

## **EXECUTIVE SUMMARY**

Alpine Township is located in southern Michigan, just northwest of the Grand Rapids Metropolitan Area. The township is located on the western edge of Kent County, and on the eastern edge of Ottawa County. The township's land uses are uniquely diverse, ranging from rural residential to large-scale commercial and high-density residential. In addition, Alpine Township lies within the Fruit Ridge. The "Ridge" is a six-township agricultural area in western Michigan that produces approximately 40% of Michigan's apples that are distributed for national consumption. Alpine Township is located near two major Michigan freeways, 196 and US-131, as well as M-37 (Alpine Avenue), which runs north-south through the eastern side of the township.

### *Scope*

The MSU Practicum students worked in conjunction with the Alpine Township planning director, Frank Wash, and MSU Extension personnel, Carol Townsend and Kendra Wills, to collect and analyze data for use in updating the township's 1998 Master Plan. Furthermore, the project's main focus was to address the current growth pressures facing the community and to assist the township in planning for future development.

The project was essentially completed in two different steps. The first step was to collect and analyze data and come up with a socio-economic report. The socio-economic report consists of population, housing, education, transportation and economic data. The second step was to estimate future population distribution scenarios. Finally, recommendations were made to the client based on the analysis of these figures and the goals noted in the 1998 Alpine Township Master Plan.

### *Methodology*

#### Section 1: Census Data Analysis

Decennial Census data was collected and analyzed for years as far back as 1930 for Alpine Township and the surrounding areas. However, the group focused on years 1990 and 2000 in the analyses. These years have a greater detail of information and are most consistent with each other. Some of the data was analyzed at the tract level to get a better idea of the distribution of trends. The transportation analysis was done using data from the Grand Valley Metro Council. School enrollment data was provided by the school officials in each district. Additional data was collected to support these analyses and were taken from a variety of sources.

#### Section 2: Future Population Distribution Scenarios

This portion of the project consists of our examination of Alpine Township's population projections using four different scenarios. Each scenario is based on utilizing different lot sizes and the effective amount of land consumed under each

scenario. The lot sizes we were asked to analyze were .33 acre, .5 acre, 1 acre, and 2 acres.

### *Findings*

#### Section 1:

Alpine Township has shown an increase in population since the 1940's. The township experienced its largest numerical growth to date during 1990-2000. During this period, the township's population grew 4,113 to reach a total population of 13,976. This increase was due, in part, to the development of the York Creek Apartments that added 2,000 rental units. Increases in school enrollment, housing permits, and renter-occupied housing experienced similar growth during these years. The median age of residents in 2000 was 29, which was a drop from 1990 from a median age of 31.2. Employment figures in Alpine Township showed little growth among most categories. A reduction in employment during 1990 and 2000 was found in the sales and office, farming, and production occupations. The main employment sector in Alpine Township is the sales and office occupations, which employs approximately 29% of the township's civilian labor force. Second to the sales and office occupations is the management and professional occupations. This sector employs 25.3% of the townships civilian labor force. The unemployment rate increased from 3.11 % to 4.73% during 1990-2000. The median household income in the township in 2000 was \$42,484, which is approximately a 24% increase since 1990.

#### Section 2:

Based on the figures used in the population projections, we estimated that the township will have a 41.7% increase during the years 2000-2025. Using a GIS (Geographic Information System) we manipulated the available data to produce several maps that detail the land area necessary to meet the projected increase in housing units from 2000-2025. Our results consist of the relative acreage consumption in each of the 4 scenarios.

The total acreage available for development (in the sewer service area) was calculated to be 3300 acres. The .33-acre scenario used the least amount of land (1100 acres), and coincided well with the proposed road additions. The .50acre scenario also boasted well with the amount of land consumption (1650 acres). All parcels were able to fit into the low and moderate density residential future land use areas. The rural-residential areas in the future land use plan for 1998 will remain unused. Additionally, the proposed road additions will sufficiently serve the area. The 1-acre scenario requires more land consumption (3300 acres); however, the land needed would not exceed the confines of the sewer coverage area. The 2-acre scenario required 6600 acres of land to suit the increase in population over the next 25 years. Not only does the build out area exceed the confines of the sewer service area and constraints of the future Agricultural Preservation land use, it also destroys thousands of acres of irreplaceable orchards and cropland.

### *Recommendations*

Based on the buildout maps and acreage calculations, our recommendation is to promote the use of 1/2 to 1/3 acre lot sizes in all new housing developments in Alpine Township. The rich history of agriculture and the abundance of natural open spaces in the township should be preserved at every opportunity while keeping the service cost to the township to a minimum. By concentrating the housing growth for the next 25 years within 1.5 miles of Alpine Avenue, the township can best utilize current services while preventing the unnecessary development of open lands and congestion of 4 Mile Road. While the 1-acre scenario does not exceed the future sewer coverage area, it does consume at least twice as much land as the 1/2 and 1/3 acre alternatives.

The 1-acre and 2-acre average lot sizes represent a future of more sprawling growth, with at least twice as much rural land being consumed by housing development. The larger size of the lots would reduce the neighborhood feeling by spacing houses out much farther and increasing the reliance on automobile transportation by increasing the average distance to commercial and public facilities. In addition, the land use pattern would mean that by 2025, additional sewer would have to be constructed either to the north of Comstock Park or in the Agricultural Preservation District to the north of the current focus area.

These figures demonstrate a clear picture of the effects these different average lot sizes for housing development will have on the character of Alpine Township by the year 2025. By preserving the agricultural aspects of Alpine, the township can maintain its unique character and set itself apart from other townships that have been completely consumed by larger-lot suburban growth.

It is our conclusion that with 10% open space minimum and 10% right-of-way allowance, the resulting 1/2 or 1/3-acre lot developments would most closely resemble the majority of existing subdivisions in Alpine Township in density, emphasis on open space planning, and importance of preserving the area's rural heritage.