

Chapter One

INTRODUCTION

Background

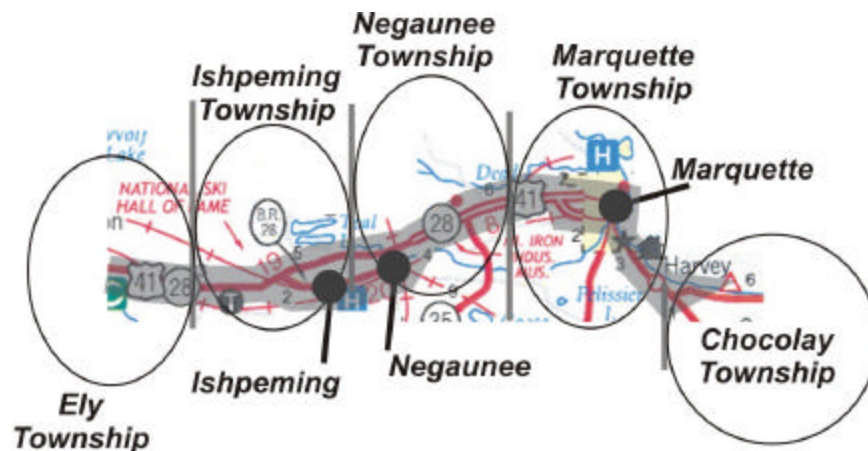
Introduction

This Chapter provides an overview of the US-41/M-28 corridor and its importance to the region, state and nation. It defines basic terms and explains the purpose and benefits of corridor and access management plans. It briefly explains the relationship of this Plan to local master plans and zoning ordinances and the process used to create this Plan.

Importance of Preserving the US-41/M-28 Corridor

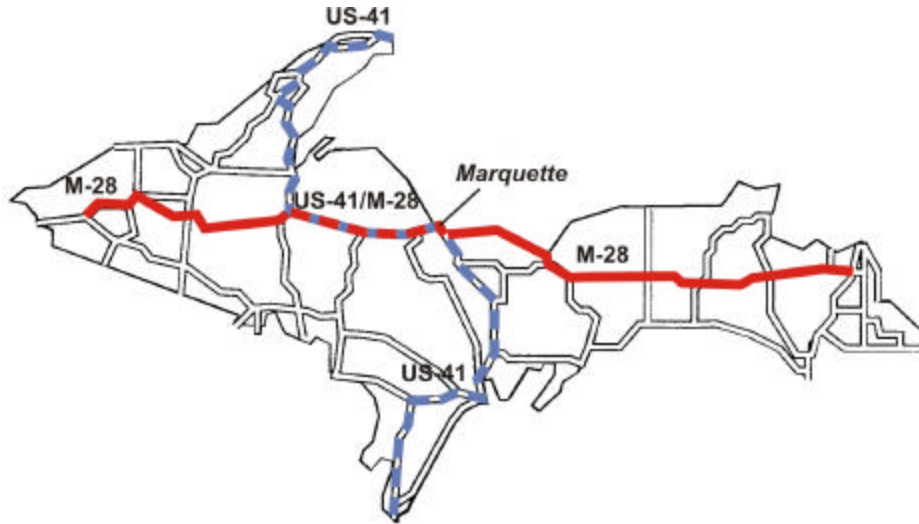
The portion of US-41/M-28 included in this study is the highway lifeline that runs through eight cities and townships in Marquette County (see Figure 1-1). It not only connects the communities, and their residents to jobs, shopping, education, entertainment and major recreation opportunities, it helps to bind and bond them along with other historical features of the area such as mining and forest products activities.

Figure 1-1: Location of Jurisdictions Along US-41/M-28



But the US-41/M-28 corridor is much more than a local lifeline. It serves as a major east/west route across not only the Upper Peninsula, but the northern United States. In addition, it provides a southern route around Lake Superior for Canadian and American trucking firms. See Figure 1-2.

Figure 1-2: US-41 and M-28 Within the Upper Peninsula



Over the latter half of the twentieth century, many sections of the US-41/M-28 corridor were reconstructed as bypasses around existing cities and villages across the Upper Peninsula. These improvements were necessary to address growing congestion problems created when local traffic intermixed with through traffic and to meet growing demands for improved travel times for transport across the Upper Peninsula. Now MDOT estimates that 50% or more of the traffic on US-41/M-28 is through traffic not destined within communities along the corridor.

As in other parts of the state, the improved access to abutting property afforded by relocating US-41/M-28 away from established downtowns to the edge of the community created new opportunities for different land uses along the corridor. First, highway service activities like gasoline stations, hotels and motels began to locate along the highway bypasses. Then homes and other businesses slowly followed. Over time, portions of the bypasses have become congested with many separate driveways and turning movements that slow traffic on the highway. Since the two principal purposes of US-41/M-28 are to provide a highway on which vehicles can safely move at design speeds (as long as weather permits), and to link communities along the route, if measures are not vigilantly taken to preserve these functions, then these highway functions will be lost.

It is natural for local governments and land owners along a state trunkline to view the functions of the highway more narrowly. The opportunity for new economic development and the associated jobs and tax base is often great when highway improvements are made. But if these activities take place in a manner which undermines the integrity of the principal highway functions, then the investment the motorists, trucking firms and other users of the highway have made in the highway can be compromised. If capacity or traffic movement is severely compromised by congestion, or by local traffic “fixes” that undermine the through

traffic function of the highway, then at some point the road may have to move again. Bypasses to bypasses usually have predictable negative economic impacts on communities. These include:

- Businesses along the old route may suffer as traffic moves to the new bypass.
- Jobs and property tax values along the old route may fall.
- Bypasses inevitably move traffic further away from the established community center and all the existing links to the center become challenged as traffic shifts.
- Bypasses are also expensive to plan for, acquire right-of-way for, and build, plus the old route will still need to be maintained.

These considerations are of special significance at the current time with stretched budgets, rising maintenance costs and growing demands for road improvements on the existing corridor.

What is needed is a mechanism to balance national, state, regional, and local interests in a manner which protects the function of the highway as well as the existing and future investments in it, along with allowing reasonable economic development opportunities. This Plan sets forth a series of proposed improvements to US-41/M-28 and a strategy for implementation that seeks to define an achievable balance among what otherwise could be competing state and local objectives. All of these improvements are designed to preserve and enhance the existing location of the highway and no bypasses are proposed.

Definitions & Benefits

Corridor Management

This Plan is both a corridor management plan and an access management plan. A corridor management plan is concerned with improving traffic safety and efficiency with a focus on traffic capacity and flow improvements. Corridor management plans are usually prepared when there is a need for extensive improvements in many locations along a corridor, and especially when some segments are proposed for capacity enhancements. There are often multiple options for certain changes, such as intersection improvements or alternative designs for additional lanes. Corridor plans usually involve multiple jurisdictions, and there is recognition that alternative changes along one part of the corridor may have significant impacts on other parts of the corridor.

Benefits of a Corridor Management Plan

A corridor management plan lays out all proposed improvements along a corridor for a specified period, often ten or more years into the future. This allows the road authority to plan and budget for those improvements in an efficient manner and it allows local governments, businesses and other landowners along the corridor to incorporate planned improvements into local plans and business decisions.

While road improvements usually focus on improving safety and efficiency of traffic flow, these benefits are most directly realized by motorists. There will be fewer traffic crashes than otherwise would have occurred and congestion will occur less often once improvements are implemented. Since driver confusion is the single biggest cause of error, many of the improvements proposed in this Plan are designed to reduce, if not eliminate, driver confusion.

When a corridor management plan is prepared on an inter-jurisdictional basis, as this one was, it also enhances the likelihood of coordinated land use decisions that both protect and enhance the new investments to be made in the corridor. This is especially true with regards to decisions concerning future access to the highway.

Access Management

The Michigan Department of Transportation publication entitled **Reducing Traffic Congestion and Improving Traffic Safety in Michigan Communities: The Access Management Guidebook** defines access management as:

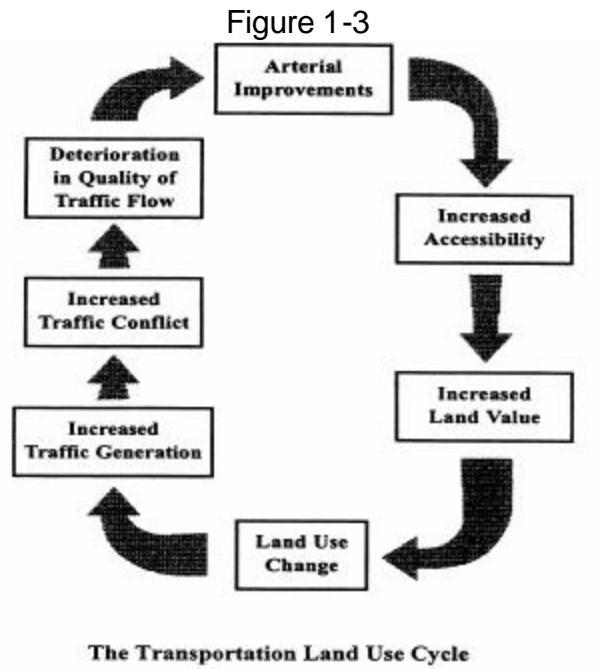
“Access management is a set of proven techniques that can help reduce traffic congestion, preserve the flow of traffic, improve traffic safety, prevent crashes, preserve existing road capacity and preserve investment in roads by managing the location, design and type of access to property.”

New conflict points, such as driveways and intersections, can rapidly increase the crash rate along a corridor. Roadways with inadequate spacing of driveways, poorly designed driveways, or improper sight distances for driveways can be improved through the use of appropriate access management techniques. Traffic safety and traffic flow can both be substantially improved with good access management.

Roadways with congestion due to too many driveways or driveways too close together, can also be improved through various access management techniques. Remedial access management efforts can be accomplished through alternative driveway design and applied during site plan review for a parcel as it goes through the redevelopment review process. However, the best time to institute access management is when there are few land uses frequently accessing the roadway, or when new roadway improvements have been made.

For the western portion of US-41/M-28, west of Marquette Township and outside of the cities of Negaunee and Ishpeming, there is little existing development, so access management is focused on preventive actions. Preventive access management actions are far easier and less expensive to implement than remedial actions. They preserve the function of the corridor and they provide added safety for motorists. If a community is able to put access management plans, review procedures and regulations in place before a corridor develops, then there is a good chance that when development does occur, the roadway

function will be preserved, instead of a typical cycle of improve and expand (see Figure 1-3). In this Figure, increased development deteriorates the road capacity and safety due to numerous driveways and creates a seemingly endless cycle of road modifications linked to the new roadway conflict points. This is very costly for everyone.



Source: National Highway Institute, Course 15255, FHWA, 1998, p. 1-18.

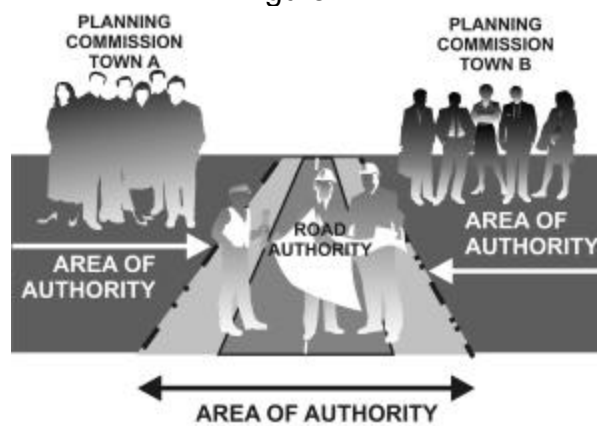
For areas that are already developed, the focus is on remedial access management techniques. Remedial access management focuses on reducing congestion, improving safety and improving aesthetic conditions on arterials that have developed into the familiar strip pattern with numerous separate driveways. Closing or consolidating driveways, sharing driveways, improving on-site circulation, linking adjoining parking lots, and constructing parallel access roads are common access techniques applied in existing developed areas.

Preventative and remedial access management objectives are often achieved through site plan review as property is proposed for development or redevelopment. Expansion of roadway capacity or simply reconstructing an existing road also present good opportunities to redefine access points, improve driveway entry and exit geometry along the corridor and to establish turning lanes where appropriate. Older development may take a long time to retrofit, but if the local zoning ordinance requires access improvements as rehabilitation and redevelopment takes place, over time there will be improvement.

If all jurisdictions along a corridor have the same basic access management regulations that are consistent with MDOT's driveway permit regulations, then the chances of retaining existing highway function go up dramatically. Coordinated

regulations are especially important because local governments have all the land use authority, and control key aspects of access decisions, such as parking lot design, location, connections, parallel access and rear service roads, and other features of access that are outside the right-of-way and hence outside the scope of MDOT to regulate. This is especially significant where a roadway has one community on one side of a road and another on the other side. See Figure 1 -4.

Figure 1-4



Benefits of Access Management

The **MDOT Access Management Guidebook** identifies the following five benefits of access management.

- *Access management improves traffic safety and can prevent vehicular crashes.*
- *Access management results in shorter travel times and reduces motorist costs.*
- *Access management extends the function and capacity of roadways.*
- *Access management improves access to property while enhancing the value of private land development.*
- *Access management results in nicer communities.*

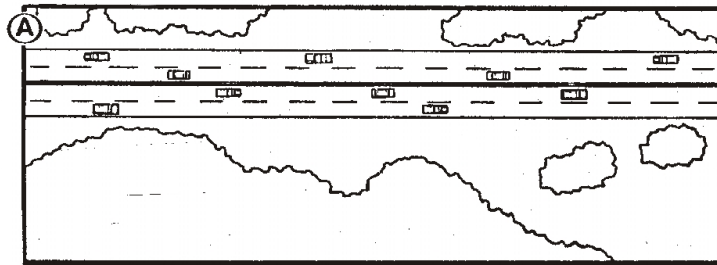
All these benefits are expected from implementation of this Plan.

Poorly Planned and Regulated Land Use Creates Unnecessary Traffic Congestion and Crashes

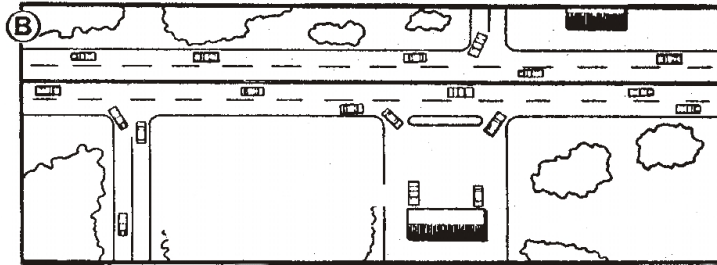
Figure 1-5 illustrates that how land is used adjacent to roadways has a tremendous impact on roadway function and operations. If unrestricted driveways are permitted, unnecessary traffic crashes and congestion will result, especially if the land is developed for commercial purposes.

Figure 1-5

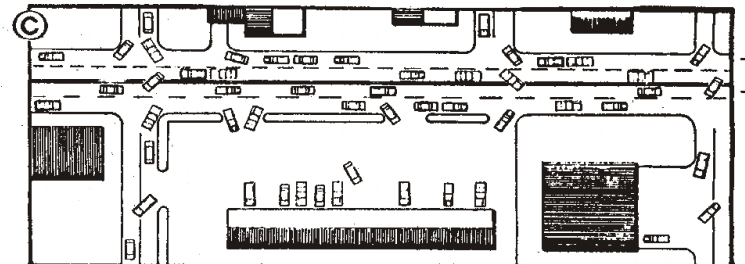
Cumulative Impact of Increased Roadside Development ...



What happens when unrestricted development takes place ...



over time ...



Source: Center for Transportation Research and Education, Iowa State University, *Iowa Access Management Guidebook*, October 2000, p. 19.

Relationship to Local Master Plans and Zoning Ordinances

Obviously, the relationship between US-41/M-28 and abutting land is a very close one. If abutting land develops in a way which undermines the integrity of the public investment in the highway, then future highway improvements will be necessary, that otherwise would not have been (see Figures 1-3 and 1-5). Since local governments have authority through the local planning and zoning statutes to plan and zone for future land use, their decisions can create or prevent future highway problems. It is important therefore, that local governments incorporate key considerations from this Plan into the local master plan and zoning ordinance.

Local master plans set forth in both text and on maps, land use and public infrastructure improvements for the next twenty years. Statutorily, local master plans are required in order to provide a strong legal basis for local zoning. In December 2001, the Michigan Legislature enacted changes to the planning enabling acts to beef up the relationship between the plan and local zoning, to require communities to review, and as necessary, to update local master plans every five years, and to coordinate plans with neighboring jurisdictions through new mandatory review and comment procedures. When a community has a current future land use map and accompanying text embodied in a local master plan, it is much easier for road authorities to plan future road improvements that are compatible with adopted local master plans.

A local zoning ordinance classifies land for various uses by means of zones or districts which establish permitted uses, and dimensional standards for lots and structures. The zoning map should reflect existing use of land. Land is often rezoned into a different zoning class when consistent with the local master plan and when the necessary infrastructure is in place to accommodate the proposed new use.

In order for local master plans and zoning ordinances to achieve the goals and objectives of this Plan, it will be important for those documents (in addition to the usual elements described above), to be consistent with the corridor improvement and access management recommendations in this Plan. It will also be important for local governments along the corridor to adopt nearly identical access management regulations and to coordinate land use and zoning decisions along the corridor. All of the communities along the corridor have already committed to this coordination and meet monthly to review proposed projects along the corridor (see Chapter Six).

Process Followed to Create This Plan

The Michigan Department of Transportation and the eight cities and townships along the portion of US-41/M-28 included in this study have worked together for nearly three years to complete this plan and associated regulations. Other project

partners included Marquette County Planning, the Marquette County Road Commission, the Marquette County Drain Commissioner, the Keweenaw Bay Indian Community and the Lake Superior Community Partnership. The local units of government have undertaken the following actions leading to the adoption of this Plan:

- signed a common Memorandum of Understanding to work on the project (see Appendix A),
- sent representatives to MDOT sponsored training on access management,
- worked with MDOT staff to refine the model MDOT access management ordinance to fit local circumstances,
- identified access management problems and corridor improvement needs,
- jointly designed an RFP and helped hire a consulting firm to assist with preparation of the Plan,
- gathered substantial information and assisted in its analysis,
- worked closely with the consultant and local government advisory committee to prepare and refine the Plan,
- assisted with sharing ideas with the public and refining Plan elements,
- assisted in the review of proposed site plans for projects along the corridor,
- committed to incorporating the final Plan elements into the local master plan and implementing this Plan's recommendations through future planning, zoning, subdivision and infrastructure decisions,
- throughout this process met at least once every month.

For its part, MDOT provided substantial leadership, staff and financial assistance to these communities and worked closely with the consultant in the preparation of this Plan. This is the kind of partnership MDOT has promoted since publication of the **MDOT Access Management Guidebook** as an effective way to plan and implement highway improvements and access management regulations .

Overview of Chapters in this Plan

This Plan has six chapters and Appendices. Following is a brief summary of the remaining chapters:

- Chapter Two defines the most basic goals and objectives of this Plan.
- Chapter Three presents a detailed description of the corridor, and identifies the key problems and opportunities along the corridor. Much of the chapter focuses on a traffic and safety analysis of high crash areas and changes that could be made to more uniformly treat intersections and major roadway segments in order to preserve safe traffic flow.
- Chapter Four presents a detailed description of both major and minor traffic, safety and access management improvements along the corridor. In many cases alternatives are presented, along with a brief description of the pros and cons of each alternative. Associated bus, bicycle, pedestrian and snowmobile issues are also discussed.

- Chapter Five presents the principal local access management and land use policies necessary to implement the goals and objectives of this Plan. Changes to local master plans and zoning ordinances necessary to implement this Plan are also identified.
- Chapter Six presents the key steps that need to be taken to implement this Plan.

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