ACCESS MANAGEMENT

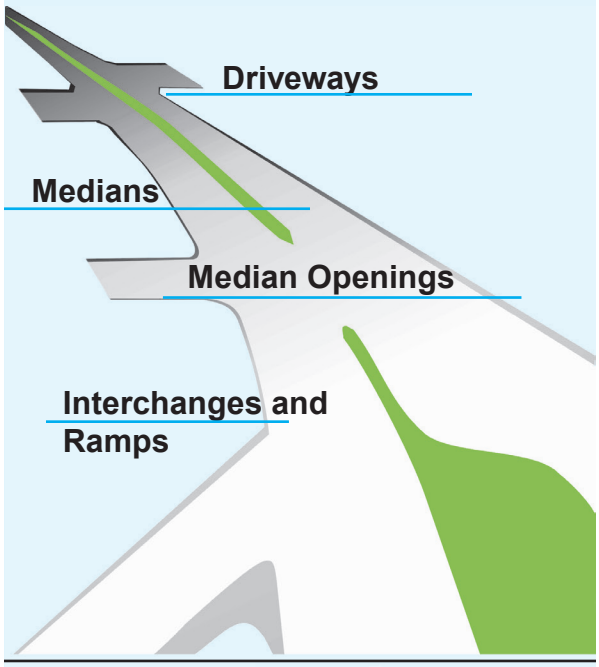
BALANCING ACCESS AND MOBILITY

Answers to your questions

ACCESS

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

Roads serve two primary purposes. One is **mobility** and the other is **access**. Mobility is the efficient movement of people and goods. Access is getting those people and goods to specific properties. A roadway designed to maximize mobility typically does so in part by managing access to adjacent properties. A good example is an Interstate Highway. While a motorist could expect to travel quite efficiently over a long distance using an Interstate Highway, the number of access points is restricted to only freeway interchanges every few miles. This type of roadway serves primarily a mobility function. At the other extreme, a local residential street would provide easy and plentiful access to all adjacent properties, but long distance travel on such a roadway would be impossible. This type of roadway serves primarily an access function.

Most state roads serve a function somewhere between the Interstate Highway and the local road described above. **One of the most important responsibilities of the Florida Department of Transportation (FDOT) is to ensure that the design of each state road properly balances access and mobility. Access management is used to provide this very important balance.**

Many business and property owners have expressed concerns regarding the FDOT access management policies. Some feel that the process is unfair. Others feel that the engineers and planners who make access management decisions are not sensitive to the needs of the business community. This brochure is intended to provide you with a better understanding of access management to dispel these concerns.

CONFLICTS

Does FDOT just think this stuff up?

Many business and property owners have asked us this question. The answer is no. The standards developed by FDOT are based on research done around the world for the last 40 years. Much of this research involved studying actual locations, many in Florida, where different access management strategies have been used. The studies evaluated the impacts of different access management treatments on crashes, congestion, and even business performance. The standards used by FDOT are thought **to provide the optimal balance between access and mobility,** and consider the characteristics of different types of roadways.

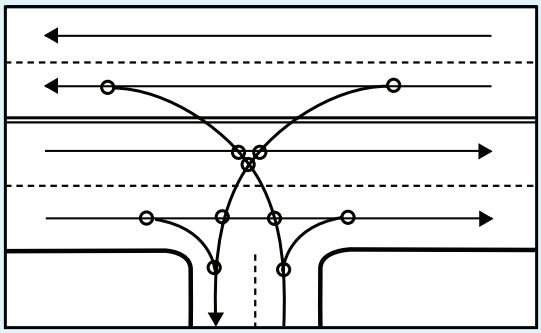
NO, the standards are based on over 40 years of experience and research

How does Access Management improve safety?

By reducing conflicts.

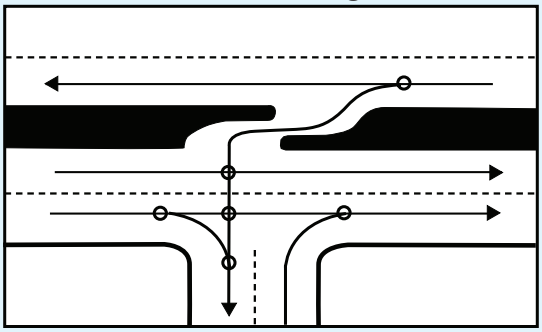
Conflict points are locations along a roadway where two vehicle's paths can legally cross. At a four way intersection there are as many as 36 conflict points. Each conflict point is a location where a crash can occur. **A basic principle of access management is to limit the number of conflict points along a roadway by limiting the number of driveways and median openings and restricting certain movements at some median openings.** Drivers can be overwhelmed by conflict points in close proximity to one another, increasing the potential for crashes. Good access management practice strives to separate conflict points by providing a reasonable distance between driveways and between median openings.

Before Access Management



More Conflicts

After Access Management



Less Conflicts

Access Management reduces crashes

VALUE

What will happen if access management is not implemented?

Businesses can be hurt by congested, high collision roadways near their entrance.

When safety and capacity deteriorate, one of the ways to fix the problem is to add lanes. Although a roadway may eventually need to be widened, **good access management practices can delay the need to widen the road for several years**.

In cases where roadways cannot be widened, good access management will help reduce congestion. Congestion results in safety problems and also discourages motorists from using the road, since most customers try to avoid unsafe or congested roadways whenever possible.

Does access management keep customers away?

No, access management does not impact the demand for goods and services.

Studies have found that "destination" businesses (doctors, specialty retail stores, service-oriented businesses) are not affected by access management modifications. Interviews with both customers and business owners have shown that most people have no problem making a slightly longer trip, including U-turns, to access destination businesses. Although pass-by businesses (convenience stores, gas stations, fast food restaurants) may be impacted more by access management modifications, studies have shown that even pass-by businesses are not negatively impacted as long as reasonable access is provided. **As traffic flow is made more efficient, the roadway can handle more traffic and congestion levels decrease. This results in more motorists being exposed to your business.**

CONGESTION

In Florida's past, the pinnacle of accessibility was the small corner business with driveways on both roads. As you drive down our highways you see the old corner gas stations and strip shopping centers built in our recent history. These small corner lots are now hard to access due to growing traffic queues and high traffic volumes. Florida's traffic volumes are growing so fast that there is no way to keep up with the demand. Even with wider roads we have seen:

- Longer queues of traffic
- Greater congestion
- Peak traffic hours spreading over much of the day
- More difficulty for customers to turn in and out of businesses (especially turning left out of unsignalized driveways)

What do your customer's want?

With the changing nature of our customer traffic, the customer is responding to this change. Customers are seeking businesses with:

- Driveways unblocked by queues of traffic
- Easy access to neighboring businesses
- Access to signalized intersections and side streets to make left turns
- Safe driving conditions

How did Florida's growth affect customer traffic?

Small corner properties are more difficult to access.

This queue is blocking street traffic and additional customers

A well-designed driveway enhances business

IMPACT

Do access management projects harm businesses?

Most businesses see no loss in business due to access management improvements.

This question is asked quite often. We recognize that most business owners have invested a significant amount of their time and savings to establish and grow their businesses. The last thing FDOT wants to do is to have a negative impact on a business. In fact, FDOT strives to provide the citizens of Florida with a safe and efficient state roadway system. Such a system is critical to the economic prosperity of our state.

In general, studies have found that access management modifications do not negatively impact businesses. Businesses succeed or fail due to many factors. Studies have found that businesses do not fail at a higher rate along roadways that undergo access management modifications than along all roadways in general.

In order to make the best access management decisions possible, FDOT relies upon business and property owners, as well as others in the community, to provide input to the process. Information such as the specific access requirements of each business, internal traffic circulation and parking, truck requirements, plans for expansion, and any unusual circumstances are all very valuable to the engineers and planners who develop access management plans.

CUSTOMERS

A number of surveys have been done to solicit input from drivers regarding access management projects. Motorists were asked to provide their opinions regarding changes to several roadways that had undergone access improvements. The over-whelming majority of motorists stated that **they liked the changes, felt the roadway was safer because of the changes, and that the selection of businesses they frequented was not affected by the changes.**

What do your customers think of access management?

Your customers favor access managed highways 4 to 1.

The Driver Survey

78% felt safer

84% felt traffic moved better

Drivers surveyed along 5 improved corridors in Central Florida FDOT District 5 (Ivey Harris & Walls - 1995)

- In Florida, studies in Central Florida and South Florida show that the majority of corridor business operators saw an increase or no change in their customer traffic.
- In Texas and Florida, studies have shown that business expectations of bad impacts were higher than what actually happened when these same business operators were questioned after construction.
- In Iowa, studies across the state showed 80% of the businesses reported sales at least as high as they were before the access management projects were completed.
- In Kansas, fifteen businesses that had claimed inverse condemnation lawsuits due to perceived access problems were studied to see if the impacts of access management had been as bad as the owners had expected. In all the cases, except one, the businesses were still in operation or actually upgraded. The only case of failure was a gas station where the roadway changes required customers to go two miles out of their way.

What have studies shown about business impacts of access management?

Business owners report that the actual impacts to their properties were much less than they anticipated.

COOPERATE

How can business owners participate in the process?

Through public forums and working directly with FDOT.

You can help us understand your needs better than anyone!

PUBLIC FORUMS: One way to participate is to attend the public meetings that are held in advance of new access management projects to discuss issues specific to your property or business. Typically these meetings are announced using fliers, either mailed or hand delivered, along the roadway. Another method is to contact your District FDOT office and request that someone contact you individually to discuss your concerns or issues.

ACCESS MANAGEMENT COMMITTEES: Each FDOT District also has an access management committee responsible for making decisions regarding access management on the state highway system. If a property owner is concerned about an access management decision that affects their property or business, they can appeal to this committee and request the opportunity to present their concerns in person or in writing.

What can businesses and neighborhoods do to promote good access management?

Work with FDOT and your neighbors to make your driveways safer.

Access Management strategies can help businesses, even those operating on older highway corridors by providing these benefits to your customer. These benefits can be accomplished by:

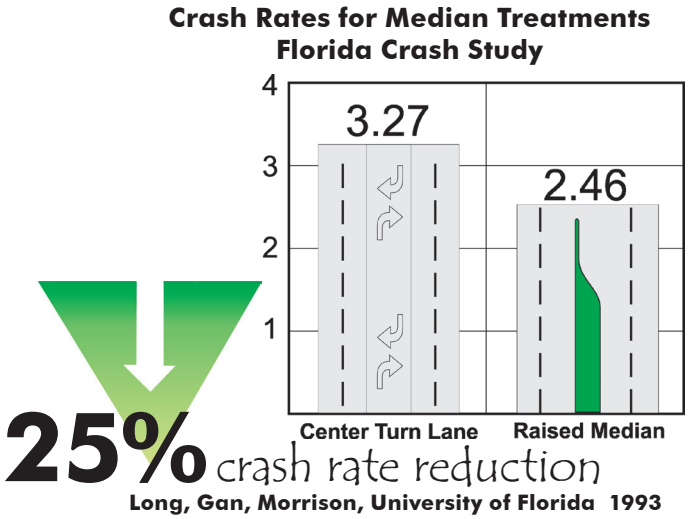
- Properly designed driveways shared by multiple businesses
- Better approaches to businesses from safer and better looking medians
- Moving driveways away from traffic signal intersections allowing easier access for customers, even during times of peak congestion

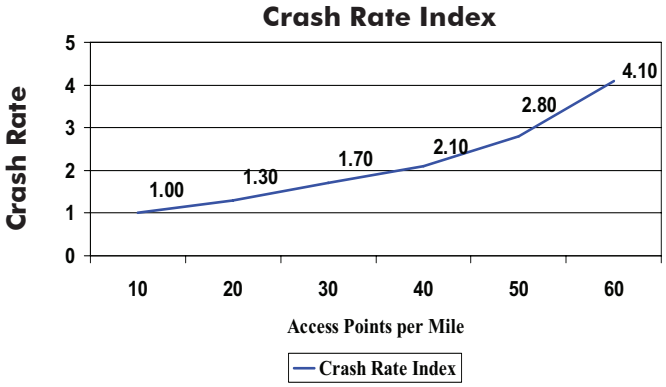
There are many other ways that businesses and FDOT can work together to make access management successful. Contact your District FDOT office and someone will be happy to discuss issues specific to your business or property.

Business can be our strongest Access Management partner

SAFETY

As traffic flow is made more efficient, the roadway can handle more traffic and congestion levels decrease. This results in more motorists being exposed to your business. Also, as safety of a roadway improves, motorists are more likely to be positive about the surrounding area. If it is very difficult to access a business due to a poorly designed driveway, motorists may go to businesses that do not have these problems. This is especially true of older drivers. Additionally, traffic accidents often result in motorists taking alternate routes to avoid congestion associated with accidents. Some of these diverted motorists could be potential customers.





NCHRP Report 420 "Impacts of Access Management Techniques" 2000

What positive impacts will good access management have on my business?

More efficient traffic flow and improved safety are two of the biggest benefits of access management.

The University of Florida conducted a statewide study of all urban and suburban multi-lane state highways. This study showed that there were significant safety improvements for roads with restrictive medians.

In another access management project on State Road 436 in Seminole County, Florida, crash statistics were compared for the three years before and the three years after the project. **It was determined that the overall number of accidents was reduced by 35 %; the number of injuries by 29%; and the number of angle and left turn crashes (which are usually more serious) by 58%.** And this was despite a significant increase in the average daily traffic.

In the national study done by the Transportation Research Board, crash data showed a strong relationship between the access points per mile and the crash rate. There are generally 2.1 times more crashes when you increase access points from 10 to 40 per mile.

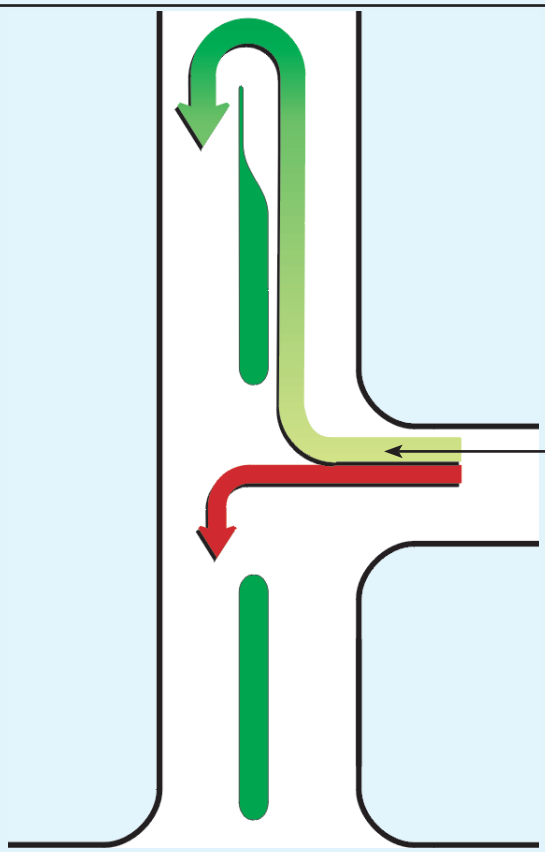
The access spacing implications are clear. Increasing the spacing between access points and providing greater separations of conflicts will reduce the number and variety of events to which drivers must respond. **This translates into fewer accidents, as well as shorter delays.**

U-TURNS

Will customers make U-turns to access businesses?

Yes, and the latest studies show U-turns are a safe alternative to direct left turns.

A study in Orlando shows most customers do not find U-turns an inconvenience



The answer to this question is an overwhelming yes. The most recent research on the safety of U-turns reveals that crashes causing injuries are reduced by more than 25% through encouraging right turns followed by U-turns, compared to direct left turns. Surveys of motorists have shown that a vast majority of them have no problem making U-turns to access businesses. In fact, most felt that access management improvements make roads safer and approve of the changes, despite minor inconveniences associated with U-turns. FDOT carefully evaluates U-turn locations and makes minor roadway improvements where needed to accommodate U-turning traffic. Some large vehicles, of course, may need to take alternate routes as U-turns can be very difficult for some larger trucks.

18%
total crash rate

27%
injury fatality crash rate reduction

John Lu, Ph.D., P.E. University of South Florida 2001

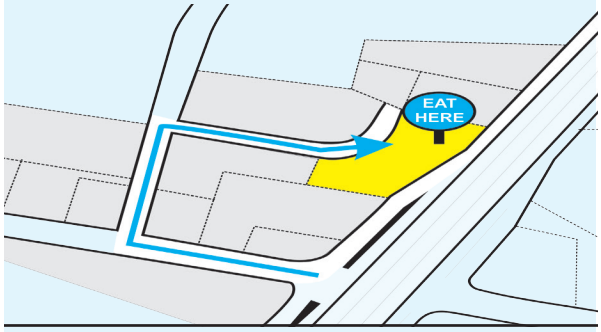
U-turns are often much safer than direct left turns, especially on high volume, high speed, or congested roadways.

INTERCHANGES

FDOT places a special emphasis on access management in the vicinity of interchanges. The main purpose of an interchange is to move large volumes of traffic between a freeway and the cross street. It is the interface between the high-speed freeway and lower speed crossroad. If there are intersections and/or driveways in close proximity to the interchange ramps, the efficient functioning of the interchange can deteriorate. Usually driveways located just after a ramp are difficult to get into or out of, and many have extensive accident history. The resulting congestion near ramps can cause crashes and problems not only on the crossroad but also on the freeway. In order to preserve the capacity and safety of the interchange, the area surrounding the interchange must be free of conflicting movements.

Why is access management critical in interchange areas?

Congestion near ramps can cause crashes and problems on the freeway or Turnpike.



Many restaurant chains have learned that being in the right "vicinity" is more important than direct access

TRUCKS

Many businesses depend on trucks for deliveries and other functions. We also realize that many trucks are not typically able to make certain movements (such as U-turns). We strive to develop a plan that will accommodate truck access to businesses in a manner as convenient as possible. Sometimes this will require that trucks follow a slightly different route to arrive at the property.

Business Owner's Opinions

64% felt no inconvenience to trucks

Even merchants and truck delivery staff felt access management was an improvement

Are trucks considered in the evaluation?

Yes, trucks are always taken into consideration.

90% of truck operators in a south Florida study felt that access management improvements improved safety

District 4: Traffic Operations Freddie Vargas

Access Management

Just think about

the corridors in your community that have well designed access management versus the one with poor access management. Which one do you like to travel on and which ones have the most vibrant businesses?

Hopefully this brochure has answered some of the questions that you as a business or property owner may have. We need and value your input as we strive to make the state highway system as safe and efficient as possible. Please feel free to contact your local or District FDOT office if you would like to discuss specific access management issues with one of our staff. For more information call 850 414-4900.

Access Management helps us preserve your investment in our highways and your business

Office of the State Transportation Planner
Systems Planning Office
www.dot.state.fl.us/planning

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