VILLAGE OF ONTONAGON, MICHIGAN

ACCESS MANAGEMENT PLAN

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EXECUTIVE SUMMARY

The M-64/M-38/US-45 Corridor Access Management Action Plan contains an inventory of existing zoning, land use, and transportation issues along the state trunk line corridors within the Village of Ontonagon, together with recommendations addressing these issues. Access Management consists of “... 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,” according to the Michigan Department of Transportation (MDOT) Access Management Guidebook. Through the use of narrative description, photographs, maps, figures and charts, the plan describes the issues associated with access management within the Village, and proposes a series of specific recommendations, including both physical improvements and regulatory changes, to solve existing problems and prevent future ones. These recommendations are summarized in Chapter 6, Implementation.

This Plan was developed over a period of months through close cooperation between the Village of Ontonagon, MDOT and the Ontonagon County Road Commission. The process was guided by the Western Upper Peninsula Planning and Development Regional Commission, and was funded by the Michigan Department of Transportation.

The Village of Ontonagon will adopt zoning ordinance provisions which will require future development in the Village to utilize Access Management techniques. Chief among these is a coordinated site plan review process for development along the highway corridor, which will result in improved communication between permitting agencies and the applicant. The Village will also review the recommended physical improvements on an ongoing basis, and work with MDOT and other funding agencies to make these recommendations a reality.
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The following Corridor Study Team participated in the development of this Access Management Plan. Their insight and understanding of the needs of the local community was critical to the completion of the Plan, and their efforts are greatly appreciated.

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1. **INTRODUCTION**

The M-38/US-45/M-64 Access Management Plan has been developed as a cooperative effort between the Michigan Department of Transportation, the Village of Ontonagon, and the Western Upper Peninsula Planning and Development Region (WUPPDR). This chapter will introduce the planning process and the basic principles of access management; following chapters will describe the corridor, identify issues and opportunities, and discuss recommended improvements to maximize safety and capacity of the corridor in light of possible future development.

**Summary**

The study corridor consists of the area within 1,000 feet of the centerlines of the existing state trunk lines (M-38, M64, US-45) within the Village of Ontonagon, as well as the area within 1,000 feet of the centerline of the new alignment of M-38 and M-64 following completion of the new bridge over the Ontonagon River.

The impetus for this access management plan resulted from MDOT’s efforts to determine how best to address issues associated with the aging M-64 bridge across the Ontonagon River in the Village of Ontonagon. Ultimately, MDOT decided to replace the existing span with a new bridge located approximately 2,400 feet upriver. This new bridge will require a new highway corridor, and will result in significant changes in local traffic patterns. The access management study was initiated as a means of addressing issues related to traffic flow and safety along the existing state trunk lines, as well as maintaining traffic flow in the new stretches of roadway.

**The Planning Process**

A Corridor Study Team was formed, representing various governmental entities with jurisdiction over the corridor. The membership of the Corridor Study Team is listed in the Acknowledgements. This Study Team worked closely with the consultant, Wilcox Professional Services LLC, and sub-consultant, Community Consulting Services, to produce an access management plan which was responsive to local needs as well as being consistent with access management principles. MDOT provided substantial leadership, staff and financial assistance to the Study Team and worked closely with the consultant in the preparation of this Plan. Development of the plan took place during the 12-month period from October 1, 2005 until September 30, 2006.
Access Management

The two principal purposes of state trunk lines such as M-38, US-45 and M-64 are to: 1) provide a highway which maximizes driver safety and capacity, and 2) link communities along the route. If measures are not taken to preserve these functions, then one or both of these highway functions will be lost.

Local governments and land owners along a state trunk line often view the functions of the highway more narrowly. The opportunity for new economic development and the associated jobs and tax base often creates pressure to make hasty decisions regarding access changes. If these activities take place in a manner which does not consider the long-term integrity of the principal highway functions, then the investment that funding agencies, motorists, trucking firms and other users of the highway have made in the highway can be compromised. If capacity or traffic movement is severely impaired by congestion, or by local traffic access changes that undermine the through traffic function of the highway, then at some point the road may have to be expanded, or additional traffic routes, such as bypasses, must be developed. While these eventual solutions may improve traffic flow and safety, and make the roadway functional once more, there can be significant negative impacts on local communities. These impacts can include:

- Hazards to pedestrians and other non-motorized users at intersections and crossings.
- Decreased ease of access to businesses as traffic increases
- A loss of aesthetic quality as trees, lawns and landscaping give way to additional traffic lanes and/or new roadways
- Urban sprawl associated with a shifting of business development from old congested corridors to new (and at least for the time being) uncongested corridors.
- Expenses associated with planning, acquisition and development of new transportation corridors and/or widening or other improvements of existing corridors.

A mechanism is needed 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 mechanism is the access management process.

The Michigan Department of Transportation publication entitled Reducing Traffic Congestion and Improving Traffic Safety in Michigan Communities: The Access Management Guidebook (Guidebook) defines access management as: “. . . 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.” Within this plan there are several proposed improvements, both physical improvements and regulatory changes, which seek to balance what can at times be competing interests. This plan also represents the unique opportunity to address access management in a proactive manner along the new segments of the study corridor.

Traffic safety on 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.

Roadways with congestion due to the presence of too many driveways or driveways located too close together can also be improved through various access management techniques. The purpose of this report is to study a few of these techniques and suggest ways in which they can be employed in this specific corridor.

New conflict points, such as driveways and intersections, can rapidly increase the crash rate along a corridor. This concept is illustrated in Figures 3-2, 3-3, 3-4 and 3-5 from the Guidebook (shown right).

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 permitting process for changes in use, expansion, etc. While access management techniques can be applied to address existing problems, the most effective time to implement access management techniques is when there are relatively few land uses accessing the roadway, or when new roadway improvements are being made. Implementation of a coordinated site plan review process at this time can result in adoption of basic principles which will guide future decisions. Development of a coordinated site plan
review process will utilize a committee which will be familiar with access management principles and techniques, and will facilitate communication between permitting agencies.

**Benefits of an Access Management Plan**

An access management plan identifies both regulatory and physical changes which can improve traffic flow and safety. Examples of physical changes include driveway closures, driveway consolidations, parking lot improvements, and alternative means of access such as frontage roads and rear service roads. Examples of regulatory changes include zoning language regulating driveway spacing, lot width, etc., and a driveway permitting process that is combined with the zoning permit process and involves all affected entities.

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

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

All these benefits are expected from implementation of this Plan.

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 Guidebook Figure 1-20, right). 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 in terms of both time and money.

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
n 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 management techniques applied in existing developed areas.

The most effective tool for implementing Access Management techniques in a community is first developing a coordinated site plan review process with an established site plan review committee. The coordinated site plan review committee contains representatives from various agencies and local units of government. All of these agencies require a site plan as part of their approval process. The coordinated process brings all the agencies together to perform the review as a unit. Preventative and remedial access management objectives are often achieved through a coordinated 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 occurs, over time there will be improvement.

The Coordinated Site Plan Review committee, by virtue of regular meetings, can develop action strategies and work with the Planning Commission to develop local zoning ordinance changes. This group will also act as an effective point of contact for MDOT and other governmental agencies as local road improvement monies become available. This group can help direct the improvements and determine the most effective use of right/left turn lanes and other access improvements in these projects. Safety Improvement Project Funds are often lost, for example, when local units of government are not ready to respond when the call for projects is made. A Coordinated Site Plan Review Committee can be instrumental in developing a “laundry list” of spot locations that can make effective use of Safety Improvement funds or other similar funding programs.

Another opportunity for the coordinated site plan review committee to act is as an advisory board if a series of traffic crashes creates a passionate call for action by the local community. Often the call for action includes the demand for a traffic signal or imposition of a lower speed limit. When this occurs, a well-trained, organized and effective corridor management team can spring to action and offer access management techniques which could provide quick low-cost solutions while a traffic signal or speed study is in progress.
2. PHYSICAL DESCRIPTION OF CORRIDOR

Characteristics of the Existing Roadways

**M-38**: This portion of the corridor consists of what is now M-38 from the Village limits to the intersection with US-45. Following completion of the new M-64 bridge, M-38 will extend from the eastern Village limits along the existing alignment to Mercury Street, and then will continue about a block north of Mercury Street until it intersects with US-45. The portion of what is now M-38 from Mercury Street to the “five corners" intersection will become Greenland Road, a Village street. The following Table 1 indicates the relationship of old and new designations for this corridor. Map 1 (page 8) also displays the corridor changes.

### Table 1: Roadway Designations Within the Study Corridor

<table>
<thead>
<tr>
<th>Old Roadway Designation</th>
<th>New Roadway Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-64 from West Village Limits to just west of E&amp;LS RR</td>
<td>Same</td>
</tr>
<tr>
<td>None (new segment)</td>
<td>M-64 from just west of E&amp;LS RR across Ontonagon River to US-45</td>
</tr>
<tr>
<td>M-64 from just west of E&amp;LS RR to River Rd.</td>
<td>North River Road</td>
</tr>
<tr>
<td>M-64 from River Street to the Ontonagon River</td>
<td>None (Partial removal with remainder to be designated as Marina Parking)</td>
</tr>
<tr>
<td>None (new segment)</td>
<td>M-38 from US-45 to existing M-38 near Mercury St.</td>
</tr>
<tr>
<td>M-38 from Mercury St. to East Village Limits</td>
<td>Same</td>
</tr>
<tr>
<td>M-38 from Mercury St. to US-45 intersection</td>
<td>Greenland Road</td>
</tr>
<tr>
<td>None (new segment)</td>
<td>Heard St. from Mercury to M-38</td>
</tr>
<tr>
<td>Mercury St. from S. 4th St. to M-38</td>
<td>None (to be removed)</td>
</tr>
<tr>
<td>Silver St. from US-45 east one block to dead end</td>
<td>Silver St. from US-45 east two blocks, one-way (eastbound) with T intersection into M-38</td>
</tr>
<tr>
<td>US-45 from five corners intersection to Lake St.</td>
<td>Business US-45</td>
</tr>
<tr>
<td>Lake St. from River St. to Michigan St.</td>
<td>Business US-45 Truck Loop</td>
</tr>
<tr>
<td>Michigan St. from Lake St. to Chippewa St.</td>
<td>Business US-45 Truck Loop</td>
</tr>
<tr>
<td>Chippewa St. from Michigan St. to River St.</td>
<td>Business US-45 Truck Loop</td>
</tr>
</tbody>
</table>
Map 1: Transportation Corridor Changes
Corridor Characteristics (continued)
The current alignment of M-38 is a two-lane roadway with paved shoulders, with a speed limit of 45 mph where it enters the Village. The speed limit decreases to 35 mph at approximately Mercury Street, and there is a 25 mph limit at approximately Alsace Street to Parker Street during school hours.

Photo 1: M-38 from Giesau Drive, showing the driveways for the IGA and Family Dollar stores. A driveway for the Ontonagon County Courthouse is located about 75 feet from the northern entrance to the IGA parking lot and is visible near the left edge of the photo.

This portion of the corridor is relatively free of access problems, although there are some minor access issues where improvements are recommended. At the entrance to the Family Dollar and IGA stores at the eastern edge of the Village, two driveways about 170 feet apart, access the shared parking lot for these two businesses. Only a short distance beyond the western ingress/egress point for these businesses is a driveway accessing the Ontonagon County Courthouse, which also has a second driveway less than 500 feet to the west. Design issues for this group of driveways include a lack of curb and gutter and flares, which would help define the ingress/egress points and the proximity of the driveways for the IGA/Family Dollar and courthouse. Also at the nearby intersection of 7th Street and M-38, near the hospital, somewhat limited visibility affects intersection sight distance in the northwest quadrant.

Where the new alignment of M-38 intersects with the new M-64 and existing US-45, the new alignment of M-38 will be just south of the existing alignment of Silver Street, which accesses four residences and the Redeemer Free Lutheran Church. Silver Street will be maintained as a one-way street (eastbound) in order to provide access to the residences and an exit for the church, rather than creating curb cuts (and conflict points) on the new alignment of M-38. This will help maintain traffic flow on M-38. The new alignment of M-38 will include two through
lanes plus a center-turn lane and additional right-turn lane from the intersection of Silver Street to the US-45 intersection, and traffic on the east-west M-38/M-64 corridor will not stop at US-45. The roadway will have four lanes at this location. The turning lanes will act as a refuge for turning vehicles and facilitate traffic flow by enabling motorists to wait for an appropriate gap without delaying traffic behind them. Maintaining through traffic flow on M-64/M-38 will also prevent traffic backups onto the bridge.

**US-45:** This two-lane roadway enters the Village from the south, and is the northern terminus of a highway running north-south from Mobile, Alabama through Mississippi, Tennessee, Kentucky, Illinois and Wisconsin. Within the Village, US-45 now terminates where it intersects with the current alignment of M-64. Following the construction of the new bridge, US-45 will maintain its existing alignment, and the portion of River Street from Greenland Road (“five corners”) to Lake Street will be designated as “business US-45,” maintaining its status as a state trunk line. A “truck loop” will be developed at the end of River Street, utilizing Lake Street, Michigan Street, and Chippewa Street. The truck loop will need to accommodate delivery trucks for downtown businesses as well as recreational vehicles from the campground which may be traveling through the downtown area on their way to and from the township park located on Houghton Street. Plans call for improvements to the road surface, width and turning radii along the truck loop in order to accommodate this type of traffic.

US-45 has a speed limit of 45 mph where it enters the Village, and the speed limit decreases to 35 mph just north of Chaulk Street. There are relatively few access problems along this portion of the corridor, due to the low-intensity residential uses along the roadway. Closer to the downtown area, churches and a few businesses result in increased traffic during certain times, but the number of access points is limited.

Traffic on US-45 will be required to stop at the intersection with M-38/M-64. The intersection will be marked with a stop sign, but will not be signalized. MDOT officials are studying this intersection for possible future signalization. As part of the bridge relocation project, they may move the caution signal from the five corners location to this intersection.
**M-64:** M-64 enters the Village from the west as a two-lane roadway with a speed limit of 45 mph. The current alignment crosses the Ontonagon River and terminates at the intersection of Ontonagon Street (M-64) and River Street (US-45). Following completion of the new bridge, portions of M-64 on both sides of the Ontonagon River from near the Escanaba and Lake Superior railroad tracks to the east side of the Ontonagon River will be removed, including the existing bridge. The new alignment of M-64 will curve to the east before crossing the railroad tracks, and will cross the river approximately one half mile upstream from the current bridge. The new M-64 alignment will terminate at the US-45 intersection near the present intersection with Silver Street, as shown on Map 1 (page 8).

**Traffic Counts**

The Michigan Department of Transportation maintains traffic counters at locations throughout the state in order to monitor trends in general and commercial traffic. In the Village of Ontonagon, Annual Average Daily Traffic (AADT) data is collected at four locations: on M-38 east of the US-45 intersection; on M-64 just west of the Ontonagon River bridge and again near the Village limits; and on US-45 near the Village limits. The AADT for these four locations is shown below in Table 2.

<table>
<thead>
<tr>
<th>Year</th>
<th>M-38</th>
<th>M-64 W. of Bridge</th>
<th>M-64 near Village Limits</th>
<th>US-45</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>5100</td>
<td>4400</td>
<td>3800</td>
<td>530</td>
</tr>
<tr>
<td>1997</td>
<td>5200</td>
<td>4300</td>
<td>3800</td>
<td>540</td>
</tr>
<tr>
<td>1998</td>
<td>5400</td>
<td>4500</td>
<td>4000</td>
<td>780</td>
</tr>
<tr>
<td>1999</td>
<td>4800</td>
<td>4100</td>
<td>2900</td>
<td>790</td>
</tr>
<tr>
<td>2000</td>
<td>4900</td>
<td>6000</td>
<td>4100</td>
<td>790</td>
</tr>
<tr>
<td>2001</td>
<td>5300</td>
<td>6000</td>
<td>3100</td>
<td>800</td>
</tr>
<tr>
<td>2002</td>
<td>5400</td>
<td>6000</td>
<td>3100</td>
<td>810</td>
</tr>
<tr>
<td>2003</td>
<td>4900</td>
<td>6100</td>
<td>2800</td>
<td>800</td>
</tr>
<tr>
<td>2004</td>
<td>4900</td>
<td>5600</td>
<td>2800</td>
<td>630</td>
</tr>
</tbody>
</table>

*Source: MDOT, www.michigan.gov/mdot*

The traffic counts indicate a relatively low level of traffic. For the sake of comparison, state trunk lines in the UP’s larger communities have an AADT of close to 30,000 in heavily traveled areas. As would be expected, traffic is greater near the more densely developed commercial center of the community, and drops off significantly near and beyond the Village limits. Further from the Village, AADT around Rockland, 20 miles south of Ontonagon, is around 600-800; the Silver City area, 15 miles west of Ontonagon, has AADT’s of 700-1300, and Mass City, 15 miles east of Ontonagon, has counts of 1,200 to 2,000.
Overall, the trend has been one of generally increasing traffic within the Village, although 2004 showed decreased traffic at all count locations except M-64 near the Village limits, which was unchanged from 2003. Traffic counts for 2005 and 2006, when they become available, will reflect the impact of construction of the new M-64 bridge. Construction projects often serve to divert traffic from an area or onto alternate routes.

The only location to see significant increases in traffic is US-45, where traffic increased sharply between 1997 and 1998. While this highway carries much less traffic than M-38 and M-64, the increase is noteworthy. In 2004, however, the AADT in this area returned to closer to the 1997 level.

**Land Use**

Transportation patterns in a community are determined by land use (both current and historical), as well as by physical features such as lakes, rivers, geology and terrain. The land uses in a community not only help determine where transportation corridors are located, but they also help to determine what kind and the level of traffic that occurs. For example, a community with a strong manufacturing base will typically generate more heavy truck traffic, and this traffic may remain fairly consistent throughout the year. An area with a strong tourism base, in the other hand, may generate traffic that consists of passenger vehicles and recreational vehicles, and this traffic may experience strong seasonal fluctuations. Retail areas, churches, schools, etc., also have an effect on local traffic patterns.

In the case of the Village of Ontonagon, the land use pattern is that of a small, rural community with a diverse employment base including manufacturing and with a fairly strong tourism component. The majority of the retail and other commercial uses are concentrated in the downtown area, with clusters of retail along the highway corridors on the outskirts of town. Traffic levels are relatively low, but terrain and the presence of Lake Superior and the Ontonagon River strongly influence the location of streets and highways.

From the west, along the existing M-64, the land use pattern consists of a retail/commercial cluster containing a gas station, car wash, etc. on the north side of M-64 near the village limits, and access to an industrial area to the south of M-64. Ontonagon County Transit is located in the industrial park, and snowmobile races are held in the park once a year, sponsored by a local snowmobile club. Smurfit-Stone Container Corporation, a paper mill that manufactures corrugated medium, is located north of M-64 at the mouth of the Ontonagon River. Employing about 300 people, the mill is a generator of both vehicular and pedestrian employee traffic as well as truck and rail traffic to transport raw materials and product to and from the plant. The White Pine power plant and Smurfit Stone Container Corporation both receive coal from the
dock located adjacent to EDC dock at the mouth of the Ontonagon River; the coal is transported from Ontonagon to White Pine via trucking. The Escanaba and Lake Superior Railroad also transports material to Smurfit Stone. There is also a community park south of M-64 along the river and an RV park and a marina located a short distance upriver.

West of the Ontonagon River, US-45 enters the village from the south and travels through a residential area for most of its length before intersecting with M-38. This residential area is very rural in character near the southern Village limits, with homes and driveways widely spaced. Closer to M-38 the density of development increases, with traffic generators such as churches, becoming more frequent. Commercial businesses occur on US-45 in the block leading up to the intersection with M-38.

![Photo 3: Typical residential area along US-45.](image)

River Street, which is currently also designated as US-45 until it intersects with M-64, will become a business spur of US-45. The primary uses along this section of state trunk line are retail and service businesses; these types of uses extend a block or so in both directions off of this roadway.

M-38 enters the village from the southeast. Near the Village limits, a grocery store and discount store, as well as the Ontonagon County Courthouse, generate commercial and service-related traffic. South of the highway, Giesau Drive provides access to the Renaissance Zone, an industrial area with approximately 50 acres of developable land. Residential uses dominate the remainder of the M-38 corridor until it nears the intersection with US-45, with the exception of the elementary and high school, which is located adjacent to M-38. Gas stations and retail uses east of the intersection with US-45 signal the beginning of the downtown area business district.
Since the study area encompasses 1,000 feet on either side of the centerline of all three state trunk lines, side streets and their accompanying land uses are included in this plan. Although most of the access management concerns identified in this process are located on or very close to the state trunk lines, several traffic generators are located within the 1,000-foot study corridor, or even beyond its limits. These traffic generators are identified in Section 3, and even if they are not located in the study area, have the potential to influence traffic patterns by adding significant amounts of traffic to state trunk lines or major streets. In general, however, the area that is not immediately adjacent to the state trunk lines is generally low-intensity residential development.

The new M-64 corridor is a desirable location for future development. Implementation of strengthened site plan review language including coordinated site plan review before such development takes place offers a unique opportunity to maintain a high degree of safety and capacity along the highway corridor.

**Zoning**

The existing zoning ordinance for the Village was adopted in 1975, and has been amended periodically since that time.

The ordinance defines zoning districts within the Village, along with language regulating the uses within these districts. From an access management perspective, the provisions of most interest are those which deal with lot size and width, setbacks, permitted uses, and site plan review.

The study corridor contains a mix of residential, business and industrial zoning. Currently, the land north of the current alignment of M-64 is zoned industrial (I-2) from the Village limits to the Ontonagon River, including the Smurfit-Stone paper mill and the various commercial uses along the highway. South of M-64 the land is zoned residential (R-1) from the Village limits to a point across from Superior Way. Along US-45, residential zoning predominates, including R-1 nearest the southern limits of the Village, then R-2 and R-3 closer to the downtown area. The downtown area along US-45 is zoned business (B-1). The current alignment of M-38 is surrounded by residential areas from the Village limits to the intersection with US-45. Map 2 (page 15), depicts the existing zoning districts in the Village.

The new alignment of M-64 and M-38 will travel through the I-2 industrial district on the west side of the Ontonagon River and through R-2 and R-3 residential districts on the east side of the river.
Map 2: Zoning Map
Existing Zoning Regulations

Minimum lot widths along the corridor range from 100 feet in the R-1 district to no required minimum in the B-1, I-1 and I-2 districts. The R-2 and R-3 districts require minimum lot widths of 75 feet and 50 feet, respectively. If fully “built out,” or if the corridor was fully developed at the minimum lot width under the current regulations, driveways could occur with very little spacing between them.

Setbacks from front lot lines affect clear vision areas and availability of snow storage, as well as the overall appearance of a neighborhood. The B-1, I-1 and I-2 districts have no minimum setback; a zero setback is common in central business districts, such as River Street, where buildings are often built up to the sidewalk. Front setbacks in the residential districts are 30 to 35 feet.

Permitted uses in the residential districts range from the single- and two-family residences which are the primary use permitted in the R-1 district to the more intensive development permitted in R-3, which include multiple-family dwellings of all sizes, and funeral homes. The B-1 general business district permits a variety of retail and service businesses as well as multiple-family dwellings, in what is primarily a typical central business district setting. The I-1 district allows the business uses permitted in the B-1 district, as well as some manufacturing uses. In the I-2 district, all these uses are permitted along with more intense industrial uses such as paper mills, asphalt plants, etc. Access management is primarily concerned with the potential for traffic generation associated with these uses.

The current zoning ordinance contains minimal requirements for site plan review. Site plan review is one of the most useful tools a community has at its disposal when enforcing zoning. A properly prepared site plan, when reviewed by local authorities and mutually agreed to by the developer and the local unit of government, provides a clear record of what is to be built and what is permitted. In the case of access management, a coordinated site plan review process allows all permitting agencies to review a site plan simultaneously, streamlining the process for the applicant and insuring a consistent response from all agencies.
3. **ISSUES AND OPPORTUNITIES**

Several locations within the study areas have been identified by local residents and community leaders as areas in which traffic problems exist. These areas are described below and discussed in greater detail in Section 4 of this report.

**Problem Areas**

1. **US-45/Greenland Road Intersection:** One primary problem area identified within the corridor is the intersection of US-45 and what is now M-38. The intersection is sometimes known as the “five corners” intersection, although through traffic on Steel Street was eliminated in 1996. This intersection has limited sight distance for motorists on US-45 looking east along Greenland Road, due to rising terrain, and a planter and signs at the Mobil station. Westbound traffic on Greenland Road is traveling down a hill when approaching this intersection, and the view of traffic on US-45 can be obscured. During the winter months, snow piled along the roadways can exacerbate these visibility issues. The planter with its profusion of signs and shrubs inhibits snow removal which is necessary to maintain sight distance. Traffic on US-45 must turn either left or right. A landscaped barrier prevents traffic from crossing the intersection so drivers wishing to access N. Steel Street or East River Street sometimes cut through the parking lot of the Holiday gas station. Tin Street, which intersects with River Street (US-45) just west of the US-45/Greenland Road intersection, is a one-way street with southbound traffic only, meaning that traffic accessing the streets on the north side of this intersection must travel at least two blocks in either direction to find a side street that leads to these streets.

Cutting down the snow banks poses the risk of significant damage to the landscaping materials. Access management issues include the high number of drives and proximity of
these gas station entrances to the intersection, lack of access to areas north of River Street, sight distance, and traffic using the Holiday gas station parking lot as a through street.

2. **River Street:** The primary downtown street, sometimes referred to as "Main Street," is River Street. Currently designated as US-45, this street will remain a state trunk line, but will be designated as a business spur of US-45. Access on this section of street is primarily limited to cross streets, most of which are one-way streets in the block between River and Michigan streets. Only a few curb cuts exist along River Street between the intersection of M-38 and US-45 and the intersection of US-45 and the current M-64 alignment, which results in relatively few conflict points compared to many downtown areas. However, there are a few drive-thru exits for financial institutions, a couple of parking lots entrances, and one vacant building with an overhead door opening directly onto River Street. This building was formerly used for automobile sales and repair; the presence of the overhead door and accompanying curb cut present the possibility of future traffic entering directly onto the main downtown street in an area where visibility is limited.

South of River Street, parking lots and alleys are interconnected to allow traffic to travel between businesses without entering and leaving River Street, which can help to reduce the number of possible conflicts along the main street. However, these interconnected parking lots and alleys are characterized by poor separation of parking areas from traffic, and travel through these areas requires numerous turns into and around parking areas.

3. **Entrance to Smurfit-Stone mill:** Concerns with this area include the occasional presence of steam in the area, which can limit visibility near the mill entrance; maintenance of the secondary mill entrance northeast of River Road for emergency access; and changes in employee access. The manufacturing process at the mill results in the production of steam. In cold weather the steam condenses and forms clouds over the mill. The prevailing northwesterly winds off Lake Superior tend to move this steam plume inland, sometimes affecting visibility near the plant entrance.

*Photo 5: The Smurfit-Stone mill along M-64 west of the Ontonagon River*
The main entrance for the plant is located southwest of the mill off of M-64, and will be unaffected by the realignment required for the new bridge. However, a secondary access exists off of M-64 near the intersection with River Road, and fire and emergency services personnel would like to see this entrance remain open in order to provide emergency access if needed. A related issue is increased response time for fire and emergency services as a result of the relocated bridge; an estimated 5-10 minutes could be added to the response time due to the increased travel distance from the fire hall on River Street.

4. New Bridge/Highway Corridor: Many employees of Smurfit-Stone currently walk to work, and to the downtown area after work to cash checks and purchase goods or services. The relocation of the bridge over the Ontonagon River will result in a much longer walk for employees who want to go from the plant to the downtown area. This may have the effect of causing more employees to drive to work; it may result in increased foot traffic on the new bridge and along US-45; and it may decrease pedestrian traffic to the downtown area. A potential conflict between snowmobile traffic and pedestrians on the bridge exists, with a particular concerns being the safety of pedestrians on the bridge when the snowmobile trail groomer goes through.

Concern also exists with regard to pedestrian crossings on M-64/M-38 from the bridge to the current alignment of M-38. Traffic on US-45, which currently flows unimpeded until the intersection with M-38, will now be required to stop at M-64. Given the four-lane configuration of M-64/M-38 at this point, plus the close proximity of Silver Street just north of M-38, pedestrians will have a significant distance to cross. There is also concern for school children who live in the residential neighborhoods south of the new highway corridor, who will have to cross the highway to get to school. Heard Street will be extended to M-38, and will serve to channel pedestrian traffic to this crossing point, but again pedestrians will be required to cross a 35 mph highway corridor.
Potential Future Traffic Generators

Several areas within the Village could be developed and are capable of generating additional traffic if development occurs. These areas are depicted on Map 3 (page 21).

Future improvements to roads and streets need to take into account this potential future development, and allow for continued traffic flow. Estimates of traffic produced by new development can be made using figures developed by the Institute of Transportation Engineers. These figures indicate the number of trips that can be expected to result from various types of development. A trip is defined as one trip to or from a certain point, such as a household or a business; in other words, a resident of a household leaving for work in the morning and returning in the evening would generate two trips. Trip generation estimates for single-family residential use indicate that an average household generates 10 trips per day; commercial and industrial trip generation varies as a function of the number of employees and the type of good or service produced or sold.

Renaissance Zone: Approximately 50 acres of developable industrial land is in the Village-owned Renaissance Zone along Giesau Drive off of M-38. This area is zoned for industrial use, and the Renaissance Zone designation allows for significant tax breaks for companies locating in the zone. The Village has constructed a speculative building in the Renaissance Zone, in hopes of attracting an employer to locate in the zone. If development of this area occurs, truck and employee traffic will be generated, and will seek to access M-38 via Giesau Drive. A second access point could be developed in the future by constructing a new roadway west to US-45.

Residential areas along River Road: Some residential development exists along River Road as it runs along the Ontonagon River south of M-64. Recent trends in residential development in the Upper Peninsula show that people have a strong desire to live along or within view of water. There are undeveloped areas along River Road that could potentially be developed for residential use, creating additional traffic on River Road that would access the study corridor. The density of development is dependent on local zoning regulations, the availability of municipal services such as sewer and water, and the desires of the developer. Due to the potential of increased trips at the River Road/M-64 intersection special attention should be paid to proposed driveway development in this area.
Map 3: Potential Future Traffic Generators
**Former Lakeshore Plant:** The vacant Lakeshore industrial site located at the end of River Street along Lake Superior offers several possibilities for future traffic generation. If the site is reused for industrial purposes, heavy truck traffic as well as employee traffic could result. The site is also served by rail and the Port of Ontonagon, which could alleviate reliance on truck traffic. The railroad spur to the Lakeshore plant crosses the current alignment of M-64 at the intersection with River Street (US-45), but this crossing has been paved over and is currently unusable. The current project, which in addition to the relocation of the M-64 bridge includes improvements to the streets which will make up the truck loop at the end of Business US-45, includes restoring this railroad crossing so that rail access to the site is possible.

One of the benefits of the realignment of M-64 that was identified during the development of this plan was the removal of truck traffic from the downtown area; industrial development of the Lakeshore site could mean continued truck traffic in the downtown. The Smurfit-Stone mill and the Lakeshore site occupy much of the Lake Superior shoreline within the Village, and development of the site as a recreational area would provide lakeshore access in the downtown area which presently does not exist. In fact, Lake Superior is barely visible from the state trunk lines in the Village. Development as a recreational area could generate tourist traffic in the area, as well as local traffic. Finally, residential development could provide the opportunity to develop homes with Lake Superior frontage, probably leading to upscale residential development. However, any development of this site is contingent upon the need for remediation of any contamination which may exist, as well as locating a buyer with sufficient financial means to purchase and develop this large parcel of property.

**Possible Future Residential Area:** A large undeveloped area lies within the Village limits south of Payne Street and between M-38 and U.S. 45. The Village is considering extending municipal utilities to this area, in order to encourage future residential development. If developed, this area would require streets that would provide access to M-38 and/or US-45. This area is adjacent to the Renaissance Zone, and a new street linking the Renaissance Zone to US-45 has been discussed. This new roadway would also provide a link for future residential use.

**Township Park Expansion:** Ontonagon Township maintains a recreational area in the Village. This park includes a campground, playground, picnic area, and a large expanse of sandy Lake Superior beach. The Township is planning to expand the number of campsites to a total of over 100 sites, and construct a modern toilet and shower facility. The playground will also be expanded. A pavilion with a view of Lake Superior is planned in the future. Access to the park is via Houghton Street and Lakeshore. The park currently attracts both local and tourist traffic, and the expansion will increase use and traffic in the study corridor, particularly at the intersection of Houghton and US-45 (River Street).
Crash Summary

Crash data from 1994 through 2003 was studied to identify any evidence of the following issues:

- crash concentrations around tight curves;
- crashes due to sight obstructions;
- crashes at heavily used intersections (congestion/delay with > 750 trips/day);
- pedestrian crashes and other mid-block, low driver expectation locations;
- parking and backing crashes;
- traffic flow issues due to the lack of street system interconnectedness.

Nationally, crash studies have noted a direct linear relationship with an increased number of crashes as the number of driveways increase for a given segment of highway.

Close driveway spacing also dramatically increases conflict points and thus, crashes. One clear directive for increasing highway safety is to decrease conflict (access) points by:

- combining drives;
- moving drives as far as possible from other intersections;
- improving driveway design factors such as throat width and entering and exiting radii;
- and providing traffic control islands and curb and gutter delineation which help to clearly define traffic flow.

Lighting high-use intersections and providing supplemental right-turn and left-turn lanes and passing flares in addition to curbed delineation is of particular benefit in reducing rear-end crashes.

Through study of the crashes along the M-64/M-38/US-45 highway corridor within the village limits the following specific locations of interest have been identified and crash concentration results from 1994-2003 have been summarized in Table 3 (pages 24-25).
### Table 3: Crash Analysis and Recommendations

<table>
<thead>
<tr>
<th>Location</th>
<th>No. of Crashes (1994-2004)</th>
<th>Potential Problem/ Possible Solution</th>
<th>Current Project</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NEW M-64 CORRIDOR</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• West of Superior Way</td>
<td>18</td>
<td>Animal Crashes</td>
<td></td>
</tr>
<tr>
<td>• US-45 Intersection.</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• US-45/ M-38/ M-64 intersection</td>
<td>0</td>
<td>Ped x-ing non-stop M-64</td>
<td>Investigate MDOT Safe Routes to School Initiative</td>
</tr>
<tr>
<td>• Pedestrian /Snowmobile Path Crossing(s)</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• River Road Intersection for residential, marina /tourism, car-pool lot traffic.</td>
<td>6</td>
<td></td>
<td>(within boundaries of curr. bridge reloc. project)</td>
</tr>
<tr>
<td>• Steam visibility problems with Mill Entrance</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>M-38 ISSUES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• East end driveways w/ poor delineation and spacing.</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Hwy M-38 segment located east of Giesau Drive</td>
<td>19</td>
<td>Animal Crashes</td>
<td></td>
</tr>
<tr>
<td>• Cherry Lane intersection</td>
<td>5</td>
<td>Animal Crashes</td>
<td></td>
</tr>
<tr>
<td>• Stormwater drainage at 7th and M-38 is concern (stormwater referred to as “river” running down 7th during storms)</td>
<td>7</td>
<td>Animal crashes; also visibility issues at intersection</td>
<td>(outside boundaries of current project) MDOT studying possible solutions.</td>
</tr>
<tr>
<td>• 7th St intersection near the hospital on M-38.</td>
<td>7</td>
<td>Possible visibility issues at intersection</td>
<td></td>
</tr>
<tr>
<td>• Greenland Intersection. Sight Distance concerns at the 5 Corners location due to Gas Station landscaping.</td>
<td>7</td>
<td>Slight distance concerns; visibility issues at intersection</td>
<td>Could pursue future Safety Improvement/ Enhancement Funds. MDOT pursuing removal of planter.</td>
</tr>
<tr>
<td>• Mercury/ Greenland Intersection. Location of Crossing Guards on M-38</td>
<td>3</td>
<td></td>
<td>Investigate MDOT Safe Routes to School Initiative</td>
</tr>
<tr>
<td>• Vicinity of New Bridge, Silver Street and Heard St.</td>
<td>0</td>
<td>Ped x-ing non-stop M-64</td>
<td>Investigate MDOT Safe Routes to School Initiative</td>
</tr>
<tr>
<td>• Existing driveways on M-38 near Mercury Street</td>
<td>0</td>
<td>Combine Driveways. (2 close together, 3rd a short distance away; Result is 3 long drives.)</td>
<td>(within boundaries of current bridge relocation project)</td>
</tr>
<tr>
<td>• Affect on corridor (potential crashes) from future traffic generators:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>− Renaissance Zone (50 acres)</td>
<td>0</td>
<td></td>
<td>Coordinated Site Plan Review Committee</td>
</tr>
<tr>
<td>− Future residential development in area between M-38 and US-45 south of Payne Street</td>
<td>0</td>
<td></td>
<td>Coordinated Site Plan Review Committee</td>
</tr>
<tr>
<td>− Developable land along Ontonagon River. River Rd.</td>
<td>0</td>
<td></td>
<td>Coordinated Site Plan Review Committee</td>
</tr>
<tr>
<td>• Houghton Street intersection. Increased RV turning conflicts due to expansion of Township Park (north of town) on Lakeshore Drive</td>
<td>13</td>
<td>Intersection sight distance concerns &amp; RV turning on Houghton St.</td>
<td>(within boundaries but outside scope of current project)</td>
</tr>
<tr>
<td>Location</td>
<td>No. of Crashes</td>
<td>Potential Problem/ Possible Solution</td>
<td>Current Project</td>
</tr>
<tr>
<td>----------</td>
<td>---------------</td>
<td>--------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td><strong>US-45 ISSUES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Greenland Road (old 5 Corners Intersection)</td>
<td></td>
<td>Planter at gas station at intersection blocks view</td>
<td></td>
</tr>
<tr>
<td>• Downtown Snow Removal/ Storage</td>
<td></td>
<td>Sight distance concerns; visibility issues at numerous intersections</td>
<td></td>
</tr>
<tr>
<td>• Downtown Parking /Backling Crashes: Intersection Sight Distance due to parking spaces/ Driveway Access Issues (Gas Stations, Banks, Other Drive-Thrus)</td>
<td>25</td>
<td>Increase size of parking spaces &amp; poss. eliminate spaces at some intersections.</td>
<td>Potential future safety project. (within boundaries of current bridge project)</td>
</tr>
<tr>
<td>• Downtown Houghton St Intersection Radii</td>
<td></td>
<td>Increase Radii for trucks</td>
<td>Potential future safety project. (within boundaries of current bridge relocation project)</td>
</tr>
<tr>
<td>• Parking Lot entrances. Issues with interconnectedness and flow of parking lots/alleys.</td>
<td></td>
<td>Enter from River St. and exit thru alleys</td>
<td>Site Plan Review Committee</td>
</tr>
<tr>
<td>• Loop at north end of River St. will result in trucks turning in residential areas.</td>
<td></td>
<td>Logging trucks from Houghton St. chew up curb turning on to River St. Need access control for Inn Town Motel on Chippewa @ Michigan intersection. Need all future drives in the loop area to be accessed from the alleys.</td>
<td>Site Plan Review Committee</td>
</tr>
<tr>
<td>• On-street parking impedes the view of traffic turning on to River St (motorcycles).</td>
<td></td>
<td>Move lamp posts, garbage bins, plantings, etc</td>
<td>Site Plan Review Committee</td>
</tr>
<tr>
<td>• Parking spots at the following intersections:</td>
<td></td>
<td>Review intersection sight distance.</td>
<td>Site Plan Review Committee</td>
</tr>
<tr>
<td>− Houghton St.</td>
<td>13</td>
<td></td>
<td>Site Plan Review Committee</td>
</tr>
<tr>
<td>− Chippewa St.</td>
<td>11</td>
<td></td>
<td>Site Plan Review Committee</td>
</tr>
<tr>
<td>− Ontonagon St.</td>
<td>5</td>
<td></td>
<td>Site Plan Review Committee</td>
</tr>
<tr>
<td>− Lake St.</td>
<td>4</td>
<td></td>
<td>Site Plan Review Committee</td>
</tr>
<tr>
<td>• Speed &amp; hill on westbound Michigan St. @ Houghton St. intersection.</td>
<td>19 *</td>
<td></td>
<td>Potential future safety project.</td>
</tr>
</tbody>
</table>

Source: MDOT

* Crash types include 8 angle straight; 2 rear end straight; 1 fixed object; 1 sideswipe opposite; and 7 misc. multi-vehicle.
4. **RECOMMENDED PHYSICAL IMPROVEMENTS**

*Corridor Issues and Recommended Physical Improvements*

Map 4 (page 27) depicts the following areas of potential corridor improvements.

**Highway M-64 Issues**

The following issues are noted along the new highway M-64 corridor which begins west of the Village and crosses the Ontonagon River upstream of the original bridge in the vicinity of Mercury Street.

(Map 4, Item #1) - The vast majority of existing crashes occurring west of Superior Way, which is the main entrance to the mill, are animal crashes. The Superior Way intersection is a heavy use location, but has not experienced significant crash concentrations. This may be evidence of the fact that it is well delineated with curb and gutter and is located a significant distance away from other intersections with good geometrics and clear lines of intersection sight distance. As traffic volumes increase over time, it may be necessary to supplement this intersection with improved lighting and additional right turn and left turn lanes and passing flares which are of particular benefit in reducing rear-end crashes. If delays and corresponding near misses and angle crashes increase, it may be time to conduct a signal study or even consider alternative measures to increase capacity through the intersection.

Any hotels or other large commercial enterprises which may develop in this vicinity, especially as tourism flourishes, should have access points which employ shared-use drives or driveways located off of a separately constructed frontage road. These concepts are illustrated in MDOT’s Access Management Guidebook (Guidebook) and reprinted on pages 28-30 for easy reference.

(Map Item #2) - The new River Road intersection is a potential future high-use location for residential, marina/tourism and car-pool lot traffic. This is a perfect spot to practice access management strategies to protect the safety and capacity of the newly relocated highway by locating additional driveway access points a minimum of 115’ away from this intersection. As mentioned previously, there is a significant problem with visibility due to steam discharge from the mill which impacts traffic at the mill entrance and (other nearby driveways), but the relocated River Road intersection should help to dramatically improve this condition. Driveway spacing is a function of design speed and this concept is illustrated on pages 29 and 30, taken from the Guidebook and reprinted for easy reference.
Figure 3-9


Figure 3-8 Residential Lot Design

Figure 3-16

**SIGNALIZED INTERSECTION CONTROL**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>(FT)</th>
<th>(m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>230</td>
<td>70</td>
</tr>
<tr>
<td>B</td>
<td>115</td>
<td>35</td>
</tr>
<tr>
<td>C</td>
<td>75</td>
<td>22</td>
</tr>
</tbody>
</table>

THE ABOVE DIMENSIONS ASSUME A 30 TO 35 MPH POSTED SPEED. FOR A POSTED SPEED OF 40 TO 55 MPH, THESE VALUES SHOULD BE DOUBLED.

COORDINATE WITH THE LOCAL GOVERNMENT AGENCY REGARDING THE LOCAL STREET CLEARANCES.

**STOP SIGN INTERSECTION CONTROL**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>(FT)</th>
<th>(m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>115</td>
<td>35</td>
</tr>
<tr>
<td>E</td>
<td>85</td>
<td>25</td>
</tr>
<tr>
<td>F</td>
<td>75</td>
<td>22</td>
</tr>
</tbody>
</table>

Note: If there is a potential for a traffic signal, or if traffic volumes are 30% of warranting volume for 4 out of 8 hours, then use the corner clearance dimensions above for a signalized intersection instead of these for a stop sign.

THE ABOVE DIMENSIONS ASSUME A 30 TO 35 MPH POSTED SPEED. FOR A POSTED SPEED OF 40 TO 55 MPH, THESE VALUES SHOULD BE DOUBLED.

COORDINATE WITH THE LOCAL GOVERNMENT AGENCY REGARDING THE LOCAL STREET CLEARANCES.

Note: See also Part 3: Driveway Design Standards, Rule 31 (3) MDOT Administrative Rules under Act number 200 of the Public Acts of 1969

Source: MDOT, Traffic & Safety Division Note, 7.9 D
The existing speed limit on the M-64/US-45/M-38 corridor is 45 mph at the edge of town, and decreases to 35 mph and eventually 25 mph in the downtown. Since this corridor will no longer pass through the downtown area, the lowest posted speed limit on the realigned corridor will be 35 mph. This initial speed limit will continue to be closely studied by MDOT during the first year of operation and some changes may be made. Residents have expressed concern that 35 mph may be too fast for pedestrian crossings and traffic that may be trying to turn on to the corridor.

There is no evidence of pedestrian/snowmobile crashes or specific concerns about pedestrian/snowmobile path crossing(s) existing within the Village at the present time. However, residents are concerned about potential conflicts which could occur between snowmobiles and pedestrians on the new multi-use pathway on the new bridge. The concern was expressed that the width of a snowmobile trail groomer on the pathway would cause significant conflict with any other users. Contact was made with another community where snowmobile groomers operate on multi-use pathways, and it was pointed out that snowmobile trail groomers operate infrequently and at relatively slow speeds, and are easily heard and seen when approaching. Most accidents involving groomers involve snowmobiles that fail to stop in time to avoid a collision. It should be noted that the existing bridge does not have a separate pedestrian facility and the new bridge will include a 12’ wide multi-use pathway separated from the vehicular traffic by a barrier wall.
(Map Item #3) - The new bridge location and proposed non-stop east/west traffic raises concerns with pedestrian crossings at the intersections with US-45 and the newly extended Heard Streets. No significant crash concentrations or operational concerns exist at either the Heard Street or US-45 intersections. However, local residents are especially concerned about children walking to/from school. Which intersection will children, who are located south of the new highway M-64/M-38 corridor, cross in order to get to school? Concerns have been voiced about where and how they will cross the corridor; the way in which pedestrian crossings will be signed and/or marked with flashing lights; and the potential use of crossing guards to require traffic to stop during specific times of the school day. Residents have asked MDOT to consider a blinker light (red on US-45, yellow on M-64/M-38) in lieu of just using stop signs on US-45. Other possible solutions could be evaluated through MDOT’s new Safe Routes To School initiative. This program can fund infrastructure in addition to education and outreach to implement strategies to address this complex issue.

Under the Safe Routes To School program, a grassroots committee in the community will, with assistance from MDOT and the Governor’s Council on Physical Fitness, develop a plan identifying pedestrian routes within a two-mile radius of K-8 schools. This plan will also discuss barriers which inhibit pedestrian traffic, including physical barriers such as lack of sidewalks or busy street crossings, as well as perceived hazards like blighted or poorly lit areas. Funding may then be available to conduct educational activities and implement infrastructure improvements such as signage, lighting, sidewalk improvements, etc.

(Map Item #4) - Another heavily used pedestrian location of concern is the Mercury Street / Greenland Rd intersection. No significant crashes or pedestrian crossing concerns exist at this time; however, this is an area that merits close monitoring in the future. Additional crossing guards may be required similar to those on existing M-38 (Greenland) which operate, in addition to a 25 mph speed limit (when flashing), near the school.
The highway relocation project near the new alignment with Mercury Street will involve extension of several existing driveways along M-38. One of the property owners expressed interest in driveway consolidation with neighboring property owners. Perhaps some access management concepts can be immediately implemented as a construction change order on the existing reconstruction project for three of these driveways which are located extremely close together. Combining these driveways rather than having three long driveways would reduce the number of access (and potential conflict) points on M-38 as illustrated in the sketch below:
Highway M-38 Issues

(Map Item #5) - Storm water drainage at the intersection of 7th and M-38 is a concern which has been voiced by a number of residents. Storm water, which is a particular concern due to decreased tire traction over standing water, was referred to at a public meeting as a “river” running across 7th Street near the intersection with M-38 during a number of recent storms. While unfortunately this location is outside the boundaries of the M-64 bridge relocation project, MDOT is looking at ways to improve drainage at this location. There are also reported sight distance issues at this intersection in the northwest quadrant, which is near the entrance to the hospital. Field observations indicate that sight distance is indeed sufficient, although a slight hill on M-38 does limit the distance from which traffic is visible from the east. Clearing and other clear vision corner improvements should continue to be studied and implemented as project funds become identified.

(Map Item #6) - At the east Village limits there are several heavy use driveways with poor delineation and spacing. At the entrance to the Family Dollar and IGA stores at the eastern edge of the Village, two driveways about 170 feet apart access the shared parking lot for these two businesses. Only a short distance beyond the western ingress/egress point for these businesses is a driveway accessing the Ontonagon County Courthouse, which also has a second driveway less than 500 feet to the west.
Access management improvements could be pursued in the future for this group of driveways. Providing curb and gutter to delineate the main entrance will be beneficial because it helps motorists complete their turning movements more efficiently, and facilitates faster exits from traffic in the high speed highway corridor. The use of a right-turn lane, and passing flares is also recommended since they also help define ingress/egress points, and provide refuge for drivers who are decelerating to complete a right turn and waiting for a gap in order to complete a left turn. Elimination of drives and/or shared use drives and/or a frontage road concept should be pursued in the proximity of the driveways for the IGA/Family Dollar and courthouse.

The situation does not appear to be critical at this time, since no evidence of significant crash concentrations exists at these driveways. The paved shoulder tends to operate as a right turn lane even though it is not marked as such. However, national crash studies suggest it might be a good idea to consider improvements in a proactive way to eliminate the potential of future conflicts, especially if development occurs in this vicinity. Improving design of the drives or perhaps combining several of them into a common access point could be pursued as a requirement of the next highway improvement project through this location.

Photo 12: The first driveway visible is the northernmost entrance to the IGA and Family Dollar stores. A short distance beyond (less than 100 feet) is the first of two driveways serving the Ontonagon County Courthouse.
Driveway design improvement concepts are illustrated in the following excerpts taken from the Guidebook and reprinted here for easy reference.

**Figure 3-25**

The faster the turning vehicle can get off the road, the less conflict with through-movement vehicles

**Source:** FDOT, *Basic Site Planning*, 1997.

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**Figure 3-21**

CHANNELIZATION ISLAND OPTIONS FOR CONTROLLINGTurns

a. TO PREVENT LEFT-TURN INGRESS MOVEMENTS  
b. TO ALLOW RIGHT-TURN IN ONLY

c. TO ALLOW RIGHT TURN IN ONLY

Note: The dimension of $X'$ is variable depending on site conditions, speed, number of vehicles and the design needs of the vehicles to use it.

Source: adapted from Delta Township Zoning Ordinance. See also MDOT Geometric Design Guide VII-680 and VII-650 series in Appendix D.
Frontage Road concepts are illustrated in the following excerpts taken from the Guidebook and reprinted here for easy reference.

The key frontage road design component is the separation distance of the frontage road from the main highway corridor. Existing setback distances in this vicinity appear to be adequate to accommodate this design. It remains crucial to maximize this separation distance as much as possible to decrease conflicts and congestion.

Another critical issue involves pedestrian crossings of heavily used commercial drives (as illustrated in the above drawings). This is not a present concern but should be taken into account as development occurs on this edge of the Village.
(Map Item #7) - Additional sight distance and clear vision corner strategies should be studied at the US-45/Greenland Road intersection. Concerns have been expressed by numerous residents at this location due to recent landscaping improvements at the gas station. The landscaping is attractive in the summer months, but the height of several of the bushes and the location of the planter itself obstructs vision. Snow removal operations are limited by the location of the retaining wall and the signs and utility poles that exist within it. The Michigan Department of Transportation has requested that the planter be removed, as it was apparently placed in the MDOT right-of-way without a permit, and it interferes with the clear vision triangle at this intersection. Sight distance issues as a result of signs, terrain, and the proximity of structures to the roadway will continue to exist, however. Continued monitoring of this intersection will be necessary to minimize future problems.

Photo 13: Five corners intersection from what will become Greenland Road (now M-38). US-45 enters from the left beyond the Mobil Station. Snow storage and the slight hill on Greenland Road combine to affect clear vision at this intersection.
Clear Vision dimensions are illustrated in the following excerpt taken from the Guidebook.

![Figure 3-17: Sight Distance](image)


### Table 3-3: Stopping Sight Distance

<table>
<thead>
<tr>
<th>Design Speed of Highway (MPH)</th>
<th>Stopping Sight Distance (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>115</td>
</tr>
<tr>
<td>25</td>
<td>155</td>
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<tr>
<td>65</td>
<td>645</td>
</tr>
<tr>
<td>70</td>
<td>730</td>
</tr>
</tbody>
</table>

Height of Eye 3.5 Feet – Height of Object 2 Feet

(Map Item #8)
Renaissance Zone (50 acres) located off of Giesau Drive.
This site presently houses a Home Health Care office with another 10,000 square –foot speculative building and several lots available for development. The Giesau Drive intersection is an area to monitor closely, as development grows in this location with highway proximity in all directions; Escanaba & Lake Superior Railroad access within one mile; county airport access within three miles and Sawyer International Airport within 125 miles.

The previously detailed Access Management improvements should also be pursued in the future for this development. Providing curb and gutter to delineate the main entrance, the use of right turn lanes, and passing flares, and most importantly shared use drives and / or a frontage road in order to decrease conflict points and handle turning movements more efficiently and facilitate safer ingress / egress from highway corridor traffic.

(Map Item #9)
Future residential development in an area between M-38 and US-45 south of Payne Street;
If the Village extends its infrastructure, this approximately 70-acre site could develop and dramatically increase traffic at the intersections of Payne Street at both highway(s) M-38 and US-45. Continued surveillance should take place to identify pedestrian crashes due to the proximity of the school. If this develops as a key residential area, one critical issue will involve pedestrian crossings of both the M-38 highway corridor as well as Payne Street. Maintaining clear vision corners should be taken into account in the development of landscaping. Bushes can be beneficial to channel pedestrians to cross at a singular location, however setback distances are critical to maintain vision corners. Keeping sign clutter and other visual distractions to an absolute minimum is also a key pedestrian safety issue.

Another extremely important concept to keep in mind for this development is to develop good street system interconnectedness and flow through the development to better spread the traffic ingress and egress and avoid overloading conflict points at any one spot.

Traditionally, residential areas have been developed on a rectangular grid pattern which inhibits flow within the subdivision. Modern developments have realized the benefits of curved access roadways which encourage slower speeds and facilitate flow to the arterials.
The concept of interconnectedness is illustrated in the following excerpt taken from the Guidebook and reprinted on the following page for easy reference.

**Figure 2-4 Interconnected Streets**

STREETS ARE NOT INTERCONNECTED

- Increases congestion along perimeter roads
- Kids traveling from home A to B have to be driven
- Creates more conflicts and crash potential.

STREETS ARE INTERCONNECTED

- Residents have choices to access arterials
- Kids can walk from home A to B
- Kids can walk or bike to school more safely
- Easy access to neighborhood stores
- More efficient for snow plowing
- Easier access for emergency vehicles
- Larger sense of neighborhood.

Graphic prepared by John Warbach, Planning and Zoning Center, Inc.
(Map Item #10) Redevelopment of the currently vacant Lakeshore, Inc. Property;
The north end of River Street (Downtown) business loop is an area to monitor closely as the existing facility is redeveloped. The Village would especially welcome a mixed residential commercial development of this site, which is located at the north edge of the Village on the shore of Lake Superior. If it is redeveloped as an industrial site, it would increase truck traffic which is not as attractive to the local businesses, and would negate one of the benefits of the M-64 bridge relocation. Environmental concerns due to its original use as an old industrial site are probably a factor in delaying the sale of this $1.7 million property. However, the site is in a prime location with all utilities in place, and it is just a matter of time before redevelopment occurs.

Vacant developable land along the Ontonagon River on River Road;
This area with its scenic views of the Ontonagon River located immediately upstream of the new bridge and in close proximity to the Marina is ripe for development of upscale residential homes. The River Road intersection is an area to monitor closely as development grows in this location. See also previous discussion of the new River Road intersection (Map Item #2).

Expansion of the Township Park (north of town on the Lake Superior shoreline);
The Houghton Street intersection with River Street (Downtown) is an area to monitor closely, as the township park continues its expansion to well over 100 campsites with improved toilet and shower facilities. The park is located along a pristine section of the Lake Superior shoreline and is a nationally recognized location. It is primarily accessed off of Houghton Street which then flows to Lakeshore Drive (northeast of the Village). This route also carries logging truck traffic from forestlands located north east of the Village.

Highway US-45 –Business Spur Issues

(Map Item #11) - Downtown snow removal/ storage are a concern for intersection sight distance. Another significant source of crashes in the downtown (along River Street) was related to parking /backing maneuvers. Possible measures to address parking and backing issues include eliminating parking spaces adjacent to intersections, or increasing the length of spaces. Intersections on River Street include curbs which are “bumped out” to keep cars from parking next to intersections, and parking spaces are of adequate length.

Concerns have been expressed regarding the parking system on Copper Street. This is a main route between the nearby fire hall on River Street and residential areas in the northeast part of the village. This street currently provides angled parking on both sides. If large vehicles use these spots it often leaves little space for emergency vehicles to get through, due to the narrowness of the street. This is mainly a seasonal issue and seems to be worsening as the
size of trucks increases and space-consuming accessories like hitches and plows become more popular. One possible solution would be to study the number of spaces required for the businesses located in this area of Copper Street and if a few spots can be eliminated, change the east side to parallel parking.

Photo 15: The Village fire hall located on River Street at the Copper Street intersection.

Photo 16: Looking north along Copper Street from the fire hall. Changing from angle parking to parallel parking on the east side of Copper Street would provide additional room for emergency vehicles.
Another significant reduction in conflict points and related crashes along the corridor could be achieved by improving interconnectedness and vehicular flow into the parking lots and out of them into adjacent alleys. On the south side of River Street, parking lots and alleys are interconnected and provide through traffic from Houghton Street to US-45. However, there is poor delineation between parking areas and through traffic, and traveling from Houghton Street to US-45 requires winding in and out of several different parking lots and alleys. Pavement markings, curbing, and possibly relocation of some parking areas could improve traffic flow and encourage local traffic to use this area rather than River Street. North of River Street, there is little interconnectedness between parking lots. Limited intersection sight distance due to parking spaces located too close to driveways for gas stations, banks, and other drive-thrus should be constantly surveyed and parking spaces eliminated when necessary.

In particular several downtown locations need to be reviewed for providing adequate truck turning radii and parking spaces removed which are located too close to the intersections. “Bump outs” adjacent to intersections along River Street help to prevent vehicles from parking too close to intersections, but clear vision issues still exist at times due to the size of parked vehicles, snow storage, etc.

At the Houghton Street intersection, special concern should be given to conflicts between campground RV traffic and large delivery trucks. Also, logging trucks come into town on Houghton Street and damage the curb while turning on to River Street.

The proposed truck loop at the north end of River Street will result in an increase of delivery trucks turning in residential areas. Access control is needed for the Inn Town Motel at the Chippewa Street/ Michigan Street intersection, where there is poor separation of the parking lots and streets. It will also be necessary to limit access for all future drives in this truck loop area. Access should be from the alleys. Access off of Michigan Street should be prohibited to maintain safety and capacity of the Business Loop.

*Photo 17: Typical curb damage to a “bump out” along River Street*
Lamp posts, garbage bins, plantings, etc. should be moved outside of clear vision corners at all intersections in the downtown area if necessary, since these objects can obscure views of/from pedestrians and motorcycles. This was mentioned by the public as a possible issue, but field observations indicate minimal interference with sight distance.

Photo 18: Parking for the Inn Town Motel is provided on Chippewa Street by the lobby entrance (shown), along Michigan Street, and in a parking lot off Chippewa Street. Parking along Michigan Street is not separated from the street, and cars back directly onto the street.

Photo 19: Decorative lighting along River Street (US-45).
One particular location with a high crash concentration on Michigan Street is the Houghton Street intersection. Traffic speeds may be a factor in addition to the existing hill on Michigan Street which impacts sight distance especially for westbound traffic. This spot should continue to be monitored with respect to these issues and improvements made as future safety project funds become available. Snow storage should continue to be monitored to maximize intersection sight distance.

*Photo 20: Hill on Michigan Street near intersection with Houghton Street.*
5. RECOMMENDED REGULATORY CHANGES

Local land use regulations offer the opportunity to implement access management techniques for both new and existing development. The primary tool available for land use regulation at the local level is the zoning ordinance. While existing development, with accompanying access management problems, is “grandfathered” in, or allowed to continue if legally established, new development as well as any changes on the type or intensity of development offers a wonderful opportunity to allow the local unit to implement access management provisions contained in the ordinance.

Zoning

Ontonagon’s existing zoning ordinance was adopted in 1975 and has been amended periodically since then. As with many older zoning ordinances, however, the local ordinance contains several provisions that either encourage development in a manner inconsistent with good access management, or which do not adequately address access-related issues. Zoning provisions which affect access management include lot size, lot width, setbacks, sign regulations, and site plan review.

Lot Size and Width

Since the traditional approach to access regulation has been to allow at least one driveway per parcel, zoning districts which allow small lots and/or narrow lot widths tend over time to result in a proliferation of driveways. This is particularly true in older residential areas where lots may have been platted with widths of 50 or 65 feet in some communities. When this development abuts local streets with low speed limits and relatively light traffic, access problems are minimal, particularly when access is gained through alleys. However, when development along state trunk lines and arterial streets occurs with these narrow lot widths, the potential exists for numerous conflict points. The situation is further exacerbated when the lot contains insufficient space for residents to turn their vehicles around before entering the street, resulting in vehicles backing onto the street into approaching traffic.

Within the Village of Ontonagon, the residential districts that abut the study corridor span a wide variety of minimum lot widths requirements ranging from 50 to 100 feet. The R-1 district, which encompasses the areas along M-38 from Mercury Street to the Village limits, along the southern third of US-45, and along a portion of the south side of M-64, (see Map 3) requires a minimum lot width of 100 feet; if all areas in this district were developed at this minimum width with one driveway per lot, driveways could occur every 125 feet on each side of these highways. MDOT recommends 350 feet of spacing for 45 mph which is the current speed limit along these stretches of roadway. The potential problem of inadequate driveway spacing becomes evident. Of course, in reality not all lots will be developed in the immediate foreseeable future, nor will
they all be developed at the minimum size; however, the regulations do allow for driveway spacing that creates potential access management issues.

In the R-2 district, the minimum lot width is 75 feet. This district encompasses M-38 from Mercury to Parker streets and US-45 from two blocks south of Chalk Street on the west and from Slate Street on the east north to Mercury Street. While the speed limit along these stretches of highway is lower (35 mph), MDOT recommends 245 feet of spacing for this design speed, which is still much greater than the potential driveway spacing. In the R-3 district, along US-45 from Mercury Street to M-38 and along M-38 from Parker Street to US-45, the minimum lot width is 50 feet, with the roadway still under a 35 mph speed limit.

Since much of this area has already been platted many years ago into small lots, simply increasing the minimum lot width required by the zoning ordinance will not address the potential access management issues in platted areas. In unplatted areas, an increase in the minimum lot width would help to alleviate the problem, but would reduce the number of lots that could be developed. Since it is more efficient to provide utilities and services in more densely developed areas, and since development of more lots translates to increased tax base for local units, an increase in minimum lot width by itself is not the ideal answer. Instead, provisions which encourage shared driveways, frontage roads, and subdivisions with internal road networks and a minimal number of accesses onto trunk lines can control access while still allowing a density of development that is cost effective for both developer and service providers. This allows more closely spaced driveways on local roads, where speeds are low and traffic is relatively light, and channels access onto state trunk lines and major streets to a limited number of access points. Existing lots and newly-platted small lots can still be developed under this scenario, without creating an excessive number of conflict points on the corridor. The open space provisions required by recent changes to the City-Village Zoning Act (since replaced by the Michigan Zoning Enabling Act, PA 100 of 2006) can also address access management concerns through clustered development in newly-platted areas.

The business and industrial districts in Ontonagon do not contain minimum lot widths or lot sizes. While not uncommon in downtown business districts where businesses often build to the sidewalk and share sidewalls, this is inappropriate for most areas. In industrial areas, lot widths and setbacks which allow for adequate fall zones for smokestacks and similar structures, and provide for buildings to be set back from lot lines proportionally to the building height address a variety of health, safety and welfare issues in addition to access management. Since business and industrial development typically produce higher volumes of traffic than residential development, along with increased traffic by commercial vehicles, driveway spacing, sight distances, and sharing of access points become more critical in these areas than in residential areas where traffic generation is less. Access management provisions in these districts should require a minimum number of access points with adequate sight distance and turning radii for
truck traffic, along with turn lanes and flares, shared parking lots and access points, etc. where appropriate.

The Village of Ontonagon Zoning Ordinance should be amended to include access management provisions, as well as to include minimum lot widths and setbacks in the business and industrial districts. Larger minimum lot widths and sizes in currently unplatted areas should also be considered.

**Setbacks**

Setback requirements govern how close structures may be built to the lot line of a parcel. In terms of access management, the setback from the front lot line is generally of most interest, since this affects sight distance at intersections and driveways. Rear setbacks affect the amount of space available for rear entrance roads. The existing front setback requirement in the R-1 district is 35 feet; in the R-2 and R-3 districts it is 30 feet. In the B-1 and industrial districts there is no minimum setback, meaning that structures could potentially be built right to the front lot line. Due to the increased traffic generation potential, as well as the propensity for heavy truck traffic in industrial areas, setbacks which at least allow for adequate sight distances at driveways and plant entrances should be adopted. Adequate room for frontage roads or shared driveways should be required wherever feasible.

**Sign Regulation**

In early 2006, the Village of Ontonagon adopted an amendment to the Village Zoning Ordinance to regulate signs within the Village. This amendment was prompted in part by a desire to maintain clear sight distances and avoid visual clutter along the new highway corridor. The plans for the new alignments of M-64 and M-38 include attractive entrance and directional signs, in order to welcome visitors and inform them of the location of the central business district. Additional signs along the corridor would be discouraged.

The sign provisions regulate the height, size, lighting and type of sign, with specific language requiring adequate sight distance at intersections. For example, Section 62-3.1(11) b states that “no signs shall be located on any street or street corner which would obscure the vision of drivers using said streets, or conflict with traffic control signs or signals in any location. No sign shall obstruct the vision of drivers at any driveway, parking lot or other route providing access to any land use.” Signs are prohibited with any right-of-way within the Village, and billboards are prohibited throughout the Village. Signs are limited to those which advertise a business or industry within the Village. Pole signs are limited to no more than 20 or 30 feet in height, depending on the zoning district in which they are located, and must be at least 10 feet from the ground. Ground signs must be placed back from the right-of-way.
**Coordinated Site Plan Review**

Site plan review is a critical tool for local units of government which can address a host of land use issues in addition to access management. However, older zoning ordinances typically require no site plan review, or at best require a minimal site plan which entails sketching the proposed location of structures relative to lot lines. In the Village of Ontonagon, the zoning ordinance requires a permit for “erection, moving or use of any building,” but does not specifically state that a site plan is required as part of the information to be submitted as part of the application for a permit. The permit application must “state the . . . dimensions, height and location of any building or structure to be erected or moved upon the premises, including all yard dimensions and accessory buildings, if any,” but there is no requirement that this information be contained on a drawing rather than in a narrative description. There are no requirement as to scale, level of detail, etc. if the applicant were to provide a site plan, nor is there a review procedure involving anyone other than the zoning administrator. The site plan should be reviewed by a traffic engineer or someone with experience in driveway design and traffic flow information which have enormous consequences on Access Management.

Site plan review involves the submission and review of a site plan, at a scale and level of detail determined to be adequate by the Village. The requirements for the items to be included in the site plan, as well as the review procedure, should be codified within the zoning ordinance. In order to avoid imposing an undue burden on residential development, applicants who propose to build a single-family or two-family dwelling on a single lot are generally required to provide a lower level of detail than other types of development. In all cases, the site plan should be drawn to scale and include the dimensions and uses of all structures, distances to lot lines, and locations of driveways. Uses other than residential, single-lot development should also be

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**Figure 6-1**

**Typical** Separate Review & Approval Process

1. MDOT or County Road Authority
   - Receives Driveway Permit Application
   - Reviews Permit Application
   - Approves, Denies or Conditionally Approves Permit Application

2. Local Government
   - Receives Development Plan and Application for Review
   - Reviews Permit Application
   - Approves, Denies or Conditionally Approves Permit Application

Where there is little or no coordination, chances for problems increase.

**Preferred** Coordinated Review & Approval Process

1. MDOT or County Road Authority
   - Receives Driveway Permit Application
   - Approves, Denies or Conditionally Approves Permit Application

2. Local Government
   - Receives Development Plan and Application for Review
   - Coordinated Review of Permit Application
   - Terms of permit approval are mutually agreed upon before issuance
   - Approves, Denies or Conditionally Approves Permit Application

In a coordinated process, comments are shared and necessary site plan modifications to conform with each set of regulations are agreed upon before final decisions are made. Approval of each permit is conditioned on receipt of required permits issued by the other approving authorities.

required to show topography; parking areas; utility easements; storm drainage; information on signage, landscaping, lighting, etc.; information on abutting roads, streets, and alleys; and driveway and intersection locations within a specified distance of the subject property. This information enables the reviewer of the site plan to determine whether or not the proposed development adequately meets the requirements of the ordinance. The location of driveways, their proposed operation for ingress and/or egress, proposed traffic flow within the subject property, distances of the proposed driveway from other off-site drives and intersections, signage, landscaping, topography, parking and distances between structures and lot lines are particularly relevant to access management. Proposed site plan review language for the Village of Ontonagon is included as Appendix A.

The “coordinated” nature of site plan review is unique to access management, although the concept of integrating site plan review by all permitting entities could certainly have applicability elsewhere. For purposes of this plan, however, coordinated site plan review means that the Village of Ontonagon, the Michigan Department of Transportation, and the Ontonagon County Road Commission will engage in a coordinated review of site plans with a specific focus on access management issues. The three entities will meet to conduct an ad-hoc review of site plans, and draft written recommendations to be considered during the permitting process, in order to insure that access management concerns are addressed. This allows for interaction between the permitting entities, where information, expertise and ideas are shared. The process carries with it advantages for both applicant and permitting entities. The applicant enjoys the advantage of review at one time by all entities, which should expedite the permitting process; the permitting entities have the opportunity to discuss any concerns they may have and arrive at a solution that addresses those concerns in a cooperative manner.

Local governments also enjoy advantages with the site plan review process. The “coordinated” nature of site plan review offers the added benefits of shared resources to the Village when they team up with the county and state transportation departments because it allows them to tap into a collective wealth of traffic engineering expertise. Additionally, the county and state government officials gain strength in their positions when they are reinforced by the soundness of the local zoning regulations. Coordinated permit reviews allow zoning jurisdictions to condition site plan approval on receipt of a driveway permit from MDOT and/or the County Road Commission; those agencies can also condition their permits on receipt of zoning approval from the local government. Not only does this prevent developers from sidestepping important access management standards, it also typically results in a higher level of review of pending site plans, as many experienced persons may spot important considerations than any one alone may miss. It can also point out emerging traffic safety or capacity problems that otherwise might not come to the attention of the road authority for some time. Developers typically benefit from the coordination by not having to take matters back and forth between key agencies as often, since those agencies are already sitting down together in review of the same site plans. Timing is everything and if the team meets regularly and returns review comments quickly, it increases
the likelihood that developers will include Access Management concepts in their site development plans.

Coordinated permit reviews also reduce the need for a separate monitoring and enforcement activity as all the responsible parties meet monthly, and if a permittee is not properly following through with an issued permit, it is likely that several members of the group will have observed it in their travels on the corridor. It is also a beneficial forum for discussion of any needed changes to access management standards. If over time, a particular standard is recognized as problematic in multiple jurisdictions, then it may need to be changed. If it is changed in one jurisdiction, it most likely will need to be changed in all. By keeping a uniform set of access management standards along the corridor, the development community will more quickly become familiar with the standards and will not be faced with multiple sets of standards with slight differences that are otherwise hard to keep track of.

Another benefit of the coordinated site plan review procedure becomes evident when permit applicants request a variation or deviation from particular access management standards. By sharing experiences and carefully reviewing the merits of such requests, the participants in the site plan review process will benefit from the thinking that goes into the conclusion, making it less likely that precedents are set that are then cited by future permit applicants as justification for a deviation on their project.

The coordinated site plan review committee for the Village of Ontonagon will include the Village zoning administrator; a representative from the MDOT Transportation Service Center in Crystal Falls, a member of the Village Planning Commission, and a representative from the Ontonagon County Road Commission, since proposed uses may also affect roads under the Road Commission’s jurisdiction. The committee will meet bi-monthly, or more frequently if needed, to review new applications and site plans as well as to discuss and monitor development which has already been reviewed and permitted.
6. IMPLEMENTATION

The implementation of this plan will take place over a period of years. Some of the implementation measures described in the preceding paragraphs may not ever occur, if the potential development that would trigger these measures does not materialize. Others may take place in a relatively short time frame, while still others are dependent on larger future construction projects, and, of course, on funding.

As mentioned earlier, implementation involves both physical and regulatory improvements. While physical improvements are generally the most visible and costly, regulatory changes have potentially greater impact from an access management standpoint. The improvements that are recommended as a result of this planning process are described in Chapters 4 and 5, but are summarized in this chapter in order to provide a concise listing of the plan’s recommendations.

**Physical Improvements**

1. New development in the vicinity of the new M-64/River Road intersection should employ such access management techniques as shared driveways and/or frontage roads to avoid congestion near this intersection.

2. Future increased traffic volumes on state trunk lines may warrant turn lanes or passing flares to maintain traffic flow and safety. Funding from developers and/or MDOT, where available, should be used to reduce the financial burden on the Village.

3. Any new access points along state trunk lines should be constructed using MDOT recommended separation distances from intersections as a minimum standard, in order to maintain sight distances and minimize conflict points.

4. The Village of Ontonagon should undertake the development of a plan in accordance with the requirements of the Safe Routes to School program, and apply for funding to construct infrastructure improvements to afford maximum safety to children crossing the new highway corridor to reach the elementary school.

5. Continue to monitor public concerns which have been expressed regarding possible installation of pedestrian crossing signs and a blinker light at the US-45/M-64/M-38 intersection.

6. Continue to evaluate whether pedestrian crossing signs and pavement markings should be installed at the Heard Street/M-38 intersection to improve pedestrian safety.

7. Combine driveways to existing residences near the realigned intersection of Greenland Road and M-38, near the current location of Mercury Street, in order to reduce the number of conflict points.
8. Monitor sight distance and drainage issues at the intersection of 7th Street and M-38; construct drainage improvements to reduce runoff across 7th Street during storms.

9. Combine the northern entrance to the IGA and Family Dollar stores with the southern driveway leading to the Ontonagon County Courthouse.

10. Construct curb and gutter to delineate entrances to commercial development along M-38 near the eastern limits of the Village.

11. Remove planter at the US-45/Greenland Road intersection. Continue to monitor sight distance issues at this intersection.

12. As development occurs in the Renaissance Zone and in undeveloped residential areas, shared driveways, frontage roads, and interconnected internal streets should be constructed to minimize the number of access points onto state trunk lines.

13. As the Renaissance Zone and new residential areas are developed, construct a roadway providing access to US-45 as well as M-38.

14. Eliminate angle parking on the east side of Copper Street and replace with parallel parking to improve accessibility for fire trucks.

15. Utilize curbing, signage, and pavement markings to improve traffic flow through the interconnected parking areas south of River Street.

16. Prohibit new driveways along the Business US-45 truck loop, and require any new access to occur via alleys, in order to maintain traffic flow on the truck loop.

17. Add warning signs on Houghton Street (e.g. “Cross Traffic Does Not Stop”) to reduce the potential for crashes at the Houghton/Michigan Street intersection.
Regulatory Changes

1. Amend the Zoning Ordinance to include provisions for site plan review for all proposed new development in the Village.

2. Amend the Zoning Ordinance to include provisions for review of all proposed new development within or significantly affecting the study corridor by a Coordinated Site Plan Review Committee.

3. Amend the Zoning Ordinance to include requirements for access management techniques within the study corridor.

4. Amend the Zoning Ordinance to include minimum lot sizes, lot widths and setbacks in all districts which do not currently have such requirements. Evaluate the adequacy of existing lot size, width and setback requirements in light of access management, and amend the ordinance as needed.
Sec. 62-10 Site Plan Review

(1) *Intent.* The intent of this section is to provide for consultation and cooperation between the land developer, the Village of Ontonagon, the Michigan Department of Transportation, and the Ontonagon County Road Commission, as needed, in order that the developer may accomplish his objectives in the utilization of his land within the regulations of this zoning ordinance and with minimum adverse effect on natural resources, traffic patterns, adjacent parcels and the character of future development. The regulations contained herein are intended to provide and promote the orderly development of the Village; safe and efficient traffic movement, both within a site and in relation to streets and adjacent uses, consistent with access management guidelines; the stability of land values and investments by preventing the impairment or depreciation of land values and development, by the erection of structures or additions or alterations thereto, without proper attention to setting or to unsightly or undesirable appearances; harmonious relationship to buildings, other structures and uses, both within a site and/or adjacent sites; and the conservation of natural amenities and resources.

A site plan is required for and shall accompany the applications for:

a. Zoning Approval for:
   1. Any proposed construction
   2. Any commencement of a new use
   3. Any proposed change in use

b. Variances

c. Any other request for zoning status where the Zoning Administrator determines a site plan is necessary for accurate review or documentation of the existing development.

(2) *Application Procedure.* Requests for site plan review shall be made by filing with the Village Clerk the following:

a. For single and two-family dwellings under separate ownership and on individual and separate lots, and for residential accessory uses and structures, the site plan may be drawn on the application form or on a separate sheet of paper. The site plan shall include the following information:

   1. A legal description of the site.
   2. All lot lines and dimensions of the lot.
   3. All roads and easements.
   4. All existing and proposed buildings shall be shown and labeled.
   5. Proposed use of each building.
6. Distances between buildings and all lot lines.
7. Building dimensions.
8. Natural features affecting development (rock, water, etc.).
9. Well and septic locations.
10. A north arrow.

For commercial and industrial uses, multiple-family residential developments, parking lots, and all other developments, the site plan shall be drawn on a separate sheet or sheets of paper, at a scale adequate to illustrate the proposed activity and all information required by this Section. The site plan shall be prepared by a licensed surveyor, engineer, architect or registered landscape architect, and shall be certified or sealed by the preparer. Seven copies of the proposed site plan shall be submitted, which shall include as a minimum the following:

1. A legal description and street address of the property; the name, address and telephone number of the owner, developer and/or designer.
2. North arrow and date the site plan was prepared.
3. The actual dimensions of the proposed developed area (as shown by a licensed surveyor, engineer, architect, or registered landscape architect, with the survey stakes visible) showing the relationship of the subject property to abutting properties.
4. The topography of the subject property.
5. The location of all existing and proposed structures, including signs, on the subject property and all existing structures on land immediately adjacent to the site within 100 feet of the site's parcel lines.
6. The dimensions of all existing and proposed structures, including height.
7. Distances between all existing and proposed structures and all lot lines.
8. Use(s) of all existing or proposed structures on the property.
9. The location, dimensions and distances from lot lines of all existing and proposed ingress/egress points, sidewalks, driveways and parking areas on the subject property.
10. The location and widths of all abutting roads, streets, and alleys, including rights-of-way, and private easements located within or abutting the property. Named streets and roads should be labeled.
11. The location of existing ingress/egress points, driveways, streets, roads and/or alleys within 500 feet of the boundary of the property.
12. The location of the proposed planting and screening, fencing, lighting, signs and advertising features, if any.
13. The size and location of all existing and proposed public and private utilities.
14. The location of natural features affecting development, such as rock outcrops, water, wetlands, etc., including any features designated as High Risk Erosion Areas, Critical Dunes, 100-year or 500-year floodplains, Environmental Areas, etc.

15. Location of all existing and proposed surface water impoundments, if any and surface water drainage structures, such as storm drains or catch basins, if any.

16. The location and extent of any planned earth movement. Indicate status of any necessary permits, such as soil erosion and sedimentation permits, wetlands permit, etc.

17. Provisions for the maintenance and responsibility of common areas, if any.

18. Any other information necessary, in the opinion of the Zoning Administrator, to establish compliance with this Ordinance or any other applicable ordinance.

(3) Action on Application and Plans

a. Upon receipt of the application and plans as required by Section 62-10(2), the Village Clerk shall record the date of receipt thereof and transmit five copies thereof to the appropriate zoning body and one copy to the zoning administrator.

b. If a public hearing is required by this Ordinance, this hearing shall be scheduled by the chairman of the appropriate zoning body and will be held in accordance with the requirements of Section ____ (reference to section to be added once changes in accordance with new Zoning Act are drafted). Members of the zoning body shall be delivered copies of the application and site plan prior to the hearing for their preliminary information and study. The hearing shall be scheduled within not more than 45 days following the date of the receipt of the plans and application by the Village Clerk.

c. The applicant shall be notified of the date, the time and place of the hearing on his application not less than three days prior to such date.

d. Following the hearing, the zoning body shall have the authority to approve, disapprove, add conditions, modify or alter the proposed plans in accordance with the purpose of the site plan review provisions of the Village zoning ordinance and criteria therein contained. Any required modification or alteration shall be stated in writing, together with the reasons therefore, and delivered to the applicant. The zoning body may either approve the plans contingent upon the required alterations or modifications, if any, or may require a further review after the same have been included in the proposed plans for the applicant. The decision of the zoning body shall be made within 100 days of the receipt of the application by the Village Clerk.
e. Two copies of the approved final site plan with any required modifications thereon shall be maintained as part of the Village records for future review and enforcement. One copy shall be returned to the applicant. Each copy shall be signed and dated with the date of approval by the chairman of the zoning body for identification of the finally approved plans.

(4) **Criteria For Review.** In reviewing the application and site plan and approving, disapproving or modifying the same, the reviewer shall be governed by the following standards:

a. That there is a proper relationship between the existing streets and highways within the vicinity and proposed deceleration lanes, service drives, entrance and exit driveways and parking areas to assure the safety and convenience of pedestrian and vehicular traffic.

b. That the buildings, structures and entryway thereto proposed to be located upon the premises are so situated and designed as to minimize adverse effects there from upon owners and occupants of adjacent properties and the neighborhood.

c. That as many natural features of the landscape shall be retained as possible where they furnish a barrier or buffer between the project and adjoining properties used for dissimilar purposes and where they assist in preserving the general appearance of the neighborhood or help control erosion or the discharge of storm waters.

d. That any adverse effects of the proposed development and activities emanating there from upon adjoining residents or owners shall be minimized by appropriate screening, fencing or landscaping.

e. That all provisions of the Village zoning ordinance are complied with unless an appropriate variance there from has been granted by the Zoning Board of Appeals.

f. That all buildings and structures are accessible to emergency vehicles.

g. That the plan, as approved, is consistent with the intent and purpose of zoning to promote public health, safety, morals and general welfare; to encourage the use of lands in accordance with their character and adaptability; to avoid the overcrowding of population; to lessen congestion on the public roads and streets; to reduce hazards to life and property; to facilitate adequate provisions for a system of transportation, sewage disposal, safe and adequate water supply, education, recreation and other public requirements; and to conserve the expenditure of funds for public improvements and services to conform with the most advantageous uses of land, resources and properties; to conserve property values and natural resources; and to give reasonable consideration to the character of a particular area; its peculiar suitability for particular uses and the general and appropriate trend and character of land, building and population development.
(5) **Conformity To Approved Site Plan.** Property which is the subject of a site plan approval must be developed in strict compliance with the approved site plan and any amendments thereto which have received approval. If construction and development does not conform to such approved plan, the approval thereof shall be forthwith revoked by the zoning administrator by written notice of such revocation posted upon the premises involved and mailed to the developer at his last known address. Upon revocation of such approval, all further construction activities shall cease upon the site, other than for the purpose of correcting the violation. However, the appropriate zoning body may, upon proposed application of the developer and after a hearing, approve a modification in the site plan to coincide with the developer’s construction provided such construction complies with the criteria contained in the site plan approval provisions and with the spirit, purpose and intent of this ordinance.

Approval of the site plan shall be valid for a period of one year after the date of approval. If a building permit has not been obtained and on-site development actually commenced within said one year, the site plan approval shall become void and a new application for site plan approval shall be required and new approval shall be required and obtained before any construction or earth change is commenced upon the site.

(6) **Amendment of Site Plan.** A proposed amendment, modification or alteration to a previously approved site plan shall be submitted to the appropriate zoning body for review in the same manner as the original application was submitted and reviewed.
APPENDIX B

The Village Board of the Village of Ontonagon ordains:

AMENDMENTS TO SECTION  62-3, DISTRICT REGULATIONS GENERALLY; AND SECTION 62-2, DEFINITIONS

SECTION 62-3.2 Access Management

(1) FEES IN ESCROW FOR PROFESSIONAL REVIEWS: Any application for rezoning, site plan approval, variance, or other use or activity requiring a permit under this Ordinance above the following threshold, may also require the deposit of fees to be held in escrow in the name of the applicant. An escrow fee shall be required by either the Zoning Administrator or the Planning Commission for any project which requires a traffic impact study under Section 62-3.2(3), or which has more than twenty (20) dwelling units, or more than twenty-thousand (20,000) square feet of enclosed space, or which requires more than twenty (20) parking spaces, or which involves surface or below surface mining or disposal of mine materials. An escrow fee may be required to obtain a professional review of any other project which may, in the discretion of the Zoning Administrator or Planning Commission create an identifiable and potentially negative impact on public roads, other infrastructure or services, or on adjacent properties and because of which, professional input is desired before a decision to approve, deny or approve with conditions is made.

A. The escrow shall be used to pay professional review expenses of engineers, community planners, and any other professionals whose expertise the Village of Ontonagon values to review the proposed application and/or site plan of an applicant. If a developer has employed a professional or professionals in development of the site plan, the Village may, at their discretion, utilize the expertise of the developer’s professional(s) in conducting their review. Professional review shall result in a report to the Planning Commission indicating the extent of conformance or nonconformance with this Ordinance and identify any problems which may create a threat to public health, safety or the general welfare. Mitigation measures or alterations to a proposed design may be identified where they would serve to lessen or eliminate identified impacts. The applicant will receive a copy of any professional review hired by the Village of Ontonagon and a copy of the statement of expenses for the professional services rendered, if requested.

B. No application for which an escrow fee is required will be processed until the escrow fee is deposited with the Treasurer. The amount of the escrow fee shall be
established based on an estimate of the cost of the services to be rendered by the professionals contacted by the Zoning Administrator. The applicant is entitled to a refund of any unused escrow fees at the time a permit is either issued or denied in response to the applicant's request; escrow fees which have been used to conduct a review in accordance with this Section shall not be refunded.

C. If actual professional review costs exceed the amount of an escrow, the applicant shall pay the balance due prior to receipt of any zoning or other permit issued by the Village of Ontonagon in response to the applicant's request. Any unused fee collected in escrow shall be promptly returned to the applicant once a final determination on an application has been made or the applicant withdraws the request and expenses have not yet been incurred.

D. Disputes on the costs of professional reviews may be resolved by an arbitrator mutually satisfactory to both parties.

(2) **ACCESS MANAGEMENT**: The provisions of this Section are intended to promote safe and efficient travel on state highways within the Village; improve safety and reduce the potential for crashes; minimize disruptive and potentially hazardous traffic conflicts; ensure safe access by emergency vehicles; protect the substantial public investment in the highway and street system by preserving capacity and avoiding the need for unnecessary and costly reconstruction which disrupts business and traffic flow; separate traffic conflict areas by reducing the number of driveways; provide safe spacing standards between driveways, and between driveways and intersections; provide for shared access between abutting properties; implement the Comprehensive Community Plan and the US-45/M-38/M-64 Access Management Action Plan recommendations; ensure reasonable access to properties, although not always by the most direct access; and to coordinate access decisions with the Michigan Department of Transportation, the Ontonagon County Road Commission, and adjoining jurisdictions, as applicable.

A. Applicability: The standards of this Section apply to all lots and parcels that abut the highway right-of-way of US-45/M-38/M-64 and Greenland Road and such other lands that front on intersecting streets within two hundred (200) feet of the US-45/M-38/M-64 and Greenland Road rights-of-way in the Village of Ontonagon.

The standards of this Section shall be applied by the Zoning Administrator and by the Planning Commission during site plan review, as is appropriate to the application. The Planning Commission shall make written findings of nonconformance, conformance, or conformance if certain conditions are met with the standards of this Section prior to disapproving or approving a site plan per the requirements of Section 62-10. The Village of Ontonagon shall coordinate its review of the access elements.
of a site plan with the appropriate road authority prior to making a decision on an application (see D. below). The approval of a site plan does not negate the responsibility of an applicant to subsequently secure access permits from the appropriate road authority, the Village of Ontonagon, the Ontonagon County Road Commission, or the Michigan Department of Transportation. Any access permit obtained by an applicant prior to review and approval of a site plan as required under this Ordinance will be void, unless it is conditioned upon approval under this Ordinance.

These regulations apply in addition to, and simultaneously with, the other applicable regulations of the Zoning Ordinance. Permitted uses within this area shall meet all the applicable requirements for that district, with the following additional provisions:

1. The number of access points is the fewest needed to allow motorists reasonable access to the site.

2. Access spacing from intersections and other driveways shall meet the standards within Section 62-3.2(2) P.3, and the guidelines of the applicable road agency (MDOT and/or Ontonagon County Road Commission) and the recommendations of the US-45/M-38/M-64 Access Management Access Plan as appropriate.

3. Where an applicant shares access with adjacent uses, either now or in the future, any shared access and maintenance agreements must be recorded with the County Register of Deeds.

4. No building or structure, nor the enlargement of any building or structure, shall be erected unless the access management regulations applicable to the site are met and maintained in connection with such building, structure, or enlargement.

5. No land division, subdivision or site condominium project for lots or parcels within this area shall be approved unless compliance with the access spacing standards in this Section is demonstrated.

6. Any change in use on a site that does not meet the access standards of Section 62-3.2(2)P.3, shall be required to submit an application for approval by the Planning Commission and submit information to the MDOT, and/or County Road Commission as appropriate, to determine if a new access permit is required. See subsection J. below.

7. For building or parking lot expansions, or changes in use, or site redevelopment that cannot meet the standards of this ordinance due to parcel size or
configuration, the Planning Commission shall determine the extent of upgrades to bring the site into greater compliance with the access standards of this ordinance. In making its decision, the Planning Commission shall consider the existing and projected traffic conditions, any sight distance limitations, site topography or natural features, impacts on internal site circulation, characteristics of the affected land uses, recommendations within the US-45/M-38/M-64 Access Management Action Plan, and any recommendations from the MDOT, and/or Ontonagon County Road Commission as appropriate. Required improvements may include removal, rearrangement or redesign of driveways or other access.

8. Where conflict occurs between the standards of this Ordinance and other applicable ordinances, the more restrictive regulations shall apply.

B. One Access Per Parcel: All land in a parcel or lot having a single tax code number, as of the effective date of the amendment adding this provision to the Ordinance (hereafter referred to as "the parent parcel"), that shares a lot line for less than six hundred (600) feet with right-of-way on US-45/M-38/M-64 or Greenland Road shall be entitled to one (1) driveway or road access per parcel from said public road or highway, unless hereafter shared access or alternative access is provided to that parcel.

1. All subsequent land divisions of a parent parcel, shall not increase the number of driveways or road accesses beyond those entitled to the parent parcel on the effective date of this amendment.

2. Parcels subsequently divided from the parent parcel, either by metes and bounds descriptions, or as a plat under the applicable provisions of the Land Division Act, Public Act 288 of 1967, as amended, or developed as a condominium project in accord with the Condominium Act, Public Act 59 of 1978, as amended, shall have access by a platted subdivision road, by another public road, by an approved private road, frontage road or rear service drive.

Parent parcels with more than six hundred (600) feet of frontage on a public road or highway shall also meet the requirements of B.1 and B.2 above, except that whether subsequently divided or not, they are entitled to not more than one driveway for each six hundred (600) feet of public road frontage thereafter, unless a registered traffic engineer determines to the satisfaction of the Planning Commission that topographic conditions on the site, curvature on the road, or sight distance limitations demonstrate an additional driveway within a lesser distance is safer or the nature of the land use to be served requires an additional driveway for improved safety. See also subsection R.2.
C. Applications:

1. Applications for driveway or access approval shall be made on a form prescribed by and available from the Michigan Department of Transportation and Ontonagon County Road Commission as applicable. A copy of the completed form submitted to the applicable road authority shall also be submitted to the Zoning Administrator.

2. Applications for all uses requiring site plan review shall meet the submittal, review and approval requirements of Section 62-10 in addition to those of this Section. In addition:

   a. Applications are strongly encouraged to rely on the most current version of the following sources for access designs: the National Access Management Manual, TRB, 2003; National Cooperative Highway Research Program (NCHRP), "Access Management Guidelines to Activity Centers" Report 348, "Impacts of Access Management Techniques" Report 420; and the AASHTO (American Association of State Highway and Transportation Officials) “Green Book” A Policy on Geometric Design of Highways and Streets. The following techniques are addressed in these guidebooks and are strongly encouraged to be used when designing access:

      1) Not more than one driveway access per abutting road
      2) Shared driveways
      3) Service drives: front and/or rear
      4) Parking lot connections with adjacent property
      5) Other appropriate designs to limit access points on an arterial or collector.

   b. As applicable, applications shall be accompanied by an escrow fee for professional review per the requirements of Section 62-3.(1).

   c. In addition to the information required in Section 62-10, the information listed below shall also be submitted for any lot or parcel that abuts the highway right-of-way of US-45/M-38/M-64 and Greenland Road and such other lands that front on intersecting streets within two hundred (200) feet of the US-45/M-38/M-64 and Greenland Road rights-of-way in the Village of Ontonagon:

      1) Surface type and dimensions shall be provided for all existing and proposed driveways (width, radii, throat length, length of any deceleration
lanes or tapers, pavement markings and signs), intersecting streets, and all curb radii within the site.

2) The site plan shall illustrate the route and dimensioned turning movements of any passenger vehicles as well as expected truck traffic, tankers, delivery vehicles, waste receptacle vehicles and similar vehicles. The plan should confirm that routing of vehicles will not disrupt operations at the access points nor impede maneuvering or parking within the site.

3) The applicant shall submit evidence indicating that the sight distance, driveway spacing and drainage requirements of the Michigan Department of Transportation or Ontonagon County Road Commission are met.

4) Dimensions between proposed and existing access points on both sides of the highway or road (and median crossovers if applicable now or known in the future).

5) Design dimensions and justification for any alternative or innovative access design such as frontage roads, rear access or service drives, or parking lot cross-access.

6) Where shared access is proposed or required, a shared access and maintenance agreement shall be submitted for approval. Once approved, this agreement shall be recorded with the County Register of Deeds.

7) The location of all proposed snow storage from parking lots, which must not interfere with clear sight distance when turning into or out of a site, or safely moving within a site.

8) Traffic impact study meeting the requirements of Section 62-3.2(3) where applicable.

D. Review and Approval Process: The following process shall be completed to obtain access approval:

1. An Access Application meeting the requirements of Section 62-3.2(2)C. above shall be submitted to the Zoning Administrator on the same day it was submitted to the Michigan Department of Transportation and/or the Ontonagon County Road Commission, as applicable.

2. The completed application must be received by the Zoning Administrator at least fourteen (14) days prior to the Planning Commission meeting where the application will be reviewed.

3. The applicant, the Zoning Administrator and representatives of the Ontonagon County Road Commission, the Michigan Department of Transportation and the Planning Commission may meet prior to the Planning Commission meeting to
review the application and proposed access design. Such a meeting shall occur for all projects where a traffic impact study is required.

4. If the Planning Commission considers the application first, it shall recommend approval conditioned upon approval of the applicable road authority, or it shall recommend denial based on nonconformance with this Ordinance, or if necessary, table action and request additional information. The action of the Planning Commission shall be immediately transmitted to the applicable road authority.

5. It is expected that if the Michigan Department of Transportation and/or the Ontonagon County Road Commission, as applicable, review the application first, each entity will immediately send its decision on the application to the Planning Commission for their consideration. One of three actions may result;

a. If the Planning Commission and the Michigan Department of Transportation, and the Road Commission, as applicable, approve the application as submitted, the access application shall be approved.

b. If both the Planning Commission and the Michigan Department of Transportation and the Road Commission, as applicable, deny the application, the application shall not be approved.

c. If either the Planning Commission, Michigan Department of Transportation, or Road Commission, as applicable, requests additional information, approval with conditions, or does not concur in approval or denial, there shall be a joint meeting of the Zoning Administrator, a representative of the Planning Commission and staff of the Michigan Department of Transportation and/or the Ontonagon County Road Commission, as applicable, and the applicants. The purpose of this meeting will be to review the application to obtain concurrence between the Planning Commission and the applicable road authorities regarding approval or denial and the terms and conditions of any permit approval.

6. No application will be considered approved, nor will any permit be considered valid unless all the above-mentioned agencies, as applicable, have indicated approval unless approval by any of the above-mentioned agencies would clearly violate adopted regulations of the agency. In this case the application shall be denied by that agency and the requested driveway(s) shall not be constructed. Conditions may be imposed by the Planning Commission to ensure conformance with the terms of any access permit approved by a road authority.
E. Record of Application: The Zoning Administrator shall keep a record of each application that has been submitted, including the disposition of each one. This record shall be a public record.

F. Period of Approval: Approval of an application remains valid for a period of one year from the date it was authorized. If authorized construction, including any required rear service road or frontage road is not initiated by the end of one (1) year, the authorization is automatically null and void. Any additional approvals that have been granted by the Planning Commission or the Zoning Board of Appeals shall also expire at the end of one year.

G. Renewal: An approval may be extended for a period not to exceed one year. The extension must be requested, in writing by the applicant before the expiration of the initial approval. The Zoning Administrator may approve extension of an authorization provided there are no deviations from the original approval present on the site or planned, and there are no violations of applicable ordinances and no development on abutting property has occurred with a driveway location that creates an unsafe condition. If there is any deviation or cause for question, the Zoning Administrator shall consult a representative of the Michigan Department of Transportation and/or the Ontonagon County Road Commission, as applicable, for input.

H. Re-issuance Requires New Application: Re-issuance of an authorization that has expired requires a new Access Application form to be filled out, fee paid, and processed independently of previous action. See subsection D.1.

I. Maintenance: The applicant shall assume all responsibility for all maintenance of driveway approaches from the right-of-way line to the edge of the traveled roadway.

J. Change of Use May Also Require New Driveway: When a building permit is sought for the reconstruction, rehabilitation or expansion of an existing site or a zoning permit is sought for use or change of use for any land, buildings or structures, all of the existing, as well as proposed driveway approaches and parking facilities shall comply, or be brought into compliance, with all design standards as required by the Michigan Department of Transportation or the Ontonagon County Road Commission as applicable, and as set forth in this Ordinance, prior to the issuance of a Zoning Permit, and pursuant to the procedures of this Section.

K. Changes Require New Application: Where authorization has been granted for entrances to a parking facility, said parking facility shall not be altered or the plan of
operation changed until a revised Access Application has been submitted and approved as specified in this Section.

L. Closing of Driveways: Application to construct or reconstruct any driveway entrance and approach to a site shall also cover the reconstruction or closing of all nonconforming or unused entrances and approaches to the same site at the expense of the property owner, unless some other arrangement is agreed to by the road authority responsible for the road in question.

M. Inspection: The Zoning Administrator shall inspect the driveway and any other required access elements during construction and following construction for conformance with the approved application prior to allowing occupancy. The Zoning Administrator may consult with MDOT and/or the County Road Commission as applicable, prior to making a determination of conformance or nonconformance with an approved application.

N. Performance Bond: The community may require a performance bond or cash deposit in any sum not to exceed $5,000 for each such driveway approach or entrance to insure compliance with an approved application. Such bond shall terminate and the deposit be returned to the applicant when the terms of the approval have been met or when the authorization is cancelled or terminated.

O. Lot Width and Setbacks
1. Minimum Lot Width - Except for existing lots of record, all lots fronting on US-45/M-38/M-64 and Greenland Road subject to this Section, shall not be less than three hundred (300) feet in width, unless served by shared access or a service drive that meets the requirements of Section P.9, P.10, or P.11, in which case minimum lot width may be reduced to not less than one hundred (100) feet in width if a deed restriction is approved and recorded with the County Register of Deeds demonstrating an effective method for long term maintenance of the shared access, service drive and/or parking lot cross-access.

2. Structure Setback - No structure other than signs, as allowed in Section 62-3.1, telephone poles and other utility structures that are not buildings, transfer stations or substations, shall be permitted within fifty (50) feet of the roadway right-of-way.

3. Parking Setback and Landscaped Area - No parking or display of vehicles, goods or other materials for sale, shall be located within fifty (50) feet of the roadway right-of-way. This setback shall be planted in grass and landscaped with small clusters of salt tolerant trees and shrubs suitable to the underlying soils.
P. Access Management Standards: No road, driveway, shared access, parking lot cross-access, service road, or other access arrangement to all lots and parcels within this area shall be established, reconstructed or removed without first meeting the requirements of this Section.

1. Each lot/parcel with highway frontage on US-45/M-38/M-64 and Greenland Road shall be permitted one access point. This access point may consist of an individual driveway, a shared access with an adjacent use, or access via a service drive or frontage road. As noted in subsections A and B, land divisions shall not be permitted that may prevent compliance with the access location standards of this ordinance.

2. When alternatives to a single, two-way driveway are necessary to provide reasonable driveway access to property fronting on US-45/M-38/M-64 and Greenland Road, and shared access or a service drive are not a viable option, the following progression of alternatives should be used:
   a. One (1) standard, two-way driveway;
   b. Additional ingress/egress lanes on one (1) standard, two-way driveway;
   c. Two (2), one-way driveways;
   d. Additional ingress/egress lanes on two (2), one-way driveways;
   e. Additional driveway(s) on an abutting street with a lower functional classification;
   f. Additional driveway on arterial street.

   Note: Restricted turns and roadway modifications will be considered in conjunction with alternative driveway designs.

3. Driveways and new intersecting streets shall provide the following spacing from other access points along the same side of the public street (measured from centerline to centerline of each access point), based on the posted speed limit along the public street segment, unless the appropriate road authority approves less based on the land use characteristics, lot size, and/or restricted turns in the driveway design.

<table>
<thead>
<tr>
<th>Posted Speed Limit</th>
<th>Along US-45/M-38/M-64*</th>
<th>Along all Other Intersecting Streets</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 mph or less</td>
<td>245 ft.</td>
<td>150 ft.</td>
</tr>
<tr>
<td>40 mph</td>
<td>300 ft.</td>
<td>185 ft.</td>
</tr>
<tr>
<td>45 mph</td>
<td>350 ft.</td>
<td>230 ft.</td>
</tr>
<tr>
<td>50 mph</td>
<td>455 ft.</td>
<td>275 ft.</td>
</tr>
<tr>
<td>55 mph</td>
<td>455 ft.</td>
<td>350 ft.</td>
</tr>
</tbody>
</table>

* Unless greater spacing is required by MDOT
4. Where the subject site adjoins land that may be developed or redeveloped in the future, including adjacent lands or potential out lots, the access shall be located to ensure the adjacent site(s) can also meet the access location standards in the future.

5. Driveways or new intersecting streets along sections of US-45/M-38/M-64 and Greenland Road with an existing or planned median shall be located in consideration of existing or approved median crossovers. A sufficient length for weaving across travel lanes and storage within the median shall be provided, consistent with MDOT published standards.

6. Driveways and new intersecting streets shall be aligned with driveways on the opposite side of the street or offset a minimum of 250 feet, centerline to centerline wherever feasible. The Planning Commission may reduce this to not less than 150 feet where each of the opposing access points generates less than 50 trips (inbound and outbound) during the peak hour of the public street or where sight distance limitations exist, or shall rely on the best option identified by MDOT.

7. Minimum spacing of driveways from intersections shall be in accordance with the table below (measured from pavement edge to pavement edge) unless MDOT authorizes a lesser spacing:

<table>
<thead>
<tr>
<th>Signalized Locations*</th>
<th>Distance (ft.)</th>
<th>Unsignalized Locations</th>
<th>Distance (ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Along US-45/M-38/M-64</td>
<td>300</td>
<td>Along US-45/M-38/M-64</td>
<td>300</td>
</tr>
<tr>
<td>Along Other Public Streets</td>
<td>200</td>
<td>Other Intersections</td>
<td>150</td>
</tr>
</tbody>
</table>

* Spacing for signalized intersections shall also be applied at intersections where MDOT indicates spacing and approach volumes may warrant a signal in the future.

8. Where direct access consistent with the various standards above cannot be achieved, access should be via a shared driveway or service drive. In particular, the Planning Commission may require development of frontage roads, or rear service drives where such facilities can provide access to signalized locations, where service drives may minimize the number of driveways, and as a means to ensure that traffic is able to more efficiently and safely ingress and egress.

9. a. Sharing or joint use of a driveway by two or more property owners shall be encouraged. In cases where access is restricted by the spacing requirements of Section P. 3 above a shared driveway may be the only access design allowed.
The shared driveway shall be constructed along the midpoint between the two properties unless a written easement is provided which allows traffic to travel across one parcel to access another, and/or access the public street.

b. In cases where a shared access facility is recommended, but is not yet available, temporary direct access may be permitted, provided the site plan is designed to accommodate the future service drive, and a written agreement is submitted that the temporary access will be removed by the applicant, when the alternative access system becomes available. This may require posting of a performance guarantee to cover the cost of removing the temporary driveway if the applicant or then owner does not remove the temporary driveway once a permanent driveway is established.

10. Frontage roads or service drives (see Figure 1) shall be designed, constructed and maintained in accordance with the following standards:

a. Location - Frontage roads or service drives shall generally be parallel to the front property line and may be located either in front of, or behind, principal buildings and may be placed in required yards. In considering the most appropriate alignment for a service road, the Planning Commission shall consider the setbacks of existing and/or proposed buildings and anticipated traffic flow for the site.

b. Alignment - The alignment of the service drive can be refined to meet the needs of the site and anticipated traffic conditions, provided the resulting terminus allows the drive to be extended through the adjacent site(s). This determination may require use of aerial photographs, property line maps, topographic information and other supporting documentation.

c. Setback - Service drives and frontage roads shall be set back as far as reasonably possible from the intersection of the access driveway with the public street. A minimum of thirty (30) feet shall be maintained between the public street right-of-way and the pavement of the frontage road, with a minimum sixty (60) feet of throat depth provided at the access point. The access point location shall conform to all the applicable standards of this Ordinance.

d. Access Easement - A frontage road or service drive shall be within an access easement permitting traffic circulation between properties. The easement shall be recorded with the County Register of Deeds. This easement shall be at least forty (40) feet wide. A frontage road or service drive shall have a
minimum pavement width of twenty-six (26) feet, measured face to face of curb with an approach width of thirty-six (36) feet at intersections. The frontage road or service drive shall be constructed of a paved surface material that is resistant to erosion and shall meet Village of Ontonagon, Ontonagon County Road Commission or Michigan Department of Transportation standards for base and thickness of asphalt or concrete for the road paralleled by said service drive, unless the community has more restrictive standards.

e. Snow Storage - A minimum of fifteen (15) feet of snow storage/landscaping area shall be reserved along both sides of the frontage road or service drive.

f. Service Drive Maintenance - No service drive shall be established on existing public right-of-way. The service drive shall be a public street (if dedicated to and accepted by the public), or a private road maintained by the adjoining property owners it serves who shall enter into a formal agreement for the joint maintenance of the service drive. The agreement shall also specify who is responsible for enforcing speed limits, parking and related vehicular activity on the service drive. This agreement shall be approved by the Village of Ontonagon attorney and recorded with the deed for each property it serves by the County Register of Deeds. If the service drive is a private road, the local government shall reserve the right to make repairs or improvements to the service drive and charge back the costs directly or by special assessment to the benefiting landowners if they fail to properly maintain a service drive.

g. Parking Areas - All separate parking areas (i.e. those that do not use joint parking cross-access) shall have no more than one (1) access point or driveway to the service drive.

h. Parking - The service road is intended to be used exclusively for circulation, not as a parking, loading or unloading aisle. Parking shall be prohibited along two-way frontage roads and service drives that are constructed at the minimum width (see B.4. above). One-way roads or two-way roads designed with additional width for parallel parking may be allowed if it can be demonstrated through traffic studies that on-street parking will not significantly affect the capacity, safety or operation of the frontage road or service drive. Perpendicular or angle parking along either side of a designated frontage road or service drive is prohibited. The Planning Commission may require the posting of "no parking" signs along the service road. As a condition to site plan approval, the Planning Commission may permit temporary parking in the easement area where a continuous service
road is not yet available, provided that the layout allows removal of the parking in the future to allow extension of the service road. Temporary parking spaces permitted within the service drive shall be in excess of the minimum required under Section 62-5, Off-street Parking and Loading Areas.

i. Directional Signs and Pavement Markings - Pavement markings may be required to help promote safety and efficient circulation. The property owner shall be required to maintain all pavement markings. All directional signs and pavement markings along the service drive shall conform to the current Michigan Manual of Uniform Traffic Control Devices.

j. Assumed Width of Pre-existing Service Drives - Where a service drive in existence prior to the effective date of this provision has no recorded width, the width will be considered to be forty (40) feet for the purposes of establishing setbacks and measured an equal distance from the midpoint of the road surface.

k. Pedestrian and Bicycle Access - Separate, safe access for pedestrians and bicycles shall be provided on a sidewalk or paved path that generally parallels the service drive unless alternate and comparable facilities are approved by the Planning Commission.

l. Number of Lots or Dwellings Served - No more than twenty-five (25) lots or dwelling units may gain access from a service drive to a single public street.

m. Service Drive Signs - All new public and private service drives shall have a designated name on a sign meeting the standards on file in the office of the Zoning Administrator.

n. Pre-existing Conditions - In the case of expansion, alteration or redesign of existing development where it can be demonstrated that pre-existing conditions prohibit installation of a frontage road or service drive in accordance with the aforementioned standards, the Planning Commission shall have the authority to allow and/or require alternative cross access between adjacent parking areas through the interconnection of main circulation aisles. Under these conditions, the aisles serving the parking stalls shall be aligned perpendicularly to the access aisle, as shown in Figure 1c., with islands, curbing and/or signage to further delineate the edges of the route to be used by through traffic.
Figure 1: Frontage Road, Rear Service Drive and Parking Lot Cross Access

a. FRONTAGE ROAD

- This distance usually established as a result of analysis of a traffic impact study.
- Unless a lesser amount approved by the road authority.

b. REAR SERVICE DRIVE

- This distance usually established as a result of analysis of a traffic impact study.

b. PARKING LOT CROSS ACCESS (Connected parking lots)

- Property lines
- Curb islands
- Parking lot cross access
- Landscaping
- R.O.W.
11. Parking Lot Connections or Parking Lot Cross-Access: Where a proposed parking lot is adjacent to an existing parking lot of a similar use, there shall be a vehicular connection between the two parking lots where physically feasible, as determined by the Planning Commission. For developments adjacent to vacant properties, the site shall be designed to provide for a future connection. A written access easement signed by both landowners shall be presented as evidence of the parking lot connection prior to the issuance of any final zoning approval.

12. Access Easements: Shared driveways, cross access driveways, connected parking lots, and service drives shall be recorded as an access easement and shall constitute a covenant running with the land. Operating and maintenance agreements for these facilities should be recorded with the deed.

13. Access points shall be located to provide safe sight distance, as determined by the applicable road agency.

14. All access points shall maintain clear vision as illustrated in the following Figures 2 and 3.
Figure 2
CLEAR VISION AT DRIVEWAYS

Figure 3
CLEAR VISION ON CORNER
15. Throat width and throat length of driveways shall be as required by the road authority and this Ordinance. The driveway design shall safely accommodate the needs of pedestrians and bicyclists.

16. Grades and drainage:

   a. Driveways shall be constructed such that the grade for the 25 feet nearest the pavement edge or shoulder does not exceed 1.5% (one and one-half foot vertical rise in one-hundred feet of horizontal distance) wherever feasible. Where not feasible, grades shall conform to requirements of the applicable road authority.

   b. Driveways shall be constructed such that drainage from impervious areas located outside of the public right-of-way, which are determined to be in excess of existing drainage from these areas shall not be discharged into the roadway drainage system without the approval of the responsible agency. Storm drains, or culverts, if required shall be of a size adequate to carry the anticipated storm flow and be constructed and installed pursuant to the specifications of the responsible road authority.

17. Directional Signs and Pavement Markings - In order to ensure smooth traffic circulation on the site, direction signs and pavement markings shall be installed at the driveway(s) in a clearly visible location as required by the Village of Ontonagon as part of the site plan review process and approved by the Michigan Department of Transportation and Ontonagon County Road Commission (as appropriate), and shall be maintained on a permanent basis by the property owner. Directional signs and pavement markings shall conform to the standards in the Michigan Manual of Uniform Traffic Control Devices.

18. Traffic Signals – Access points on US-45/M-38/M-64 and Greenland Road may be required to be signalized in order to provide safe and efficient traffic flow. Any signal shall meet the spacing requirements of the applicable road authority. A development may be responsible for all or part of any right-of-way, design, hardware, and construction costs of a traffic signal if it is determined by the road authority that the signal is warranted by the traffic generated from the development. The procedures for signal installation and the percent of financial participation required of the development in the installation of the signal shall be in accordance with criteria of the road authority with jurisdiction.

19. No driveway shall interfere with municipal facilities such as street lights or traffic signal poles, signs, fire hydrants, cross walks, bus loading zones, utility poles,
fire alarm supports, drainage structures, or other necessary street structures. The Zoning Administrator is authorized to order and effect the removal or reconstruction of any driveway which is constructed in conflict with street structures. The cost of reconstructing or relocating any new or proposed such driveways shall be at the expense of the property owner with the problem driveway.

Q. Nonconforming Driveways
1. Driveways that do not conform to the regulations in this Section, and which were constructed before the effective date of this Section, shall be considered legal nonconforming driveways. Existing driveways previously granted a temporary access permit by MDOT or the County Road Commission are legal nonconforming driveways until such time as the temporary access permit expires.

2. Loss of legal nonconforming status results when a nonconforming driveway ceases to be used for its intended purpose, as shown on the approved site plan, or a plot plan, for a period of twelve (12) months or more. Any reuse of the driveway may only take place after the driveway conforms to all aspects of this Section.

3. Legal nonconforming driveways may remain in use until such time as the use of the driveway or property is changed or expanded in number of vehicle trips per day or in the type of vehicles using the driveway (such as many more trucks) in such a way that impact the design of the driveway. At this time, the driveway shall be required to conform to all aspects of the Ordinance.

4. Driveways that do not conform to the regulations in this Ordinance and have been constructed after adoption of this Ordinance, shall be considered illegal nonconforming driveways.

5. Illegal nonconforming driveways are a violation of this Ordinance. The property owner shall be issued a violation notice which may include closing off the driveway until any nonconforming aspects of the driveway are corrected. Driveways constructed in illegal locations shall be immediately closed upon detection and all evidence of the driveway removed from the right-of-way and site on which it is located. The costs of such removal shall be borne by the property owner.
6. Nothing in this Ordinance shall prohibit the repair, improvement, or modernization of lawful nonconforming driveways, provided it is done consistent with the requirements of this Section.

R. Waivers and Variances of Requirements in Section 62-3.2(2)

1. Any applicant for access approval under the provisions of this Section may apply for a waiver of standards in Section P if the applicant cannot meet one or more of the standards according to the procedures provided below:

a. For waivers on properties involving land uses with less than 500 vehicle trips per day based on rates published in the Trip Generation Manual of the Institute of Transportation Engineers: Where the standards in this Section cannot be met, suitable alternatives, documented by a registered traffic engineer and substantially achieving the intent of the Section may be accepted by the Zoning Administrator, provided that all of the following apply:

1) The use has insufficient size to meet the dimensional standards.
2) Adjacent development renders adherence to these standards economically unfeasible.
3) There is no other reasonable access due to topographic or other considerations.
4) The standards in this Section shall be applied to the maximum extent feasible.
5) The responsible road authority agrees a waiver is warranted.

b. For waivers on properties involving land uses with more than 500 vehicle trips per day based on rates published in the Trip Generation Manual of the Institute of Transportation Engineers, the Planning Commission shall have the authority to waive or otherwise modify the standards of Section P following an analysis of suitable alternatives documented by a registered traffic engineer and substantially achieving the intent of this Section, provided all of the following apply:

1) Access via a shared driveway or front or rear service drive is not possible due to the presence of existing buildings or topographic conditions.
2) Roadway improvements (such as the addition of a traffic signal, a center turn lane or bypass lane) will be made to improve overall traffic operations prior to project completion, or occupancy of the building.
3) The use involves the redesign of an existing development or a new use which will generate less traffic than the previous use.
4) The proposed location and design is supported by the County Road Commission and/or the Michigan Department of Transportation, as applicable, as an acceptable design under the circumstances.

2. Variance Standards: The following standards shall apply when the Board of Appeals considers a request for a variance from the standards of this Section:
   a. The granting of a variance shall not be considered until a waiver under Section R 1. above has been considered and rejected.
   b. Applicants for a variance must provide proof of practical difficulties unique to the parcel (such as wetlands, steep slopes, an odd parcel shape or narrow frontage, or location relative to other buildings, driveways or an intersection or interchange) that make strict application of the provisions of this Section impractical. This shall include proof that:
      1) indirect or restricted access cannot be obtained; and,
      2) no reasonable engineering or construction solution can be applied to mitigate the condition; and,
      3) no reasonable alternative access is available from a road with a lower functional classification than the primary road; and,
      4) without the variance, there is no reasonable access to the site and the responsible road authority agrees.
   c. The Board of Appeals shall make a finding that the applicant for a variance met their burden of proof above, that a variance is consistent with the intent and purpose of this Section, and is the minimum necessary to provide reasonable access.
   d. Under no circumstances shall a variance be granted unless not granting the variance would deny all reasonable access, endanger public health, welfare or safety, or cause an unnecessary hardship on the applicant. No variance shall be granted where such hardship is self-created.

(3) TRAFFIC IMPACT STUDY
   A. If the proposed land use exceeds the traffic generation thresholds below, then the Zoning Administrator shall require submittal of a traffic impact study at the expense of the applicant, as described below prior to consideration of the application or site plan by either the Zoning Administrator or the Planning Commission. At their discretion, the Planning Commission may accept a traffic impact study prepared for another public agency. A traffic impact study shall be provided for the following developments unless waived by the Planning Commission following consultation with the Michigan Dept. of Transportation or County Road Commission, as applicable:
1. For any residential development of more than twenty (20) dwelling units, or any office, commercial, industrial or mixed use development, with a building over 50,000 square feet, or
2. When permitted uses could generate either a thirty percent (30%) increase in average daily traffic, or at least one hundred (100) directional trips during the peak hour of the traffic generator or the peak hour on the adjacent streets, or over seven hundred fifty (750) trips in an average day.
3. Such other development that may pose traffic problems in the opinion of the Planning Commission.

B. At a minimum the traffic impact study shall be in accordance with accepted principles as described in the latest revision of the handbook Evaluating Traffic Impact Studies, a Recommended Practice for Michigan, developed by MDOT and other Michigan transportation agencies, and contain the following:

1. A narrative summary including the applicant and all project owners, the project name, a location map, size and type of development, project phasing, analysis of existing traffic conditions and/or site restrictions using current data transportation system inventory, peak hour volumes at present and projected, number of lanes, roadway cross section, intersection traffic, signal progression, and related information on present and future conditions. The capacity analysis software should be the same for each project, such as using HCS 2000 or a later version.
2. Projected trip generation at the subject site or along the subject service drive, if any, based on the most recent edition of the Institute of Transportation Engineers Trip Generation manual. The Village of Ontonagon may approve use of other trip generation data if based on recent studies of at least three (3) similar uses within similar locations in Michigan.
3. Illustrations of current and projected turning movements at access points. Include identification of the impact of the development and its proposed access on the operation of the abutting streets. Capacity analysis shall be completed based on the most recent version of the Highway Capacity Manual published by the Transportation Research Board, and shall be provided in an appendix to the traffic impact study.
4. Description of the internal vehicular circulation and parking system for passenger vehicles and delivery trucks, as well as the circulation system for pedestrians, bicycles and transit users.
5. Justification of need, including statements describing how any additional access (more than one driveway location) will improve safety on the site and will be consistent with the US-45/M-38/M-64 Access Management Action Plan and the Community or Comprehensive Master Plan, and will not reduce capacity or traffic operations along the roadway.
6. Qualifications and documented experience of the author of the Traffic Impact Study, describing experience in preparing traffic impact studies in Michigan. The preparer shall be either a registered traffic engineer (P.E.) or transportation planner with at least five (5) years of experience preparing traffic impact studies in Michigan. If the traffic impact study involves geometric design, the study shall be prepared or supervised by a registered engineer with a strong background in traffic engineering.

C. The Village of Ontonagon may utilize its own traffic consultant to review the applicant's traffic impact study, with the cost of the review being borne by the applicant per Section 62-3.2(1).

SECTION 62-2 DEFINITIONS

Access means a way or means of approach to provide vehicular or pedestrian entrance or exit to a property from an abutting property or a public roadway.

Access Management means the process of providing and managing reasonable access to land development while preserving the flow of traffic in terms of safety, capacity, and speed on the abutting roadway system.

Access Point means a) The connection of a driveway at the right-of-way line to a road; or b) A new road, driveway, shared access or service drive.

Driveway means any entrance or exit used by vehicular traffic to or from land or buildings abutting a road.

Driveway Offset means the distance between the centerline of two driveways on opposite sides of an undivided roadway.

Driveway, Shared means a driveway connecting two or more contiguous properties to the public road system.

Frontage Road or Front Service Drive means a local street/road or private road typically located in front of principal buildings and parallel to an arterial for service to abutting properties for the purpose of controlling access to the arterial.

Rear Service Drive means a local street/road or private road typically located behind principal buildings and parallel to an arterial for service to abutting properties for the purpose of controlling access to the arterial.
Sight Distance means the distance of unobstructed view for the driver of a vehicle, as measured along the normal travel path of a roadway to a specified height above the roadway.

Throat Length means the distance parallel to the centerline of a driveway to the first on-site location at which a driver can make a right-turn or a left-turn. On roadways with curb and gutter, the throat length shall be measured from the face of the curb. On roadways without a curb and gutter, the throat length shall be measured from the edge of the paved shoulder.

Throat Width means the distance edge-to-edge of a driveway measured at the right-of-way line.

Trip Generation means the estimated total number of vehicle trip ends produced by a specific land use or activity. A trip end is the total number of trips entering or leaving a specific land use or site over a designated period of time. Trip generation is estimated through the use of trip rates that are based upon the type and intensity of development.

SECTION III. Severability.
If any section, clause, or provision of this Amendatory Ordinance were declared unconstitutional or otherwise invalid by a court of competent jurisdiction, said declaration shall not affect the remainder of the Ordinance. The Village of Ontonagon Village Board hereby declares that it would have passed this Ordinance and each part, section, subsection, phrase, sentence and clause irrespective of the fact that any one or more parts, sections, subsections, phrases, sentences or clauses be declared invalid.

SECTION IV. Effective Date.
This Amendatory Ordinance shall become effective thirty (30) days after a notice of adoption has been published in a newspaper of general circulation within the community.

By:

By:

By:

Clerk