

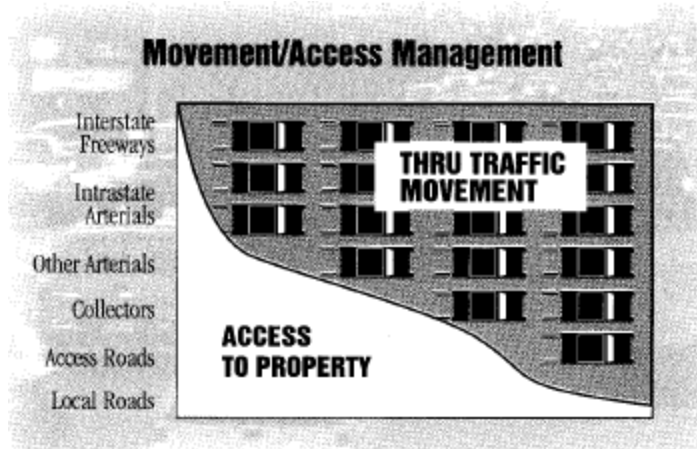
# *Access Management for Roadways Improving Safety and Preserving Capacity*

## WHAT IS ACCESS MANAGEMENT?

Access Management is the use of different road and driveway design techniques to reduce traffic conflict, improve roadway safety and reduce congestion. While some people believe Access Management is simply a concern over the spacing of driveways and street intersections, it involves a range of techniques that in addition to driveway spacing include:

- o Provisions of turn lanes
- o Spacing of traffic signals
- o Layout of supporting local road systems
- o Provision of inter-parcel circulation
- o Appropriate use and design of medians
- o Appropriate management of access at interchanges

While property owners have a right to reasonably suitable and convenient access, roadway users also have the right to expect safe and reasonably efficient roadway operation supported by the efficient use of public funds. The safe and efficient operation of facilities requires that transportation officials effectively manage access on all facilities; however, the management may be to different levels or degrees.



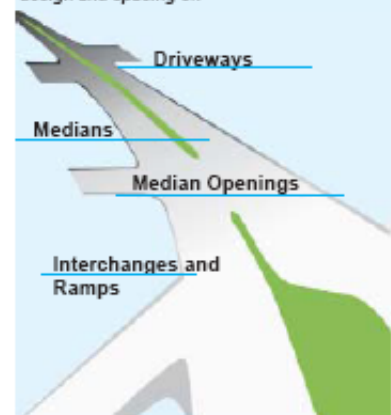
## WHAT DO WE KNOW ABOUT THE EFFECTS OF ACCESS MANAGEMENT?

Research has consistently shown that as the number of driveways increase, potential conflicts and the number of crashes rise. Fewer driveways spaced further apart allow for more orderly merging of traffic and present fewer challenges to drivers.

## What is Access Management?

Access management is the careful planning of the location, design, and operation of driveways, median openings, interchanges, and street connections.

The control of the location, design and spacing of:



The purpose of access management is to provide access to land development in a manner that preserves the safety and efficiency of the transportation system.

An examination of crash data in Minnesota as illustrated in the graphs at the right indicated a strong linear relationship between the number of crashes and the number of driveways in both urban as well as rural areas.

The congestion impact in urban areas from increasing numbers of driveways is also fairly clear. Research has found that roadway speeds are reduced an average of 2.5 miles per hour for every 10 access points per mile, up to a maximum of a 10 miles per hour reduction at > 40 access points per mile.

### WHAT ARE THE REASONS FOR MANAGING ACCESS IN RURAL AREAS?

The rationale for managing access in rural areas is somewhat different than in urbanized areas. Roads in rural areas usually serve low-density land uses and have lower volumes, and thus the disrupting impact of access to traffic is less significant. However, because of travel speeds, safety and operational concerns exist, and maintenance issues exist as well that access management can address. Managing rural access for safety includes considering sight distance, the number of conflict areas drivers must respond to, and the severity of crashes when vehicles run-off-the-road. Managing rural access for improved operations/maintenance includes consideration of the detrimental effect of access points on winter driving due to drifting, the increased difficulty access points pose for effective snow removal, the added costs for resurfacing projects, and the impacts of access drives on drainage.

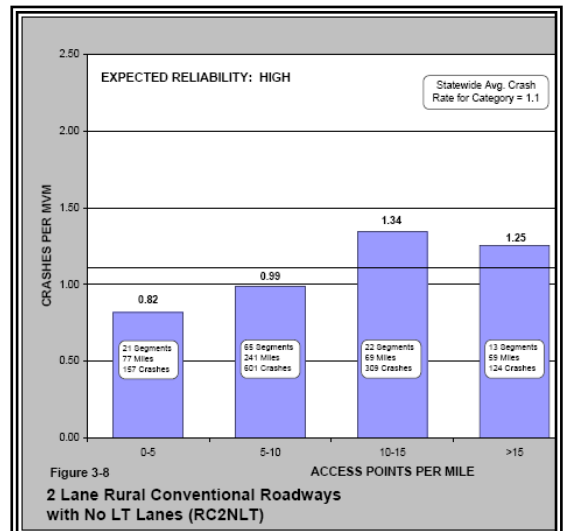


Figure 3-8  
2 Lane Rural Conventional Roadways with No LT Lanes (RC2NLT)

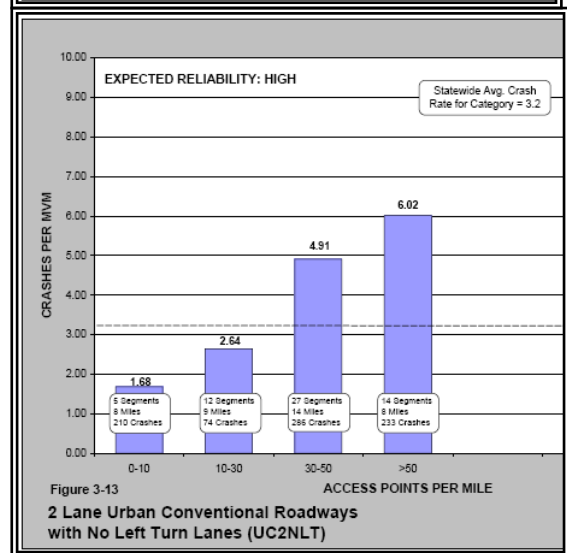
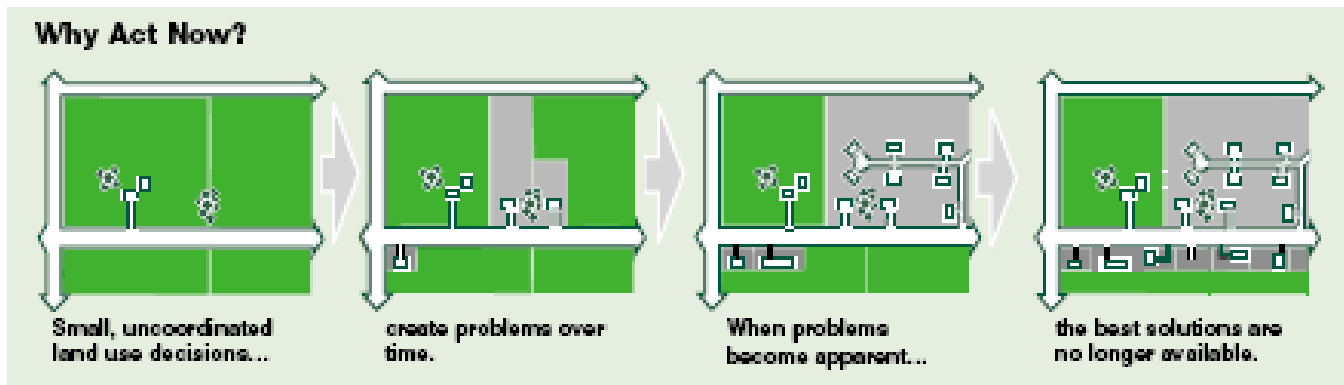


Figure 3-13  
2 Lane Urban Conventional Roadways with No Left Turn Lanes (UC2NLT)

### WHY IS IT IMPORTANT TO ACT EARLIER RATHER THAN LATER?

The earlier in the land development process that access management is considered the easier it will be to locate access points so that safety and capacity are not seriously compromised. This is most effective when lots and streets are initially laid out and land is first subdivided for development. Preferably, discussions regarding access should be concurrent with other approvals to improve the coordination of land use and transportation systems.



## WHAT ARE THE ANTICIPATED BENEFITS OF AN ACCESS MANAGEMENT PROGRAM ?

Access management is good business; it presents tremendous opportunities for financial savings in the form of reduced accident costs, long term preservation of roadway capacity and efficiency which may reduce the need for future investment in additional travel lanes, reduced need to purchase additional right-of-way, and improved economic conditions for businesses along busy corridors by reducing real and perceived congestion.

### Access Management Benefits

- Improved Safety
- Reduced Travel Time and Increased Mobility
- Improved Traffic Capacity/Operation
- Orderly Land Use
- Improved Air Quality
- Energy Savings

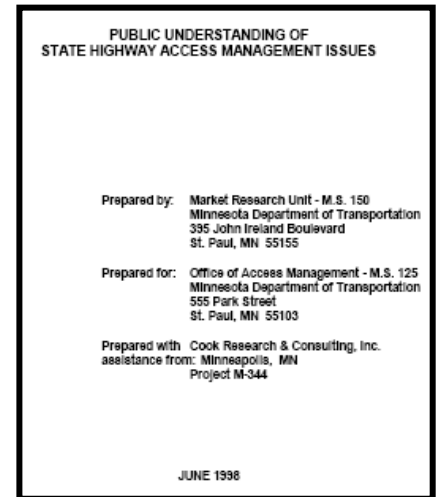


## IS THERE PUBLIC SUPPORT FOR ACCESS MANAGEMENT?

In 1999 MNDOT conducted a series of meetings across the state on the issue of access management documented in the report PUBLIC UNDERSTANDING OF STATE HIGHWAY ACCESS MANAGEMENT ISSUES. Among the statements and opinions expressed by the general public at the focus groups included:

*“In addition to the concerns about private driveways, participants were aware of problems associated with county highway and city street intersections, particularly when these intersections were skewed, were not visible, or were too frequent.”*

*“Participants indicated that they would be willing to drive a little farther to reduce frustration, improve convenience, and improve safety. Frontage roads were often cited as a good solution for providing the right balance between access and mobility.”*



## WHAT ARE THE BASICS OF THE PROPOSED COUNTY ACCESS MANAGEMENT ORDINANCE?

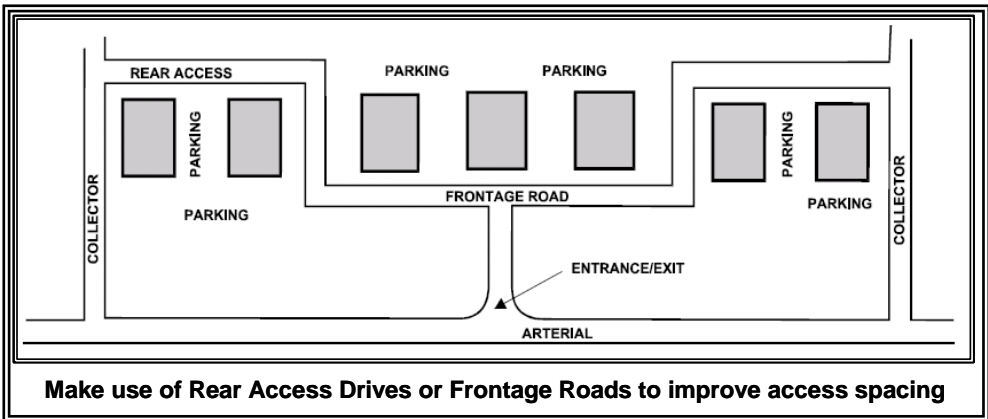
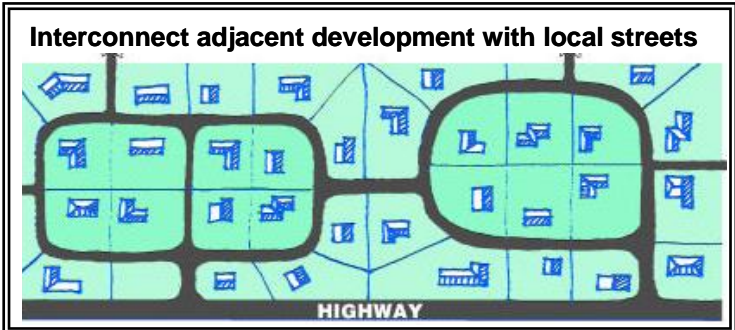
The proposed Olmsted County Access Management Ordinance will provide a basis for issuing driveway permits consistent with the legal requirements established in a recent State District Court decision. As in the past, property owners will be required to obtain a driveway permit when they wish to connect a driveway to a county road or highway. The proposed ordinance will establish basic spacing requirements for driveways as shown in the table below, and will establish other design criteria that will be considered in reviewing permit requests. The ordinance requires an Access Plan be developed for proposed subdivisions at the time of development review so that appropriate access locations can be defined as early in the development process as possible.

Road Classification	Urban	Rural	DRIVEWAY SPACING		
	Local Street Spacing (ft)	Local Street Spacing (ft)	Posted Speed Limit		
			< 35 Mph	35 - 45 Mph	> 45 Mph
Strategic Arterial	1320	2640	660	880	1000
Regional Major Arterial	880	2640	480	660	800
Urban Major Arterial	660	NA	275	375	500
Regional Secondary Arterial	660	1320	250	480	660
Urban Secondary Arterial	480	NA	175	275	330
Regional Primary Collector	480	660	150	330	480
Urban Primary Collector	330	NA	125	200	275
Local Collector	330	660	60	NA	NA

## BEST PRACTICES IN ACCESS MANAGEMENT

The proposed ordinance encourages the following “Best Practices” when considering the location of new access connections for any property:

1. Limit the number of curb cuts to one per parcel.
2. Avoid construction of new access onto major highways – orient access to secondary roads where possible
3. Provide adequate sight distance at all entrances to improve safety and reduce potential conflicts
4. Develop turn lanes or bypass lanes to allow through traffic to keep moving while providing a storage area for turning traffic on higher speed roadways.
5. Align driveways on opposite sides of roadways. Avoid offset or “dogleg” intersections and entrances.
6. Encourage connectivity between adjacent development to reduce the need for local traffic on major roadways.
7. Provide adequate corner clearance of driveways from public street intersections on corner lots and keep driveway connections away from turn lanes if possible.



## WANT MORE INFORMATION?

Questions should be directed to the Olmsted County Public Works Department at 328-7060. [Permit application forms](#) and a copy of the [Access Management Ordinance](#) are available on the Olmsted County Public Works Department [web site](#).

