to improve building and site appearance.
7. Allow for a limited quantity of support commercial uses within designated industrial areas.

Recreation and Open Space

Statement: Parks and undeveloped open space areas make an important contribution to the quality of life in a community that is frequently overlooked. The loss or conversion of open land to a developed state occurs gradually; thus the loss of these assets often goes unnoticed until only marginal or no suitable land remains available for recreation purposes.

Goal: Enhance the Township's quality of life by providing a full range of recreation facilities and programs meeting the community's needs.

1. Utilize the Township's existing natural features, particularly the Lake St. Clair shoreline and Swan Creek, in addition to other environmentally sensitive features for open space and recreation purposes.
2. Reserve or acquire additional land needed to meet the anticipated neighborhood recreation needs of existing and anticipated future Township residents.
3. Incorporate neighborhood recreation facilities into future plans for residential development in the Township through the use of innovative planning and zoning techniques, such as cluster development, open space zoning and PUDs.
4. Encourage the comprehensive upgrading of playground equipment at each of the elementary school sites located within the Township.
5. Design future recreation facilities to minimize maintenance expenses.
6. Provide for complete range of both active and passive recreation facilities.
7. Provide for the development of a non-vehicular circulation system linking major activity centers and recreational facilities.
8. Develop a Township park site near the Township office building.
9. Expand and upgrade the recreation facilities available at the Lion's Club Park.
10. Encourage the State to upgrade the public launch site along Anchor Bay.
11. Increase opportunities for access to the waterfront for public recreation purposes.
12. Acquire scenic easements reinforcing open space preservation objectives and community appearance.
13. Connect the development of a park behind the Township offices, with a passive open space area along Swan Creek extending to Fair Haven.

14. Encourage more private recreation opportunities, including the development of a golf course in the Township.
15. Provide more opportunities for open space along the Township's Lake St. Clair shoreline.

Streets and Roads

Statement: Access is important to all forms of development and the quality and arrangement of road improvements is a key factor conditioning the land use pattern.

Goal: Aware of its limited influence in directing improvements in the Township's major road system, the Township will plan a network of safe roads to assure proper local access and movement in the community.

1. Encourage the development of a bypass separating through-traffic from Township-bound traffic.
2. Provide traffic signals along M-29 to slow down traffic as it passes through the Township.
3. Encourage the use of Marine City Highway as an alternate route to Algonac, with Palms Road as a connector route to M-29.
4. Move through-traffic away from the waterfront.
5. Extend the Township's section line (one mile grid) road system where it is discontinuous.
6. Upgrade private streets in the Township to acceptable engineering standards and provide for regular maintenance of these roads.
7. Provide for a system of bicycle and pedestrian paths in the Township connecting parks and other attractions.
8. Improve and expand the Township's existing road system to handle the anticipated traffic created by increases in the community's population and businesses.
9. Plan road improvements to coincide with development.
10. Provide a continuous vehicular circulation pattern within adjoining single-family subdivisions.

11. Limit the number of driveways allowed for commercial development and consolidate access whenever possible.
12. Obtain right-of-way dedications and reservations consistent with local, county and regional proposals.
13. Correct hazardous and unsafe areas by improving street alignments where possible.

Public Facilities

Statement: One important consequence of population growth and development is the corresponding need to provide necessary public services to meet the needs of the Township's residents.

Goal: Carefully plan for the extension of public services to correspond to the increased development of the Township in the most cost effective and efficient manner possible.

1. Stage sewer and water installations to provide efficient growth and revenues to pay for the system.
2. Extend sewer and water service in an orderly fashion and timed to coincide with development.
3. Encourage large lots and on-site disposal systems where sewer extensions are not foreseeable within the planning period.
4. Install sewer and water facilities only where planning and zoning will not be compromised by their use.
5. Continue to make improvements to the Township municipal building site as a focal point for Township activities.
6. Promote the establishment of medical facilities to serve Township residents.
7. Encourage cooperative service agreements with neighboring communities, where appropriate.
8. Adopt service areas and distance standards for the location of emergency and protective services.
9. Promote a street name and numbering system to facilitate recognition and easy access for emergency vehicles.

COMMUNITY FACILITIES PLAN

INTRODUCTION

Community facilities are an important part of a municipality's overall development and, consequently, need to be considered in the preparation of the Master Plan. Those community facilities considered in this report include schools, parks, utilities, protective services, libraries, and other municipal buildings.

Each of these facilities has an impact on the community's future land use pattern and are important to the operation of a community. These facilities also make a significant contribution to a community's overall identity. Often, the impression created by a particular community is directly related to its municipal buildings, schools, parks, libraries and other public buildings. This is particularly true for those suburban communities where development is dispersed over a large geographic setting, as compared to the more compact physical form of many older cities.

Some types of community facilities, particularly schools and parks, have acreage requirements that need to be considered during the Master Plan process. It is desirable to allocate land for these facilities as a community grows so that neighborhoods are not left deficient in community facilities at the time of total development. Considering these needs as part of the community's total development offers a practical basis for a community to address these needs during the budgetary process.

This stage of the planning process provides the Township with an opportunity to coordinate land use and utility service area planning. Extending public utilities is a powerful growth management tool available to the Township. Decisions regarding the location of service areas and the timing of utility extensions are important influences on the allocation of different types and intensities of land uses in the community. These considerations are especially important for the current planning process in light of planned improvements to the Township's water plant and distribution system. This concern and the other issues identified above are addressed in more detail in this chapter of the Master Plan.

UTILITIES PLAN

The Township's Master Plan is based on the premise that land use planning should be closely related to the availability and capacities of existing and proposed public utility systems. Public utilities are a necessary prerequisite to many forms of development, particularly residential development of an urban character and density.

Decisions regarding utility extensions also have the ability to influence development patterns. Local utility extension policies, therefore, need to take the land use intensity and distribution patterns reflected on the Land Use Plan into account. The Master Plan emphasizes the need for coordination of land use and utility planning to avoid conflicting development patterns and the untimely and costly extension of Township utilities. The characteristics of the Township's existing and proposed public water and sanitary sewer collection and treatment systems and their impact on the proposed land use plan are discussed in this section.

Public Water System

In 1928, a District Board of Public Service Commissioners was established for the purpose of constructing and maintaining a water treatment and distribution system serving portions of Ira Township. The original system serving the Township was relatively simple. Water was pumped from Lake St. Clair and treated with chloride before it entered the transmission system. In 1941, a water filtration plant was built at the end of Water Works Drive and the distribution system served the southern portion of the Township along the M-29 corridor. In later years, the western portion of the Township, including both mobile home parks, was served by the City of New Baltimore's water system.

A water system study completed in 1991 concluded that the existing distribution system could no longer provide adequate pressure for fire protection or residential consumption. The Michigan Department of Public Health subsequently placed a moratorium on future connections or expansion of the existing water treatment and distribution system. During this moratorium, the City of New Baltimore decided to rebuild their public water system and to terminate water service to Ira Township after December 31, 1996.

In response to these issues, the Township Board absorbed the District Board of Public Service Commissioners and authorized the preparation of a design plan for a new water intake, a treatment plant, elevated water storage tank and distribution system. A design plan for this new system was prepared in March, 1994, and the facility was in operation by September 1996.

The new intake and treatment system has an engineering capacity of processing up to five (5) million gallons of water per day. The actual capacity of the system is closer to 4.2 million gallons, based on operational restrictions mandated by the Michigan Department of Health. At a maximum, the Township may sell up to one million gallons of water per day to other communities, leaving 3.2 million gallons per day for Township use. Approximately 500,000 gallons are allocated for distribution to the Township's industrial uses along the Marine City Highway industrial corridor. These two allocations leave approximately 2.7 million gallons per day for residential consumption. Based on peak flows of 210 gallons per day per capita, this remaining quantity of water has a capacity to serve a population of about 12,800 persons, provided that there is a minor improvement made to the treatment plant.

The Township's policy regarding the distribution of public water is to view the entire Township as a potential service area and to provide water based on need, demand, and the ability of users to pay for the extension of water lines. Water is an absolute necessity for drinking, residential living and fire protection. The intent of the policy is not to induce residential development. While the entire Township is considered a potential water service area for utility planning purposes, the Master Plan identifies well-defined limits to those areas of the community planned for residential densities of an urban character. The intent of the Master Plan is to consolidate development within these areas and to prevent sprawl or leap-frog development. It is also intended to control growth, which would require reconstruction of the water plant or construction of a new intake line into the lake.

Sanitary Sewer System

Ira Township participates in a regional wastewater collection and treatment system with Clay Township and the City of Algonac that was constructed in the 1970's with the participation of St. Clair County as a result of a mandate from the U.S. Environmental Protection Agency. The capacity of this system is a function of three elements: 1) the size of the sewer lines which transport the wastewater to the treatment plant located in the City of Algonac; 2) the number and size of the pumping stations located along this force main system; and 3) the treatment capacity of the plant in Algonac.

At capacity development, without public sewer constraints and based on the land use plan being proposed in 1995, there could have been 14,780 dwelling units and a population of about 34,000 persons. The preliminary engineering study for public sanitary sewer capacity in 1996 indicated a population threshold of about 15,000 as a maximum number of persons or population equivalents that could be served by the public sewer transmission system. Later, it was noted that the sewer lines in Ira Township could have carried a greater capacity, but the force main through the St. John's Marsh had the limiting capacity of, not 15,000, but, 12,000 population equivalents. Present environmental policies would dictate that any new transmission line would have to be constructed outside of this marsh area. The construction of such a transmission line would be economically unfeasible. As a result, the sewer capacity for the foreseeable future, and at least the next 20 years, was determined to be 12,000 persons or population equivalents, thereby invalidating all previous capacity assumptions.

The Utility Assessment Matrix, which follows, shows the population thresholds for each utility. It should be noted that the population estimates shown in this table include residential, institutional, commercial and industrial users. The Ira Township public water system, with significant treatment plant expansion, could be expanded to serve a population of about 18,000 persons.

UTILITY ASSESSMENT MATRIX

<u>Population Threshold</u> ^{o)}	<u>Sanitary Sewers</u>	<u>Public Water</u>
6,000	Existing system capable of serving up to 6,000.	New water system adequate to serve a population exceeding 6,000.
12,000	Existing collection system adequate to serve this population. Expansion of treatment plant capacity, however, will be necessary before the Township can meet this threshold.	The new water plant has a design capacity to serve this population with a plant expansion. Serving this population also depends on how much water is sold to other communities and the amount needed for the industrial corridor.
30,000	Expand treatment plant (if possible) and collection and interceptor system. A new interceptor will be required from Ira to the treatment plant.	Expanded water intake and treatment system will be needed.

^{o)} Number of persons or population equivalents or sewer factors capable of being served by the public utility system.

As noted, Ira Township's share of the present treatment plant, which is located in Algonac and serves the communities of Algonac, Clay and Ira, is presently limited to 6,000 population equivalents. The bonds which financed the system will not be paid off until the year 2003. A study will be conducted in the interim to determine if the treatment plant can be expanded and, if so, to what capacity. A second study will be necessary to determine the financial feasibility for development and the ability of Ira Township to finance those improvements. If it is economically unfeasible to make the necessary improvements to the treatment plant, Ira Township will have to limit urban growth on public sewers to the threshold of 6,000 persons or population equivalents.

According to the 1997 Sewer Study, approximately 5,000 persons or their equivalents currently are serviced by the Township sewer system. Once approved developments and reservation for schools are subtracted from the capacity, only 400 sewer factors (taps) remain. These sewer factors will be allocated by policies of the Ira Township Board over the period from 1997 through the year 2003. It appears likely that this will be the first year that the sewer plant can be expanded.

PARKS AND RECREATION

Introduction

The Master Plan anticipates that the Township will experience accelerated population and household growth within the timeframe of this Plan. As this growth continues, the Township will face an increasing demand to provide additional public services. Chief among these is the need to provide public park sites and recreation programming opportunities.

In recognition of this need, the Township Board formed a Recreation Commission in 1993. The Commission serves an advisory role to the Township Board on recreation-related concerns.

Specific responsibilities of the Commission include the following:

- Establish and clarify policies relative to recreation services and programs.
- Identify long and short-term recreational needs of the community and develop plans and programs to fulfill these needs.
- Provide a recreational and information center at the Township Office.
- Work cooperatively with established community groups.

The Commission's first official function involved the preparation of a Recreation Plan which identified the Township's recreation needs and offered suggestions for meeting these needs. Specific recommendations suggested by the Commission are included in the Master Plan.

Recreation Inventory

Ira Township neither owns nor operates any local park sites. The only recreation facilities available to Township residents include three school sites, a State boat launch, and two private parks. The characteristics of these sites are described as follows.

School Recreation Facilities - Both the Algonac School District and the East China School District operate elementary school sites in Ira Township. The Algonac District operates Fair Haven Elementary School on a 10.8-acre site located on the south side of Broadbridge Road, west of Palms Road. This site includes two baseball fields, two basketball hoops, seven climbers, and two swings. The site also includes a nice assortment of large trees throughout the playground area behind the school.

Palms Elementary School, operated by the East China School District, operates a ten-acre site on Palms Road in the northeast corner of the Township. The site includes an assortment of playground equipment, including swings, slides and climbing structures, several picnic tables, a basketball court, a soccer field, and a baseball diamond with a fenced backstop. A small fenced playground for younger children is available in front of the school. The playground area includes many mature trees.

The remaining elementary school site in the Township is Immaculate Conception School, located near the intersection of Church Road and Dixie Highway. The school grounds contain a new play structure, four metal climbers, picnic tables, two basketball hoops, a soccer field, and a baseball field. The site is nicely landscaped with mature trees.

State Boat Launch - The Michigan Department of Natural Resources operates a public boat launch along the Lake St. Clair shoreline, west of Palms Road. This three-acre site has one boat launch ramp, two restrooms and a gravel parking lot.

Private Parks - The single largest recreation site in Ira township is the 39-acre Lion's Club Park located on the north side of Short Cut Road, between Church and Meldrum Roads. This park, which is owned and operated by the Lion's Club, is used primarily by the Ira Township Little League. It features three little league baseball diamonds, complete backstops, fencing, dugouts and bleachers. A larger baseball field is also located on the site, in addition to a picnic shelter, restroom building, storage/concession building, and indoor activity center. A large portion of the site is heavily wooded and not used for recreation purposes.

The remaining private parks are confined to the two Chateau Estate Mobile Home Park communities located at the western end of the Township. Each mobile home development contains a limited quantity of recreation facilities, which includes playground equipment, a swimming pool, tennis courts, shuffleboard and an indoor activity building.

Recreation Needs

A community's recreation needs, both short and long-term, should be evaluated in relation to the amount of land available for recreation purposes, the types of facilities available at these sites, and the range of programs and services offered to Township residents. An analysis of future recreation needs should include a consideration of land necessary to accommodate new park sites, as well as the types of facilities needed at these parks.

Recreation planning standards, published by the National Recreation and Park Association, recommend that local communities provide a core system of parks offering between 6.25 and 10.5 acres of developed open space per each 1,000 persons. Applying these standards to Ira Township's 1990 population of 5,587 persons, yields a current estimated demand of between 35 and 60 acres. Assuming a population increase to 6,594 persons by the year 2010, as projected by the Southeast Michigan Council of Governments, the Township's need for park acreage expands to 70 acres.

The previously described recreation sites in Ira Township have a combined acreage total of 73 acres. While this appears to be enough land to satisfy the projected acreage demand identified above, it fails to take into consideration the fact that the development and programming of these schools and private parks are outside of Township control. Each of these sites serve a legitimate recreation function; however, to suggest that they alone adequately meet the Township's current needs is misleading. The Township clearly needs additional land and sites devoted exclusively for neighborhood and community-wide recreation purposes. In their current form, the previously described sites do not adequately fulfill this need.

As the Township continues to develop, there will be a need to provide neighborhood and community-level recreation sites. These parks serve specific functions and have different acreage requirements. Neighborhood parks, for example, should be provided at a ratio of between one and two acres of land for each 1,000 persons expected to reside in a designated area. Such facilities should be easily accessible to the neighborhood they are intended to serve, with consideration given to pedestrian and bicycle safety. This type of park may be appropriately developed in conjunction with an elementary school.

For planning purposes, a neighborhood is an area of concentrated residential development of similar density, with an internal vehicular circulation system and well-defined boundaries consisting of major roads or natural features, such as a lake or river. Most of the Township's existing single-family development is arranged in a linear fashion along major roads and does not take the form of a typical neighborhood as defined above. As the Township develops and new housing units are constructed in subdivision settings, the Township will need to acquire additional land to accommodate the future neighborhood park sites. This should be done prior to the complete development of the Township's residential neighborhoods to ensure that park sites will be available when the need arises.

The Township also needs to plan for at least one community park site of between 30 and 50 acres of land. Community parks are frequently areas of diverse environmental quality and may include areas suited for intense recreational facilities, such as athletic complexes and large swimming pools. They may also feature an area of natural quality for outdoor recreation activities, such as walking, viewing, sitting and picnicking. This type of park should be centrally located within the community, with access from a major thoroughfare.

Recreation Plan

To address the Township's identified needs, the Recreation Plan recommended the acquisition and development of several new park sites and improvement of existing recreation sites in the Township. Specific actions to accomplish this objective are described as follows.

Township Hall Park Site - The Township Board recently purchased two parcels of land, totalling approximately 25 acres, behind the existing Township Offices located on Meldrum Road south of Short Cut Road. This acquisition is intended to serve two purposes: 1) provide a site for a new water treatment plant and elevated storage tank; and 2) accommodate the development of a Township park.

The site has several advantages that lend themselves to use for recreation purposes. The eastern half of the site is heavily wooded and is crossed by a branch of Swan Creek. In order to take full advantage of these features for recreation purposes, a design plan was prepared for this site identifying future improvements (see Illustration 13).

The design plan features a combination of active and passive recreation improvements that include a meandering walking/jogging path through the park, tennis and basketball courts, picnic area, playground area, gazebo and a parking lot with access to Short Cut Road. The site also includes a single family home located at the north boundary of the site. As the Township's recreation program expands, this site may be an appropriate location for a Township Recreation Department or Senior Citizen Center.

The development of a park at this location should be coordinated with other short and long-range municipal improvements planned for this site. These include the construction of the water treatment plant and elevated water storage tank, improvements to the Township library and any future expansion or development of new Township offices. The intent of the Master Plan is to concentrate compatible municipal functions at a single location, thereby creating a community center.

Lion's Club Park - The Lion's Club Park is the single largest recreation facility located in the Township. The park features several baseball diamonds and is used for little league games. The site is well suited for this purpose. It is centrally located in the community and is large enough to accommodate multiple recreation activities. The Recreation Plan recommends expanded use of this site for public recreation purposes. The Plan further suggests that the site be planned and developed as a major sports complex, with facilities provided for softball, baseball, soccer and related competitive athletics.

In order to better accommodate the continued use of this site for organized little league baseball, the existing ballfields should be improved. All four playing fields would benefit from a comprehensive improvement program to include replacement fencing, where necessary; regrading the infields; improving turf conditions; and replacing spectator and player seating areas. The parking lot should also be improved. The limits of the parking lot and vehicle circulation areas should be redefined and regraded. Additional gravel should also be added, where necessary.

It may also be possible to accommodate other recreational activities at this site. For example, large portions of the site are heavily wooded. Providing a pedestrian path throughout this wooded area may be appropriate. Adding some playground equipment and a small picnic area should also be considered.

Since this site is privately owned, a long-term agreement with the Lion's Club, the Little League and the Township should be negotiated to accommodate the future development of the site. All three groups stand to benefit from these improvements. By pooling resources, it may be possible to accomplish more at this site than if this ambitious program were undertaken by one party alone.

ILLUSTRATION 13
IRA TOWNSHIP MUNICIPAL PARK PLAN

Waterworks Park - The Township owns a five-acre parcel at the end of Long Island Court, where the existing water treatment plant and elevated storage tank are located. The development of a new facility at the site behind the Township Offices will make this site available for another public purpose. The original deed for this site requires that it be used for the water treatment facility or for a park. A small neighborhood park at this location would serve the more densely developed single-family neighborhood located in the Fair Haven area. Because of the small lot sizes predominant in this area, there is a need for some public recreation sites, especially for families with children. Another benefit of the site is that it takes advantage of exposure to Lake St. Clair. The site is not large enough to accommodate more than a fairly limited range of recreation improvements, which may include playground equipment and a small picnic area with benches to allow users to enjoy views of the lake. Parking should also be limited to discourage increased traffic along Long Island Court, which cannot readily accommodate two-way flows of traffic. Before any specific plans are prepared for this site, the Township should encourage the participation of neighborhood residents in the park planning process.

MDNR Access Site - The Michigan Department of Natural Resources operates a public boat launch site on Anchor Bay near the intersection of Palms Road and Dixie Highway (M-29). The State also owns the adjoining property to the west of this site. The site is the only public access to the lake within Ira Township. The importance of this site for public recreation purposes is magnified, considering the fact that extensive portions of the Township's shoreline area are already developed. This limits not only access to the shoreline but views of the lake as well.

One of the goals of the Recreation Plan is to encourage more opportunities for public access to the waterfront. Expanding the use of this site, which is already held in public ownership, offers an opportunity to accomplish this goal. This could be accommodated through a redevelopment of the site. A redevelopment plan should include paving the parking lot, landscaping the site, and providing a location and facilities for other public recreation activities. For example, a boardwalk along the shoreline would allow for the passive enjoyment of the lake view. Other improvements may include benches and a picnic area. The redevelopment of this site should also include the adjoining property to the west. While portions of this neighboring site may be impacted by wetlands, the site may, nevertheless, be suitable for some recreation functions.

Private Open Space Development - As new residential development continues in the Township, consideration should be directed towards requiring developers to incorporate recreation facilities into all future residential development proposals. These private facilities are not intended to replace any planned public parks, but rather to supplement those planned facilities identified in this plan. Private facilities would be owned and maintained by homeowner or condominium associations and may include undeveloped open space or amenities intended to meet the recreation needs of the intended occupants. The Township's Zoning Ordinance and Subdivision Ordinance should be examined and revised as necessary to require the allocation of recreation sites as part of the development process.

Several recreation sites currently exist within both Chateau Estate Mobile Home Parks located in the Township. These two sites are the single largest and most concentrated residential development within the Township. The quantity of land allocated and developed for recreation and open space purposes within each park, however, is not in proportion to the population of each development. Chateau Estates should be encouraged to expand the range of recreation opportunities available to mobile home park residents. For example, recreation equipment available at both developments would benefit from a comprehensive upgrading program. Chateau should also be encouraged to participate in the development of a more complete neighborhood park on a site located on Bethuy Road between both mobile home communities.

Bicycle/Pedestrian Paths - Bicycle and pedestrian paths serve both recreation and transportation functions. The development of a comprehensive system of pedestrian/ bicycle paths is included as an important component of the Township's Recreation Plan. The proposed alignment of future path systems is explored in more detail in the Thoroughfare Plan.

Open Space Preservation - One of the consequences of land development is the loss of natural open space. The development process permanently changes the physical character of land in ways that are often misunderstood or unappreciated until it is too late. The loss of forested land or other natural features is frequently a result of this process. Recognizing these important physical properties and integrating them into future development can improve the community's overall environmental quality, enhance the visual character of the constructed environment, and provide passive recreation opportunities.

The Township's most prominent natural amenity is the Lake St. Clair shoreline. Existing development along the waterfront, however, limits any reasonable opportunity for significant public exposure to the shoreline, except at limited locations. However, another significant environmental feature, Swan Creek, remains undeveloped. The Recreation Plan, therefore, recommends that any future development of property proximate to Swan Creek maximize the potential for resident access and exposure for open space and recreation purposes.

LIBRARY

Libraries are sometimes given a lower priority in municipal development. However, libraries, together with recreation programs, form an integral element in the character and reputation of desirable communities. Libraries today provide a diverse range of services that touch a broad spectrum of the community, including children and adults as well as business and industry. Ira Township and St. Clair County jointly provide library services to Township residents. The library site is located north of the Township offices at the intersection of Meldrum Road and Short Cut Road. As part of the cooperative arrangement between the Township and the County, the Township provides the building, with the County providing books and staff. Any future expansion plans for this site should take advantage of the location of the future Township park site located behind the library. The park design plan should also incorporate a walking path, providing access to the library from the Township offices. In the event that there is a need to expand this site, it may be possible to extend the building east towards the adjacent

Township-owned property. It may also be appropriate to consider the development of a common parking lot serving both the park and the library on the south side of Short Cut Road.

POLICE

Ira Township does not provide community-wide police services. Law enforcement is provided to Township residents by the St. Clair County Sheriff and the Michigan State Police. The State Police have offices in New Baltimore to the west. If the Township continues to grow as previous projections would indicate, there may be a need to consider some expansion of police services. This may involve contractual agreements with existing law enforcement agencies or starting a separate Township police force.

FIRE PROTECTION SERVICES

Ira Township has a volunteer fire department force consisting of 31 members. The fire department is located on Meldrum Road, north of the Township offices. The existing fire department headquarters is centrally located in relation to the Township's development pattern which is heavily weighted towards the southern end of the Township along the Dixie Highway corridor. The existing station was recently expanded and should be adequate for the next 20 to 25 years. Furthermore, it is not anticipated that another station will be needed to accommodate planned development within the timeframe of this Plan. Emergency vehicles can reach the northeast corner of the Township near Palms Road and Marine City Highway in 12 minutes, which is an acceptable response time.

The only planned improvements in the immediate future involve the purchase of a new rescue truck which has an estimated cost of between \$65,000 and \$70,000 and a new computer. Future changes that may be necessary primarily involve the composition of the department. It may be necessary to consider moving towards a part-paid staff, with one full-time officer or fire marshall. The latter is needed to handle the administrative responsibilities associated with running the department.

SCHOOLS

While the Township has no control over school operations or functions, school needs, particularly the location of schools, impact the community's overall land use plan. Schools are, therefore, considered as part of this analysis for coordination purposes.

Three school districts serve Ira Township: Anchor Bay School District, Algonac School District, and East China School District. The latter two districts each operate elementary school sites within the Township. The East China District operates Palms Elementary School, located in the northeast corner of the Township near the intersection of Palms Road and Marine City Highway. Fair Haven Elementary School, operated by the Algonac School District, is located on the south side of Broadbridge Road, between Swan Creek Road and Palms Road. Anchor Bay owns a five-acre site on the west side of Church Road, which is the home of Bloom Academy. School district boundaries and the locations of each elementary school are shown in Illustration 15.

The Anchor Bay School District has a Growth Committee that is investigating the possibility of acquiring and developing a new school site in the northern portion of the district which includes Ira Township. It appears that within the timeframe of this Master Plan there may be the need for a new school site in the Anchor Bay portion of the school district.

CONCLUSIONS

As the Township continues its gradual evolution from a rural community to one that is somewhat more suburban, the demand to provide additional services increases. The provision of services, however, needs to be coordinated and timed to coincide with development. This portion of the Master Plan provides the Township with an opportunity to anticipate the level of services that may be needed at a future point in time. Identifying these needs in advance of development is an absolute necessity.

Of those community facilities identified earlier, the provision of public water and sanitary sewers clearly has the greatest impact on the Township's future land use pattern. Utility extensions must be timed to coincide with growth. Premature utility extensions into the more rural portions of the Township must be avoided, especially where such extensions may compromise the low density development pattern favored by the Master Plan. Any future utility plans must also consider the establishment of an urban service boundary beyond which public utilities cannot and will not be provided.

The Township should also consider cooperative agreements with other communities or agencies, where appropriate. Schools, libraries and recreation services are provided on a larger geographic basis. Certain economies of scale and saving can be realized with these larger service areas. Services that could not be efficiently or cost-effectively provided by a community acting alone, may be provided by several communities working together.

THOROUGHFARE PLAN

INTRODUCTION

The automobile has had a dramatic impact on land development and human settlement patterns. Improved transportation facilities are, in large part, responsible for changes in our urban landscape from a more physically compact to a dispersed development pattern. Direct evidence of this change is apparent throughout southeast Michigan. Household growth in the region over the past 40 years would not have been possible without the automobile and the extensive network of roads serving the region.

Recognizing the direct functional relationship that exists between land use patterns and the movement of goods and people, there is an obvious need to coordinate land use planning activities with plans to upgrade and expand the capacities of the local and regional thoroughfare system.

Preparation of a Thoroughfare Plan has several practical applications that have important consequences for the community's ultimate development pattern. Through the identification of future right-of-way locations and standards, a community establishes the system of streets and roads that will provide access for future development. Furthermore, the cost of acquiring future road right-of-way can be significantly reduced if the necessary reservation is done well in advance of future road construction. Establishing right-of-way locations and standards through the Master Plan process provides the community with some authority to request right-of-way reservations through the land development process.

Designating right-of-way widths also helps a community establish consistent setback requirements, which is accomplished through the administration of a Zoning Ordinance. This minimizes the potential of having to acquire homes or businesses when road widening becomes necessary.

The Thoroughfare Plan provides the community with an opportunity to coordinate local transportation planning activities with those occurring on a regional or State-wide basis. Roads are the physical improvements that link communities together. Coordinating the planning associated with the regional transportation system offers some opportunities to consider mutually compatible land use policies relating to these needs.

Three topics are considered in this report. The first of these is an identification of thoroughfare planning concepts. Broadly accepted concepts are offered as a way of providing a common basis of understanding or vocabulary. The next section describes the characteristics of Ira Township's local road system. This includes a calculation of linear road miles by road classification, traffic volumes along major roads, accident locations, and identification of major traffic generators, among other factors. The report concludes with a description of the Thoroughfare Plan and how the Plan relates to Ira Township's Land Use Plan. Major proposals and recommendations for the future are also offered.

Orderly development and a desirable environment can only be achieved if full consideration is given to the relationship between the type and intensity of land uses and the need for proper access and the resulting traffic generation movements. Improved planning of the thoroughfare system will likely result in a better urban development pattern and, consequently, a much improved environment and efficient use of land.

CONCEPTS AND STANDARDS

Transportation Planning Concepts

Roads are grouped into a number of different classifications necessary for administrative, design and planning purposes. Most classification systems make a distinction based on the intended purpose of the road and the geographic areas it is intended to serve. Common road classifications include freeways, arterials, collectors and local roads. Each classification carries with it suggested minimum design standards.

The benefit of a classification system extends beyond providing a common understanding or transportation planning vocabulary. Such a system establishes a functional system, permitting a community to relate categories of streets to various land use activities that they are best suited to serve. In applying a classification system, the through-traffic movements and the access requirements of abutting property should be considered. A commonly accepted classification system prepared by the National Committee on Urban Transportation is on the following pages and shown in Illustration 16.

Expressway - This class is devoted entirely to traffic movement with little or no land service function. Thus, it is characterized by at least some degree of access control. Except in rare instances, this classification should be reserved for multi-lane, divided roads with few, if any, intersections at grade. Expressways serve large volumes of high speed traffic and are primarily intended to serve long trips.

Arterial - This class of streets brings traffic to and from the expressway and serves those major movements of traffic within or through the urban area that are not served by expressways. Arterials interconnect the principal traffic generators within the community, as well as important rural

routes. Arterials handle trips between different areas of the community and should form a reasonably integrated system. The length of the typical trip on the system should exceed one mile.

Collector - This class of streets serves internal traffic movements within an area of the community, such as a subdivision, and connects this area with the arterial system. Collectors do not handle long through-trips and are not, of necessity, continuous for any great length. In grid-iron street patterns, however, a street of several miles in length may serve as a collector, rather than an arterial if the predominant use is to reach the next junction with an arterial and there turn off.

Local - The sole function of local streets is to provide access to adjacent land. These streets make up a large percentage of the total street mileage of the township, but carry a small proportion of the vehicle miles of travel. In and around the central business district (CBD), local streets may carry traffic volumes measured in thousands, but this is the exception. Local residential streets, in most cases, carry daily volumes of 1,000 or less.

Standards

The configuration of the highway system throughout much of the nation, including southeast Michigan and Ira Township, is, in large part, a product of the Northwest Ordinance of 1787. This noteworthy legislation continues to exert a broad and lasting impact on land use and transportation patterns. The Northwest Ordinance of 1787 divided the Country into one-mile square grids, which serve as the paths for an extensive network of major thoroughfares or section line roads. This pattern is likewise evident in Ira Township, although this pattern is interrupted by Lake St. Clair which forms the southern boundary of the Township.

Standards for road development vary by the type of road and the level of government that has jurisdiction over the development and maintenance of the road. In St. Clair County, this responsibility is shared by the Michigan Department of Transportation (MDOT) and the St. Clair County Road Commission. The former has jurisdiction over M-29. All remaining roads in the County fall under the control of the County. The only exception to this pattern involves the roads located within the mobile home parks in Ira Township. These are private streets maintained by the developer and built to the standards of the Michigan Mobile Home Park Commission. A summary of relevant road right-of-way and pavement requirements for St. Clair County Roads is included in Table 31 and Illustration 17.

TABLE 31
ST. CLAIR COUNTY ROAD COMMISSION STANDARDS

<u>Road Classification</u>	<u>R.O.W.</u> ⁽¹⁾	<u>Pavement</u>
Major thoroughfares ⁽²⁾	150 feet	-
Section line roads	120 feet	-
Half-mile/Quarter-section or Collector roads	86 feet	36 feet
Residential subdivision streets	66 feet	30 feet
Cul-de-sacs	75-foot radius	56-foot radius

- (1) Right-of-way refers to a strip of land within which the road surface, shoulders, drainage structures, sidewalks and utilities are located.
- (2) As established by the St. Clair County Major Thoroughfare Plan.

ILLUSTRATION 17
CROSS SECTION STANDARDS

EXISTING CONDITIONS

Street Inventory

Ira Township contains approximately 47.7 linear miles of road, as measured from the Township's base map. This mileage is allocated to specific road categories which reflect the St. Clair County's classification system.

TABLE 32
IRA TOWNSHIP ROAD MILEAGE BY CLASSIFICATION

<u>Road Classification</u>	<u>Linear Mileage</u>
State Highways (M-29)	5.3
County Primary Roads	12.7
County Local (Paved)	2.3
County Local (Unpaved)	22.2
Other *	1.0
Subdivision Streets	4.2
Total	47.7

* County Line Road is a paved County primary road under the jurisdiction of the Macomb County Road Commission.

State Highways

M-29 (Dixie Highway) is the only State Trunkline in Ira Township. This highway extends from I-94 in Chesterfield Township in an east and northeasterly direction to Port Huron. The road parallels the shoreline of Lake St. Clair and the St. Clair River for nearly its entire route, and is the principal route between Algonac and the communities to the west.

Traffic volumes along M-29 vary from a low of 6,800 vehicles per day to a high of 19,000 vehicles per day. The largest volumes occur on short segments of this road from Marine City south to Algonac and north to the City of St. Clair. The highest volume was recorded along a short segment where M-29 leaves the City of St. Clair and enters St. Clair Township.

Except for that portion of M-29 between I-94 and the City of New Baltimore which experiences volumes between 20,000 and 50,000 vehicles per day, the heaviest sustained traffic volumes are recorded along that segment of M-29 between Algonac and New Baltimore. Average daily traffic volumes along this road range from a low of 11,000 vehicles in Clay Township to 17,000 vehicles in Ira Township.

While there has been some deviation in traffic volumes along M-29 since 1987, they have remained consistently high during this seven-year period, ranging from a low of 14,000 to a high of 19,400 vehicles per day. In several instances, even higher volumes were reported at the western end of the Township near New Baltimore. Volumes at this location peaked at 23,500 vehicles in 1989, and 21,300 in 1991. The two mobile home parks located in this portion of the Township likely explain these higher volumes at this location.

TABLE 33
M-29 TRAFFIC VOLUMES IN IRA TOWNSHIP

<u>Year</u>	<u>Average Daily Volumes</u>
1987	16,100
1988	14,000
1989	19,400
1990	15,500
1991	15,400
1992	18,000
1993	17,000

Source: Michigan Annual Average 24-Hour Traffic Volumes,
Michigan Department of Transportation

County Roads

The St. Clair County Road Commission divides Ira Township's Roads into two primary categories: primary and local. Local roads are further distinguished from one another based on surface treatment (paved or unpaved).

County primary roads serving the Township include Marine City Highway, Church Road, Palms Road and Shea Road. These roads total 12.7 miles, or approximately one-quarter of the community's total road mileage. Paved local roads account for only 2.3 miles of road and include the entire length of Ira Road and segments of Meldrum Road, Broadbridge Road and Swan Creek Road. The single largest category of roads in Ira Township are unpaved County local roads. Ten roads fall into this category and total 22.2 linear road mileage, or nearly one-half of all Township road mileage.

There are two unimproved road segments in Ira Township. Short Cut Road (between Palms Road and Mayer Road) and Mayer Road (between Marine City Highway and Markel Road) consist of improved rights-of-way without a passable road surface. These two road segments total three linear miles.

The remaining roads in the Township consist of local subdivision streets. Most of these streets are located in the Fair Haven portion of Ira Township, between M-29 and the Lake St. Clair shoreline. Many of these roads have right-of-way and pavement widths that fall well short of conforming to current Road Commission standards.

Accident Locations

As traffic volumes increase, so do the difficulties of accommodating more vehicles. The number of accidents generally rise along with the increase in traffic volume. The major exception is freeways, which have considerably fewer accidents than may be expected from their volumes owing to their superior design standards.

A total of 102 accidents occurred on Township roads in 1993, based on data available from the St. Clair County Road Commission. More than one-half of these accidents (56) occurred along Marine City Highway. These accidents are concentrated at intersection locations. Outside of the Marine City Highway Corridor, the next highest concentration of accidents occurred at the intersection of M-29 and Palms Road.

Freeway Availability

The ability of a community to support various types of businesses and industry is frequently related to the proximity and convenience of freeway access. While no interstate freeways pass through Ira Township, I-94 crosses Macomb County and St. Clair County less than one mile west of the Township. An interchange is available where I-94 crosses 26 Mile Road (Marine City Highway). The availability of an interchange at this location provides the regional highway access required to support the development of the Township's planned industrial district along Marine City Highway between County Line Road and Meldrum Road.

Traffic Generation

Land use patterns have a significant and measurable impact on traffic volumes. Several national studies offer estimates of the number of trips generated by various land use categories. These estimates are useful in assessing the impact of different land uses on a site-specific basis and for the community as a whole. Included in Table 34 is a list of traffic generation rates for specific types of land uses.

The frequency of these trips is directly related to the availability of employment and retail opportunities in the community. A final category of vehicle trips includes through-traffic, where neither the origin or destination point is located in the community. This type of trip is likely where an interstate freeway or State trunkline crosses the community.

Several types of traffic impact Ira Township's local road system. For example, the Township's existing residential households typically generate between 3 and 8 vehicle trips per day. Commercial and industrial establishments located in the Township also generate additional volumes of traffic to and from the community. Most of the industrial traffic is confined to Marine City Highway, with Dixie Highway the Township's major commercial corridor.

The volumes of traffic along M-29, can be attributed to several factors. The first of these involve daily trips generated by those residential households located proximate to this highway. The numerous marinas located along the Lake St. Clair shoreline also generate additional traffic, especially during the boating season. Finally, Ira Township experiences a substantial volume of through traffic that passes through the community enroute to destinations in other communities located to the east and west of Ira. The high volume of through traffic along this road and its influence on land development patterns is among the most significant long-range planning challenges facing the Township. Alternatives designed to address this challenge are explored in the subsequent portions of the Master Plan.

TABLE 34

TRIP END GENERATION RATES BY LAND USE

<u>Type of Land Use</u>	<u>Type of Development</u>	<u>Weekday Trip End Generation Rates</u>	
		<u>Average *</u>	<u>Range</u>
Residential	Subdivision	9.5 TE per Occupied Dwelling Unit	6.4 - 12.7
	Apartment	5.7 TE per Occupied Dwelling Unit	3.1 - 7.9
	Mobile Home Park	5.4 TE per Occupied Dwelling Unit	2.8 - 6.8
Institution	High School	1.3 TE per Student	1.1 - 2.1
	Elementary School	1.0 TE per Student	0.7 - 1.2
	Government Office Building	44 TE per 1,000 Sq. Ft. Floor Area	25 - 139
	Church	44 TE per Employee (Sunday)	30 - 191
Commercial	Shopping Center (regional)	315 TE per Net Acre	149 - 671
	Shopping Center (neighborhood)	949 TE per Net Acre	800 - 1,064
	Commercial Store (freestanding)	47 TE per 1,000 Sq. Ft. Floor Area	35 - 330
	Commercial Office Building	15 TE per 1,000 Sq. Ft. Floor Area	8.8 - 23.6
	Medical Office	41 TE per Doctor	31 - 53
	Motel	10.1 TE per Occupied Unit	4.7 - 14.6
	Restaurant (sit-down)	14 TE per Employee	9 - 22
	Restaurant (fast-food)	75 TE per Employee	62 - 89
	Bank, Savings & Loan	43 TE per Employee	31 - 76
	Service Station	57 TE per Employee	41 - 79
Industrial	Various Types of Industry	79 TE per Net Acre	9 - 350
	Industrial Park	64 TE per Gross Acre	52 - 140
	Warehouse	81 TE per Net Acre	28 - 256
	Mass Production	93 TE per Net Acre	38 - 191
	Administration	60 TE per Net Acre	28 - 229
	Research and Development	31 TE per Net Acre	20 - 127
	Specialty Production	39 TE per Net Acre	9 - 159
	Truck Terminals	56 TE per Net Acre	43 - 128

Source: California Department of Transportation.

ADEQUACY OF THE EXISTING SYSTEM

State Routes (M-29)

Ira Township's chief transportation problem involves the high volumes of through traffic along Dixie Highway (M-29) passing through the community enroute to destinations at locations to the east and west of Ira Township. The frequency of driveways along M-29, often at close intervals further compounds this problem.

Major Roads

The network of major roads serving Ira Township generally conforms to section line alignments, with spacing at one-mile intervals. These roads were initially designed to permit access both within and through the community. Routes that provide continuous access can best achieve this purpose.

Within Ira Township, there are several gaps in the major road system which prevent these roads from completely fulfilling this objective. These gaps include a two-mile segment of Mayer Road, between Marine City Highway and Markel Road, and Short Cut Road, between Palms Road and Mayer Road.

Another fairly obvious deficiency involves Bethuy Road. Two mobile home parks are located on either side of Bethuy Road which generate significant volumes of traffic. Because of the poor condition of Bethuy Road, most traffic from the mobile home parks is forced to use M-29. Improving this road north to Marine City Highway would provide an alternative route for mobile home park residents. The proximity of the I-94 interchange along 26 Mile Road (Marine City Highway) provides even more incentive for residents to use this route for destinations to the south and west of Ira Township.

Local Roads

Ira Township has few local subdivision streets that conform to accepted transportation planning standards. Most local subdivision streets are confined to the Fair Haven portion of the Township, between M-29 and the Lake St. Clair shoreline. These roads have right-of-way and pavement cross-sections that do not meet St. Clair County Road Commission standards. The local street system in this area is also discontinuous with few opportunities for vehicles to turn around. Both characteristics pose substantial problems for access by emergency vehicles. The Township road system also lacks improvements to accommodate pedestrians either along local subdivision streets or the major road system.

THE TRANSPORTATION PLANNING PROCESS

The Regional Role

Ira Township's Master Plan should take into consideration the regional transportation planning process which determines how road improvement funds are spent. Unlike land use and zoning decisions, which are subject to local control, Township government has a far more limited role in determining what local road improvements are made. These decisions are made at the regional level through the Southeast Michigan Council of Governments (SEMCOG), with the participation of the State through the Michigan Department of Transportation (MDOT). St. Clair County also participates in the regional transportation planning process through an organization known as the St. Clair County Transportation Study (SCCOTS). This organization identifies and prioritizes County-wide transportation needs which are then incorporated into the regional transportation plan.

Transportation planning readily lends itself to this regional approach, since roads represent the single most important infrastructure improvement that ties the region together. Major highways commonly serve more than one community. It is, therefore, important that these roads are improved to uniform standards. Road improvement funds are largely allocated to State, regional or County agencies. Township's have limited ability to raise road improvement money.

The Regional Transportation Plan

In October, 1993, SEMCOG adopted the 2015 Regional Transportation Plan for Southeast Michigan. The purpose of the Plan is to guide the expenditures of regional transportation funds, particularly funding designed to reduce traffic congestion and improve safety. The plan identifies the region's transportation needs through the year 2015, as well as projects and policies intended to meet those needs. These projects are then included in a Transportation Improvement Program (TIP) which is a process for scheduling the implementation of the regional transportation plan. The TIP is a three-year schedule, which is revised annually, identifying those projects to receive funding.

The regional transportation planning process, including the preparation of the plan and annual list of improvements, is regulated by the Federal Government's Intermodal Surface Transportation Efficiency Act of 1991. Commonly referred to as ISTEA, this legislation requires regional planning agencies to develop a long-range transportation plan and annual improvement program which is broader in scope than previous plans and which encompasses a broader spectrum of issues, including intermodal facilities, air quality and fiscal constraints. ISTEA also requires that the long-range plan be reevaluated, amended and adopted at three-year intervals.

Under ISTEA, the process links highways and transit; emphasizes maintenance of existing infrastructure; requires that plans and programs be fiscally responsible; requires attention to improving air quality in urban areas and examining land use impacts of transportation decisions; and moves much of the decision-making responsibility from the Federal and

State levels to the local and regional levels. Fundamental changes have been made to the way the transportation system is planned, how Federal funds can be used for improvements and, most importantly, how and by whom decisions are made.

The 2015 Regional Transportation Plan for southeast Michigan has four elements: 1) Goals and Objectives used in the preparation of the plan; 2) Specific transportation projects proposed for implementation in the next 20 years; 3) policies designed to move the region toward the adopted goals; and 4) a summary of ongoing and future activities which will enhance that movement. Specific goal and objective statements included in the regional plan that have applicability at the local land use planning level include the following:

- The transportation system should maximize positive impacts and minimize disruption of existing and anticipated land uses within the community.
- The transportation system should minimize interference with existing households and disruption of neighborhoods.
- The transportation system should coordinate local planned use development with the preservation of current and future right-of-way and transportation system improvements.

ST. CLAIR COUNTY ROAD IMPROVEMENTS

The heart of the Regional Transportation Plan is a list of specific projects developed by technical working groups in each county in the region and the City of Detroit. Each project must meet an identified transportation need primarily relieving congestion and improving safety. The 1993 Transportation Plan lists 39 separate projects in St. Clair County, two of which impact Ira Township. The first of these projects involves the preparation of a corridor plan for Marine City Highway from County Line Road on the west to King Road on the east. The intent of this study is to prevent future congestion by coordinating local land use/zoning decisions with transportation improvements for those communities located within this corridor. The second improvement involves repaving that segment of Palms Road from Shea Road to M-29. This improvement is designed to improve the operation/function of this intersection. Neither of these improvements are listed in the 1995-1997 TIP. This three-year improvement plan, however, does include one MDOT sponsored improvement in St. Clair County. This involves intersection channelization, adding a right turn lane and extending a left turn lane in front of the Chateau Estates mobile home park along M-29 near the western boundary of the Township.

SEMCOG and SCCOTS are currently in the process of updating the 1993 plan. This update will be completed in 1996. As part of the new ISTEA-mandated planning process, local planning efforts have a much more important role in determining regional priorities. Needed transportation improvements reflected in the Townships' Master Plan should, therefore, be shared with the County for their consideration in the list of County-wide priorities.

THOROUGHFARE PLAN

The Thoroughfare Plan incorporates the relevant goals and objectives considered earlier, along with the inventory information, concepts, and standards introduced earlier. Major proposed improvements needed to support the land use and community facility elements of the Plan are identified below.

Traffic Planning Principles

Certain general principles have been recognized by planners and traffic engineers as conducive to sound transportation planning for urbanizing communities. These principles may be summarized as follows:

1. There must be coordination between the Thoroughfare Plan and existing and proposed land usage in order to achieve a trafficway system that may efficiently service the land use patterns.
2. Because of its permanency, the existing road system must form the basis for long-range transportation planning, with modifications in the system made, where necessary, to accommodate future needs.
3. Existing and anticipated traffic volumes must be considered and provisions made to accommodate the increased traffic and changing trip movements generated by population growth.
4. There must be correlation between the Thoroughfare Plan and residential neighborhood units so that the Plan will provide for adequate service to the neighborhoods but, wherever feasible, not bisect them with heavily travelled routes.
5. A comprehensive network of direct, continuous routes must unite all parts of the Township insofar as is compatible with geography and land use so that improvement is achieved in the overall traffic flow and trip time in the Township.
6. Modern design standards must be utilized in planning width of right-of-way and pavement and other development characteristics of the roads.
7. The Plan must consider the proposals of road planning agencies throughout the region in order to achieve a complete and functional road system.

Regional Road Improvements

The single most significant traffic-related concern facing Ira Township over the time frame encompassed by this Plan involves alleviating the congestion and volumes of traffic along M-29/Dixie Highway. This need is reflected in the goals and objectives identified elsewhere in the Master Plan. Specific policy statements relating to M-29 include the following:

1. Encourage the development of a bypass separating through-traffic from Township-bound traffic.
2. Provide traffic signals along M-29 to slow down traffic as it passes through the Township.
3. Encourage the use of Marine City Highway as an alternate route to Algonac, with Palms Road as a connector route to M-29.
4. Move through-traffic away from the waterfront.

Two alternatives could address this problem. The first alternative involves widening the road to accommodate the higher volumes of traffic along this road. A second option involves providing an alternative route or routes through Ira Township.

The former alternative is probably the least desirable or practical option due to the costs associated with the improvement. To accommodate this option, additional road right-of-way would likely be required. This could be expensive and disruptive considering the close proximity of developed single-family homes on the south side of the road. Widening M-29 would also further divide the waterfront development from the remainder of the Township.

Another alternative involves reducing traffic volumes along M-29 by offering another route through the Township. This second alternative is broader in scope and has regional planning implications which are discussed in more detail in the Corridor Plan portion of the Land Use Plan.

Major Roads

The Master Plan encourages the extension of the section line road system to provide improved traffic flow in and through the Township. While the existing one-mile square section line road system is fairly well established in the Township, there remain gaps in the system that should be completed as development occurs.

Missing road segments include Mayer Road, from Markel Road north to Marine City Highway, and Short Cut Road, between Palms Road and Mayer Road. Adding these two missing segments would complete this system.

Recommended right-of-way widths established by the St. Clair County Road Commission's Thoroughfare Plan are shown in Illustration 19. These right-of-way widths should be preserved and referenced in building setback requirements. Observing these right-of-way widths will reduce the impact and cost of future road expansions.

Several roads would also benefit from realignment improvements at intersections. This concern is particularly applicable to Swan Creek Road, where it crosses Arnold Road and Short Cut Road. The road jogs slightly at both intersections. While these offsets may not present an immediate problem due to low volumes of traffic, as development increases, these alignments should be corrected. The intersection of Ira Road and M-29 should also be evaluated and realigned, if necessary, to improve safety and traffic flow.

The Master Plan also envisions a time in the future when all section line roads would be paved. It will obviously take many years for this to be accomplished. In the meantime, the Township should identify those roads that should be paved during the time frame envisioned by the Master Plan. Bethuy Road, for example, is a prime candidate for paving from M-29 north to Marine City Highway. Paving this road provides an alternate route for mobile home park residents. There may also be a need for additional paving improvements in the southern half of the Township, depending on development activity. The need for these improvements should be reevaluated within the next five years.

Local Streets

The Master Plan considers two principal issues related to local road improvements: 1) extending subdivision streets to the undeveloped portions of the Township; and 2) upgrading substandard residential streets that already exist in the community. Both factors need to be addressed to provide for the continuous and safe movement of vehicles in existing and planned residential neighborhoods.

The Township has few local subdivision streets serving undeveloped land in the interior portions of the community north of M-29. Much of this area is planned for future single-family development at densities between two and four units per acre. One prerequisite to this residential development is the construction of access roads into these undeveloped parcels. The alignment, design and construction of these roads will make a significant contribution to the character of development within the Township. These new streets should, therefore, be carefully designed to support the residential development policies reflected elsewhere in the Plan.

Far too often, residential streets are designed without adequately considering their relationship to the neighborhood they serve. Local streets should not only move traffic safely and efficiently, but also consider the needs of residents for a quiet, pleasant and convenient neighborhood environment. Frequently encountered residential street design problems include over-design, lack of order, and lack of residential character. Residential streets should be designed to support neighborhood activities that consider the following principles:

- The width of the street should be based on the volume of traffic anticipated. The design should consider whether on-street parking is needed and whether curbing or shoulders are desirable.
- All streets should be designed and constructed to meet accepted engineering standards to safely control traffic.
- The arrangement of streets should encourage short, quiet residential streets that create recognizable neighborhoods and discourage through-traffic.

To accommodate the multiple functions of local residential streets, design standards for these roads should consider the following objectives:

1. Promote the safety and convenience of vehicular traffic.
2. Protect the safety of neighborhood residents.
3. Minimize long-term maintenance and repair costs.
4. Minimize crime.
5. Protect the residential environment by limiting traffic volumes, traffic speed, noise and fumes.
6. Encourage efficient land use patterns.

7. Minimize construction costs.
8. Limit the quantity of impervious surface.⁽¹⁾

⁽¹⁾ Bucks County Planning Commission, "Performance Streets: A concept and Model Standards for Residential Streets," April, 1980.

The conceptual residential design plans offered in the Residential Areas Plan portion of the following Land Use Plan chapter illustrates a desirable alignment for future residential streets. These plans feature collector roads through each section. A collector road is a street that collects traffic from local streets and connects with major and secondary streets. Local roads should also provide for stub connections to abutting vacant acreage to accommodate eventual continuation of the neighborhood road system within a designated residential area.

The other planing issue related to the local road system includes upgrading existing residential streets serving those neighborhoods located along the Township's waterfront. Most of these roads are not built to current acceptable design or construction standards. They lack both adequate right-of-way width and pavement cross-sections. The absence of connections between adjoining developments and vehicle turn-arounds present problems for emergency vehicles.

A comprehensive road plan should be prepared for these neighborhoods to improve these access problems. Recognizing the limitations that already exist in these neighborhoods based on current development patterns, the Plan should emphasize minimum basic safety and maneuverability improvements that improve quality of life and enhance emergency vehicle access.

Bicycle/Pedestrian Paths

Bicycling, jogging and walking are among the most popular forms of recreation. It is estimated that one-half of all Americans ride bicycles at least once during the year. This popularity is a consequence of increasing amounts of leisure time available to many people, as well as an increased emphasis on physical fitness. Because of this expanded interest, it is necessary to incorporate improvements and facilities designed for bicycles and pedestrians into local recreation planning activities. Bicycle and pedestrian circulation systems can make existing park and school sites more accessible. Aside from these obvious benefits, bicycle and pedestrian paths have broader benefits. Bicycles are an inexpensive and pollution-free form of transportation. The ultimate goal of a comprehensive bicycle/pedestrian path system is to bring local recreation activities to everyone's doorstep.

Recreation opportunities for bicyclists, joggers and walkers in Ira Township are limited to the shoulders of existing roads. The lack of sidewalks along these roads may effectively discourage these forms of recreation activities. A comprehensive pedestrian network may include traditional sidewalks within residential subdivisions and wider, multi-purpose paths within more heavily travelled corridors.

Any future multi-purpose path system built in the Township should be consistent with the following principles:

1. Be accessible to as many people as possible.
2. Connect existing and planned schools, parks and other community activity areas.
3. Provide connections to regional path systems.
4. Meet established engineering design standards.

The distribution of the Township's population along M-29 and the location of existing and proposed public recreation sites north of the M-29 corridor limit possible alignments for a comprehensive Township-wide path system. One alternative alignment placed the path along M-29 extending the full length of the Township. High traffic volumes along M-29 and limited space to place a path on the south side of the road suggest that another location should be considered.

A more feasible alignment may be along the abandoned D.U.R. right-of-way which generally follows Short Cut Road from Church Road east to Mayer Road. This alignment offer the potential to connect existing and planned park sites, including the Lion's Club Park and the Township Hall Park, both of which have frontage on Short Cut Road.

This alternative alignment also features a loop through the Fair Haven area along Swan Creek Road, eventually connecting to the proposed path in the Township Park site. A short spur could also be provided to Fair Haven Elementary School. Another feeder route could be extended along Swan Creek to Palms Elementary School. The path should also be extended east to provide access to both Chateau Estate Mobile Home Parks. The preferred alignment for this path system is shown graphically in Illustration 20. The first priority segment of this path should be along Short Cut Road, connecting the Lion's Club Park to the new Township park.

ILLUSTRATION 21
REGIONAL PEDESTRIAN PATH SYSTEM

Ira Township is located outside of the regional path system currently under construction in Macomb County. This path is planned to connect major recreation facilities in the County, including Metro Beach Metro Park, Stony Creek and other parks in Sterling Heights and Shelby Township. The closest point that this system gets to Ira Township is the planned site of Wetzel State Park on 26 Mile Road in Lenox Township. Eventually, it may be desirable to consider connecting this path eastward to connect the system to Chesterfield Township, New Baltimore and Ira Township.

Similar consideration should be given to aligning Ira's proposed path system with those improvements planned in neighboring St. Clair County communities to the east. The adopted Downriver Recreation Plan (Clay Township and the City of Algonac) included an extensive pedestrian network that has two potential connections to Ira Township. Other pedestrian improvements are planned along M-29 and the St. Clair River shoreline north of Algonac. The eventual development of a path system in Ira Township could provide a link between regional paths under construction in Macomb and St. Clair Counties.

Any future path system should be constructed to meet accepted engineering design standards. These standards vary, depending on whether or not the path is part of the road surface or separate from vehicle travel lanes. While it may be easier and less expensive to provide a path along the road surface, many users prefer separation from vehicles. Since the purpose of the path is to provide a linear recreation opportunity, a separate path is the preferred option. Ideally, this path should have a minimum width of eight (8) to twelve (12) feet. The Township Subdivision Ordinance and Zoning Ordinance should be amended to require sidewalks for all forms of residential and non-residential development.

Coordination with Other Agencies

State law limits Township jurisdiction over road maintenance and improvement activity. Before the automobile, roads were principally a matter of local concern. Following legislative action in 1931 and again in 1951, responsibility for road improvements in unincorporated portions of the County were transferred to County Road Commissions. This legislation required the County to maintain roads under their jurisdiction as "reasonably safe and convenient for travel." To fulfill this obligation, the Road Commission is required to provide necessary dust control, alleviate flooding, and correct potholes where these conditions create traffic problems.

While townships have limited jurisdiction over road improvements, road conditions are one of the chief complaints in many communities. Deferring responsibility to the Road Commission does not adequately respond to this reoccurring concern. Further, limited funding at the County level frequently results in planned road improvements that fall well short of projected needs. For this reason, Township governments can become involved in the road improvement process. Examples of Township involvement in this process can include the following:

- Townships may enter into an agreement with County Road Commissions or the Michigan Department of Transportation regarding local participation in road improvements. Township participation in this process is discretionary, not mandatory.
- Township voters can authorize a levy of up to six (6) mills to finance local road improvements.
- The Township Board can establish special assessment districts for road improvements. The Board can also petition the Road Commission to create special assessment districts in some instances.
- Adopting a major thoroughfare plan provides townships with the authority to approve new roads and regulate improvements on existing roads. This may include new driveway locations and parallel service drives.
- The Township can allow or prohibit private roads.⁰¹

Some of these options may or may not be suitable for Ira Township. Anticipating future development in the Township, at a minimum, the community should establish a working relationship with the St. Clair County Road Commission and Michigan Department of Transportation. This is especially relevant as it relates to development along Dixie Highway (M-29) and Marine City Highway. Coordinating the site plan review process with these applicable agencies will improve the Township's ability to provide improved access either through the use of shared driveways, increased driveway spacing, and few curb cuts. This type of cooperation also provides for an opportunity to coordinate road improvements with local land use planning activities. Additionally, local land use planning activities should be coordinated with the St. Clair County Metropolitan Planning Commission and the Southeast Michigan Council of Governments (SEMCOG).

⁰¹ John H. Bauckham, "What is the Township's Legal Authority for Roads" - Michigan Township News, April 1994, Volume XXXVI, No. 4.

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LAND USE PLAN

INTRODUCTION

Community planning is concerned with the rational utilization of land and the provisions of public services and facilities. The Master Plan strives to improve the quality of life within the Township through proper planning for the development of vacant land and the redevelopment of existing areas, where necessary, to create an improved community. To achieve this, the Master Plan is comprehensive, flexible, general, long-range, and regional in scope.

The Plan is general enough to permit progressive refinements and allow for unforeseen contingencies and should not be viewed as a precise "blueprint for the future." Nevertheless, the Plan should not be deviated from without good and documentable cause. A Land Use Plan will permit progressive refinements as the Township and its property owners realize and decide on very specific courses of action. The Plan should serve as a narrative and graphic framework within which decisions related to development can be made realistically and with practicality of application. The Plan is more than just a mosaic presentation. Within the graphics and mapping are spatial distributions and relationships aligned with the Township's selected goals and objectives.

BACKGROUND FOR RESIDENTIAL LAND USE

The Community Facilities chapter of the Master Plan emphasized the need to coordinate utility capacities with planned land use patterns. During the development of the Master Plan, several alternative land use arrangements were created based on the capacities of public water and sanitary sewer systems. These alternatives, or development options, arrange residential developments in 18 "neighborhoods" of the Township to reflect potential growth patterns (Illustration 22). Based on the arrangement and distribution of the growth patterns, it is possible to estimate the number of households and residents the Township is capable of supporting at full development or at sewer and water capacity. Population figures were first estimated for the 18 "neighborhoods" and then aggregated for the Township. In 1995, these projections were made based on the belief that sewer capacity would not be a problem. Engineering studies, in late 1996 and 1997, determined there were severe capacity and transmission limitations in the delivery system to the treatment plant.

The 1990 Census results for Ira Township revealed 2,396 housing units and a population of 5,587 persons. When undeveloped lots and approved residential sites were considered in 1995, these totals increased to 3,005 dwelling units and 6,920 persons, as shown in Table 35 on page 123. The approved, but undeveloped, mobile home lots in Chateau Estates accounted for most of these additional units. Vacant areas designated for residential purposes in each development option were then considered to arrive at a theoretical population for each option.

Illustration 22
NEIGHBORHOOD AREAS

The population estimates for 1995, also shown in Table 35, were based on the following proposed densities for Ira Township. They included rural residential densities from one to five-acre parcels per dwelling unit (depending upon location within the Township), and single-family residential at three units per acre. Based on the reduced public sanitary sewer capacity, these figures were no longer feasible to achieve. New population projections and capacity estimates were, therefore, developed.

Several assumptions were made regarding types of development, anticipated densities, and the number of persons per household. Each development option divided the Township into two residential development categories: 1) Rural Residential, and 2) Development Areas. In calculating 1997 population estimates, the rural residential area anticipates the development of single-family homes on 3.5-acre lots. Planned densities within the Development Areas would not exceed two (2) units per acre as shown below.

	<u>1995</u>	<u>1997</u>
Rural Residential	One (1) unit per acre * One (1) unit per five (5) acres *	One (1) unit per 3.5 acres
Development Area	Three (3) units per acre	Two (2) units per acre

* Densities' range depending upon location within the Township

TABLE 35
CAPACITY ESTIMATE COMPARISON

<u>Development Options</u>	<u>Capacity Estimates</u> 1995		<u>Capacity Estimates</u> 1996		<u>Capacity Estimates</u> 1997	
	<u>Households</u>	<u>Population</u>	<u>Households</u>	<u>Population</u>	<u>Households</u>	<u>Population</u>
1990 Census	2,143	5,587	-	-	-	-
Existing and Approved	3,005	6,920	-	-	-	-
Bethuy Road Option	-	-	9,388	24,474	7,062	18,077
M-29 Corridor Option	-	-	8,495	22,017	6,454	16,404
Bethuy/Fair Haven Option	-	-	9,056	23,560	6,833	17,447
Existing Zoning Option	12,365	32,659	-	-	-	-
Ultimate Capacity Option	14,786	33,400	-	-	-	-
Composite Option	-	-	8,689	22,551	6,583	16,760

SIX RESIDENTIAL LAND USE ALTERNATIVES

The physical arrangement and distribution of various land use categories on the Township's available vacant land are limited in number and scope. Regional development trends, existing land use patterns, the road system and physical characteristics, individually and collectively, influence the range of land use choices reasonably available to the Township. In the case of Ira Township, the quantity and distribution of land for different uses is further limited by the availability and capacities of existing public utility systems.

The capacity of the Township water system and Township sewer system are analyzed in some detail in the Community Facilities Plan/Utilities section of this report. For the purposes of evaluating the land use alternatives, the Master Plan limit for urban development on public sewers is 12,000 persons/population equivalents. Two of the six residential land use alternatives considered (and described below) in the process of formulating the Master Plan are "Existing Zoning Option" and "Ultimate Capacity Option." These options are of interest, but they are not recommended because of the large public sewer utility capacity which would be required, but not available.

As noted, several options were examined by the Township in 1996, and again in 1997. A common feature of each development option involves the location and arrangement of non-residential use areas. Each option, for example, includes two major commercial focal points along the M-29 corridor: one at the Anchorville area, and a second encompassing the unincorporated Village of Fair Haven. The former area would have a convenience retail orientation. The Fair Haven commercial center could potentially serve a broader commercial market consisting of potential tourist or specialty retail activities which take advantage of the existing marinas and access to the waterfront.

A consolidated industrial district is proposed in the northwest corner of the Township, extending along Marine City Highway from County Line Road east to Meldrum Road. The depth of this corridor varies from more than one mile in depth at the Township's eastern boundary to approximately one-quarter mile between Meldrum and Church Roads. This designation takes advantage of the accessibility of Marine City Highway, as well as convenient access to I-94.

Several open space corridors cross the interior of the Township along Swan Creek and other water courses and are common features to each alternative. These open space corridors recognize the limitations created by the presence of floodplains and wetlands that coincide with these open space corridors.

The subsequent population estimates are based on a household size of 2.75 persons per household, which is SEMCOG's year 2010 forecast published in February of 1996. All of these alternatives also assume no major change to the already developed land use pattern along the Lake St. Clair shoreline. A comparative summary of the resulting capacity household and population estimates for each development option are shown in Table 35, on page 123.

Bethuy Road Development Option

This particular development option assumes that growth will be concentrated in the western portion of the Township, proximate to the City of New Baltimore. It takes into account the current residential development pattern on both sides of Bethuy Road, encompassing the existing and proposed mobile homes located in this area of the Township. It also recognizes broader development trends occurring in the adjacent Macomb County communities of Chesterfield Township and New Baltimore and the steady progression of development in an easterly direction along the M-29 corridor.

The capacity estimates made in 1996 projected households at 9,388 and population at 24,474. The 1997 estimates, using the decreased densities, projected 7,062 households and 18,077 persons.

Illustration 23

BETHUY ROAD DEVELOPMENT OPTION

M-29 Corridor Development Option

This development option orients future development in a linear fashion parallel to M-29 and the shoreline. It represents an extension of the existing residential development pattern along Lake St. Clair and assumes that one of the Township's principal attractions is proximity and access to the lakefront. Since most of the shoreline is already developed, the next logical location for future development is on the north side of M-29. This alternative further acknowledges the practice of arranging development in close proximity to major transportation corridors. The future development area included in this option extends in an east-west direction along the shoreline to a variable depth of between one-half to one mile. It extends as far east as Palms Road.

The 1996 capacity estimates for this option were 8,495 households and 22,017 persons. The amended estimates made in 1997 projected 6,454 households and 16,404 persons at capacity development.

Illustration 24

M-29 CORRIDOR DEVELOPMENT OPTION

Bethuy Road/Fair Haven Development Option

The third option assumes that development will cluster around existing concentrations of residential uses in the Township. Two clusters of future residential development are reflected in this alternative. The first area is in the western portion of the Township, along Bethuy Road, generally coinciding with the previously described Bethuy Road alternative. This option limits the extent of the future development area to Arnold Road.

The second development cluster occurs in the vicinity of the unincorporated portion of the Township, commonly referred to as Fair Haven. Historically, Fair Haven is one of the Township's first settlements. It contains the greatest concentration of residences and businesses, including several marinas. The Master Plan envisions the future redevelopment of this area as the village center for the Township, capitalizing on its longstanding role as a development focal point for the Township. This portion of the development area contains approximately one square mile of land lying immediately northeast of the geographic center of the Fair Haven area.

The 1996 capacity projections for this option were 9,056 households and 23,560 persons. The 1997 projections, with limited densities, projected 6,833 households and 17,477 persons at capacity.

Illustration 25

BETHUY ROAD/FAIR HAVEN DEVELOPMENT OPTION

Existing Zoning Option

This option is included for comparison purposes. It was based on the development pattern permitted by the zoning district boundaries in 1995, and is no longer a feasible option. It most closely resembled the appearance of the previously described M-29 Corridor Alternative, which stretches the future development in an east-west direction parallel to M-29 and the shoreline. The depth of the development area, however, extended further north than the M-29 option. Capacity housing unit estimates for this option were based on the minimum lot sizes permitted by the Zoning Ordinance in 1995.

Illustration 26

EXISTING ZONING OPTION

Ultimate Development Option

The ultimate capacity estimate envisioned a broader development area, combining the residential growth patterns encompassed by the first three options. This option was developed in 1995 and did not account for the constraints now placed on the public utility system. It anticipated that residential development of a suburban density would extend from New Baltimore east, past Church Road, south to Short Cut Road. From the intersection of Meldrum and Short Cut Road, the residential development area extended east for approximately two miles to Palms Road, before dropping south to Broadbridge Road. Much of the northeast portion of the Township is planned for rural residential development at lesser densities. As a result of the limited sewer capacity, this option has not been considered since 1995.

Illustration 27

ULTIMATE DEVELOPMENT OPTION

Composite Development Option

The final option offers a more realistic anticipated future growth pattern that most closely resembles the previously identified M-29 Corridor option. It arranges more intense residential development parallel to M-29 from the Township's boundary with New Baltimore, west to St. Clair Street approximately one-quarter mile west of Palms Road. This particular option leaves large interior portions of the Township reserved for low density residential development on large lots.

This option has a projected capacity of 6,583 households and 16,760 persons. The population that will be served in the development area with public sewers is 4,509 households, or 11,097 persons.

Illustration 28

COMPOSITE DEVELOPMENT OPTION

Table 36 shows the estimated population and housing capacity for the total Township and for the area receiving public sewers. The Existing Zoning and Ultimate Capacity Options were not included in this table since they are no longer effective comparative tools. The Existing Zoning Option was based on the densities proposed in 1995, which have since been revised, and the Ultimate Capacity Option was not based on any constraints placed upon the public sanitary sewer system.

These estimates assume that the remaining vacant land will be developed at the density figures noted. The estimates do not account for parcel configuration, the availability of access, land assembly problems, or environmental limitations. The acreage to be developed, however, does exclude wetlands and floodplains as recorded in the Master Plan. These factors, alone or in combination, may reduce or increase the estimates. Changes in the composition of the average household could have a similar impact.

TABLE 36
CAPACITY ESTIMATE SUMMARY - 1997

<u>Development Options</u>	<u>Total Township</u>		<u>Sewer Service Area</u>	
	<u>Households</u>	<u>Population</u>	<u>Households</u>	<u>Population</u>
Bethuy Road Option	7,062	18,077	5,523	13,885
M-29 Corridor Option	6,454	16,404	4,835	11,994
Bethuy/Fair Haven Option	6,833	17,447	5,246	13,123
Composite Option	6,583	16,760	4,509	11,097

TABLE 37
COMPOSITE OPTION

<u>Development Area</u> 1997		<u>Rural Residential</u> 1997	
<u>Households</u>	<u>Population</u>	<u>Households</u>	<u>Population</u>
4,509	11,097	2,074	5,663

At this point in time, and with today's technology, it appears that Ira Township could never provide public sanitary sewer capacity for more than 12,000 persons or population equivalents. Development above this threshold would require new interceptors and probably a new route to reach the treatment plant. At this time, it appears that placing pipes through the marsh lands would not be an environmental potential. The cost of expansion of treatment facilities and the transportation cost to service a population of over 12,000 persons, has been determined economically unfeasible. As a result, the population capacity for Ira Township through its planning period of the year 2020 has been established at 17,000 persons. This would provide for the maximum sewered population and substantial growth in large lot residential on septic or engineered systems.

Summary

Currently, the public sanitary sewer system in Ira Township has a capacity for 6,000 persons, or their equivalent, and is bonded through the year 2003. After the bonds are paid off, the system could be expanded to support a capacity of 12,000 population equivalents, if it were found to be financially feasible. If the expansion were not to occur, SEMCOG's population projection for the year 2020 of 8,937 persons could be reached by the year 2010. However, with the expansion in place and an available sewer capacity for 12,000 population equivalents, the composite development option would be a more accurate forecast. This option would allow a total population of nearly 17,000 persons, of which a population equivalent of approximately 12,000 persons would be connected to the public sanitary sewer system. Any future projection of population for Ira Township is dependent upon the expansion of the sanitary sewer system.

RESIDENTIAL AREAS PLAN

Housing provides one of the most basic human needs -- the need for shelter. It comes in many different forms, including detached single-family dwellings, apartments, mobile homes, and other variations of these principal forms. Each type of housing has different land use requirements that need to be considered during the planning process. Moreover, land allocated for different types of housing should be considered in relation to other necessary land uses, the local road network, and the availability of public services.

This section of the Master Plan considers the development potential of those areas of the Township designated for residential purposes on the Master Plan Illustration. The Residential Areas Plan identifies areas of the Township that are best suited for different forms of housing based on previously articulated goals and the pattern of development. The Plan also distinguishes between different categories of residential development based on density and dwelling unit type. Relevant planning policies are offered for different forms of residential development included in the Plan.

Residential areas identified in the Master Plan are designed to provide well-planned pleasant living environments for existing and future residents. The Plan also encourages the provision of supporting community facilities (utilities and roads) timed to coincide with the growth of the Township's residential neighborhoods.

The Master Plan reserves large portions of the Township's total land area, for residential purposes. The Master Plan further identifies specific areas of the Township that are suitable for different types of housing, including detached single-family units at variable lot sizes, cluster/open space projects and planned unit developments. The purpose in planning areas of varying residential densities by location within the Township is two-fold: first, such delineation of future desired density patterns gives the Township a locational guideline to avoid haphazard development; and second, future density patterns within defined neighborhoods provide the basis for determining the various community facility needs of the area's residents, as shown in the Community Facilities Plan chapter.

The distribution of proposed land uses also provides for a variety of other types of residential uses to meet the housing needs of the Township's various population segments. There is latitude within the residential categories to encourage the use of innovative approaches to land development, such as the use of common areas for active and passive recreation.

The Residential Areas Plan divides the Township into three specific development districts, as shown on Illustration 29. Since it is unlikely that the Rural/Conservation portion of the Township will ever be serviced by sanitary sewers, large lots capable of supporting on-site septic systems are necessary. The Township encourages maintaining agriculture and innovative development concepts to compensate for the absence of public sewer facilities. The Suburban classification encourages cluster housing and open space developments to complement the surrounding land uses, protect environmentally sensitive areas, and provide recreation opportunities. The Urban area, located south of Dixie Highway, calls for a more urban residential development pattern which recognizes the availability of public water and sewer service and the existing developments along the shore line and canals.

Based on the limitations of the public sanitary sewer system, Ira Township has developed three new residential zoning classifications, each replicating the development districts discussed earlier. The Agricultural/Estates/Conservation (AEC) district corresponds with the Rural/Conservation boundaries. This district requires minimum lot sizes of 3.5 acres, with at least 300 feet of roadway frontage. The Residential/Suburban (RS) zoning classification is reflective of the Suburban development area. Portions of this district, which are served by sanitary sewers, allow minimum lot sizes of 15,000 square feet and frontages of 100 feet. Areas within this district, where sanitary sewers are not present, require lot sizes to be a minimum of one (1) acre and must have at least 150 feet of road frontage. The Residential Urban (RU) district mirrors the Urban area. This classification allows more dense development, with minimum lot requirements of 7,200 square feet and 60 feet of street frontage.

Illustration 29

RESIDENTIAL DEVELOPMENT CONCEPTS

Rural Conservation District

The Rural Conservation District encompasses the largest portion of the Township, including the north, central and eastern sections of the Township. This is the most sparsely developed portion of the Township. It is also that area of the Township in which public sewer service is never expected to be available. Most of the Township's remaining farmland is confined to this area.

The Master Plan proposes to maintain the open, rural character of this area by adopting policies that limit future growth potential in this particular portion of the Township. Foremost among these policies is the limitation on the extension of public utilities, particularly sanitary sewers, into this area. Limiting utility extensions is an effective method of maintaining low densities within this area. Without public sanitary sewers, larger lots are needed to accommodate individual wells and on-site waste water disposal systems.

During the development of the Master Plan, the St. Clair County Health Department was consulted concerning the development of on-site septic systems. Due to the limitations of public facilities in Ira Township, the Health Department was asked to develop standards for on-site septic systems in the absence of public sanitary sewers. Ideally, an on-site system should account for system failures and provide adequate space for the location of a new system. At the same time, health and environmental concerns should be minimized for the parcel in question and those adjacent to it.

Illustration 30

IDEAL ON-SITE SEWAGE TREATMENT

In Ira Township, the soil type is a Latty association. Generally, this association does not meet the minimum requirements for conventional septic systems according to the St. Clair County Health Department. However, it does allow alternative or engineered septic systems to be used for residential sewage disposal (Illustration 30). An engineered system requires more land area than a conventional septic system and relies more upon evaporation than infiltration. Typically, 10,000 square feet is required for an engineered system, and an additional 10,000 square feet should be set aside as a reserve area for use when the primary system fails. A buffer area of 100 feet is recommended on both sides of the engineered field to ensure that sewage disposal is contained on-site and does not pose a risk to neighboring properties. An engineered system is typically raised three (3) to three and one-half (3.5) feet above the existing grade. To fill this area and blend the septic with the existing grade, a pond is often constructed. A pond that measures 80 feet wide and 160 feet in length is generally thought to be the minimum size to generate enough fill material to establish a finish grade for the site. Illustration 30 is an example of the ideal minimum lot size required to accommodate such a system.

Suburban Low Density

This residential planning district runs parallel to M-29 from the Chateau Estates Mobile Home Park east to nearly Palms Road. The depth of this residential corridor varies between one-half to one mile. Detached single-family homes represent the predominant form of housing for this development district.

Recommended densities for this area range from one (1) dwelling unit per acre for parcels without public sanitary sewer service to parcels of 15,000 square feet where public sewer is available. Septic systems are permitted in this district on one-acre lots or larger, since the Township believes that public sewers will, or could, be available within the next two decades to serve this area. Thus, the failure of septic systems in this area would not be as devastating as those located in the Rural/Conservation area.

The Master Plan also recommends the planned development of subdivisions or site condominiums for this district. These developments should feature public roads with connections to adjoining sites to further encourage a unified development pattern. Cluster/Open Space Developments and Planned Unit Developments are recommended for those sites impacted by floodplains or wetlands that present development limitations. These techniques may allow for variations from setback, width and area requirements in exchange for the provision of common open space. The Plan also encourages the reservation of useable open space corridors and recreation sites within new residential subdivisions. Landscaped buffers should also be provided where the development abuts major roads, particularly the M-29 corridor.

Multiple-Family

The Master Plan allocates an area for multiple-family purposes near the intersection of M-29 and Palms Road. Multiple-family units offer housing opportunities for young couples, seniors and, to a lesser extent, families. Multiple units come in many different forms and styles that serve different segments of the market and have varying land use requirements. Common types include apartments, townhouses, multiplexes, and high-rise structures.

The recommended density range for multiple-family units is between six (6) and ten (10) units per acre. In evaluating the suitability of other sites for this form of housing, the Township should consider the suitability of access, compatibility with surrounding development, and the availability and capacity of public sewers.

Mobile Home Parks

Those areas identified on the Master Plan for mobile home park purposes largely coincide with either developed parks sites or sites that have been approved but not yet developed. These sites are located at the western end of the Township, near the intersection of M-29 and Bethuy Road. Mobile homes already account for nearly one-half of the Township's existing housing supply. Since this segment of the housing market is more than adequately represented in Ira Township, no major expansion of this form of housing is anticipated by the Master Plan.

Urban Family Moderate Density

The Urban Family Moderate Density area encompasses that portion of the Township south of M-29, along the Lake St. Clair shoreline for a distance of about six miles from New Baltimore on the west to Clay Township on the east. The depth of this waterfront district varies from one end of the Township to the other. At the eastern end of the district near New Baltimore, lot depths generally vary between 100 and 200 feet. The greatest depth of this district occurs in the Fair Haven area. West of Fair Haven, lot depths vary considerably. At some locations, the shoreline nearly touches M-29. Lot sizes in this area also vary. In some locations along the shoreline, homes are built on lots with no more than 30 feet of width.

While the pattern of development is not uniform for the full length of the shoreline, single-family homes are clearly the predominant land use. The greatest concentration of non-residential uses, principally commercial uses and marinas, occurs in the Fair Haven and Anchorville areas. Freestanding businesses are evident, however, along both sides of M-29 outside of either Anchorville or Fair Haven.

It would appear initially that, since few vacant parcels remain available along the waterfront, there may be few opportunities to change the development pattern within this district. While this may be true to some extent, it is likely that many redevelopment opportunities along the shoreline will present themselves over the time frame of this Plan. Increased values of waterfront property, the demand for home sites along the water, and the easy accessibility of the Township from the rest of the southeast Michigan region supports the need for the Master Plan to establish policies for future redevelopment opportunities.

Redevelopment Policies - Redevelopment policies for this area of the Township need to recognize the physical limitations identified above. Chief among these is the limited amount of available land. Limited space, combined with high demand, creates an environment with a potential for over-crowding and a subsequent decline in the quality of life for residents of this district and for the Township as a whole. Planning policies applicable to the redevelopment of this district are offered as follows:

- Encourage a more uniform residential development pattern with non-residential uses confined to the Anchorville and Fair Haven commercial districts.
- Provide improved integration of residential and commercial uses where they exist on adjoining sites. This can be accomplished through improved site design standards to limit the potential for nuisances. Factors that should be considered include building appearance, parking lot locations, screening requirements, and limitations on outdoor storage.
- Maintain residential densities of between three and four units per acre.
- Provide more views of the lake for travelers on M-29.
- Allow for limited attachment of dwelling units within the density standards referenced above if it results in better site design, more view of the lake, and consolidated access.
- Consolidate access and limit the number of driveways to M-29.
- Improve vehicular access through the residential neighborhoods in the Fair Haven area.

Small Lot Development Standards - Because of the small lot sizes that are common within this District, careful attention should be given to the placement of single-family home sites, outdoor living spaces, and the relationship to neighboring units. In other areas of the Township, minimum area and width requirements, in combination with established setbacks, are sufficient to accomplish these objectives. As lot sizes and widths decrease, however, there is a corresponding need for more detailed planning and better integration of dwelling unit and site design. This is necessary to avoid over-crowding and improve privacy.

In these settings, indoor and outdoor living spaces need to be designed as a single unified element. Particular attention should be given to the placement of doors, windows, patios, and other building or site features in relation to the site, as well as neighboring lots. The goal is to provide a sense of visual spaciousness, even when the site offers little available space.

Smaller lots also result in greater lot coverage which can result in a massing of buildings that does little to improve the visual character of the community. To address this problem, improved exterior building design is needed. Articulated building features, variable roof lines, side entry garages, and the careful use of building materials and colors can be used in combination to provide a visually pleasing streetscape. A conceptual waterfront development plan is shown on Illustration 31.

COMMERCIAL AREAS PLAN

This section of the Land Use Plan considers the characteristics of Ira Township's existing commercial base and the extent to which new commercial development may be needed to accommodate anticipated market demands. The methodology used to make this determination includes analysis of the nature and extent of the Township's existing commercial establishments and the types of retail goods and services that they provide. Commercial characteristics are related to the market projections to determine, in more detail, anticipated commercial demand by retail category. Market demand is also related to commercial land use and zoning patterns to determine whether or not existing and anticipated commercial acreage quantitatively meets future needs. Based on this analysis, the extent and potential of commercial areas in the Township are identified.

EXISTING COMMERCIAL DEVELOPMENT

Based on the land use survey conducted in 1993, the Township has a developed commercial inventory of 35 acres of land. Most of this land is distributed in a linear pattern along M-29. The only concentration of commercial land is located in Fair Haven and Anchorville. The limited quantity and variety of retail and service opportunities available in Ira Township suggest that consumers are required to travel outside of the Township for most purchases.

Illustration 31

CONCEPTUAL WATERFRONT PLAN

As noted in the earlier analysis of the Township's economic characteristics, the number of households residing in Ira Township could support a greater quantity and variety of commercial uses than currently exists. Two factors limit this potential, however. The first involves the availability of retail opportunities to the west of the Township. A substantial amount and variety of commercial uses, including several shopping centers, are available in New Baltimore and Chesterfield Township, which are less than 30 minutes from most households in Ira Township. Another limiting factor involves trade area boundaries. Most larger scale retail establishments, particularly shopping centers, require convenient vehicular access from a well-defined trade area, normally described as a radius from a specific location. Since the alignment of the Township's principal highway (M-29) places it along the shoreline of Lake St. Clair, the trade area for any shopping center located along this road includes a portion of the lake.

FUTURE COMMERCIAL AREAS

In spite of the limitations described above, the Master Plan recognizes the need for additional commercial development to support an expanded residential base. The Plan correspondingly allocates approximately 70 acres of land for three different categories of commercial activities: convenience, shopping center, and central business district. The quantity of land allocated for commercial purposes and the locations identified for this purpose are influenced by several factors which include: 1) existing commercial development and zoning patterns; 2) anticipated future residential areas described in the Residential Areas Plan; and 3) the policy objectives specified earlier in the Plan. Planning policies applicable to the development of these areas are described as follows:

Convenience Commercial

Convenience commercial activities consist of those uses intended primarily to meet the daily retail and service needs of nearby residential neighborhoods. They may occur as freestanding buildings or be included in a smaller planned center sharing floor space, parking and access with other tenants. This category of commercial development tends to have trade areas located within a five-minute drive of the business. These uses are commonly located at the intersection of major roads, in close proximity to the neighborhoods that form their primary trade area.

Several areas suitable for convenience commercial purposes are identified on the Master Plan Illustration. Collectively, these areas occupy approximately 30 acres of land. The largest share of these convenience commercial areas are concentrated in the western portion of the Township. The first of these areas is located on the north side of M-29, at the Bethuy Road intersection. A second area is located approximately one mile to the east, at M-29 and Church Road, and encompasses an area of the Township commonly referred to as Anchorville.

Because of the existing development pattern in this area, little vacant land remains available near the intersection to accommodate any significant expansion. The principal planning challenge facing the Anchorville commercial district involves the redesign of existing buildings and sites to improve their appearance and function. An area suitable for a larger neighborhood center is planned for the northwest corner of Bethuy Road and M-29. This ten-acre site could accommodate a small convenience center offering an appropriate mix of retail and service establishments serving the mobile home park and any emerging single-family neighborhoods to the west. The development of this site for commercial purposes should include access to both M-29 and Bethuy Road. Driveways to Bethuy would help lessen congestion along M-29.

An additional area designated for convenience commercial purposes is shown at the opposite end of the M-29 Corridor. This designation largely reflects existing development. The convenience commercial needs of any future residential development in this portion of the Township will likely be absorbed by the planned shopping center site at M-29 and Palms Road.

Center Commercial

Planned commercial centers include shopping centers occupying sites generally exceeding ten acres in size; featuring an anchor tenant, such as a major grocery or junior department store; and which serve a market area extending several miles beyond the site. Similar to their neighborhood-oriented counterpart described earlier, these centers also share common development features, including access, parking, landscaping and signage.

One planned shopping center site with an area of approximately 20 acres is planned at the northwest corner of the Palms Road/M-29 intersection. This site is large enough to accommodate the development of a retail center exceeding 100,000 square feet in floor space. A larger retail center at this location would likely serve a trade area encompassing not only Ira Township, but portions of the neighboring communities as well. Additional household growth will likely be needed to support such a center. One of the advantages of this site is its location at the intersection of two of the Township's major roads.

Central Business District

The Township's remaining 20 acres of future commercial land is allocated for a central business district. This district encompasses the traditional Fair Haven area where M-29 crosses Swan Creek. This area has long been the traditional focal or identification point for Ira Township.

One of the principal goals of the Master Plan involves the redevelopment of the Fair Haven area as a well-defined, consolidated retail district. Frequently, the image or identity of a community is created by the presence of a traditional central business district. Many townships lack this type of development focal point. Ira Township offers an exception to this pattern. Based on its present form, however, Fair Haven lacks the necessary ingredients of a successful downtown commercial district. The area contains a collection of businesses serving different functions and lacking any functional integration in terms of either appearance, access or design.

To fulfill the policy objectives stated earlier, the quantity and variety of retail establishments available in Fair Haven will need to be expanded. The Master Plan recommends an expansion of the existing land already developed for commercial purposes on the north side of Vernier Road and near Swan Creek. Specialty retail uses that take advantage of Swan Creek as a visual attraction and which serve the wider market area encompassing seasonal visitors may be appropriate for this area.

Other Commercial Locations

In addition to the three principal categories of commercial development reflected on the Master Plan, the Plan identifies areas proposed for marina purposes. Approximately 60 acres of land are reserved for this purpose on the Master Plan Illustration. These locations largely reflect developed marina sites. Many marinas also include some ancillary retail goods and services, including boat sales, service, and convenience goods needed by boaters. The Master Plan supports this mixture of similar uses, provided that there is an appropriate integration of uses into the overall design of the site.

It may also be appropriate to allow for a limited amount of commercial development within those areas designated for industrial purposes along Marine City Highway. Appropriate commercial uses include businesses providing convenience commercial services to employees of the industrial uses located in this area. Any future auto service uses, including gas stations and repair garages, may also be more appropriately located along M-29, which features convenient highway access and few opportunities for conflicts with surrounding residential uses.

Retail Demand and Zoning

The land use allocation of 70 acres for all three categories of commercial is only 18 acres above the projected year 2010 demand of 52 acres indicated in the Economic Study. This greater allocation can be explained by the need to provide additional retail opportunities serving boaters and other waterfront users. This additional commercial acreage also reflects the location of a major regional highway through the Township and the desirability of providing commercial locations proximate to major highway corridors.

The development of additional commercial uses in the Township is dependent on a number of factors, the most important of which is the availability of a sufficient amount of land zoned for commercial purposes. In some instances, municipalities, in their zeal for tax base, zone more land than can be absorbed for retail use. This excess of zoned retail land over reasonable anticipated demand is commonly termed overzoning. It is worthwhile to analyze how projected commercial acreage demands compare with existing commercially zoned acreage totals.

The amount of land zoned for commercial purposes in Ira Township totals approximately 190 acres. This is more than double the commercial allocation shown on the Master Plan Illustration. The surplus of land zoned for commercial purposes undoubtedly reflects an

earlier zoning practice whereby extensive areas of the community, particularly the frontage along major thoroughfares, was zoned for commercial purposes in anticipation of this development. This practice, however, encouraged marginal sporadic and strip commercial development and the problems that are frequently associated with this type of arrangement. This analysis focuses on the problem with part of the existing commercial zoning patterns and recommends that planned commercial more closely match anticipated commercial demand.

INDUSTRIAL AREAS PLAN

Land reserved for industrial purposes provides important economic benefits for the community. Not only does industrial development offer a source of jobs, it also makes a strong contribution to the Township's developed tax base. Recognizing the importance of the Township's industrial base, this element of the Land Use Plan examines the characteristics of this category of land uses in more detail.

This examination includes a review of existing industrial development and zoning patterns. It also considers the relationship of these industrial uses to broader regional development trends. This section concludes with a quantitative estimate of the amount of industrial development at capacity for the Township.

EXISTING CHARACTERISTICS

The 1993 existing land use survey indicated that more than 100 acres of land are currently developed for industrial purposes in the Township. Land zoned for industrial purposes exceeds developed industrial land by a substantial margin. More than 600 acres of land are already zoned for this purpose. Developed and zoned industrial land is largely confined to locations along Marine City Highway in the northwest corner of the Township.

In order to more fully assess the Township's industrial potential, the suitability of the Township to support industrial uses needs to be considered in the larger regional context. While Ira Township is

located outside of major regional economic activity centers, the Township appears to be well positioned to participate in a satellite commercial corridor along a portion of Marine City Highway. The potential availability of utilities to serve this area, combined with convenient access to the regional highway network via the interchange with I-94 only one mile from the Township's western boundary, supports this position.

FUTURE INDUSTRIAL AREAS

Land allocated for industrial purposes on the Master Plan Illustration includes the Township's Marine City Highway frontage from County Line Road east to Meldrum Road to a uniform depth of approximately one-quarter mile. It is interrupted only briefly by an existing floodplain which crosses Marine City Highway between Bethuy and Church Roads. If demands warrant, the industrial corridor could potentially be extended to a depth of one-half mile from Marine City Highway south.

The industrial land use designation is intended to principally accommodate light assembly operations, warehousing and similar activities. While some more intense industrial uses may be appropriate within these industrially designated areas, their locations should be more carefully regulated. For example, trucking operations or industrial activities with extensive outdoor storage or processing characteristics should be located on interior sites or sufficiently screened from Marine City Highway.

Industrial areas should also have access to major transportation corridors, including highways and/or railroad lines, to accommodate the high volumes of traffic that are generated by these uses. The location of industrial areas must take into account their intensity and the potential for nuisances that may be associated with particular industrial use types. Depending on the type of uses proposed, the relationship of industrial districts to less intensive use areas such as residential neighborhoods must be carefully planned and conflicts avoided whenever possible. When the edges of residential and industrial areas meet, measures should continue to be taken to mitigate potential compatibility problems.

These areas planned for future industrial purposes are located to capitalize on the presence of a regional freeway corridor through the community. The Master Plan encourages industrial uses that do not detract from the overall residential character of the community. The Plan also strives to minimize or mitigate any potential compatibility problems that may appear wherever industrial and non-industrial uses share a common boundary. Where these situations exist, careful attention should be directed to site plan review to mitigate any potential nuisances through careful building placement, appropriate setbacks, and the provision of buffering and screening. The industrial district standards and site plan review requirements of the Zoning Ordinance may need to be strengthened to accomplish this objective.

Another design challenge facing the Township to realize the full development potential of the land allocated for industrial purposes on the Master Plan Illustration involves access. If the current development pattern continues, the Marine City Highway will be developed first, limiting access opportunities to interior acreage. This practice will diminish the potential opportunities reflected in the Master Plan. To overcome this potential problem, it will be necessary to extend an interior road system into the interior acreage to open this area for development purposes. Planned industrial subdivisions represent the preferred development option for this industrial acreage.

CORRIDOR PLAN

INTRODUCTION

The Corridor Plan examines the land use and transportation issues associated with development along the Township's two principal highways: M-29 (Dixie Highway) and Marine City Highway. It considers how these two routes influence land use pattern along either road and what impact new development will have on the capacity of these two highways to accommodate high volumes of traffic for which they are designed. The plan will explore techniques that can be successfully employed to preserve capacity, while at the same time providing safe access to abutting parcels.

Corridor planning recognizes the inherent relationship between land use planning and thoroughfare planning and provides a necessary linkage between these two branches of planning. It also recognizes that the intensity of development along a particular road is frequently attributable to the volumes of traffic along the road. Corridor planning issues typically have two dimensions: 1) visual, and 2) functional. The visual dimension involves the organization and arrangement of land uses along a highway corridor and how they influence the appearance of these linear districts. Functional concerns relate to traffic safety and congestion created by long stretches of intensive development, poorly marked and inadequately spaced driveways, inadequate turning lanes, and haphazard on-site circulation facilities. Common objectives of the corridor planning process include identifying opportunities to:

- Reduce conflicts between through-traffic and local traffic.
- Reduce traffic hazards caused by inadequate sight distances, signalization, driveway spacing and corner clearance.
- Reduce turning movements through the use of right turn lanes, bypass lanes, parallel access drives, rear access drives and similar techniques.
- Increase understanding of land use/traffic relationships.
- Develop better land use practices.
- Prevent economic decline of a commercial area located along a corridor.
- Share access to parcels.
- Make connections between adjacent properties.
- Reduce traffic hazards from poorly placed signs or the confusion that results from having too many signs.
- Enhance aesthetics through screening, removal of utility lines, and landscaping.

This concluding chapter of the Master Plan begins with a discussion of both corridors in relation to their regional context. Before specific recommendations are offered for improving these corridors, it is first necessary to understand how both highways function, not only in relation to Ira Township but also in relation to other communities that they serve. Next, the Master Plan examines the proposed arrangement of future land uses along both roads and how this land use pattern influences the capacity of each highway.

The final section of the report offers specific techniques and suggestions for improvements within either corridor. These improvements include land use and transportation-related suggestions.

THE REGIONAL SETTING

Among the foremost planning challenges facing the Township involves accommodating the high volumes of traffic along M-29 (Dixie Highway). This highway divides Ira Township's heavily developed shoreline from the interior portions of the community. It presents a formidable barrier to the unified development of the community. It also presents an obstacle to the redevelopment of the Fair Haven and Anchorville commercial districts. The developed land use pattern along this road, in particular the excessive number of narrow lots each with their own driveways, diminishes the ability of the road to accommodate the heavy volumes of traffic that it currently carries. Goals and objectives statements included in an earlier chapter of the Master Plan reflect these challenges and are offered as follows:

- Encourage the development of a bypass separating through-traffic from Township-bound traffic.
- Provide traffic signals along M-29 to slow traffic as it passes through the Township.
- Encourage the use of Marine City Highway as an alternate route to Algonac, with Palms Road as a connector route to M-29.
- Move through-traffic away from the waterfront.

Accomplishing these objectives involves the designation of an alternate route for M-29 traffic. The suitability of possible alternatives, however, must take into consideration the role that M-29 and Marine City Highway plays as a regional transportation corridor in southeast Michigan.

M-29 is a state highway from I-94 in Chesterfield Township to Port Huron. West of I-94, this road turns into 23 Mile Road and provides access to the developing communities of Shelby Township and Macomb Township. To the east, M-29 runs parallel to the shoreline of Lake St. Clair and the St. Clair River. The road provides direct access to Algonac and Clay Township. In addition to serving the access needs of the residents of these two communities, M-29 also provides access to many recreational activities available along the waterfront in these communities.

Marine City Highway is likewise part of a longer regional highway serving both St. Clair and Macomb Counties. This road becomes 26 Mile Road at Ira Township's western boundary. The road extends for a distance of approximately 30 miles from Stony Creek Metropark on the west to Marine City and the shoreline of the St. Clair River on the east (see Illustration 32).

Illustration 32
M-29 AND MARINE CITY HIGHWAY CORRIDORS

Using Marine City as an alternate route to M-29 is an option that would benefit not only Ira Township but New Baltimore and Chesterfield Township as well. Consideration of this alternative should be included as part of the broader corridor study being contemplated by St. Clair County for Marine City Highway. This study could be expanded to consider the entire 26 Mile Road corridor in Macomb County as well. Officials from both Counties, communities that abut these roads, and State transportation department representatives should be included as participants in this study. A goal of this study is to explore improvements that could be made to Marine City Highway and other roads that would relieve congestion on M-29. Some improvements worth considering include paving one or more of the north-south roads that connect Marine City Highway and M-29, signalization improvements along M-29, and access controls, among others. Cooperation from all participants is needed to accomplish these objectives.

LAND USE AND ACCESS RECOMMENDATIONS

The arrangement of future land uses shown on the Master Plan Illustration orients the Township's most intense and concentrated development along the M-29 and Marine City Highway corridors. The land use plan recognizes that commercial, industrial and higher density residential development should have access to major thoroughfares capable of accommodating the higher volumes of traffic that these uses would generate. The preceding chapters of the Master Plan addressed broader land use and transportation planning issues. This section of the Plan offers more area specific recommendations for these two corridors that integrates land use and access considerations.

Arrival Zones

A person's impression of a community is frequently formed while travelling through it in an automobile. How visual and land use elements are arranged along major road corridors represents an important component in defining the character of the community. This impression is often heightened at the entrances to the community.

Throughout Southeast Michigan, there are frequently few physical landmarks that distinguish one community from another. Many suburban communities blend seamlessly together with poorly defined boundaries. Establishing boundaries and well-defined entrances is one small technique that

can be effective in defining community character. The desirability of establishing these entrances is particularly relevant for Ira Township, which offers an important entrance into St. Clair County and the many recreation opportunities available along the northern shoreline of Lake St. Clair. For many M-29 motorists entering Ira Township along M-29 from destinations to the west, Ira Township offers the first views of the lake. Unfortunately, the arrangement of land uses at the westerly entrance into the community does not significantly enhance this sense of arrival.

The simplest, most direct, and perhaps least expensive, method of improving the visual impression of motorists arriving in the Township along M-29 is to install attractive entrance signs at both ends of M-29. Carved wooden signs placed in attractive landscaped settings, at a minimum, would inform motorists that they have arrived in Ira Township. Combined with other physical improvements to the rest of the corridor, these signs represent an easily achievable improvement.

At the western end of the Township, the location of this entrance sign should be carefully sited to achieve the maximum desired effect. Placement of the sign near the intersection of M-29 and Bethuy Road, in conjunction with the redevelopment of this commercial corner, offers one possible site. Placing the sign at the Township's boundary with New Baltimore may also be desirable, provided that a suitable location is available. One problem with this location involves competition with the excessive number of signs already located in front of the mobile home park. At the other end of the Township, the entrance sign should be located near where M-29 curves to the west. The presence of the St. John's Marsh on the east side of the road and the sweeping curve of the road provide a more dramatic and well-defined entrance into the Township.

While M-29 should be the first priority for entrance sign improvements, appropriate signs and entrance landscaping should also be provided along Marine City Highway. Coordinating a common entrance signage plan with the neighboring community of Casco Township would provide an even wider benefit.

Landscaping Improvements

Landscaping improvements, in particular the installation of street trees, is one of the most effective techniques for defining and improving the appearance of a highway corridor. Street trees lend a sense of cohesiveness to the roadway. By providing scale, texture and color to the entire roadway, trees can unify the many diverse elements that comprise the corridor visual experience.

Any proposed planting plan should include an ample variety and quantity of ornamental plants, trees and shrubs. A few dominant or theme trees should be selected with subordinate varieties interspersed for accent. Repeating some types of plantings contributes a sense of visual unity to the corridor. Variety should be achieved with respect to seasonal changes, species selected, texture, color and size at maturity. The landscaping improvements should be sensitive to existing conditions along the corridor and be consistent with the scale of current development. Species that are a nuisance or that create litter should be avoided. Planting requiring a minimum of maintenance are preferred. All planting should be protected from vehicular or pedestrian encroachment.

Because of the variable right-of-way width along M-29, few opportunities for landscaping improvements may be possible within the road right-of-way. To be effective a landscaping improvement program should involve private property owners along M-29.

Participation by homeowners and businesses along the road will foster a sense of ownership in the program and help ensure its success. As a way of leveraging public funding for these improvements, the Township could offer "challenge grants" to encourage property owners who make the desired landscaping improvements. These grants could provide matching funds to businesses and homeowner who agree to contribute to the landscaping improvements on their sites and assume responsibility for long-term maintenance.

These landscaping improvements should be part of a larger effort of improving the appearance and maintenance of property along M-29. To achieve this goal, the Township should consider establishing a Beautification Committee that would be responsible for implementing and organizing this corridor landscaping program and for organizing periodic Township-wide clean-up days.

The Township's Zoning Ordinance should also be amended to require landscaping improvements as part of the approval of all new development. Particular attention should be directed to the landscaping around and within parking lots. Large expanses of pavement without plantings does little to contribute to the visual character of the community. Any zoning requirements should provide property owners with some flexibility in how these landscaping improvements are arranged. Many developed commercial sites along M-29 have little land available along the road frontage to accommodate a continuous greenbelt between the parking lot and the road, for example. Where this type of improvement is not possible, other more imaginative treatments that may include low walls should also be considered.

Landscaped screening should also be required for any existing outdoor storage areas located along M-29. Because the economy of the Township is somewhat dependant on the boating industry, eliminating outdoor boat storage is probably not practical nor desirable. There should, however, be a greater sensitivity to the visual impact of outdoor boat storage areas, with appropriate landscaping improvements required to soften the visual impact, rather than eliminate it.

Sign Improvements

Controlling excessive signage is one of the most effective methods of improving the appearance of a highway corridor. Over-use of signs and the placement of signs too close to the road contribute to the sense of visual clutter common along many corridors, particularly those dominated by commercial uses. While most commercial development along M-29 is concentrated at specific locations at or near intersections, excessive signage remains a problem in the Township. The Zoning Ordinance regulations governing the number, size and location of business signs should be revised to limit the number of signs to one wall sign placed on the building and one ground or pylon sign placed along the road frontage. These regulations should consider signage as an integral part of the overall development plan for the corridor and for each individual site.

View Areas

Ira Township's single most significant visual attribute is Lake St. Clair, which forms the entire southern boundary of the Township. Historically, the Township's waterfront attracted tourists from throughout the southeast Michigan region. The development pattern along the shoreline reflects the desirability of the waterfront property for home sites and for marine-oriented businesses.

Except for the MDNR boat launch site on M-29 near Palms Road, there are no other public access to the lake in Ira Township. There are also few good viewing areas along the shoreline. The best viewing opportunity exists for approximately one-quarter mile between Swan Creek Road and Palms Road, where the road hugs the shoreline. Other more fleeting views can be found at random locations elsewhere along the road.

Improving views of the lake cannot occur without changes to the existing shoreline development pattern. While the Master Plan does not envision substantial changes in the M-29 development pattern that would result in increased views, it may be possible to open up the waterfront for more sustained views of the lake as part of the normal residential redevelopment process that is naturally occurring along the shoreline. Redevelopment is a continuous process, particularly as older cottages and temporary seasonal housing are replaced with permanent year-round dwelling units. As this process continues, opportunities may present themselves for improving views. Subtle changes in the arrangement of dwellings on individual sites can result in more useable open space and improved views. Techniques for accomplishing this are explored elsewhere in the Corridor Plan. Moreover, opportunities for acquisition of shoreline property for open space purposes should also be considered. The best acquisition opportunities probably exist along those portions of the corridor where there is little available land for building purposes between the road and the waterfront. Rebuilding existing older dwellings in these areas may present a significant challenge. Recreation grants available through the State offer one source of funds that could be used for this purpose, with the land subsequently used for public viewing or as passive, linear park.

Marine City Highway Improvements

Many of the improvements identified previously, specifically those involving landscaping, signage and access improvements, are equally applicable to both the M-29 and the Marine City Highway corridors.

There are, however, fundamental differences to the proposed land use pattern along these two corridors. Three miles of the frontage along Marine City Highway, for example, are planned for industrial purposes. The existing land development and parcelization pattern along this road suggest that a different treatment may be appropriate. The most important corridor issues pertaining to Marine City Highway involve site planning and code enforcement.

Contemporary industrial development standards include generous yard setbacks, limited front yard parking, attractive buildings, substantial landscaping improvements, and screened outdoor storage. While some of existing industrial facilities along Marine City Highway share these characteristics, others do not and represent an earlier period when development standards were minimal. The corridor plan recommends refinement of the Township's current zoning standards regulating the development of industrial sites.

Front yard setbacks should be increased, with no parking allowed within required front yards; all building facades should be constructed of either brick or other decorative masonry material; more landscaping should be provided along the road frontage, with berms and street trees encouraged. Additionally, limitations on outdoor storage should be expanded and enforced to prevent visually

blighting situations from detracting from the overall appearance of the corridor. An effort should also be made to work with Casco Township on the development of standards that are applicable to each community.

Access Improvements

A common feature of any corridor planning effort involves the need to improve the flow of traffic along the major highway, while providing safe and convenient access to abutting property. The absence of adequate control will contribute to safety problems and result in the road not being capable of accommodating the volumes of traffic that it was designed for.

Transportation planners typically make a distinction between three basic types of access controls. These are summarized as follows:

Full Control of Access - Preference is given to through-traffic by providing access connections only at selected public roads and by prohibiting private driveway connections.

Partial Control of Access - Preference is given to through-traffic, with some private driveway connections allowed.

Driveway and Approach Regulations - Each abutting property is allowed access to the street or highway, with the location, number and design of access points governed by regulations. These regulations may vary from community-to-community and depend on which level of government has jurisdiction over the road. In many instances, these regulations are minimal.

One obstacle in the imposition of corridor access standards is the resistance of abutting property owners who may feel that the economic value of their property is lessened by these standards. The need for access controls is most evident along M-29, especially along the south side of the road where the large number of narrow, waterfront lots results in multiple driveways, with little spacing between driveways and frequently undefined driveways.

Variables to consider when regulating access include roadway design speeds, sight distances, grades, service levels, and the operational and traffic-generating characteristics of abutting land uses. Access controls and driveway design criteria should be developed based on a detailed traffic analysis of the highway done in conjunction with both the State and County highway officials. The types of control appropriate for Marine City Highway may not be applicable to M-29, which has different land use and traffic characteristics.

The need for access controls is most appropriately considered during site plan review. Suitable controls include shared driveways, limits on the number of driveways, spacing between driveways, and curbing and landscaping requirements to define driveways and parking lots. Cooperation of the St. Clair County Road Commission and the Michigan Department of Transportation will be needed to successfully implement these controls.

LAND USE DEVELOPMENT PATTERNS

The Master Plan recognizes that the ability of M-29 and Marine City Highway to function effectively as regional highways depends on future land use development patterns along both of these roads. An important goal of the Master Plan, therefore, is to encourage uniform land use patterns along these corridors and resist haphazard development which detracts from the overall character of the Township and which reduces the design capacity of these two roads. Future land use recommendations for both corridors are discussed as follows.

Marine City Highway

The Marine City Highway corridor is divided evenly between industrial and residential land uses. The first three miles of this corridor, from County Line Road to Meldrum Road, is designated for industrial purposes on the Master Plan. The suitability of this area for industrial purposes was discussed in an earlier chapter of the Master Plan. This industrial designation is consistent with the planned development on the opposite side of the road in Casco Township. West of Meldrum Road, the Plan encourages low density single-family development on large lots. Attempts to extend commercial or industrial uses into the residential portion of this corridor should be resisted. The quantity of land reserved for industrial purposes in the western end of this corridor should more than satisfy anticipated demand well into the next century.

M-29 (Dixie Highway)

The future land use plan for the M-29 corridor is more complex than Marine City Highway and is further influenced by pre-existing development which is frequently inconsistent with the planned land use pattern. The Master Plan concentrates commercial uses at major intersections (Bethuy Road, Church Road, Ira Road and Palms Road) with residential uses between these commercial nodes. The Plan also envisions the development of village commercial center in the Fair Haven area that would help create a "sense of place" or identity for the Township.

As it currently exists, Fair Haven is a loose collection of commercial, residential and boating uses that do not necessarily relate effectively to one another and are not mutually supporting. Without a vision or long-range plan for this district, it has the potential to become a commercial strip common to many urbanized portions of the region. Fair Haven's current development pattern reflects the Township's historical development pattern and role as a tourist destination for the metropolitan Detroit area.

Unlike nearby communities of New Baltimore and Mount Clemens, Ira Township lacks a traditional downtown area or central business district. Downtown New Baltimore and Mount Clemens are products of another era, when commercial activities were clustered together in buildings located close to the road and sharing common walls. New Baltimore's downtown also reflected the need to be near water-based transportation corridors. Widespread auto ownership in the 1950's and 1960's allowed for more dispersed residential development patterns and had significant implications for commercial development patterns.

Because of the need to accommodate automobiles, many traditional downtowns lost important tenants to suburban shopping centers. Some central business districts adjusted to this change by redefining their roles, making physical improvements and attracting new tenants. Other communities were slow to respond to this new challenge and subsequently languished in the absence of a clearly defined role and without a specific plan to arrest the pattern of decline. The lesson for Ira Township is to define a clear role for the Fair Haven commercial district, identify needed improvements, and identify a course of action to achieve short and long-term goals.

Any future role for Fair Haven should recognize market influences, existing commercial development patterns in nearby communities. As discussed in an earlier section of the Plan, there is an ample quantity and variety of commercial uses available to Township residents in neighboring communities to the west. Equally important, Fair Haven lacks sites to accommodate this type of suburban shopping center found elsewhere. These influences suggest that Fair Haven could potentially support a commercial district with a convenience/specialty retail emphasis and which recognizes the needs of boaters and tourist drawn to the community by activities along the waterfront.

The Master Plan envisions the transformation of Fair Haven from an undefined incipient strip commercial district into a "village center" area, with building and streetscape improvements designed to make the area "pedestrian friendly". This can be accomplished through creative site planning and the imposition of design standards to provide an overall framework for future development and redevelopment.

A key element in the development plan for Fair Haven involves expanding the quantity and variety of retail and services businesses available in the district. The area currently lacks a critical mass of commercial activities to fulfill this vision. A previous section of the Master Plan described a plan to expand the boundaries of this commercial district north of Vernier Road. This plan involves the conversion or removal of the existing single-family dwellings located on the north side of the road and the development of new retail and service businesses on the vacant land to the north. Planning and design principals for the development of this new commercial district and the redevelopment of existing commercial uses are described in the following narrative.

Architectural Considerations

New construction should orient buildings close to the street with parking and service areas screened to the rear. This will create a traditional "street line" of facades with buildings forming an attractive edge to the roadway instead of allowing the thoroughfare to become visually dominated by large areas of parking.

Since Fair Haven does not have a single dominant architectural style, it may not be practical to mandate that all new construction rigidly conform to a specific architectural style. Rather, the Township should consider establishing basic architectural guidelines or standards that would create a sense of unity for the Fair Haven "village area". Specific building design features that should be incorporated in the evaluation of new building construction include the following:

Roof Shapes - Gable, gambrel, hip, mansard. If a given type predominates, it should be used in new construction or additions.

Directional Expression - Is the building footprint narrow, wide or square?

Proportion and Scale - How do the building height and width relate? Are the buildings in scale with each other?

Rhythm of Openings - The number and spacing of windows and doors.

Massing - Are the buildings simple and box-like in shape, or articulated by porches, turrets, bay windows, colonnades, cupolas, or similar details and ornaments?

Sense of Entry - Do porches, steps or porticos predominate?

Placement on the Lot - Is the predominant setback and location in the center or to the side of the lot and to the road?

Materials and Details - New buildings should use materials compatible with existing construction in the area such as stucco, brick, shingles or stone. Architectural details should be preserved on existing buildings, although new buildings need not precisely replicate them. Industrial or artificial materials such as raw or exposed aggregate concrete, anodized or galvanized metal, tinted glass, and plastic or vinyl should be avoided.

The architectural design plan for Fair Haven should strive to achieve a measure of variety and individuality without designing buildings that are idiosyncratic or out-of-scale with their surroundings or which disrupt the planned traditional front setback pattern and historic street-edge of building facades.

Creating village-like clusters of buildings rather than erecting individual structures isolated by asphalt parking lots or grassy lawns is also important.

Parking and Traffic

One of the main limitations to the development of Fair Haven as a consolidated commercial district is the volume and speeds of traffic along M-29, which presents a formidable barrier for pedestrians and which divides the district in half. Reducing through-traffic by providing alternate routes through the Township, providing a traffic signal in the Fair Haven area, and the construction of sidewalks and other pedestrian friendly improvements are needed to overcome this limitation.

The Township should also encourage the efficient and attractive design of parking lots. All new parking lots should be generously landscaped to buffer the view of vehicles from neighboring residential units. Landscaping improvements can also effectively soften the view of large, unbroken expanses of hard-surface pavement.

The viability of retail businesses in this district depends, in large part, on the availability and accessibility of parking spaces. Whenever practical, the Township should encourage the consolidation and sharing of parking lots as opposed to the current haphazard distribution of unconnected parking lots serving individual uses. As part of this reorganization effort, existing scattered and disorganized curb-cuts should be consolidated into a smaller number of clearly defined, curbed entrances.

Landscaping and Street Furniture

Coordinated landscaping improvements can make a significant contribution to the appearance of the Fair Haven District, which currently lacks a sufficient quantity of mature vegetation to improve the visual character of the district. Landscaping improvements can provide a unifying effect for the commercial district. It can also be effective in screening parking lots and other visually dominating features. For example, an aggressive planting program would be appropriate around many of the marinas where outdoor boat storage is common. The intent is not to eliminate these appropriate waterfront activities, but rather to soften the often industrial-like characteristics that is common to this type of use. A comprehensive landscaping plan should include not only street trees but also shrubs, flowers and ground cover. Planters, street lights, benches, trash receptacles and varied pavement treatments add visual diversity to the district. These improvements should be aimed at providing a pedestrian-friendly environment. Another element of this program involves the extension of a pedestrian path along Swan Creek linking Fair Haven to the park planned for the site behind the Township offices on Meldrum Road.

Finally, attention should be given to the number, size, location and height of all signage in the District. A well-designed signage system could help unify the district and provide it with a more positive image. Materials used in signs should be compatible with those used in buildings within the area.

Marketing and Promotion

The long-term success of the Fair Haven commercial district depends not only on physical improvements, but also on the commitment of merchants and property owners. A common feature of most successful downtown redevelopment projects is a merchants association that is committed to implementation of the overall improvement program. The previously described physical improvements should be supplemented by promotional and marketing activities designed to bring more consumers into the area and to capitalize on the natural attraction of Ira Township's waterfront. Examples of common promotional programs that may be applicable to the area include the following:

- A slogan, special theme and/or symbol.
- Improved merchandising.
- Regular special events.
- A commercial development brochure or directory.
- Aggressive marketing and recruitment of new businesses.

PLAN IMPLEMENTATION

Adoption of the Master Plan by the Township signifies the beginning of a long-term and continuous process of implementing the policies of the Plan. All too often, unfortunately, Master Plans are either ignored or forgotten. The Plan should be viewed as a dynamic document capable of being refined and updated as conditions change and the community grows. In order to achieve maximum benefits, the planning process must be designed to permit periodic assessment of data and continued review of individual elements that comprise the Plan.

The objective of the Master Plan is to provide the guidelines through which the Township can develop and operate. The Plan is of little value to the community unless it is used and guides the development and operations of the Township. The implementation of the various planning elements requires the development and effectuation of ordinances and techniques and a public information program to inform and solicit support of the citizenry of the objectives of the Master Plan.

Zoning is the primary regulatory tool for carrying out the physical development pattern envisioned by the Master Plan. Traditionally, a zoning ordinance and map divide a community into different districts within which similar uses may be allowed by right. Other uses may be permitted upon a determination that the use is suitable for the site based on standards that are specified in the Ordinance or that the use furthers the goals and policies of the Master Plan.

Ira Township's current Zoning Ordinance was adopted in 1973 and amended periodically since then to address specific development issues and concerns. The ordinance would likely benefit from a more comprehensive revision with an emphasis on incorporating standards designed to implement the policies of the Master Plan.