

## Alpena County, Michigan



Photo by: Jan Kellogg

**Prepared for:**

Alpena County, the City of Alpena, Alpena Township, Alpena Public Schools, the Alpena County Road Commission, and the Michigan Department of Transportation

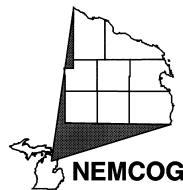
**In Cooperation with:**

The Alpena Intergovernmental Road Subcommittee  
The Michigan Department of Transportation

**With the Assistance of:**

Northeast Michigan Council of Governments  
Capital Consultants, Inc.

**Northeast Michigan Council of Governments**  
**121 East Mitchell Street**  
**P. O. 457**  
**Gaylord, Michigan 49734**  
**(989) 732-3551**



# **Alpena Area-Wide Comprehensive Transportation Plan**



## Alpena Transportation Plan Committee Members

Jeff Anthony, Michigan State Police

Alan L. Bakalarski, Manager, City of Alpena

Lou Baker, Residents for By-Pass

Diane M. Block, Director of Business Operations, Alpena Public Schools

Steve Conradson, Traffic Safety Engineer, Michigan Department of Transportation

Jeff Hoeksema, Citizens Against Residential By-Pass

Cary Keller, Area Business Representative

Tom Kellogg, Northeast Michigan Council of Governments

Dave Langhorst, Planner, Michigan Department of Transportation

Scott McPherson, Northeast Michigan Council of Governments

Jerome Meek, Alpena County Planning Commission

Larry Orcutt, Managing Director, Alpena County Road Commission

Greg Sundin, Planner, City of Alpena

Marie Twite, Supervisor, Alpena Township

Raymond Wegmeyer, Alpena County Board of Commissioners

Special appreciation to Jan Kellogg and Jerry Meek for providing photographs for the Plan



**Funding provided by:**  
**The Michigan Department of Transportation,  
Alpena County, the City of Alpena,  
Alpena Township, Alpena County Road  
Commission, and Alpena Public Schools**

**June 1, 2003**

# Alpena Area-Wide Comprehensive Transportation Plan

## Table of Contents

Chapter 1	Introduction .....	1-1
	Background.....	1-1
	Study Area .....	1-1
	Purpose of the Planning Process .....	1-3
Chapter 2	Existing Conditions.....	2-1
	Data Sets .....	2-1
	Previous Studies and Reports.....	2-1
	Existing Land Use .....	2-1
	Land Ownership.....	2-7
	Demographics.....	2-9
	Growth & Development.....	2-12
	Intermodal Transportation.....	2-17
	Roads and Streets (overview: arterials, collectors, and streets) .....	2-17
	Air Transportation.....	2-17
	Rail .....	2-19
	Marine Facilities .....	2-20
	Transit.....	2-20
	Bicycle and Pedestrian Facilities .....	2-22
	Visual Resources and Community Character.....	2-24
Chapter 3	Environmental Analysis .....	3-1
	Climate .....	3-1
	Topography .....	3-2
	Soils and Soil Constraints .....	3-2
	Slopes 18 % and Greater .....	3-3
	Hydric Soils .....	3-3
	Building Constraints .....	3-3
	Water Resources .....	3-7
	Fishing, Wildlife, and Hunting .....	3-9
	Threatened and Endangered Species.....	3-11
	Sites of Environmental Contamination .....	3-12
Chapter 4	Status of Planning and Zoning .....	4-1
	Introduction .....	4-1
	Community Planning.....	4-1
	Future Land Use Plans .....	4-1
	City of Alpena .....	4-1
	Alpena Township .....	4-5
	Wilson Township .....	4-8
	Transportation Related Zoning ( <i>Access Management, Screening, Signage, and Lighting</i> ).....	4-8
	City of Alpena .....	4-8
	Alpena Township .....	4-11
	Wilson Township .....	4-12
	Maple Ridge Township .....	4-15
	Zoning Map and Zoning Districts.....	4-16
	City of Alpena .....	4-18
	Alpena Township .....	4-21
	Wilson Township .....	4-23
	Maple Ridge Township .....	4-25
	Model Ordinance Language.....	Appendix B

Chapter 5	Traffic Conditions .....	5-1
	Introduction .....	5-1
	Existing Conditions .....	5-1
	Speed Limits and Traffic Controls.....	5-2
	Truck and Commercial Traffic Routes.....	5-4
	Major Traffic Generators.....	5-4
	Parking Facilities and Alleys.....	5-6
	Origins, Destinations, Through Traffic .....	5-6
	Employee Survey .....	5-7
	Tourism Traffic.....	5-9
	Access Management Policies.....	5-9
	Crashes and Safety.....	5-11
	Current Traffic Volumes.....	5-14
	Current Operating Conditions ( <i>Capacities &amp; potential deficiencies</i> )	5-16
	Planned Improvements and Anticipated Infrastructure Needs .....	5-18
	Projected Conditions .....	5-20
	Future Traffic Volumes .....	5-20
	Future Operating Conditions ( <i>Capacities &amp; potential deficiencies</i> )..	5-20
Chapter 6	Access Management.....	6-1
	Introduction .....	6-1
	Driveway Spacing .....	6-2
	Roadway Speed.....	6-2
	Sight Distance .....	6-4
	Location of Nearby Intersections .....	6-4
	Type and Size of Development.....	6-5
	Maximum Number of Access Drives Per Property Frontage.....	6-5
	Driveway Design.....	6-5
	Commercial Driveways.....	6-5
	Private Street Entrances .....	6-6
	Residential Driveways .....	6-6
	Joint Driveways .....	6-9
	Driveway Consolidation.....	6-9
	Service Roads .....	6-9
	Auxiliary Lanes .....	6-10
	Right Turn Deceleration Taper.....	6-10
	Right Turn Deceleration Lane.....	6-10
	Two-Way Left Turn Lane .....	6-13
	Additional Exit Lane for an Access Drive .....	6-13
	Medians .....	6-14
	Trees and Landscaping.....	6-16
	Traffic Signals .....	6-17
	Thresholds for Requiring Traffic Impact Studies .....	6-17
	Types of Traffic Impact Studies .....	6-18
	Rezoning Traffic Study .....	6-18
	Traffic Impact Assessment.....	6-18
	Traffic Impact Statement.....	6-18
	Regional Traffic Analysis .....	6-18
	Trip Generation Thresholds.....	6-18
	Thresholds for Rezoning Requests .....	6-18
	Thresholds for Site Plans, Plats, Mobile Homes Parks, and Condominium Projects .....	6-19
	Summary.....	6-22
Chapter 7	Goals and Objectives .....	7-1
	Inter-governmental Cooperation .....	7-1
	Access Management.....	7-1
	Capacity .....	7-2
	Safety .....	7-2
	Land Use Planning .....	7-2

Natural Features.....	7-3
Community Character.....	7-3
Intermodal Transportation .....	7-4
 Chapter 8 Improvement Strategies and Recommendations .....	8-1
Improvement Strategies .....	8-1
Inter-governmental Cooperation .....	8-1
Access Management .....	8-1
Capacity .....	8-2
Safety .....	8-3
Land Use Planning .....	8-3
Natural Features.....	8-4
Community Character.....	8-5
Intermodal Transportation.....	8-6
“Bypass”, or Alternate Commercial Route.....	8-6
Recommendations .....	8-9
Short Term Needs.....	8-9
Intermediate Term Needs .....	8-10
Long Term Needs .....	8-11

## Appendices

Appendix A	MIRIS Land Cover/Land Use Classification System .....	A-1
Appendix B	Model Zoning Ordinance Language.....	B-1
Appendix C	Cost Estimates for the Construction of Alternate Commercial Routes ....	C-1

## List of Figures

Figure 1.1	Study Area .....	1-2
Figure 2.1	Existing Land Use .....	2-2
Figure 2.2	Composite Future Land use Map .....	2-4
Figure 2.3	Land Ownership Map .....	2-8
Figure 2.4	Existing Water and Sewer Service Area.....	2-16
Figure 2.5	Road Classifications.....	2-18
Figure 2.6	Alpena Bi-Path .....	2-23
 Figure 3.1	Flooding, Spring of 1998 .....	3-2
Figure 3.2	Slope.....	3-4
Figure 3.3	Hydric Soils.....	3-5
Figure 3.4	Building Constraints .....	3-6
Figure 3.5	Water Resources .....	3-8
 Figure 4.1	Composite Future Land Use Map.....	4-3
Figure 4.2	Vacant Land Map .....	4-4
Figure 4.3	Existing Water and Sewer Service Area.....	4-7
Figure 4.4	Composite Zoning Map .....	4-17
 Figure 5.1	Speed Limits and Traffic Signals .....	5-3
Figure 5.2	Truck Route Map.....	5-4
Figure 5.3	Traffic Generation Map.....	5-5
Figure 5.4	1999 Crash Location Map .....	5-13
Figure 5.5	Year 2001 ADT Estimates .....	5-15
Figure 5.6	Existing Volume/Capacity, PM Peak Hour .....	5-17

Figure 5.7	Annual Growth Factors, Year 2001 to 2020.....	5-21
Figure 5.8	Future Volume/Capacity, PM Peak Hour .....	5-22
Figure 6.1	Minimum Driveway Spacing .....	6-3
Figure 6.2	Typical Driveway Entrances .....	6-7
Figure 6.3	Channelization Island Options for Controlling Turns .....	6-8
Figure 6.4	Frontage Road, Rear Service Drive, and Parking Lot Access .....	6-11
Figure 6.5	Typical Right Turn Taper .....	6-12
Figure 6.6	Typical Medians on Divided Arterials.....	6-15
Figure 6.7	Safety Benefits of Medians.....	6-15
Figure 6.8	Business Survey Conducted in Iowa Municipalities .....	6-16
Figure 8.1	Alternate Routes Considered .....	8-7
Figure 8.2	Improvement Recommendations.....	8-13

## **List of Tables**

Table 2.1	Summary of Existing & Future Land Use within the Study Area.....	2-1
Table 2.2	Population for Alpena County and Municipalities, 1980-2000.....	2-10
Table 2.3	Population Projections for Alpena County 2000-2020 .....	2-11
Table 2.4	Population by Age for Alpena County, 1990-2000 .....	2-12
Table 2.5	Building Permits 1997-2001 .....	2-12
Table 2.6	Alpena County Work Commute 1990-2000 .....	2-13
Table 2.7	Alpena Regional Airport Usage 1997-2001 .....	2-19
Table 2.8	Alpena Total Shipping 1991-2000.....	2-20
Table 2.9	Alpena Shipping Traffic 2000 .....	2-20
Table 3.1	Alpena County Inventory of Game Species.....	3-11
Table 3.2	Alpena County Threatened and Endangered Species.....	3-12
Table 3.3	Alpena Area-Wide Transportation Plan Contamination Sites.....	3-13
Table 4.1	Status of Planning and Zoning – Alpena Study Area .....	4-1
Table 4.2	City of Alpena Future Land Use Categories .....	4-2
Table 4.3	Township of Alpena Future Land Use Categories.....	4-5
Table 4.4	Wilson Township Future Land Use Categories .....	4-8
Table 5.1	Length of Signal Cycle .....	5-24
Table 5.2	Roadway Capacity Guidelines.....	5-24
Table 6.1	Desirable Separation of Adjacent Driveways.....	6-2
Table 6.2	Desirable Deceleration Taper Lengths.....	6-10
Table 6.3	Land Use Trip Generation Thresholds for Traffic Impact Studies.....	6-20
Table 6.4	Requirements for Various Types of Traffic Impact Studies.....	6-21