STREET CROSSINGS
Learning Outcomes

At the end of this module, you will be able to:

- Describe how and why people cross the street
- Describe how drivers and pedestrians perceive each other
- Describe principles for users to cross a road safely
- Select midblock vs. intersection locations
- Identify how speed affects pedestrian safety
Why do people cross the street?

Because there’s someplace good on the other side
People shouldn’t have to run to cross a street
Ideally, we’d always cross at locations with positive control
But we can’t provide signals everywhere people cross
These people are not criminals…

- They’re simply trying to deal with a situation
Pedestrian behavior varies: Some use crosswalks, others don’t
Ped behavior varies: some cross midblock (and do so safely)
Ped behavior varies: others cross at signal (and do so safely)
General Principles

1. Pedestrians want & need to cross streets safely
2. Drivers need to understand pedestrians’ intent
3. Keep crossings short
4. Speed Matters
5. Pedestrians will cross where it’s convenient

- Good design makes use of these principles
Principle # 1

Pedestrians want & need to cross the street safely
Principle # 2

Drivers need to understand pedestrians’ intent
Principle # 3

- Keep Crossings Short
- Impacts of long crossing distance:
  - Increases exposure time
  - Increases vehicle-pedestrian conflict
  - Increases vehicle delay
  - Decreases ability of slower pedestrians to cross
Principle # 4: Speed Matters

- Drivers’ field of vision & ability to see pedestrians
- Drivers’ ability to react and avoid a crash
- Crash Severity
As speed increases, driver focuses less on surroundings
As speed increases, driver focuses less on surroundings
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As speed increases, driver focuses less on surroundings
Speed Affects Crash Avoidance

High speeds equate to greater reaction and stopping distance.
Australian PSA on Speed

- 60 kph vs. 65 kph
- 37 mph vs. 40 mph
Speed Affects Crash Severity

- High speeds lead to greater chance of serious injury & death

Sources:
- Killing Speed and Saving Lives, United Kingdom DOT
- Vehicle Travel Speeds and Pedestrian Injuries; NHTSA.DOT HS 809 021
Traffic-calming methods such as curb extensions help slow traffic

Resources:

- PEDSAFE http://www.pedbikesafe.org/PEDSAFE/countermeasures.cfm
- ITE Traffic Calming Library http://www.ite.org/traffic/
Speed Management

- Speed management is the single most effective way to increase safety for all modes.
- Speed limits must be realistic, consistent, and enforceable and able to be adjudicated.
Comprehensive Speed Management Program
Speed Management Guidance and Strategic Initiatives

Speed Management Safety

Speeding—travelling too fast for conditions or in excess of the posted speed limits—is a factor in almost one-third of all fatal crashes. In 2011, there were 32,387 fatalities on our Nation’s roadways, of which 5,944 were speeding-related—down 5 percent from the previous year. Speeding is a safety concern on all roads. Although much of the public concern about speeding has been focused on high-speed Interstates, nearly half of speeding-related fatalities occur on lower speed collector and local roads.

Speeding is a complex issue involving engineering, driving behavior, education, and enforcement. That’s why the U.S. DOT has set up a multimodal, interdisciplinary Speed Management Team to attack the problem. The DOT Team has a formal charter [HTML, PDF] and a work plan. FHWA is the lead agency accountable for the engineering actions.

- USLMTS2
- Facts and Statistics
- Policy
- Engineering Speed Limits
- Variable Speed Limits
- Traffic Calming
- Ongoing Research
- Reference Materials
- Related Website Links
- Additional Safety Programs & Initiatives

http://safety.fhwa.dot.gov/speedmgt/

Uniform Guidelines for State Highway Safety Programs

Speed Management


Speed Management Strategic Initiative

What are your policies & practices regarding setting, enforcing, and adjudicating speed limits?
Principle # 5

Pedestrians will cross where it’s most convenient
Discussion:

How far are you willing to go out of your way for an “improved” crossing?

Would you walk: 25’ 50’ 75’ 100’ 125’
Midblock vs. Intersection

What is the relative risk of crossing midblock vs. crossing at an intersection?
Midblock: Pedestrian faces 2 directions of traffic
Intersection: pedestrian must walk out-of-direction
Intersection: pedestrian faces other conflicts
Midblock vs. Intersection

- People choose based on their perceived risk
- The data is inconclusive
Let’s look at the State laws

- Duties of drivers toward pedestrians
- Duties of pedestrians
- Is crossing midblock illegal?
(625 ILCS 5/11-1002) Sec 11-1002 Pedestrians’ right-of-way at crosswalks

(a) When traffic control signals are not in place or not in operation the driver of a vehicle shall yield the right-of-way, slowing down or stopping if need be to so yield, to a pedestrian crossing the roadway within a crosswalk when the pedestrian is upon the half of the roadway upon which the vehicle is traveling, or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger.

(b) No pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a moving vehicle which is so close as to constitute an immediate hazard. <…>

(d) Whenever any vehicle is stopped at a marked crosswalk or at any unmarked crosswalk at an intersection to permit a pedestrian to cross the roadway, the driver of any other vehicle approaching from the rear shall not overtake and pass such stopped vehicle. (Multiple-threat crash)
(625 ILCS 5/11-1003) Sec. 11-1003. Crossing at other than crosswalks.

(a) Every pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right-of-way to all vehicles upon the roadway. <…>

(c) Between adjacent intersections at which traffic-control signals are in operation pedestrians shall not cross at any place except in a marked crosswalk.

(e) Pedestrians with disabilities may cross a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk where the intersection is physically inaccessible to them but they shall yield the right-of-way to all vehicles upon the roadway.
Can You Cross Legally?

Is it legal to cross Beach Boulevard in the middle of a block, like at A or B?
• It’s only legal at A
• It’s only legal at B
• A and B are both legal places to cross
• Neither A nor B is a legal place to cross
Let’s look at the T-shaped intersection, where no crosswalk is marked. Can you legally cross here?
Learning Outcomes: Crossing Principles

You should now be able to:

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- Describe how drivers and pedestrians perceive each other
- Describe principles for users to cross a road safely
- Select midblock vs. intersection locations
- Identify how speed affects pedestrian safety
Questions?