# Wisconsin Department of Transportation

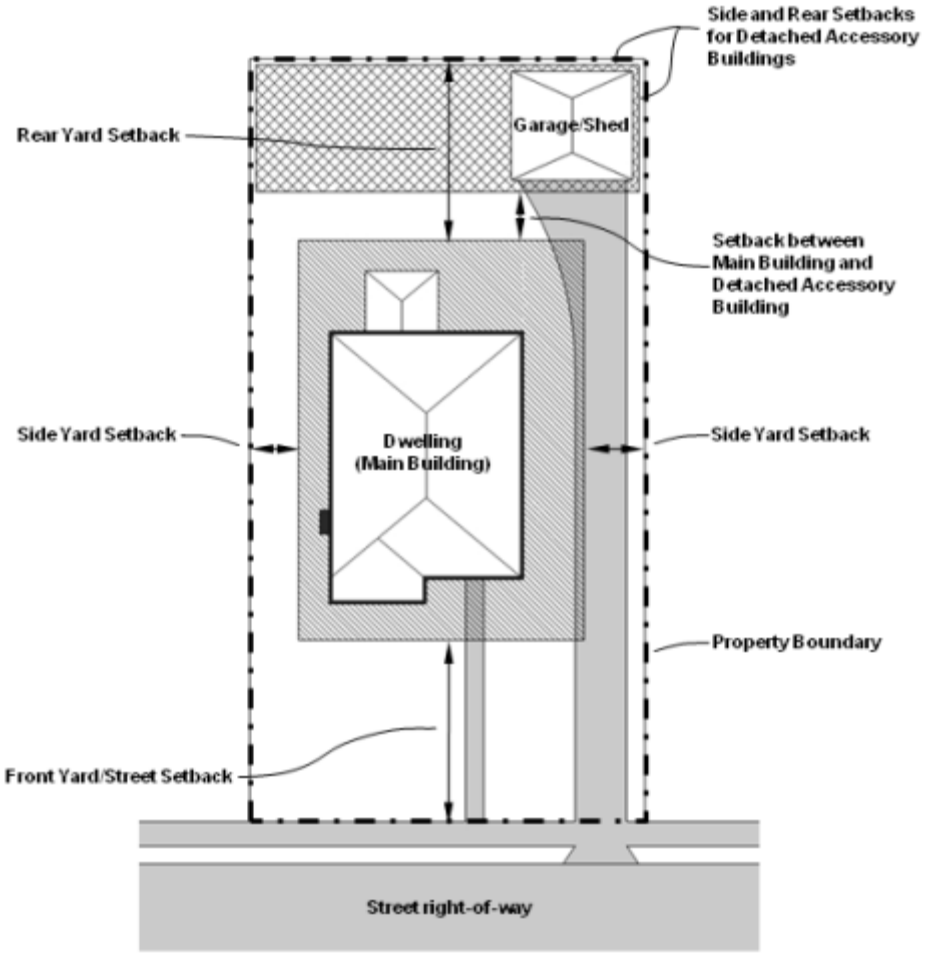

## Setbacks & Access

**Stephen Sydow, WisDOT**

*10-12-17*

# Part 1 - Setbacks

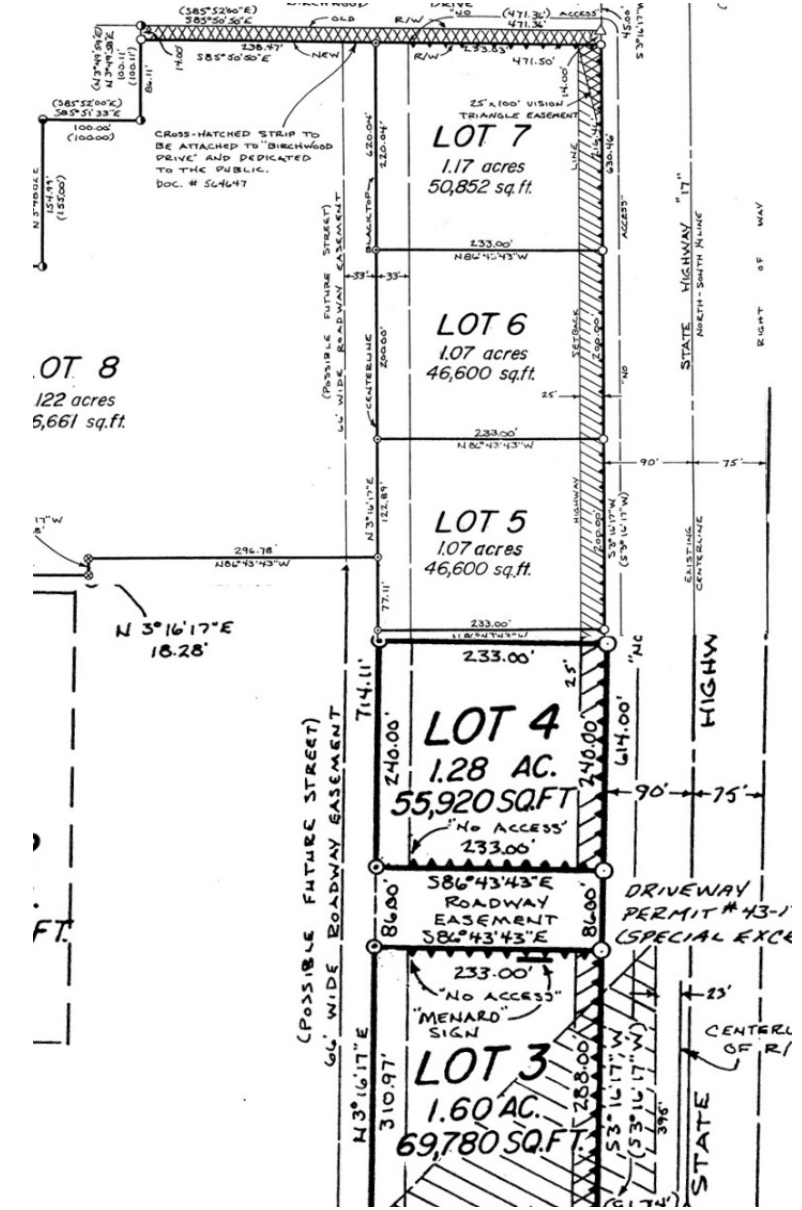
- Setbacks are commonly imposed by municipal ordinances or zoning.
- Court cases have repeatedly demonstrated that they are a public benefit, and therefore are regulated by government authorities.
- Applications differ regarding **distance** and **restrictions**.




*Source: Primer on Zoning Codes, at www.streets.mn*

# WisDOT Setbacks

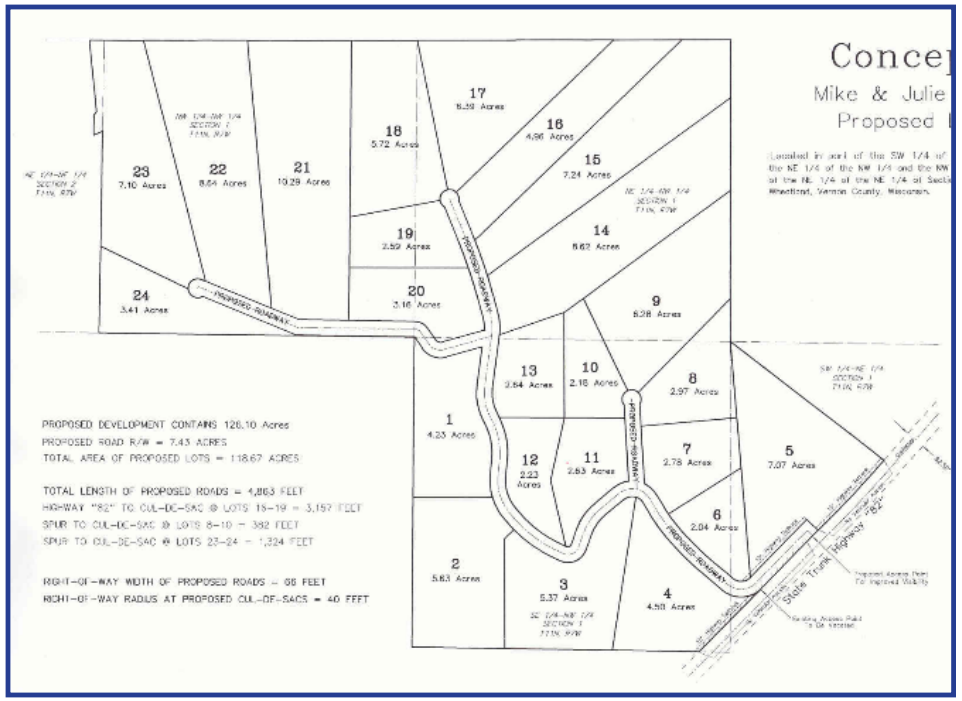
- WisDOT does **not** have setbacks along all state highways.
  - In most locations, it is up to other levels of government to impose their setback restrictions (ie, Building Setback).
- WisDOT **only** imposes setbacks as development occurs – through **subdivision of lands** along the highway.




Highway Setback Line shown on a Subdivision Plat

# Subdivisions Along State Highways

- **Wis Stat. Chapter 236**
  - Defines requirements for platting land in Wisconsin
  - Directs WisDOT (236.13(1)(e)) to:
    - Create rules relating to State Trunk & Connecting Highways (Trans 231 and **233**)
    - Provide safe ingress and egress to those highways
    - Preserve the public interest & investment in those highways



# Trans 233: a little history

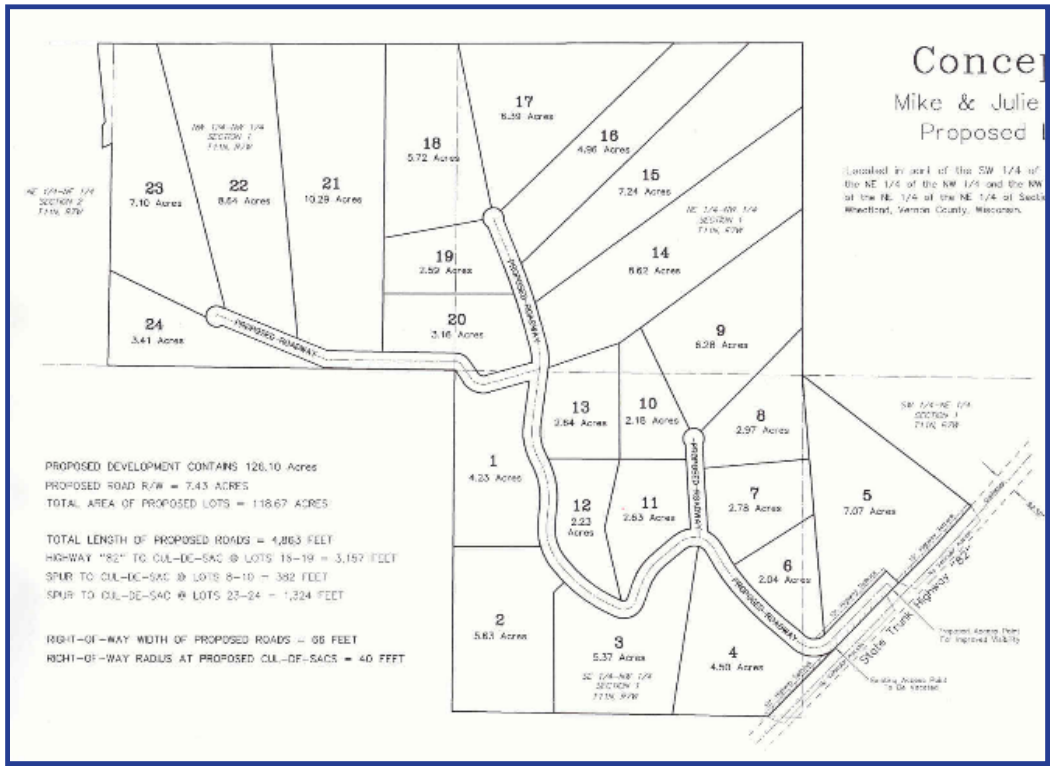
- **1956** – Hy 33 created as directed under Ch.236 to regulate subdivisions (renumbered Trans 233 in 1996)

Trans 233.08 Setback requirements.
(1) There shall be a minimum building setback 110 feet from the centerline of the state trunk highway or 50 feet outside the nearer right−of−way line, whichever is more restrictive. However, if the local unit of government has a uniform setback ordinance which requires a minimum building setback for state trunk highways equal to or greater than 100 feet from the centerline or 42 feet from the nearer right−of−way line, whichever is more restrictive, the local ordinance shall govern for the sake of consistency; provided that the local unit of government shall allow no variances or exceptions for platted areas abutting state trunk highways without prior approval of the commission. There shall be no improvements or structures placed between the highway and the set back line.

History: Cr. Register, September, 1956, No. 9, eff. 10−1−56.

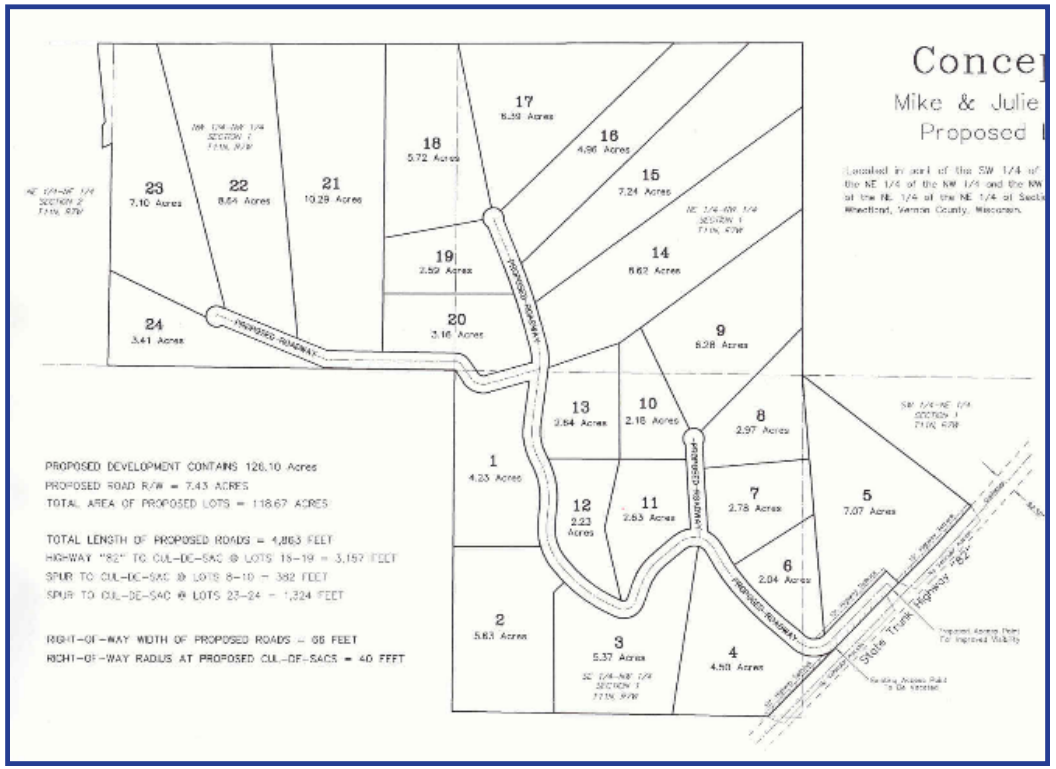
# Trans 233: a little history

- **Feb 1999** – Trans 233 revised
  - Applied to all land divisions
  - Clearly defined “improvements”
    - “Trans 233.08 (3n) (5) Improvement and structures include, but are not limited to, signs, parking areas, driveways, wells, septic systems, drainage facilities, buildings and retaining walls.”
  - Allowed utilities in setback
    - “Trans 233.08 (3m) (a) Notwithstanding sub. (1), a public utility may erect, install or maintain a utility facility within a setback area.”



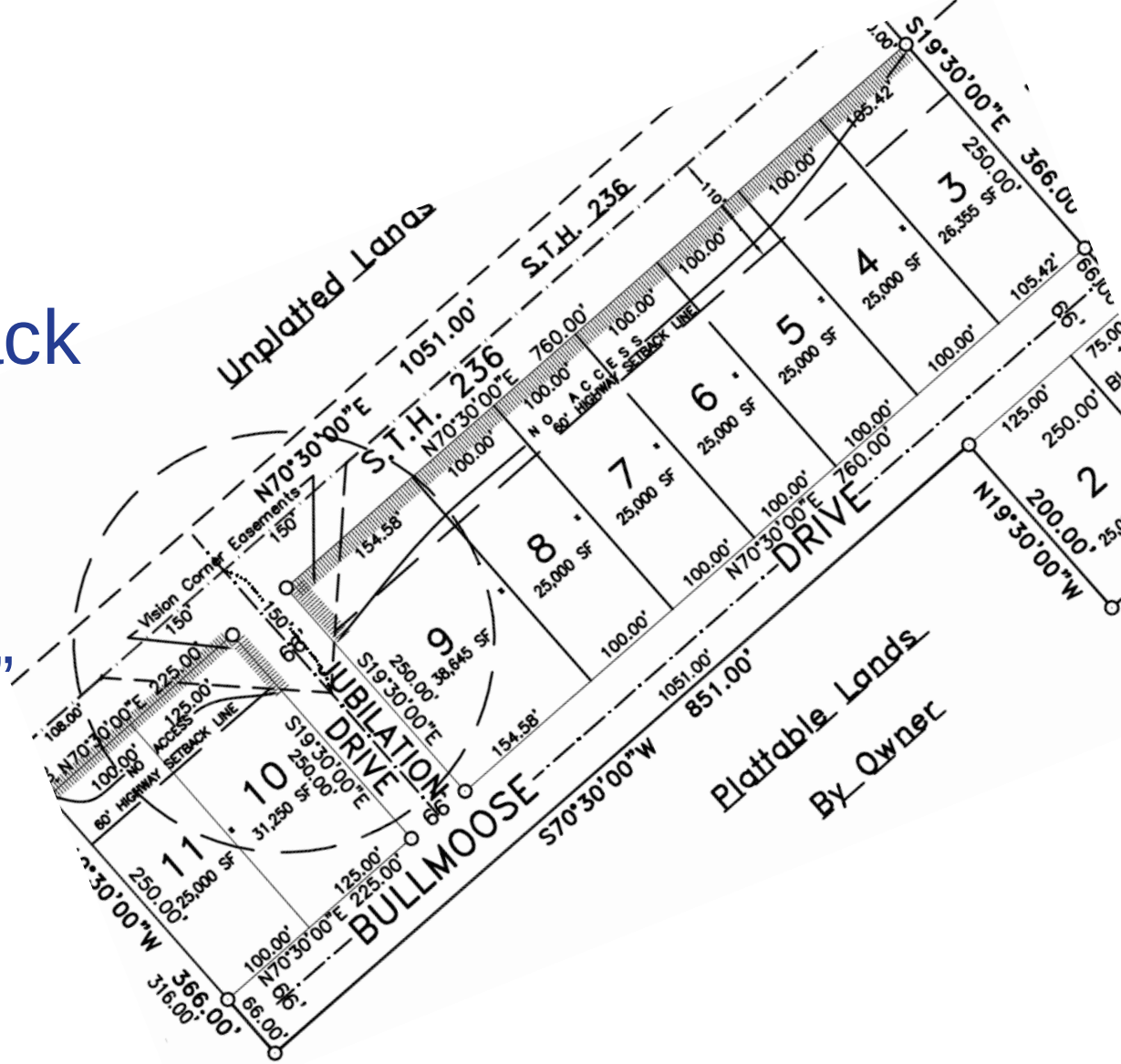
# Trans 233: a little history

- **2001** – revisions to Trans 233
  - WisDOT allowed to make “Special Exceptions” and criteria defined.
  - WisDOT allowed to use a “Waiver of Damages” for improvements in setback (property owner would sign that listed improvements are noncompensable if WisDOT purchased land)
  - Allowed reduced setback of 15’ on lower-level highways.



# Trans 233: Today

- **2004** – court ruled Feb 1999 and 2001 revisions invalid, reverts back to previous rule.
  - Any setbacks placed on lands other than subdivision plats are invalid.
  - WisDOT only reviews “subdivisions”
  - WisDOT cannot make “Special Exceptions” – only “variances”
  - WisDOT cannot use “Waiver of Damages”



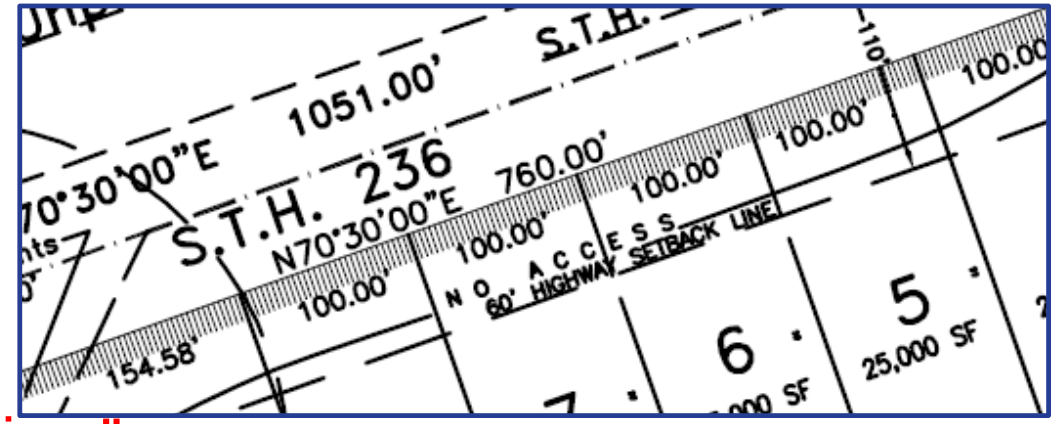
# Trans 233 Setback Restrictions:

- Back to 1956 setback language:

  "There shall be no improvements or structures placed between the highway and the set back line."

  - WisDOT can approve a variance in specific cases:
    - **Trans 233.11 Variances.** The commission (ie, WisDOT) may, in appropriate cases and subject to appropriate conditions and safeguards, authorize variances to the terms of these rules and regulations in special cases where the literal application of these rules and regulations will result in practical difficulty or unnecessary hardship, or will defeat an orderly over-all development plan of a local unit of government; provided that such variance shall not be contrary to the public interest and shall be in harmony with the general purposes and intent of ch.236, Stat., and these rules and regulations.

# Setback Restrictions:




- What are “improvements”?

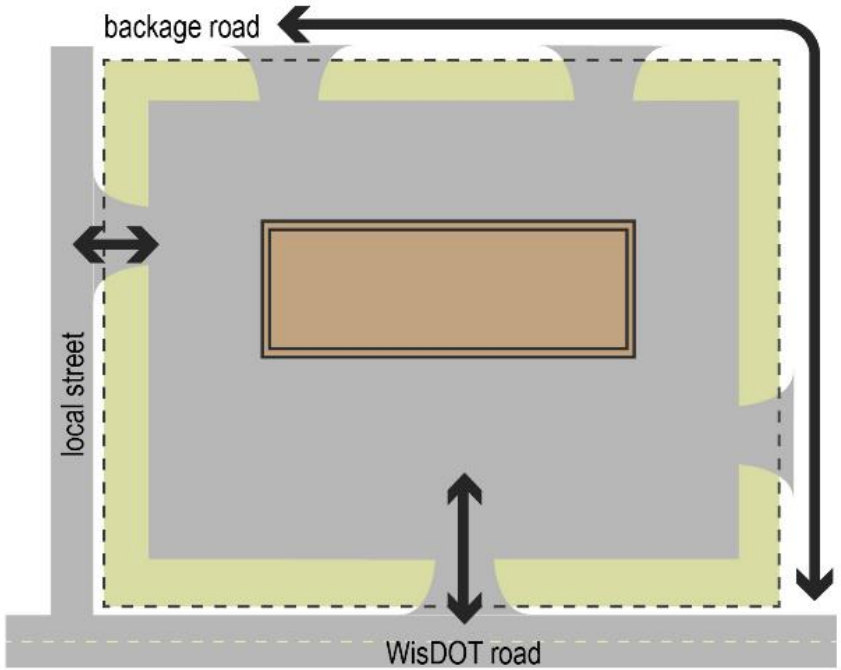
  “There shall be no improvements or structures placed between the highway and the set back line.”

  - The language defining “improvements” in 233.08 was removed from the rule in 2004 ruling.
  - The language allowing **utilities** in 233.08 was also removed, so they fall under “improvements”
    - They can cross the setback, but not be located within it.
    - Need to prove it would cause an “unnecessary hardship” to get a variance to locate within setback.

# Part II - Access

# Basic Legal Principals

- Abutting owners may have a common law right to access abutting roads
  - That does NOT mean a right to a direct connection between that parcel and a particular roadway
  - A property has access if persons are able to reach that property without trespassing over another property (i.e., indirect via frontage roads, etc.)
- WisDOT may control access:
  - Thru ownership of access rights or land,
  - Using subdivision enforcement rights, or
  - Under its police power authority



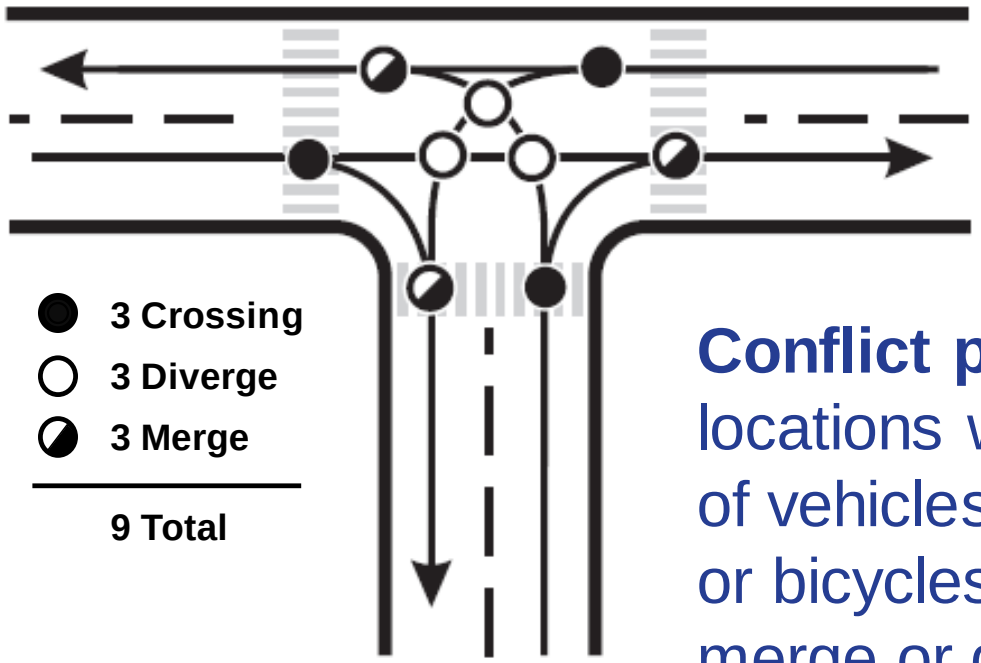
# WisDOT Access Management Authority

| Statute/Rule | Title | Comment |
|---|---|---|
| s. 66.1001 | Comprehensive Planning | |
| s. 84.09 | Acquisition of Lands and Interests Therein | *Eminent domain acquisition of access* |
| s. 84.25 | Controlled-Access Highways | *Most common police power regulation of access* |
| s. 84.29 | National System of Interstate Highways | |
| s. 84.295 | Freeways and Expressways | |
| s. 86.05 | Entrances to Highways Restored | |
| s. 86.07(2)(a) | Digging in Highways…(permits) | |
| s. 86.073 | Review of Denial of permit (Appeals) | |
| s. 86.09 | Access to Cemetery Preserved | |
| Ch. 236 | Platting Lands and Recording & Vacating Plats | |
| Trans 231 | Permits for Driveways and Alterations in STHs | |
| Trans 233 | Land, Subdivision Plats Abutting STHs… | |

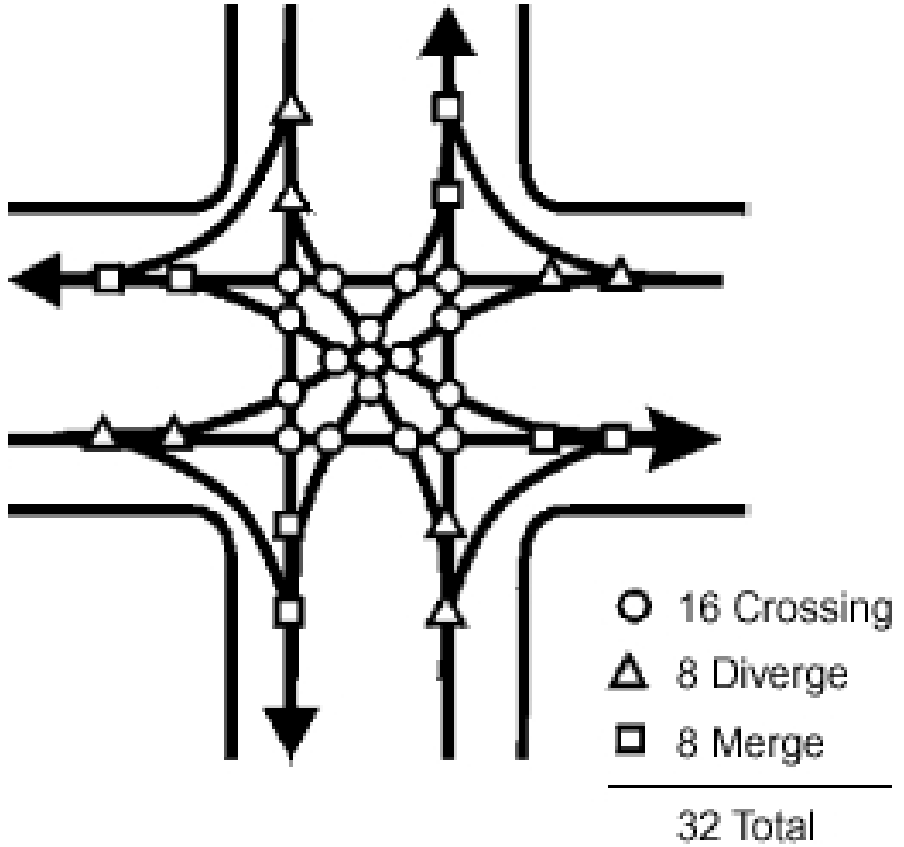
# Access Management Involves a Balance

- Property owner rights
  - Regulated access to a roadway
  - Not to be land-locked by government action without compensation
- Public rights
  - Safe and efficient highway travel
  - Avoid unnecessary and expensive capacity improvements

# Access Management Limits the Number of Conflict Points

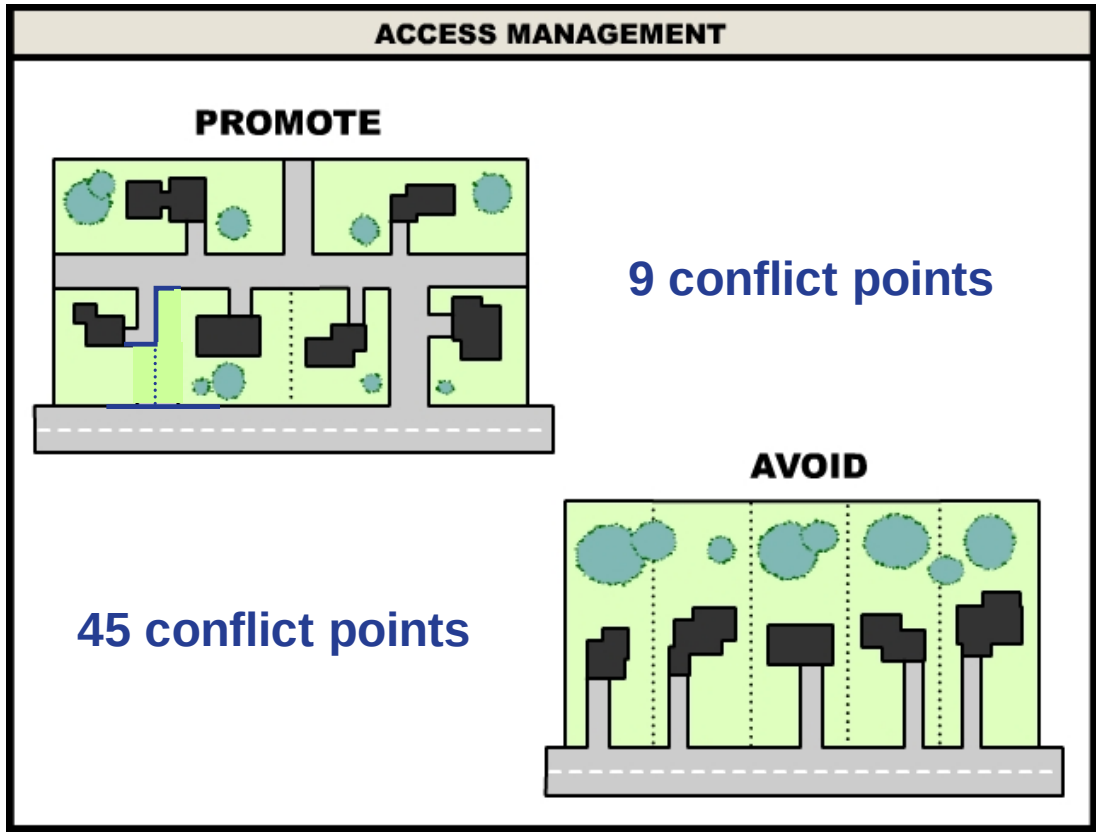



**Conflict points** are locations where paths of vehicles, pedestrians or bicycles cross, merge or diverge



# Access Management Limits the Number of Conflict Points

- Fewer connections (driveways) =
  - Fewer conflict points
  - Fewer crashes
  - Better mobility
- General goal:
  - Fewer access points onto the highway
  - Sometimes highway access may be indirect



# Benefits of Access Management

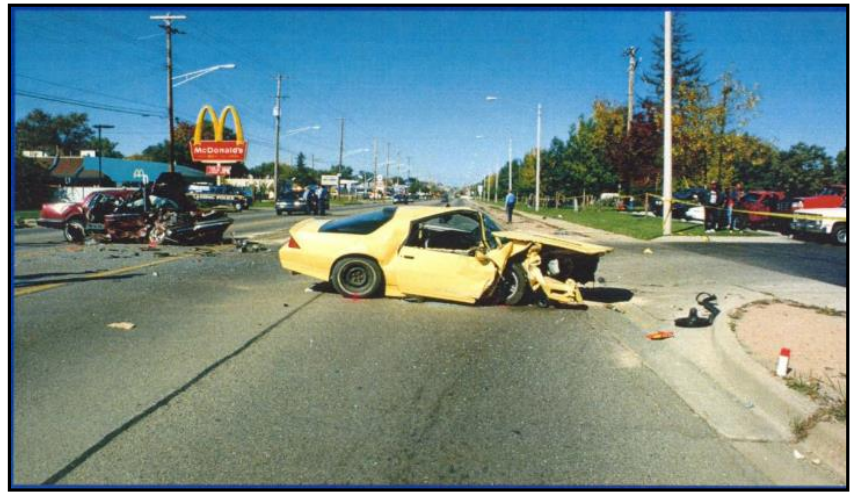
# Benefits of Access Management

- **Safety**
  - Reduces crashes
- **Mobility**
  - Improves highway operations by minimizing congestion
- **Economics**
  - Protects corridor longevity; reduces delays to commerce
  - Safe access = better for businesses
  - Delays highway expansion that may disrupt adjacent properties
  - Helps avoid the need to build expensive bypasses around communities because of congestion and safety issues

# Why Does Wisconsin Manage Access?

## 1. Safety

- There is no such thing as a “safe” access
- The most likely cause of a child’s death is a traffic accident
- The most likely cause of an adult’s accidental death is a traffic accident
  - Source: AASHTO Strategic Highway Safety Plan



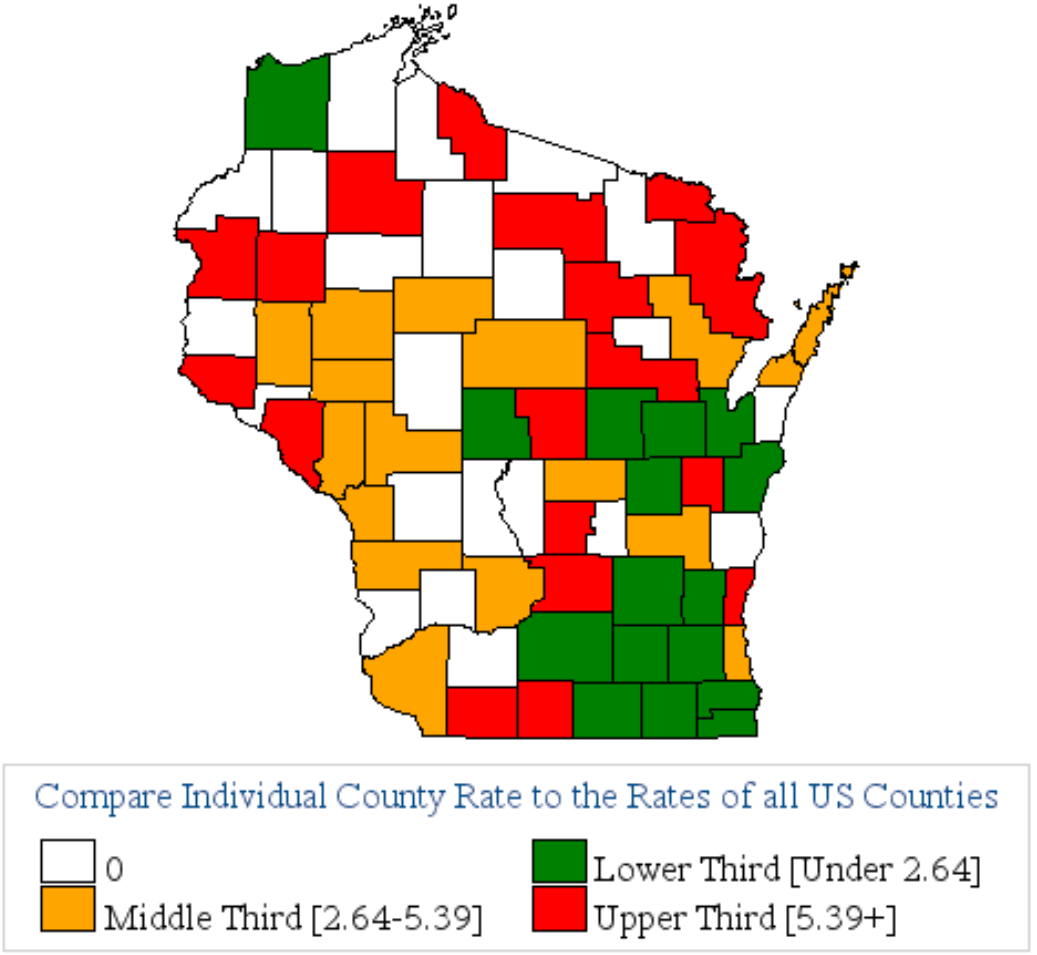
***Nationwide there are 3,500 crashes every day directly related to access***

*Source: TRB*

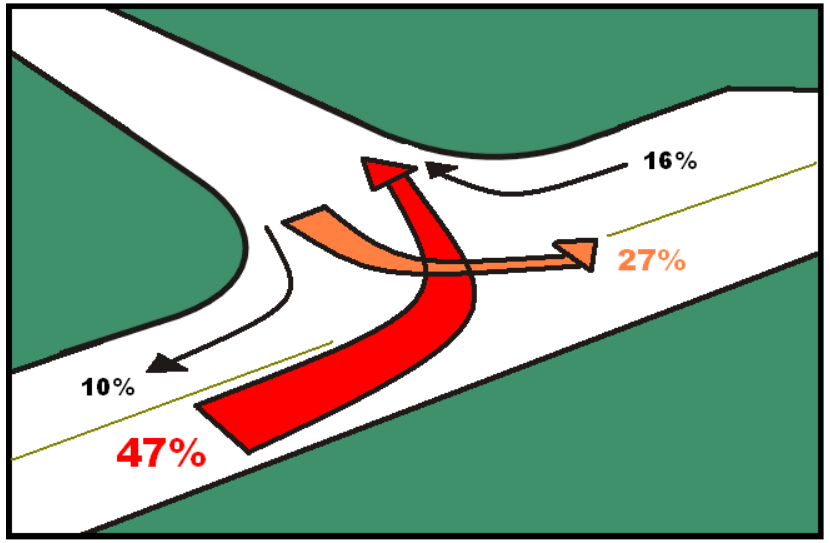
# Crashes Across the State

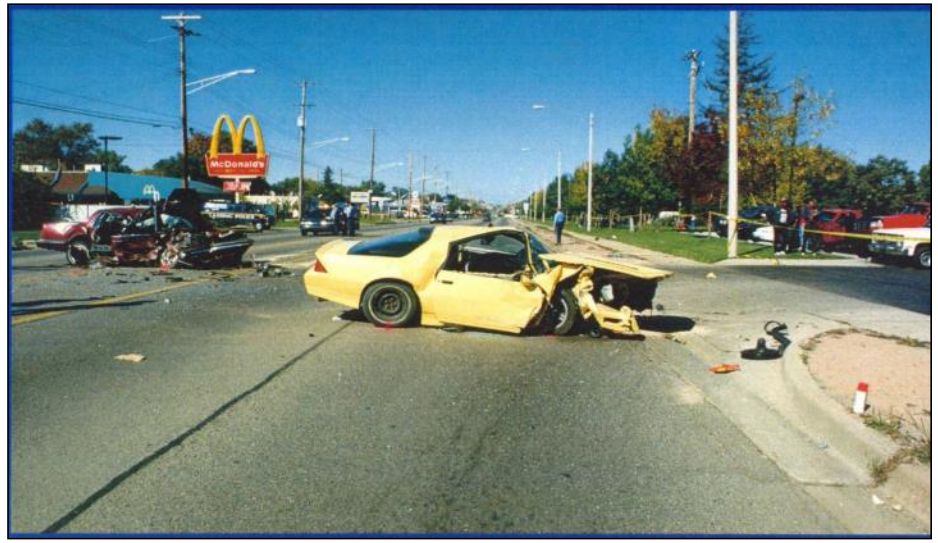
Fatalities in crashes involving an intersection (or intersection related) per 100,000 population.

- **2012 Wisconsin Traffic Crash Facts – WisDOT**
  - 56% of reported crashes at non-intersections (includes driveways)
  - 34% of reported crashes at highway intersections



# Access Influences Safety



Nearly 50% of all driveway accidents are left-in turns, while almost 75% of all intersection crashes are left-turn movements.

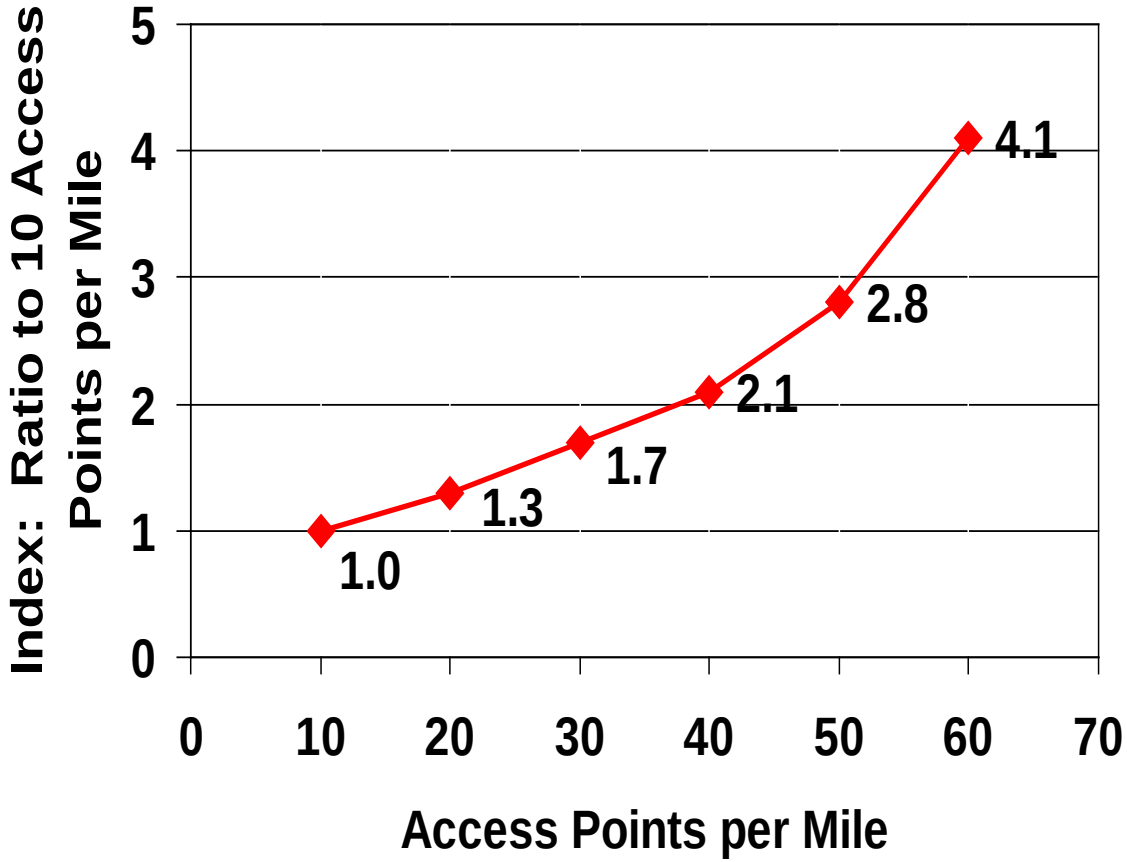
*Source: National Highway Institute, Access Management Training Course*

# Access Management Benefits: Improved Safety

- Direct relationship between the # of driveways and # of crashes
- **Reduces injuries** & damage due to crashes
- *Well-managed corridors often have 40-50% fewer crashes than poorly managed ones*

  *Source: TRB*

*Example: Doubling of access density from 10 to 20 access points per mile can result in a 30% increase in crashes*



# Retrofit Implementation Example: Monona Drive in Madison

- Crash rate up to 3 times state average
- 40% of crashes were rear-end crashes, some caused by left- turning vehicles waiting for gap

*Credit: Strand Associates*

# Retrofit Implementation Example: Monona Drive in Madison

- Combined Access - Access points reduced from 69 to 43 from Broadway to Pflaum
- Added medians – reduced left-turn movements & channelized turning vehicles
- **Result**: 30% reduction in total crashes; 45% reduction in injury crashes

*Credit: Strand Associates*

# Access Management Impacts on Business Districts

**USH 151 East Washington Ave, Madison, WI**

1. AADT = 44,000 to 50,000 vehicles per day
2. Access density = **13 access points / mile**
3. Corridor Crash Rate = **375 crashes / HMVM**


East Washington Ave (USH 151)

**USH 18 Bluemound Rd, Brookfield, WI**

1. AADT = 40,000 to 43,000 vehicles per day
2. Access density = **28 access points / mile**
3. Corridor Crash Rate = **680 crashes / HMVM**


Blue Mound Rd (USH 18)

# Access Management Benefits:

## 2. Mobility

- Extends highway life by minimizing congestion
- Can increase throughput by up to 30%
- State roads designed to move traffic

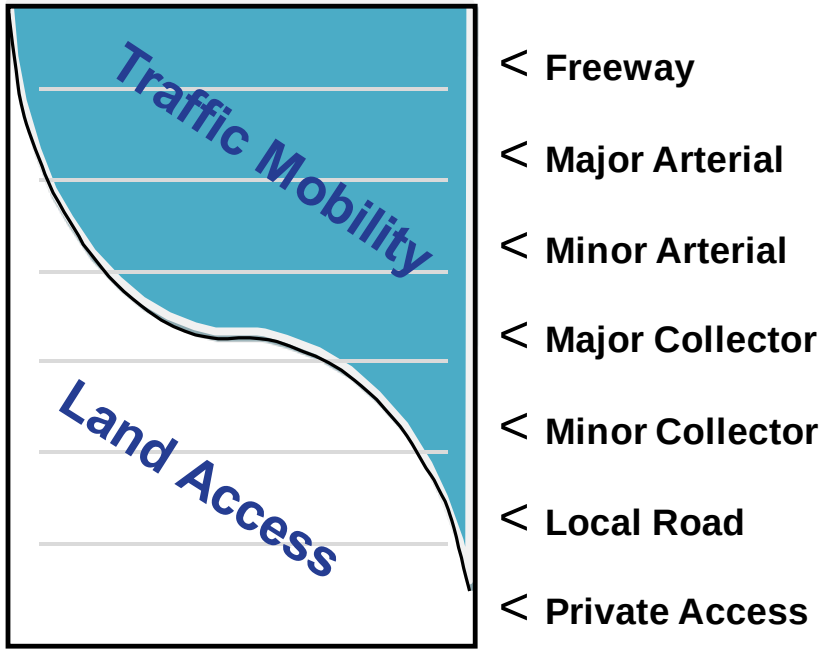




*Photo source: TTI*

*Benefits of Access Management: Mobility*

# Access Management Benefits: Preserved Capacity and Mobility

**A cost-effective way to extend the life of the highway system by preserving roadway capacity**

- Keep ramps free flowing
- Fewer + well-spaced access points reduce conflicts with through traffic flow
- Efficient movement of people and freight by minimizing travel delay and congestion

# Benefits of Access Management

- **Safety**
  - Reduces crashes
- **Mobility**
  - Improves highway operations by minimizing congestion
- **3. Economics**
  - Protects corridor longevity; reduces delays to commerce
  - Safe access = better for businesses
  - Delays highway expansion that may disrupt adjacent properties
  - Helps avoid the need to build expensive bypasses around communities because of congestion and safety issues

# Economic Development Considerations

- Access management can impact businesses depending upon their type and the extent of access management
- Reasonable access may not be the design the business prefers
- Cross access between businesses reduces conflicts along the street and can encourage multiple shopping stops
- Well spaced driveways can make it easier for a motorists to access a business
- **Still the <u>perception</u> is often that less access = less business**

# *Safe Access is Good for Business* Primer

- A well-designed corridor with good traffic flow is good for business
- Too many driveways can lead to congestion and over time a decline in the business district
- Less congestion can extend the commercial market area
- Numerous studies show businesses do as well or better after an access management project (IA, MN, TX)
- In general, access management has no impact on the overall demand for goods and services


| Reduction in Average Speed | Market Area Relative to Previous Size |
|---|---|
| 0% | 100% |
| 10% | 81% |
| 20% | 65% |
| 30% | 45% |
| 40% | 36% |
| 50% | 25% |

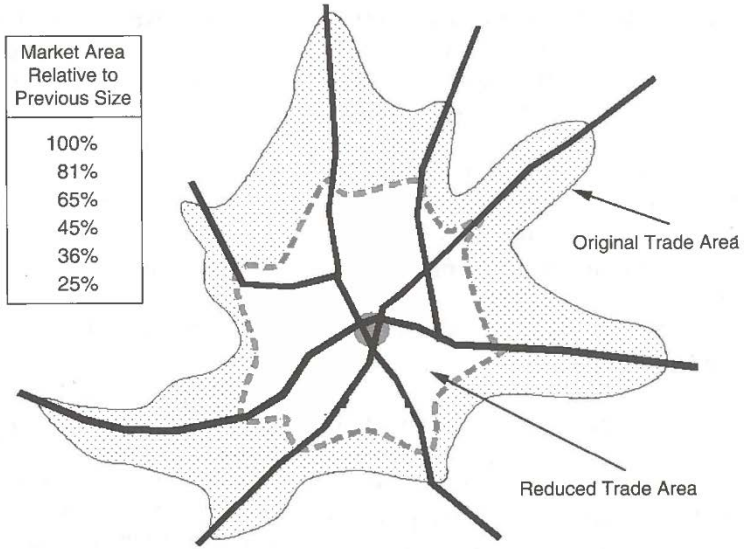



EXHIBIT 2-17 Effects of travel time on market area (28).



*Source: FHWA Safe Access is Good for Business*

# Implementing Access Management

# Access Management Limits the Number of Conflict Points

- Fewer connections (driveways) =
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  - Fewer crashes
  - Better mobility
- General goal:
  - Fewer access points onto the highway
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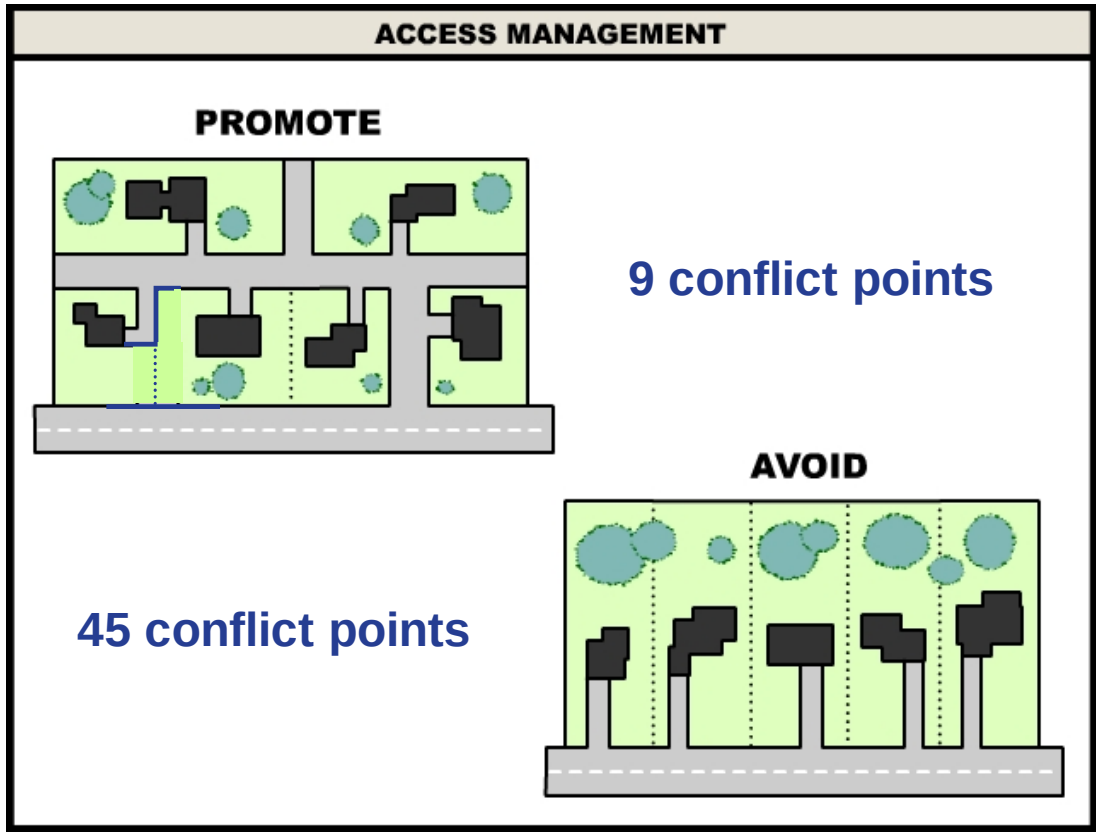
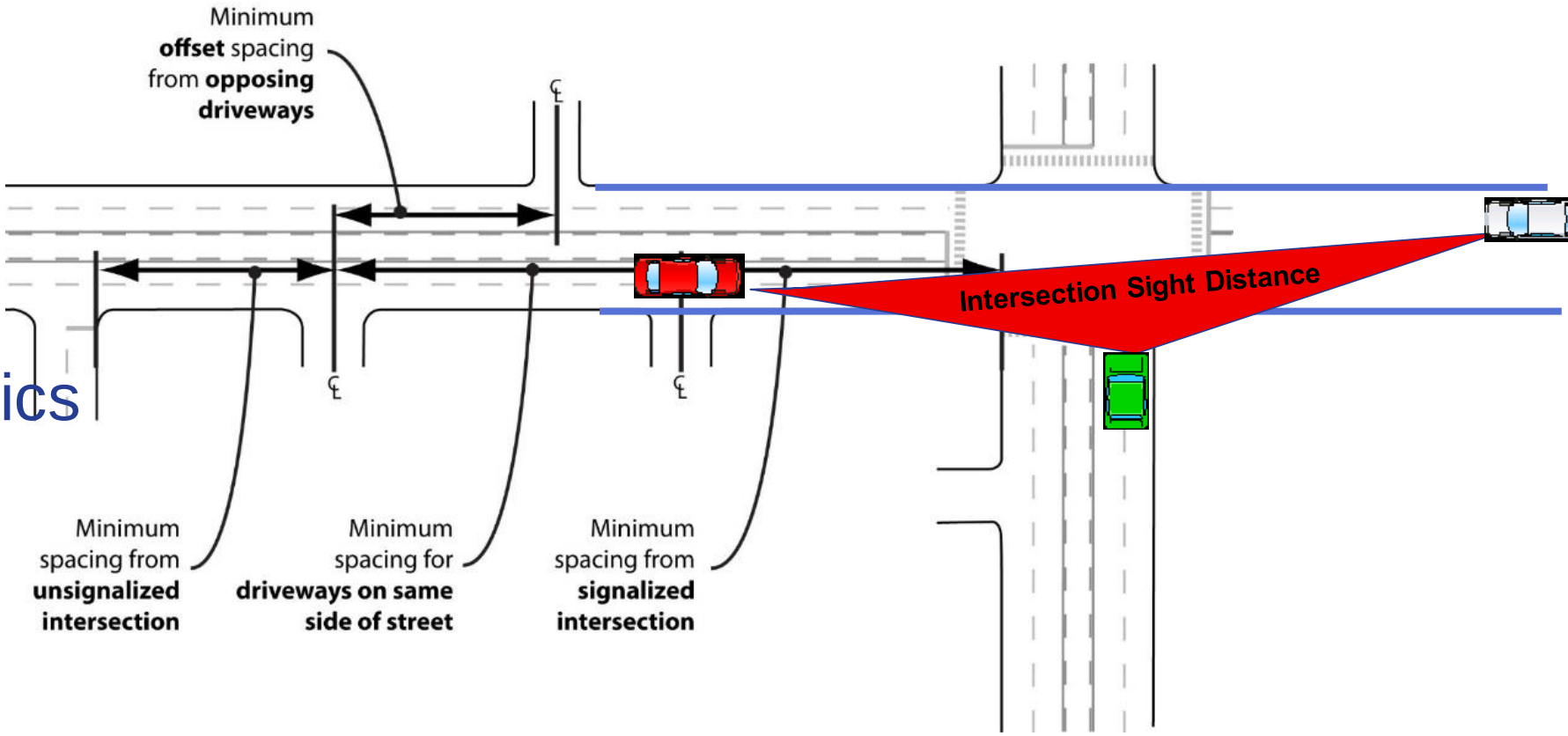


# Access Management considers…

- Sight distance
- Driveway location
- Driveway spacing
- Offsets
- Shared access
- Driveway geometrics



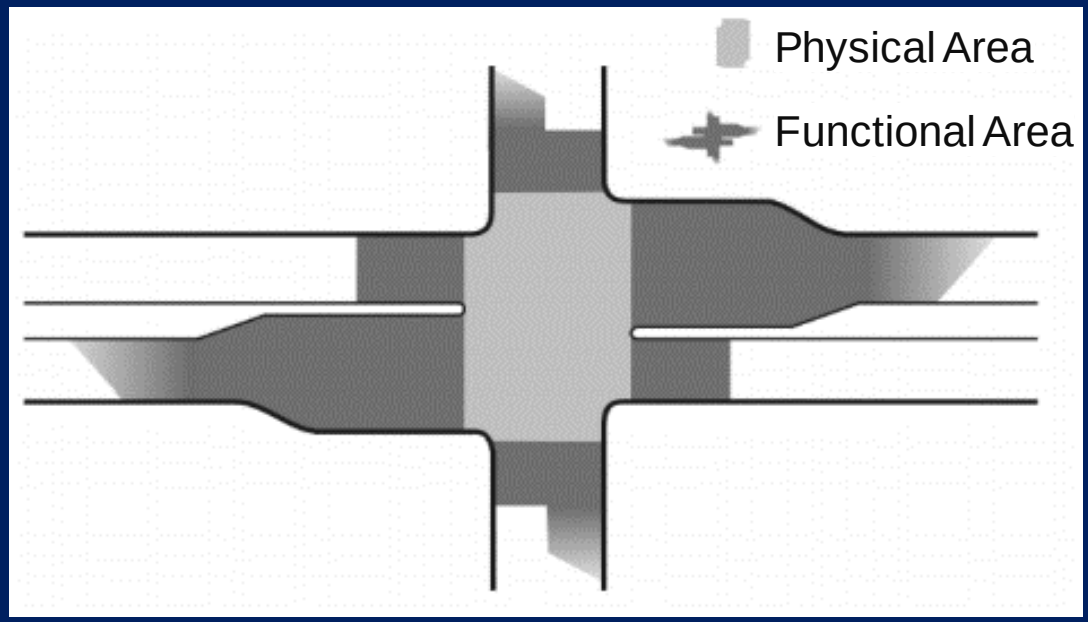

*Source: LSL Planning*

# Access Management considers…

## Driveway Location

- Driveways near intersections create potential for crashes and congestion
- Access points within the functional area of an intersection are “strongly discouraged”

The Functional Area of an intersection varies from intersection to intersection, but it generally encompasses the areas where motorists are actively turning or preparing to turn at the intersection.

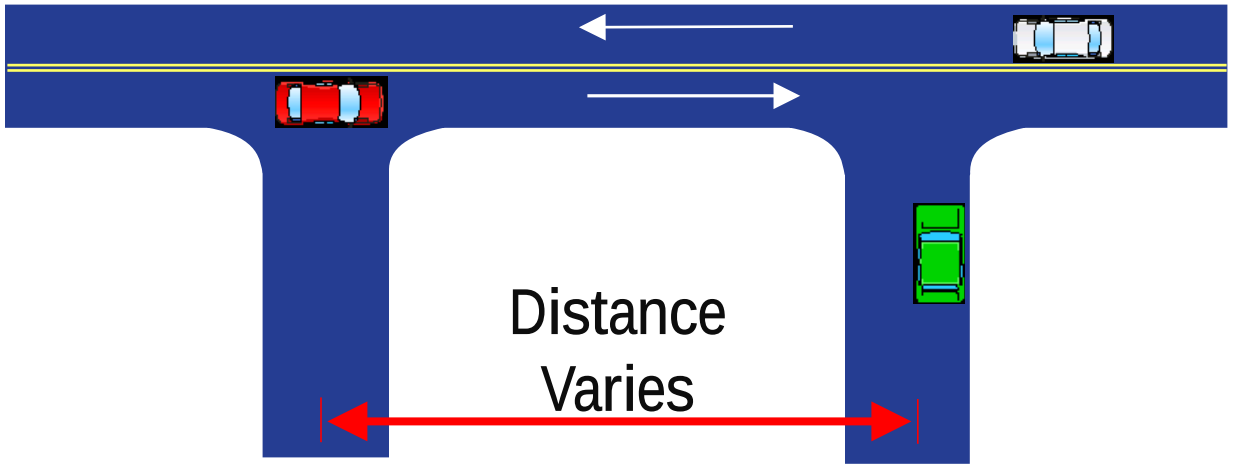


# Access Management considers…

## Driveway Spacing

- Fewer driveways usually means better traffic flow and fewer crashes
- Driveways need to be spaced far enough from other access points

- ✓ Rural spacing: 500’ / 1,000’ / 2,000’
- ✓ Urban spacing: Depends on traffic, existing access, type of use, R/W, etc.



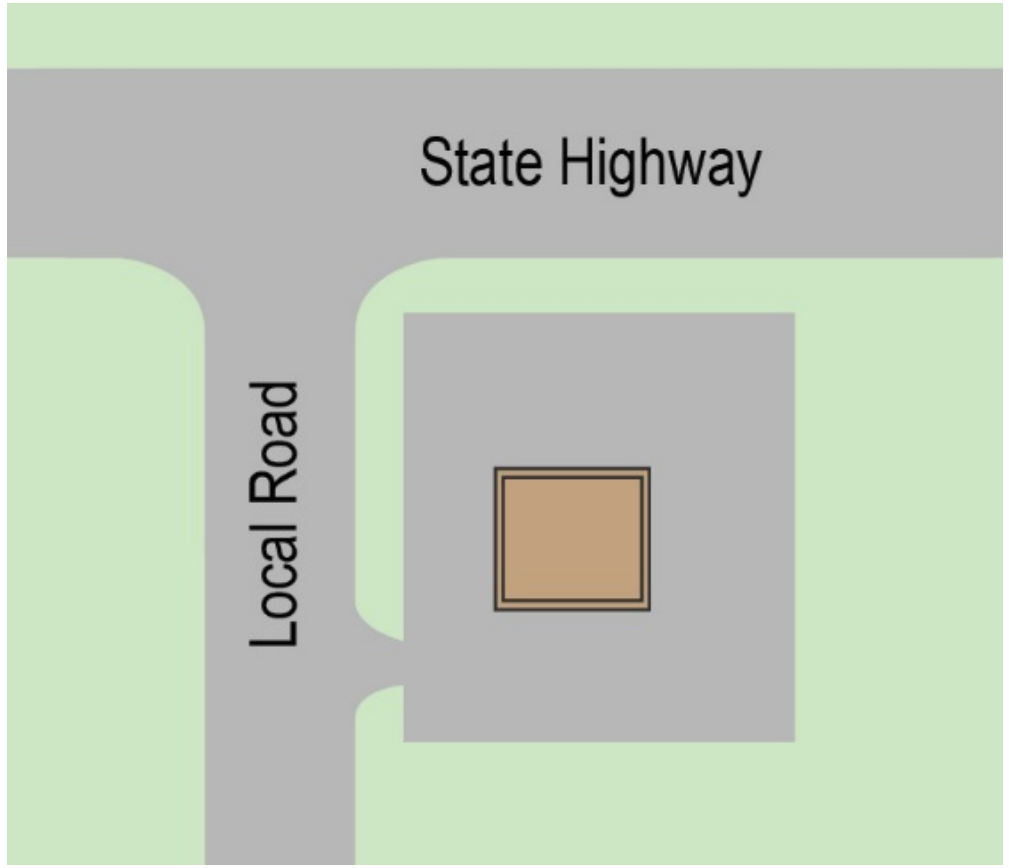

**DRIVEWAY SPACING**

New access should be spaced apart from other access points on the same side of the road

# Access Management considers…

Access from a local side street is usually better

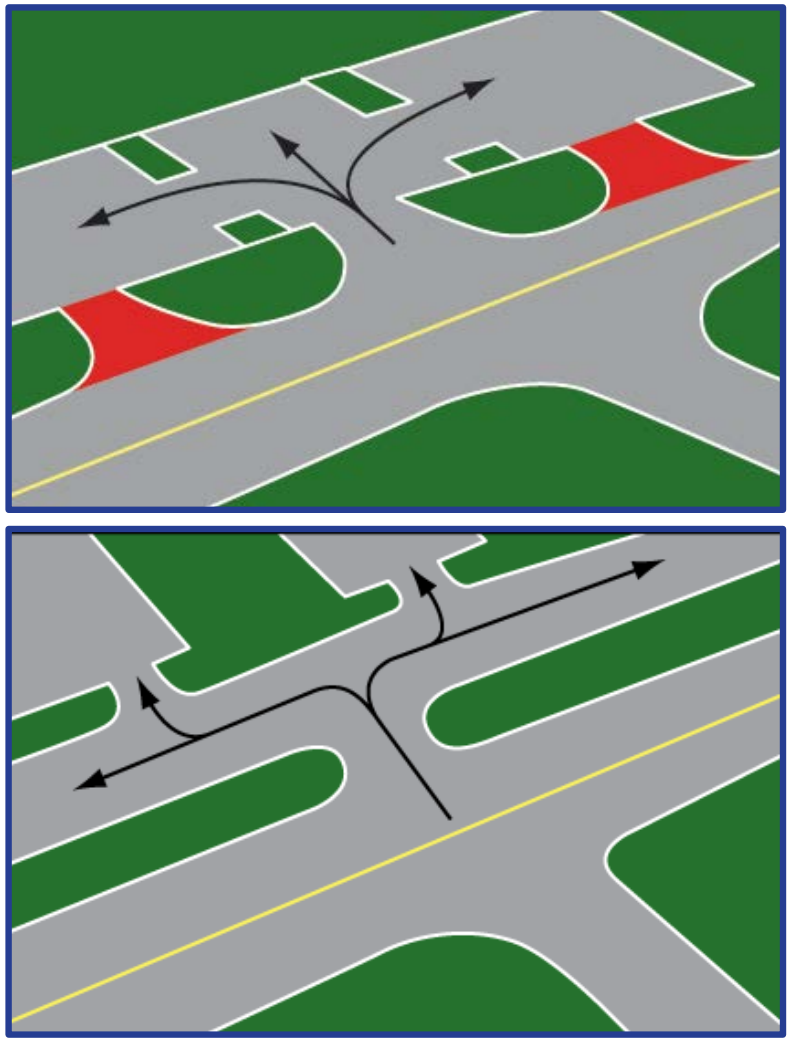
- Preserves vehicle capacity of the state highway
- Driveway maneuvers along lower volume, lower speed roads are safer



# Access Management considers…

Shared access

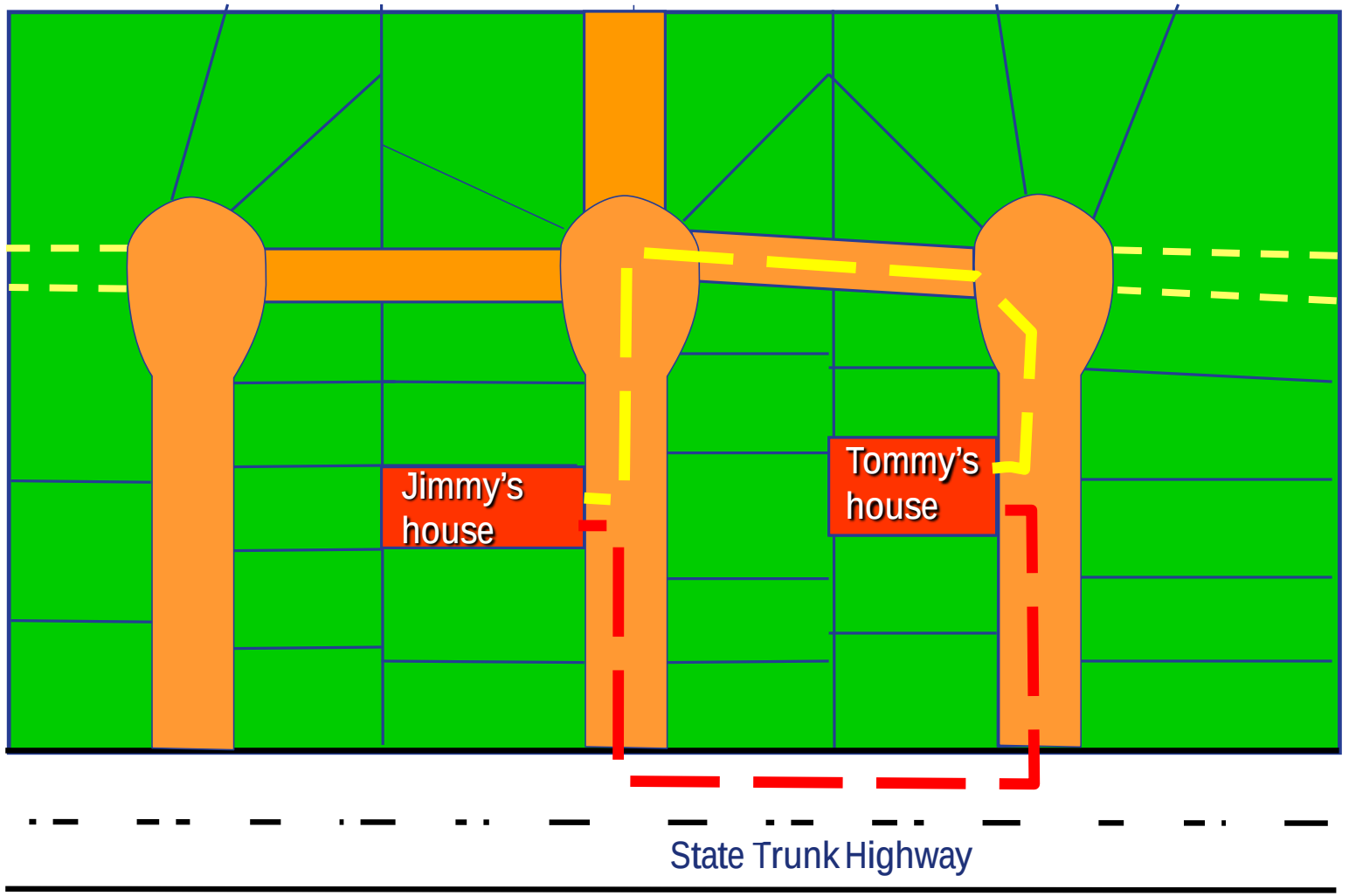
- provides access to more than one property
- Can help meet spacing standards
- Requires a shared access agreement
- May include:
  - Shared driveway
  - Frontage road
  - Rear service drive (backage road)



# Access Management considers…

## Internal Access & Circulation

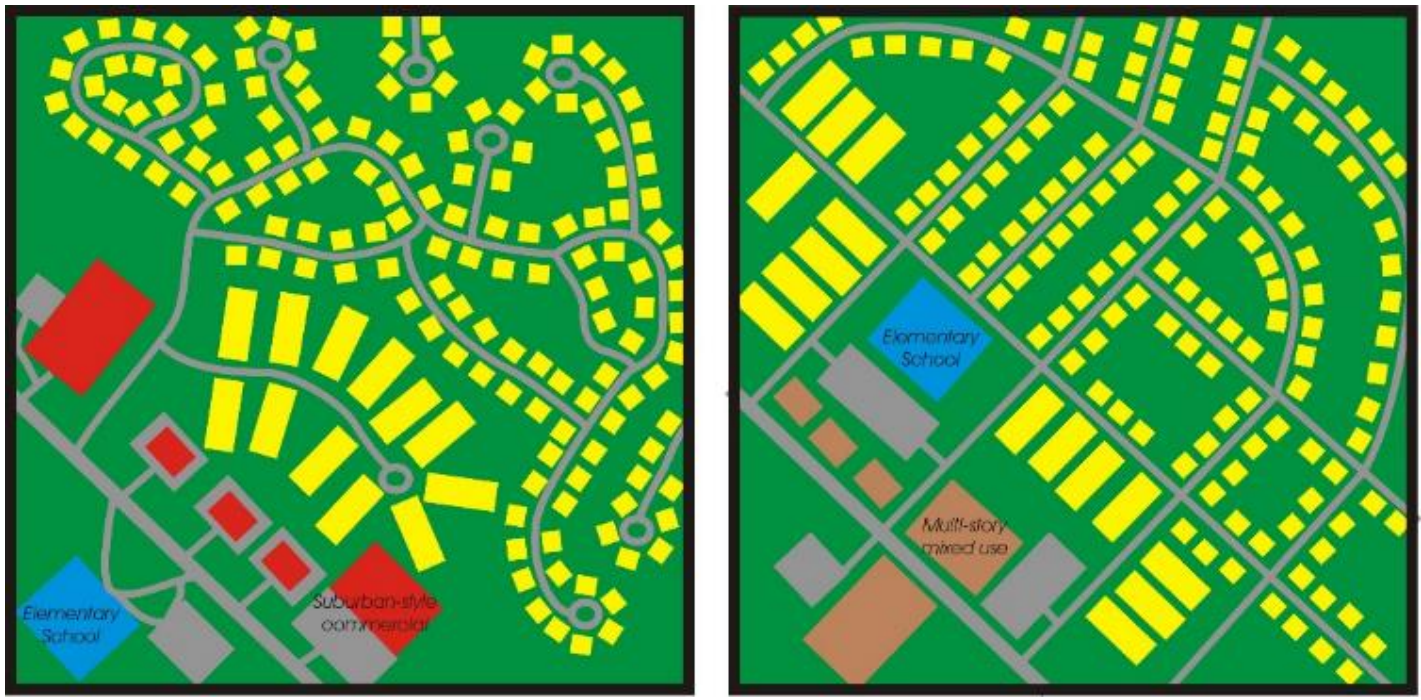
- Better to create internal access rather than using the STH



# Access Management considers…

- Unified access and circulation systems:
  - Eliminate or reduce the need for motorists to circulate on major roadways when traveling from one parcel to another

**Avoid** **Promote**




*Source: TRB Access Management Manual*

# Examples: Unified Access and Circulation Systems

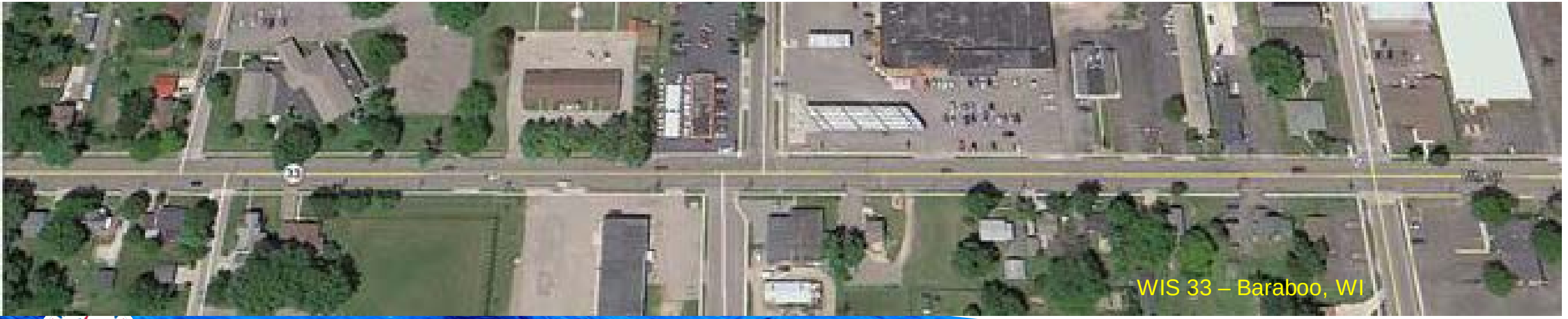
*Source: TTI*

# Access Management Involves a Balance

- Property owner rights
  - Regulated access to a roadway
  - Not to be land-locked by government action without compensation
- Public rights
  - Safe and efficient highway travel
  - Avoid unnecessary and expensive capacity improvements

# Takeaways …

- Access management is a cost-effective way to improve **safety** and **traffic flow**
- Access management is **better for businesses**
- If access management is not applied consistently and vigorously, this may occur…
  - High number of access points (49 per mile)
  - Offset public road connections
  - High crash rate (73% above state average)



# Questions?

Stephen Sydow, WisDOT

# Thank you!

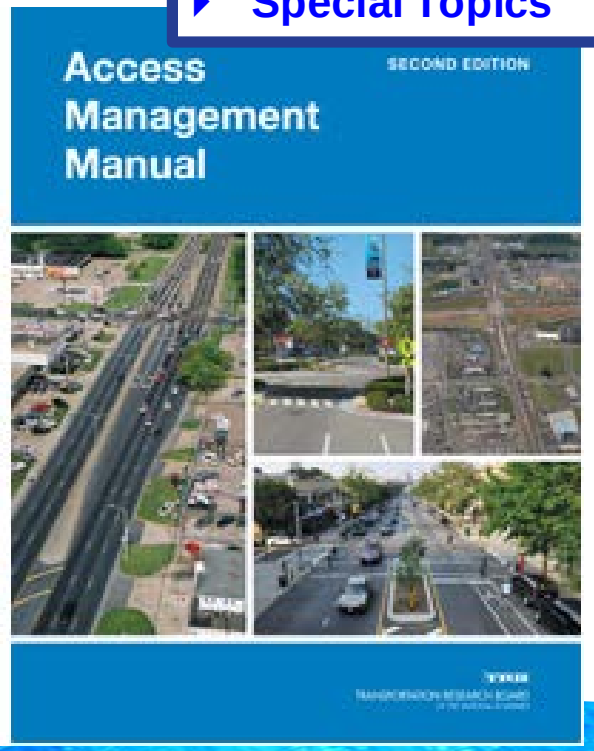
Stephen Sydow, WisDOT

# Resources

- Additional WisDOT Access Management Training
- WisDOT Access Management webpage
  - http://wisconsindot.gov/Pages/doing-bus/real-estate/access-mgmt/default.aspx
- WisDOT Facilities Development Manual
- TRB Access Management Manual (2nd Edition)
  - To buy: http://www.trb.org/Main/Blurbs/171852.aspx
- TRB Access Management Committee Website
  - http://www.accessmanagement.info/

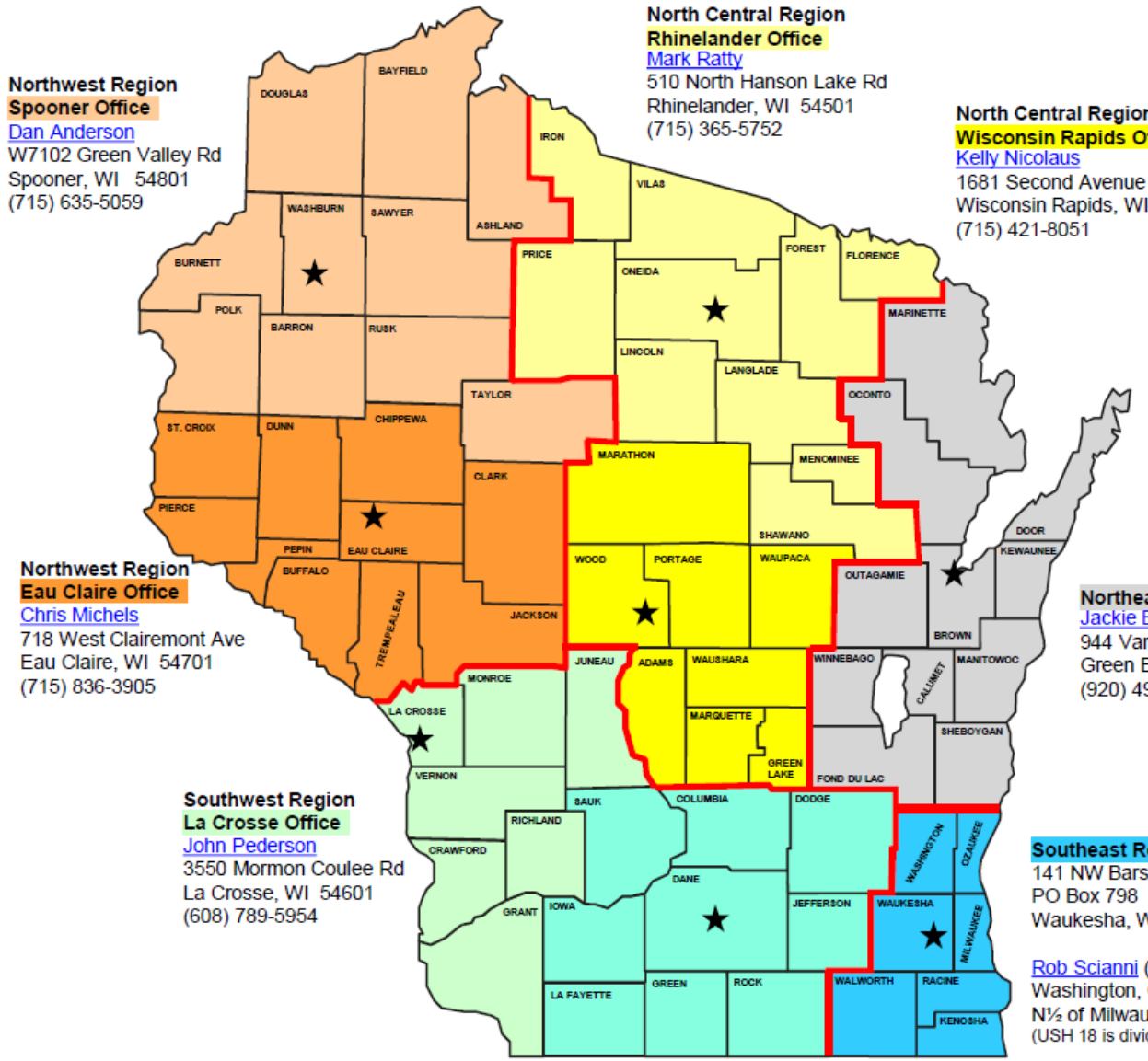
**Modules:**

- (1) Summary of Principles and Practices
- Law & Risk Management
- Access Standards
- Planning
- Identifying Access Controls
- Access Permits/ Process
- Special Topics



# STH Connection Permit Contacts

- Please contact the appropriate region office that has jurisdiction in the county where the connection is or will be located

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**North Central Region**
**Rhinelander Office**
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**Southwest Region**
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# Acknowledgments

*Special thanks to the WisDOT Access Management Team members who contributed their time, input, and experiences to develop this training program:*

- Mike Roach – Statewide Access Engineer
- Sue Voight – SE Region Access Coordinator
- Dave Nielsen – NE Region Access Engineer
- Tom Beekman – NW Region Planning Chief
- Ernie Peterson – Statewide Access Engineer (Retired)
- Bob Fasick – State ROW Permits Engineer
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