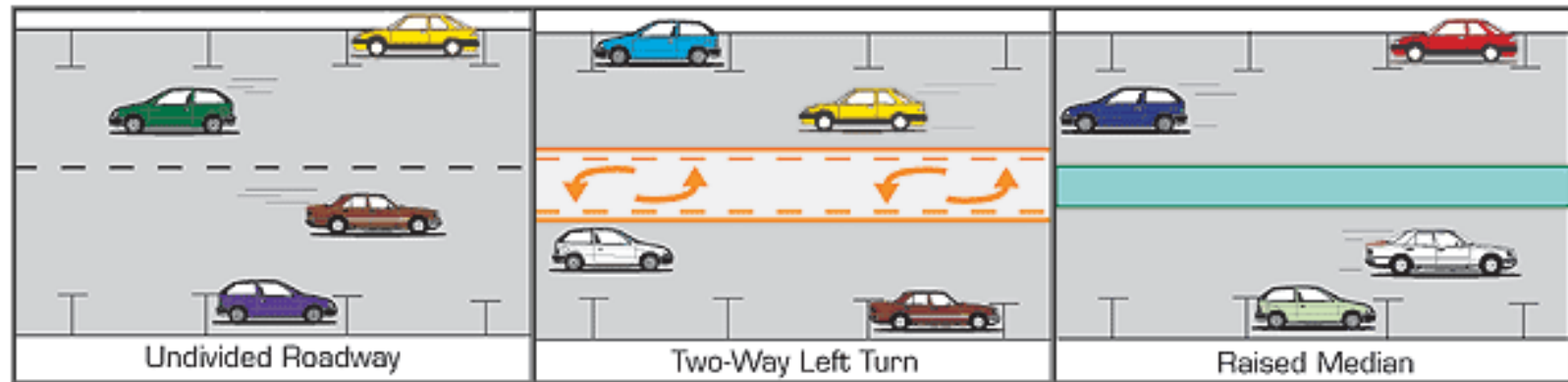
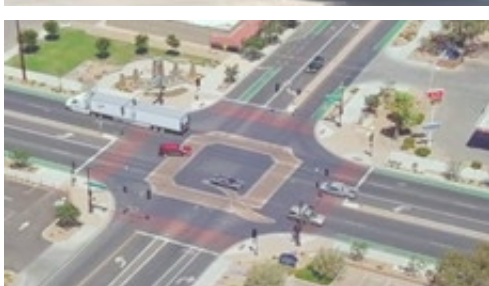


Smart Roadway Access Management: The Benefits and Impacts

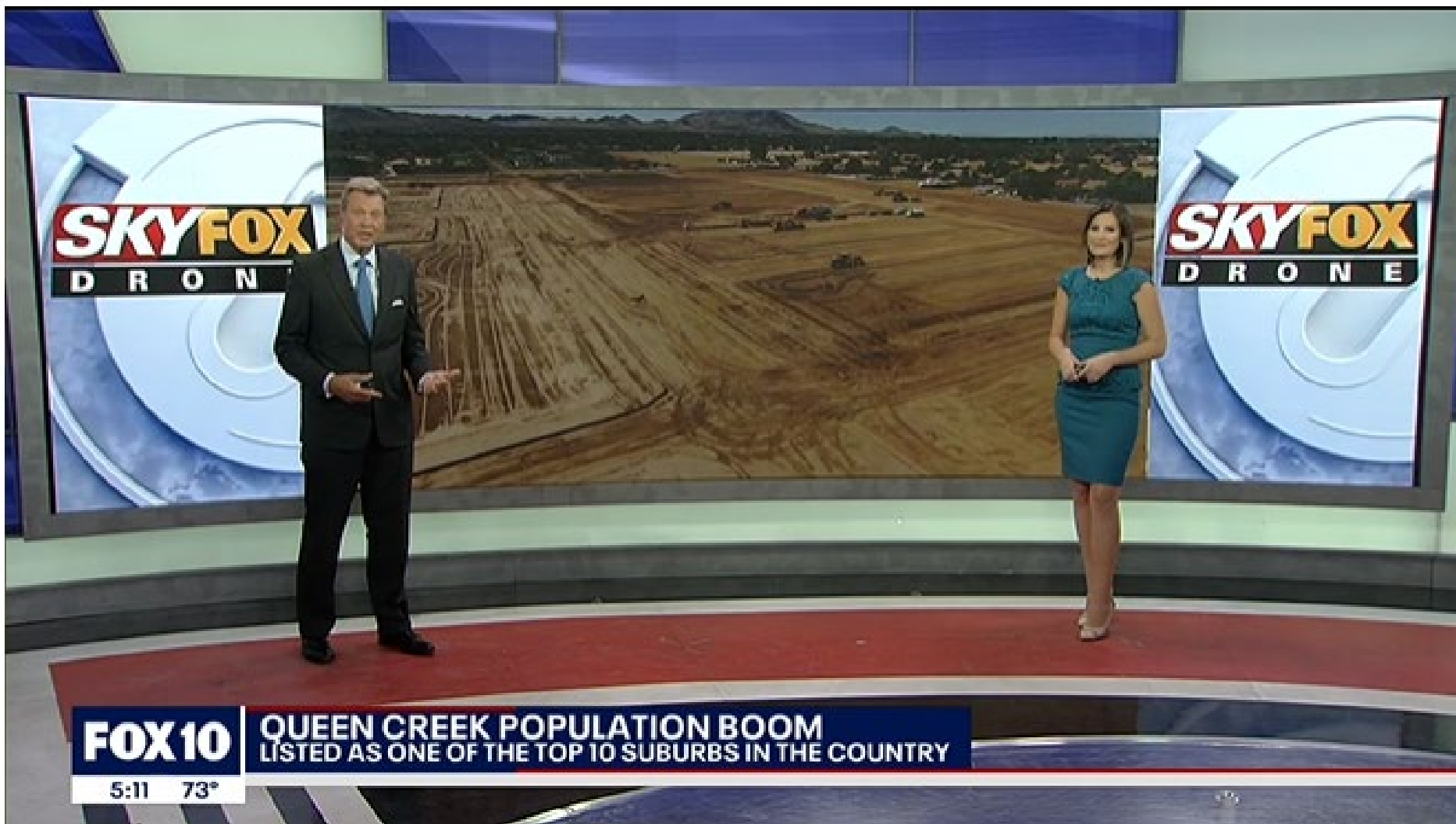


Mohamed Youssef, PE, PTOE
Interim Public Works Director

Presentation Overview



- Solving the transportation puzzle in Queen Creek
- What is access management?
- The importance of access management in the Town of Queen Creek
- The Impact of access management
- Benefits of access management strategies
- Who wins when access management is done right?



Queen Creek ranked as one of the top 10 suburbs in the United States

The far East Valley town is experiencing a population boom, as people from around the Valley and other states are moving in to the once tiny community. FOX 10's Danielle Miller spoke with town officials on what they are doing to keep up with the population growth.

Boom times: Queen Creek tries to keep up as far East Valley town continues to grow

The 10 Fastest Growing Cities In Arizona For 2021

1. Queen Creek
2. Marana
3. Maricopa
4. Goodyear
5. San Luis
6. Sahuarita
7. Surprise
8. Casa Grande
9. El Mirage
10. Gilbert

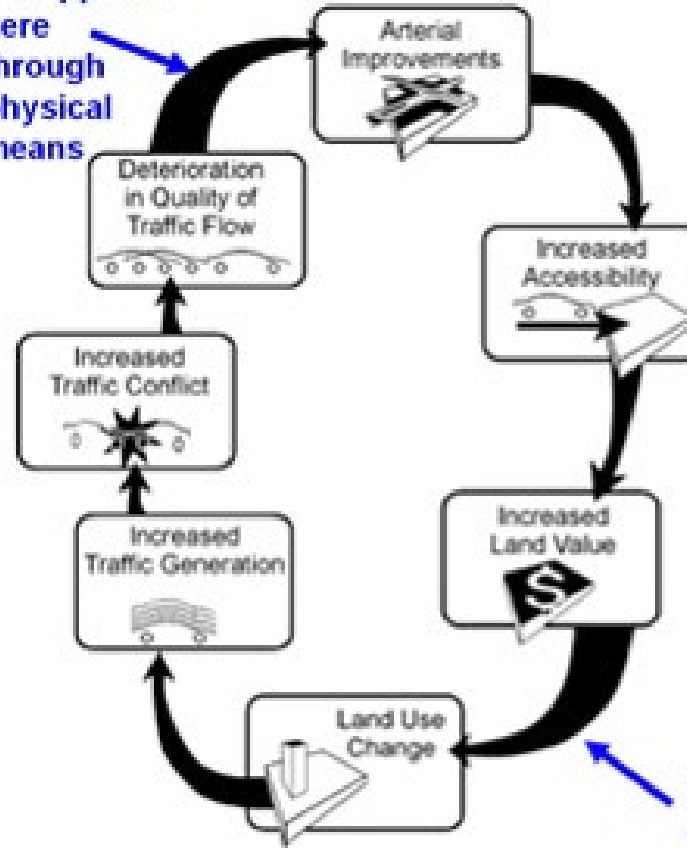
QUEEN CREEK, Ariz. - Queen Creek, once a very small town in the far East Valley, is among the fastest-growing communities in Arizona.

The website, homes.com, just ranked the town a top 10 place to move to in 2021, signaling what was once just miles and miles of farmland is now transforming into a bustling community.

Access Management in the Transportation and Land Use Cycle



AM applied here through physical means



AM applied here through administrative means

What is “Managing Access”?

Managing and Planning the Spacing and Design of:

Driveways



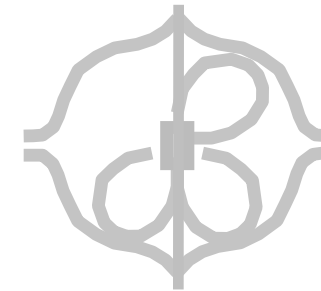
Median Openings



Traffic Signals



Interchanges





Functional Integrity:

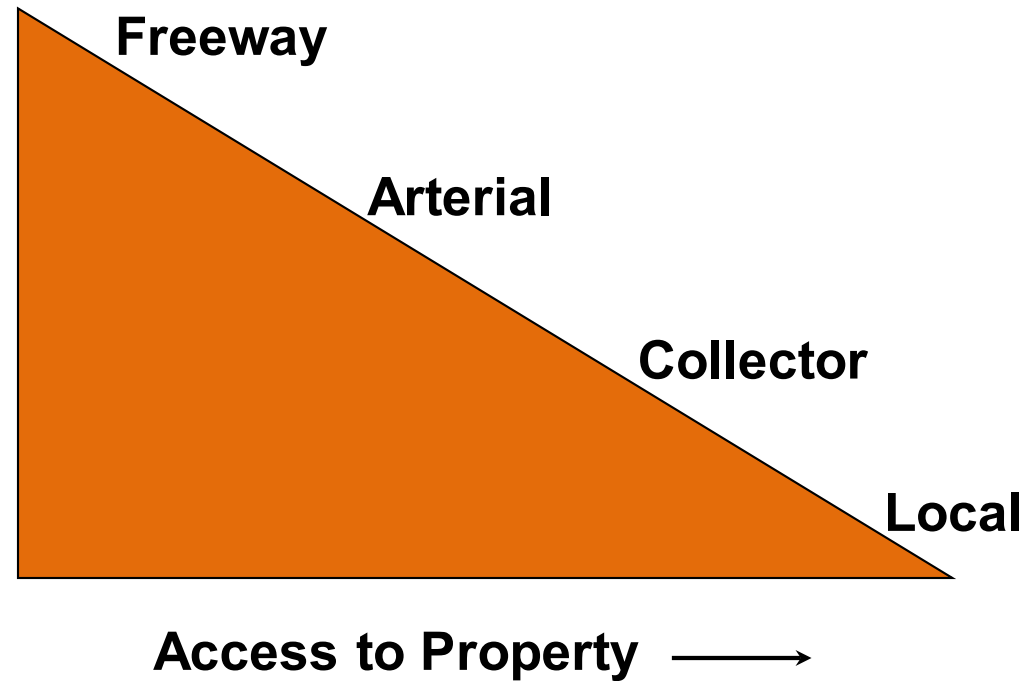
Balance **Mobility**



Access



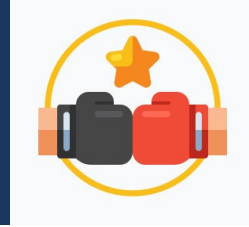
↑
Through
Traffic
Movement
(Mobility)



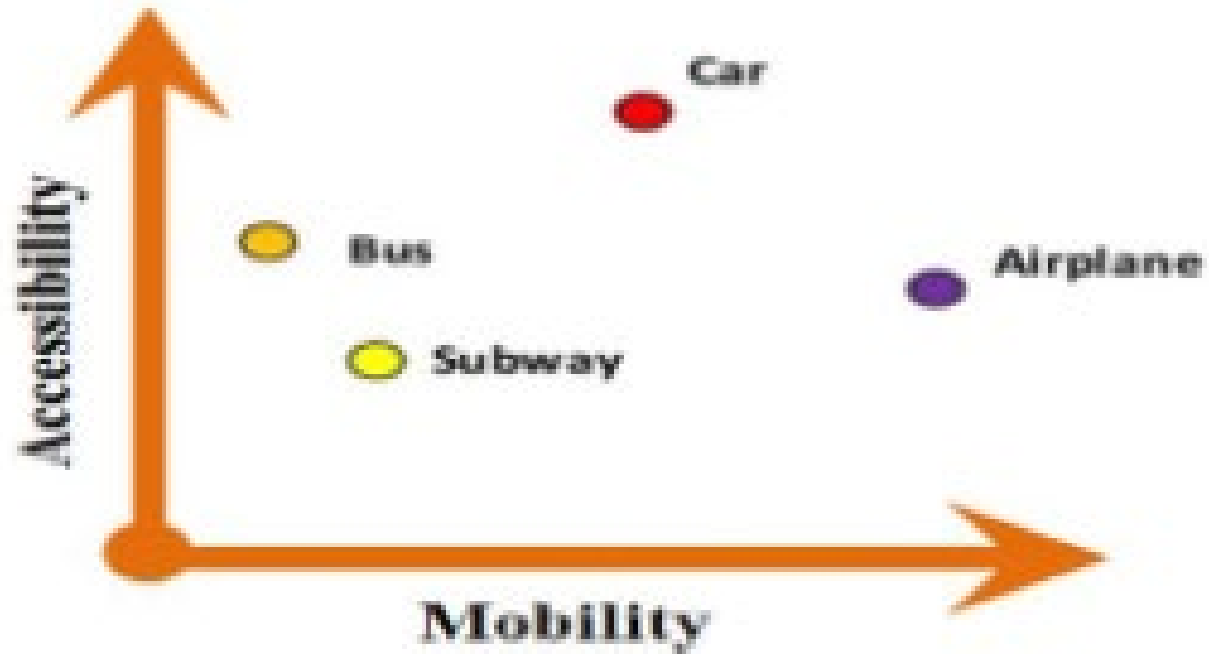


Functional Integrity:

Balance **Mobility**

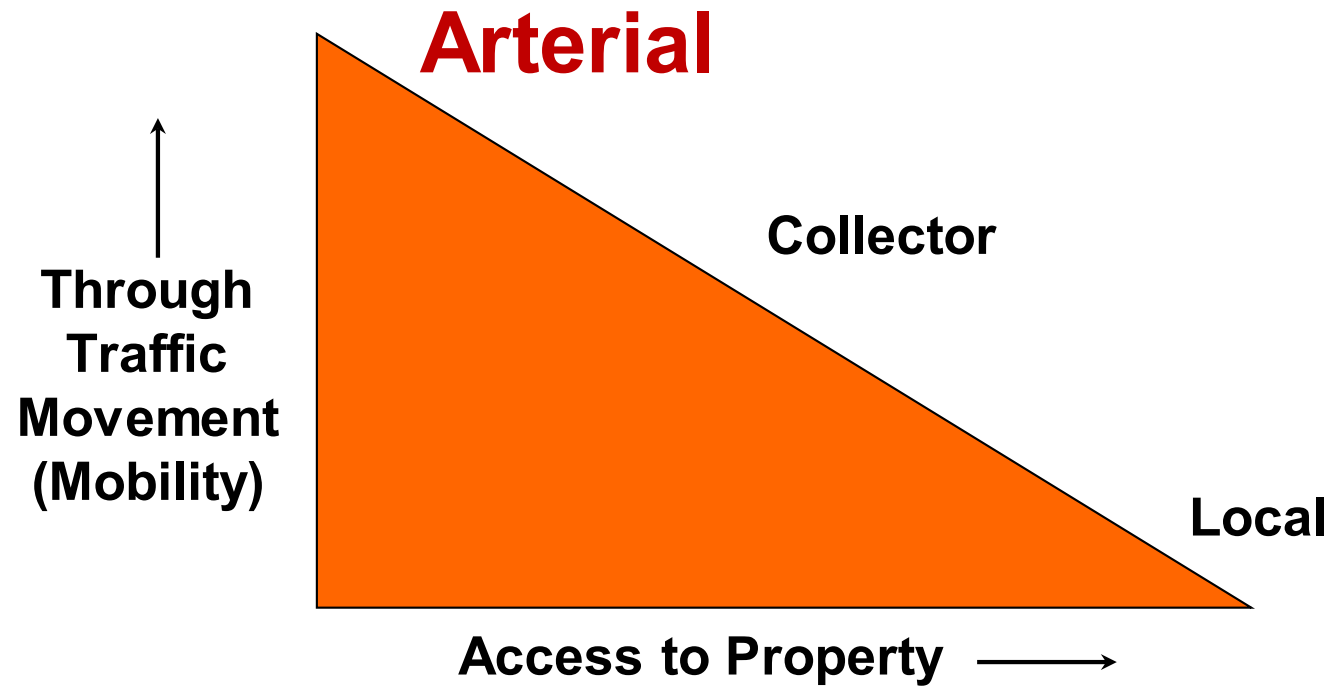


Accessibility

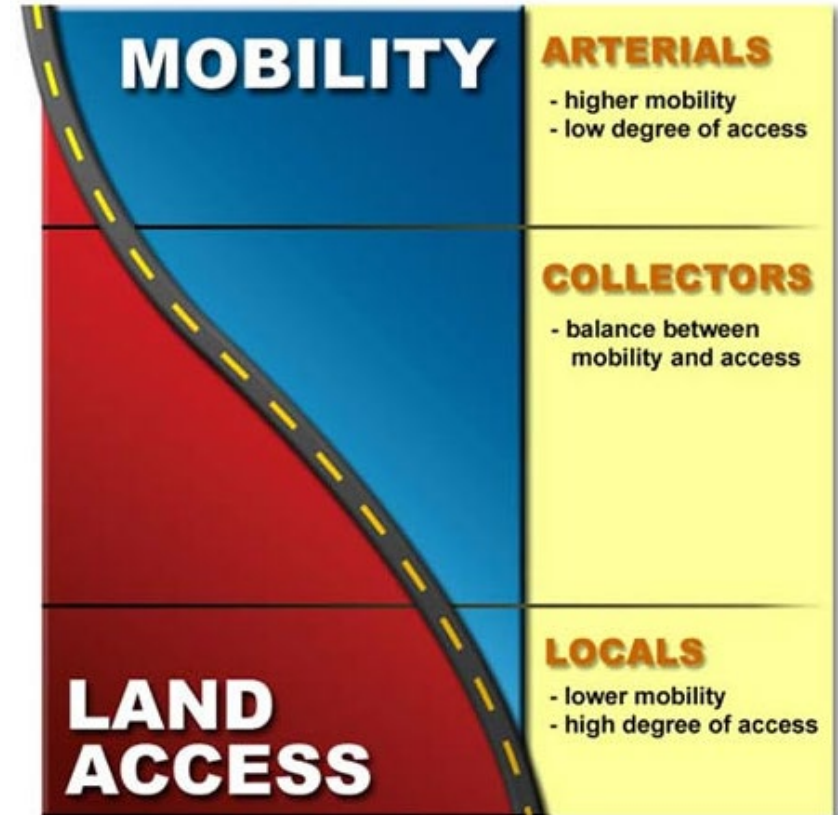
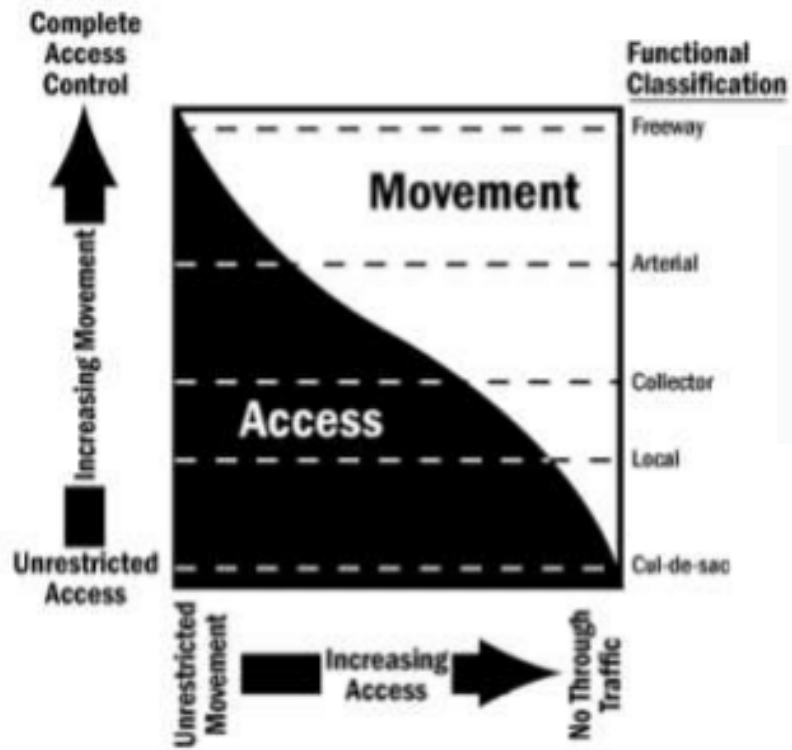


Functional Integrity:

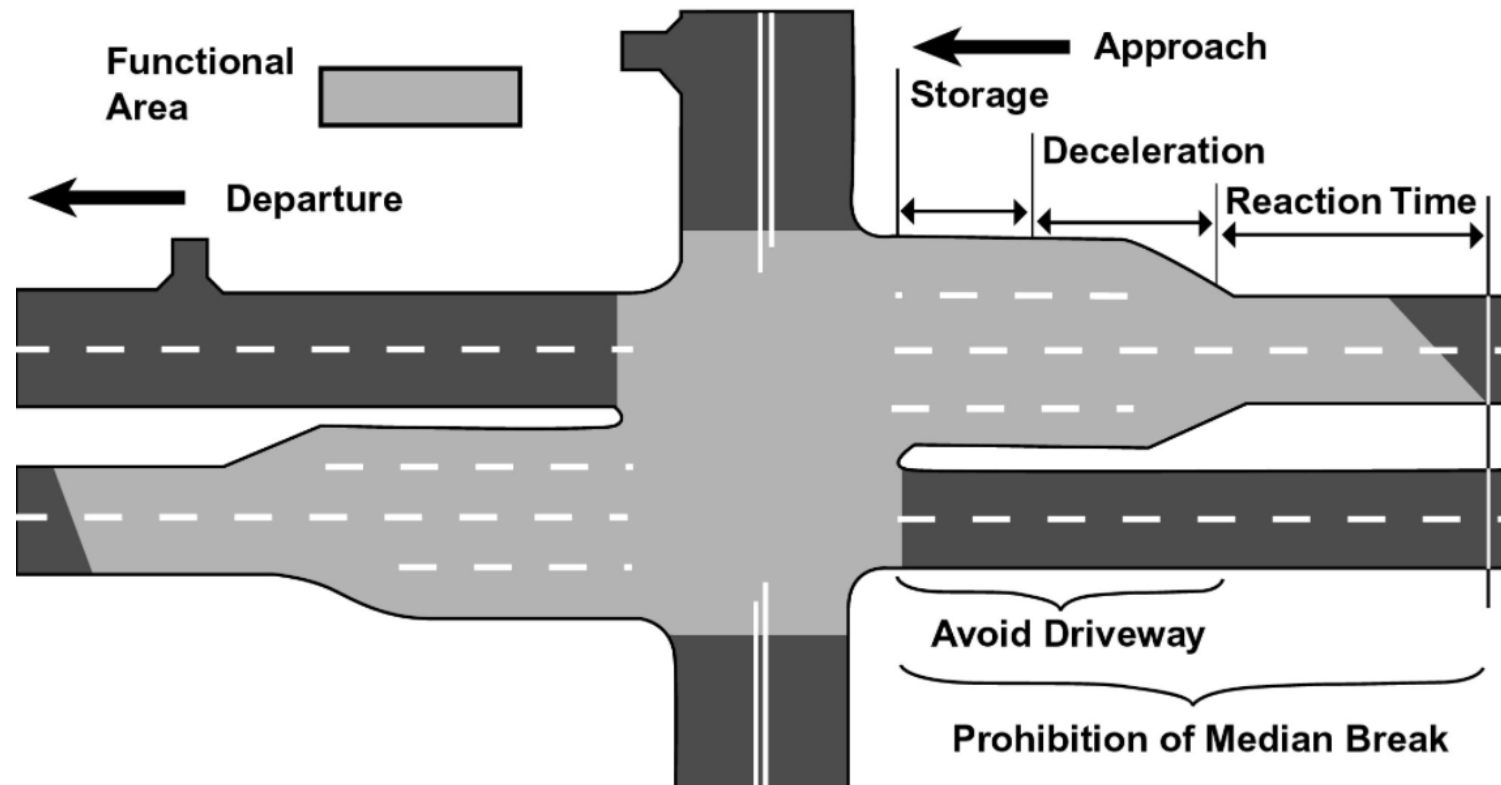
TOQC Unique Situation



Roadway Function versus Mobility/Access

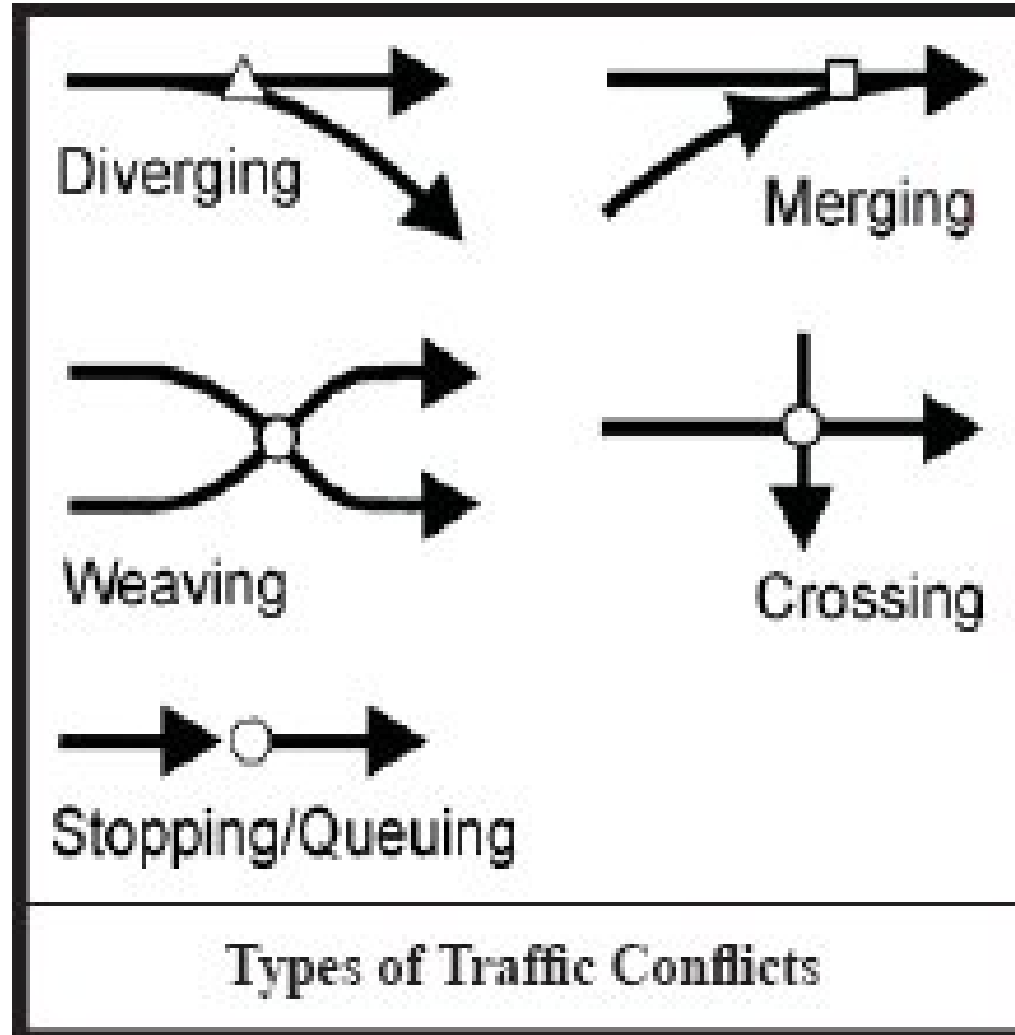


Functional Area of an Intersection



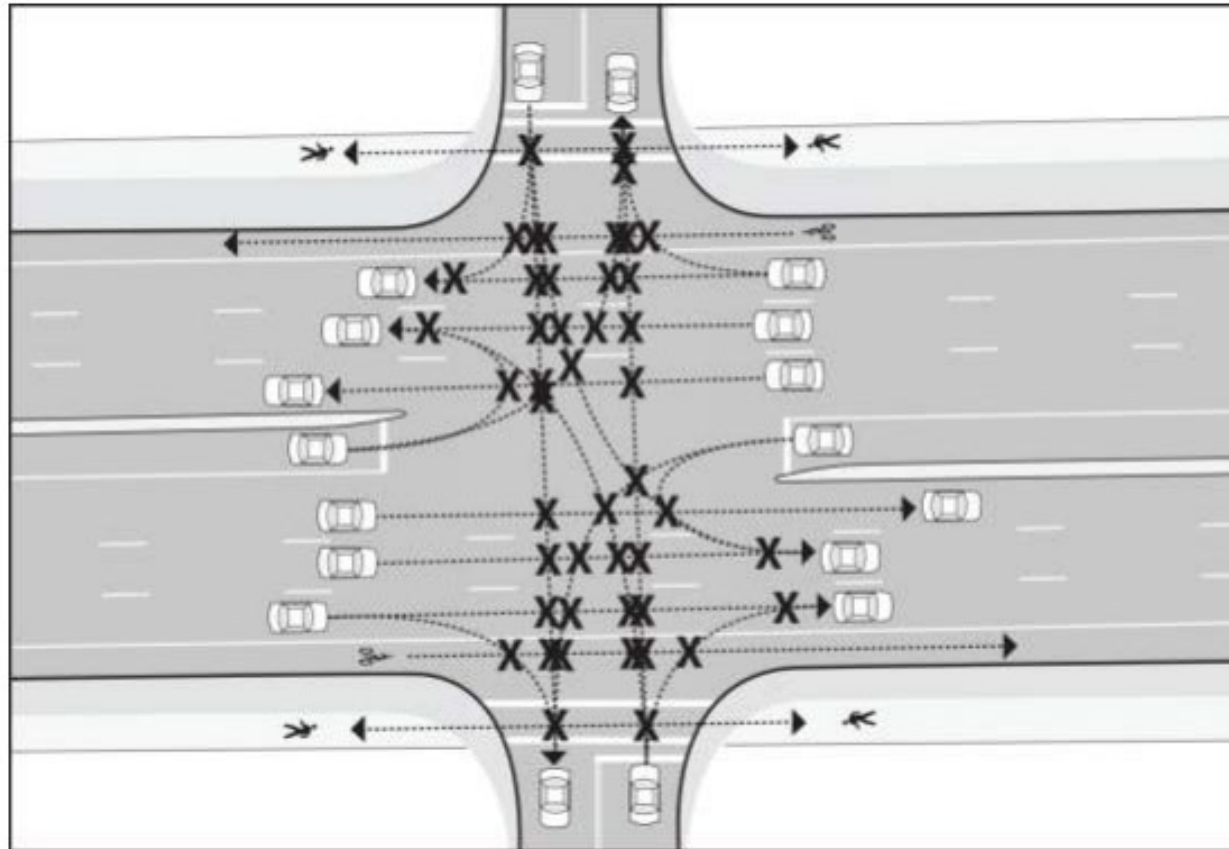
“Driveways should not be situated within the functional area of at-grade intersections.”
AASHTO Green Book, Chapter 9, 2011

Types of Traffic Conflicts



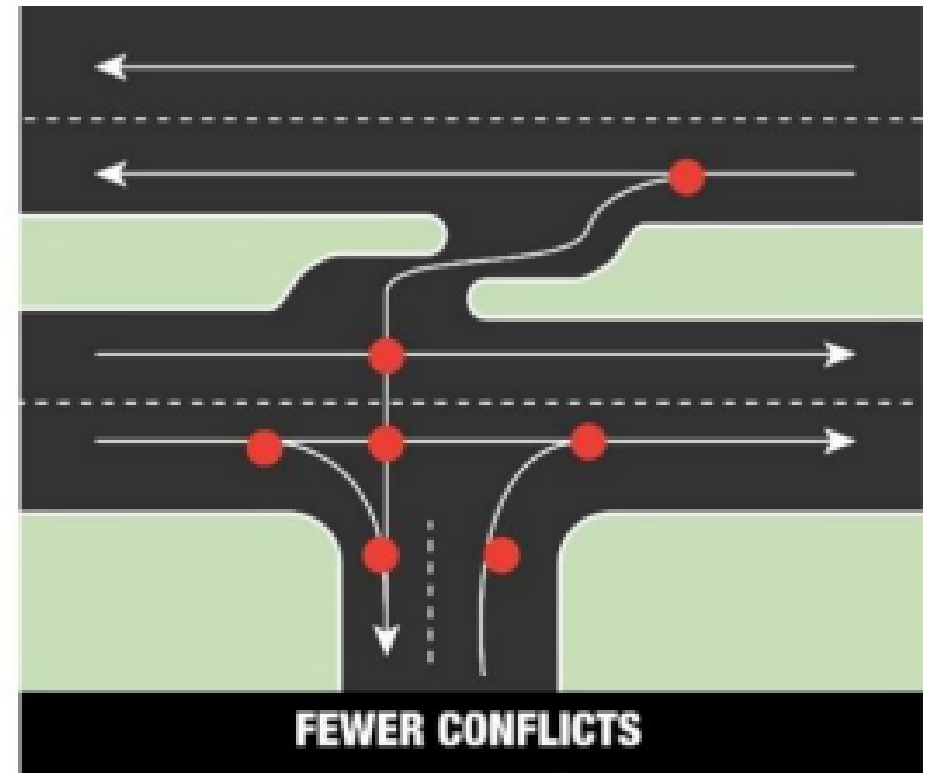
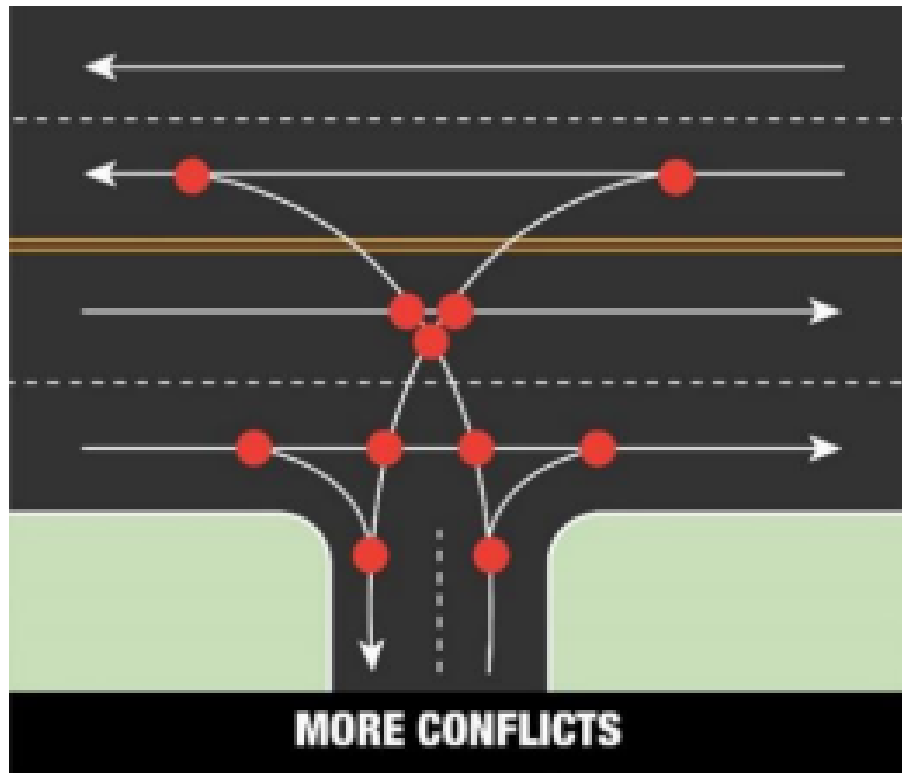
Types of Traffic Conflicts

The Impact of access Management



X = potential conflict
Number of conflicts = 60

The Impact of access Management



Source: FDOT

Benefits of Access Management



Operations: Capacity Is Higher On Better Managed Roads

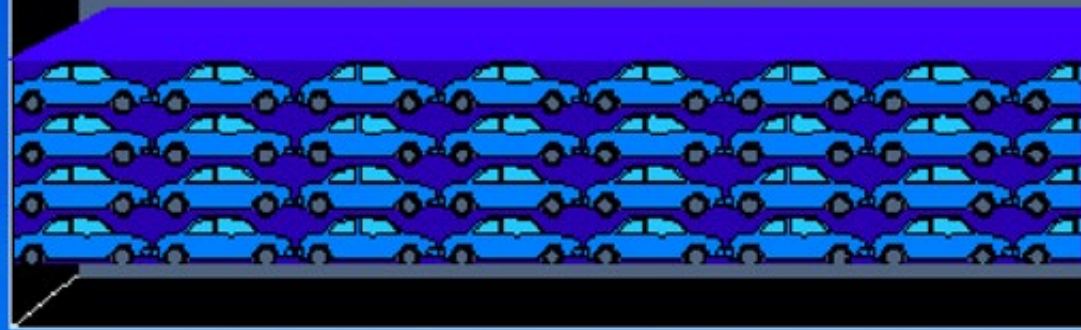


**LOW
ACCESS
MANAGEMENT**



23,592

**HIGH
ACCESS
MANAGEMENT**

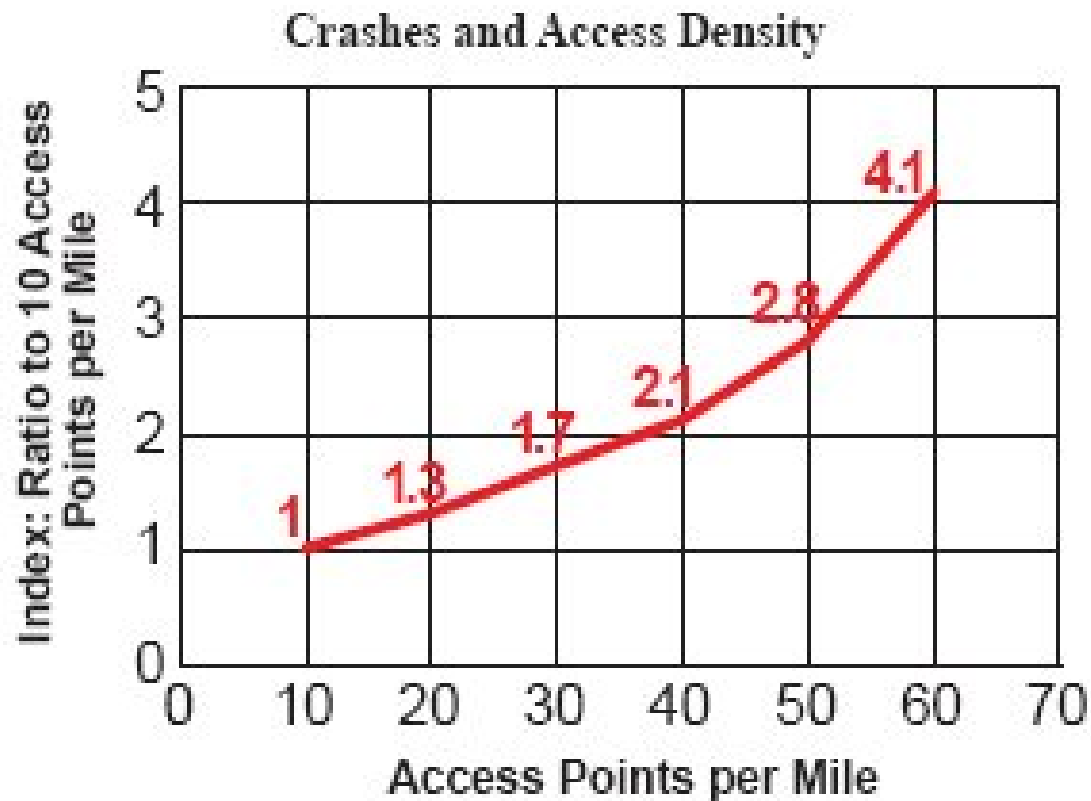


33,500

Maximum Daily Traffic at Level of Service "D" on 4-Lane Road

* Source: FDOT and 1985 Highway Capacity Manual

IMPROVED SAFETY



Transportation Research Board, Access Management Manual 2003



Safety Benefits:

Reducing driveway density

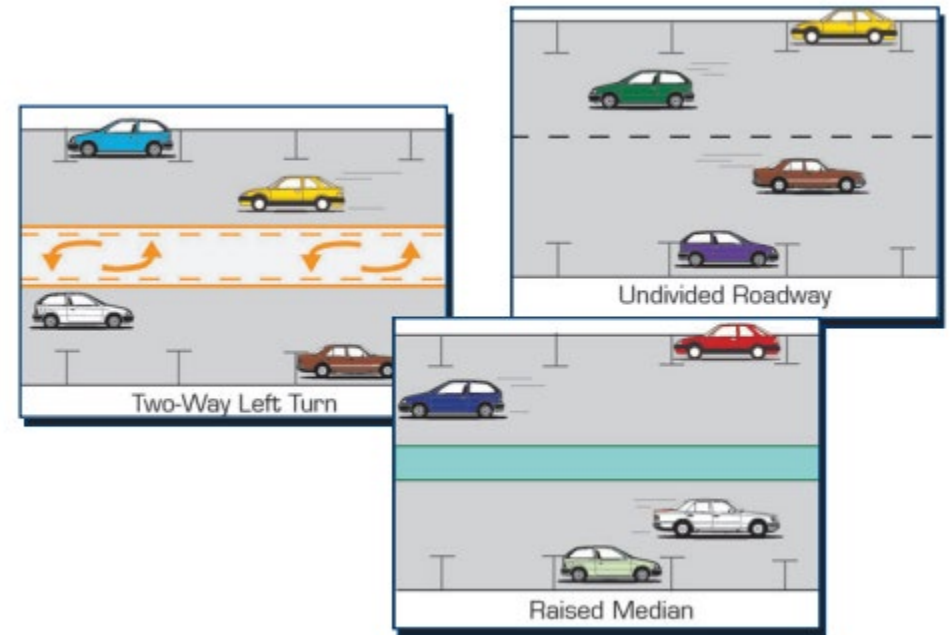
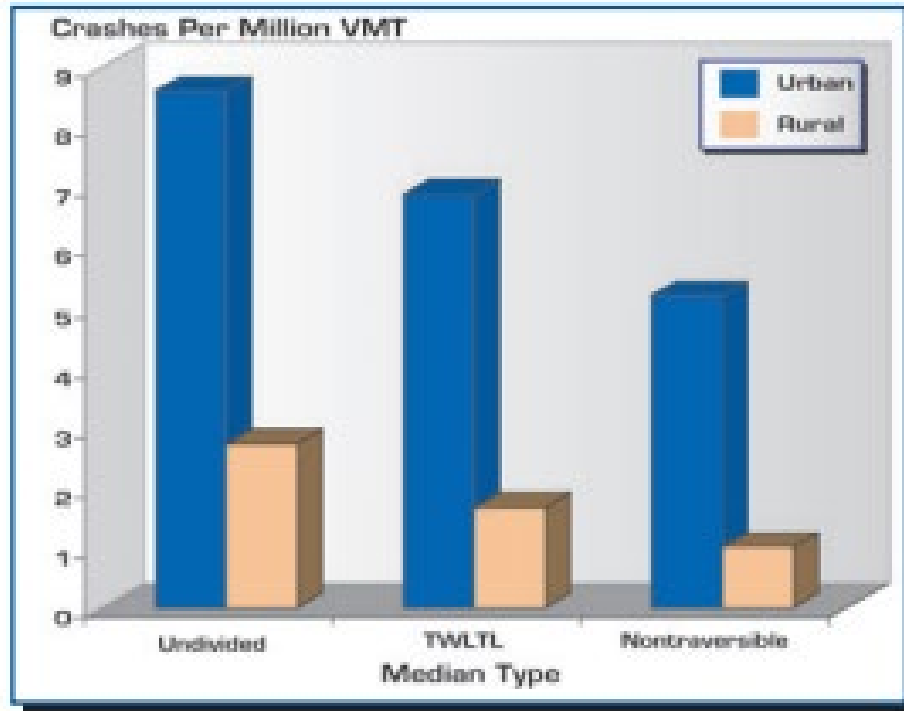
5-23%

reduction in total crashes along 2-lane rural roads.

25-31%

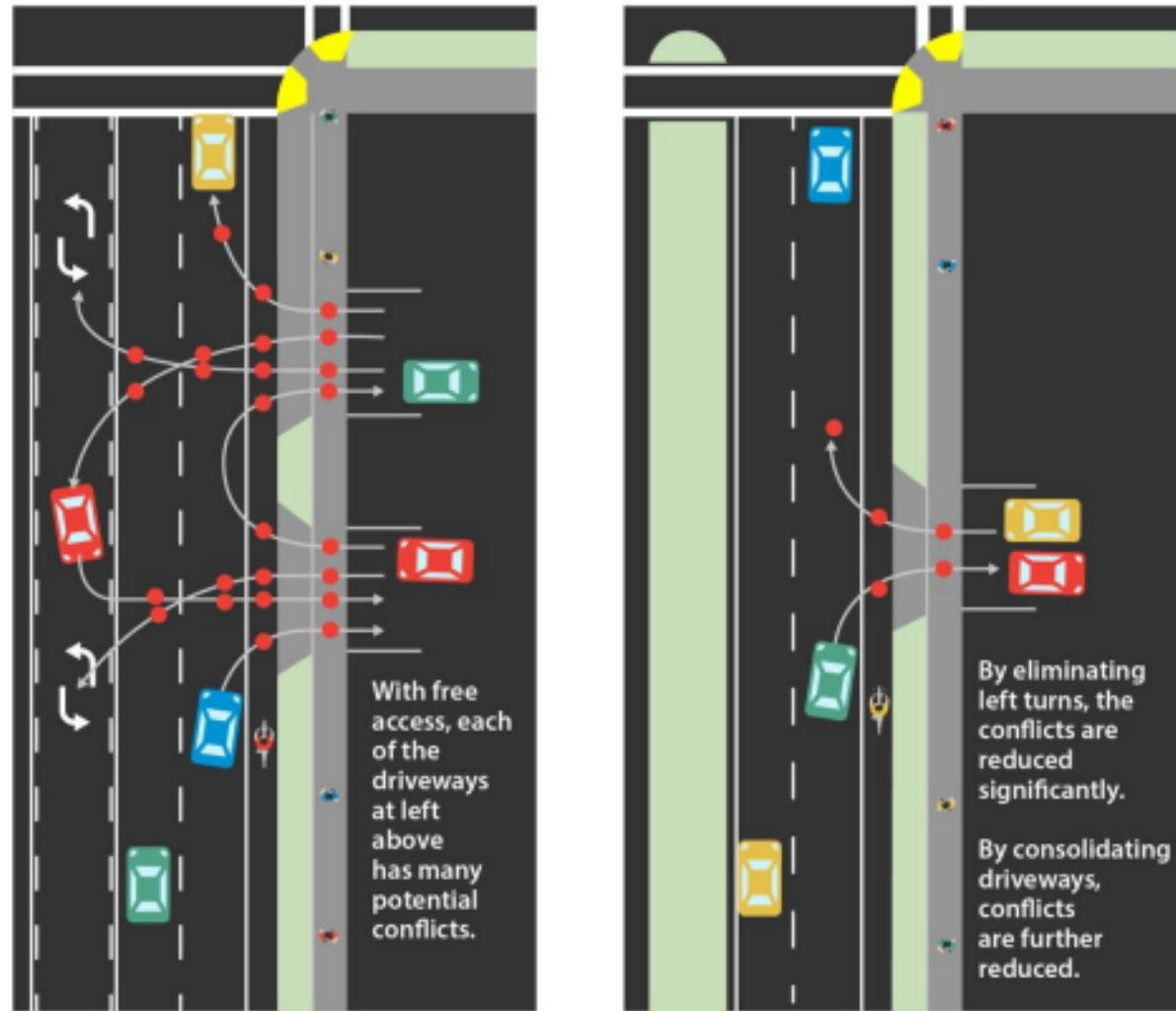
reduction in fatal and injury crashes along urban/suburban arterials.

IMPROVED SAFETY



IMPROVED SAFETY

Driveway conflicts contribute to unsafe sidewalks and roads.



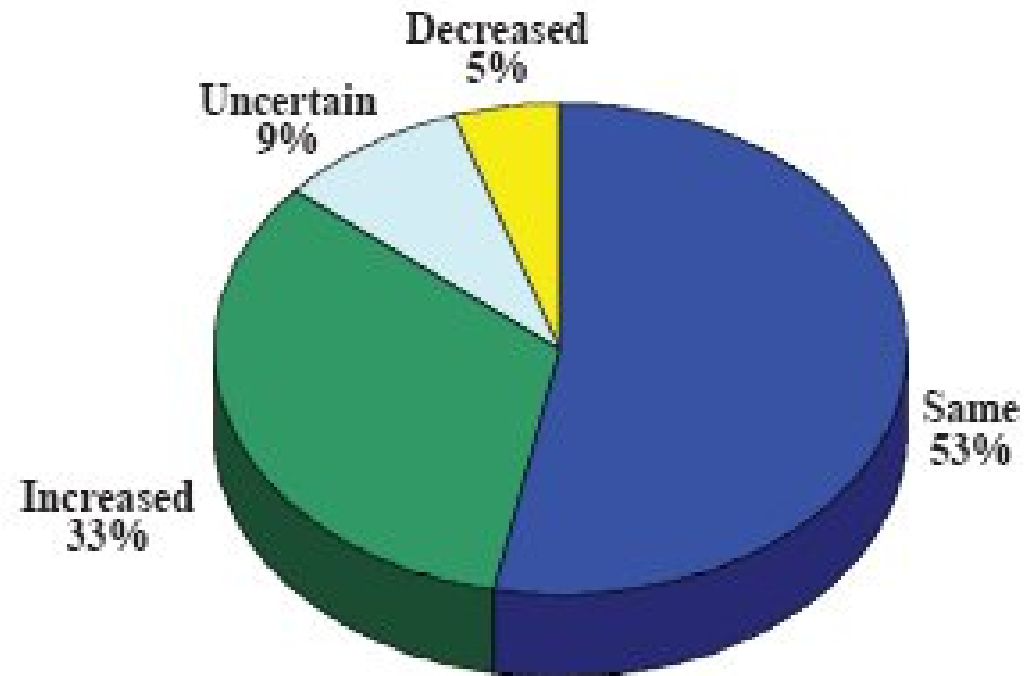
Source: Adapted from Oregon Department of Transportation



SAFE ACCESS IS GOOD FOR BUSINESS

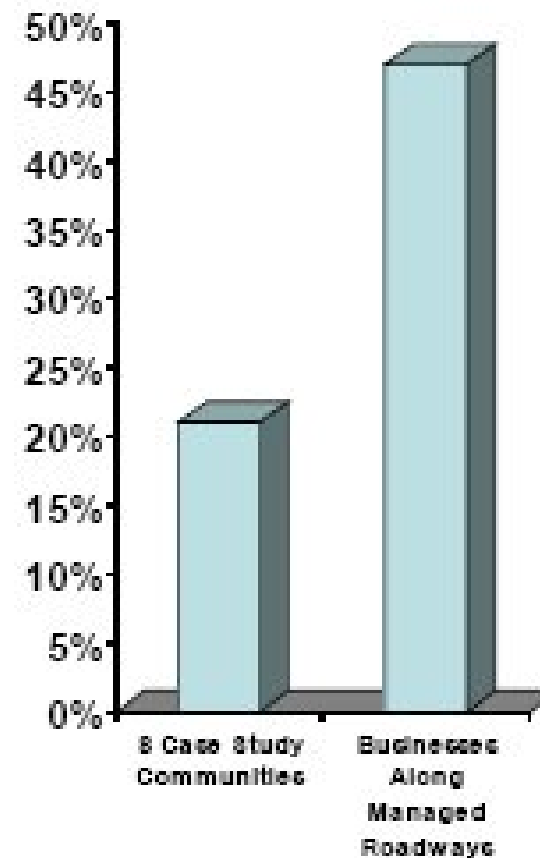
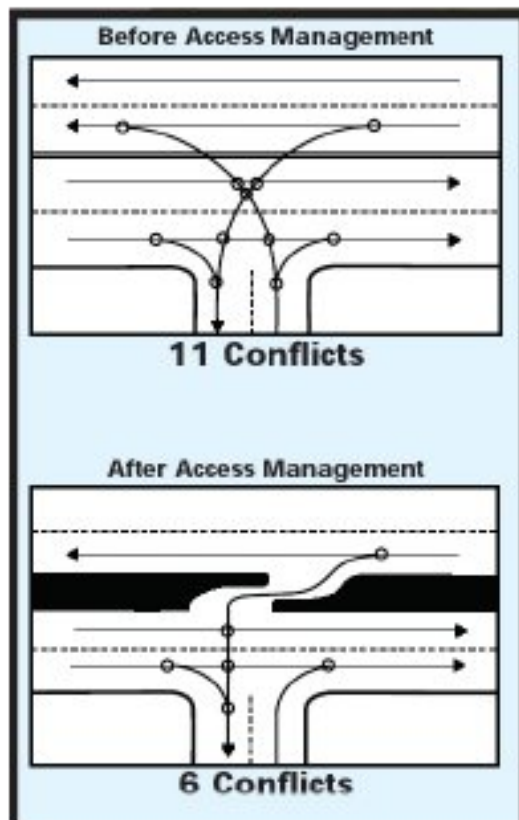


Business Proprietors' Reported Sales Comparisons



INCREASED ECONOMIC GROWTH

Impact of Access Management on Retail Sales Growth



Who **Wins** When Access Management Is Done Right?



- **Motorists: safer, less congested roads**
- **Taxpayers: less expensive roads**
- **Most business persons and their customers: improved business environment**
- **Communities as a whole: environmental and other benefits**

