Providing for Pedestrians

Outline
• Where are we now?
  – Statistics; current conditions
• What should we do?
  – Guidance; resources
• What are we already doing?
  – Alabama examples

Part 1: Where are we now?

From 2009 to 2019, pedestrian fatalities in the U.S. increased by 51%
• Overall traffic fatalities increased by 7%

In 2021, there were 125 pedestrian deaths in Alabama!
Federal legislation (1991)

1991: ISTEA (Intermodal Surface Transportation Efficiency Act)
- Phrases “due consideration” and “presumptive accommodation” first appeared
- Created “Transportation Enhancements” funding program
- Required state DOTs to identify a state pedestrian and bicycle coordinator

Federal policy (2009)

2009: FHWA Directive to State DOTs:
- “Bicycling and pedestrian facilities will be incorporated into all transportation projects unless exceptional circumstances exist”.
- Exceptional circumstances (verbatim):
  - Bicyclists and pedestrians are prohibited by law from using the roadway
  - The cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use
  - Where a sparsity of population or other factors indicate an absence of existing and future need.

Federal policy (2010)

2010: USDOT policy statement
The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including USDOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide – including health, safety, environmental, transportation, and quality of life – transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes.

Part 2: What should we do?

Guidance:
- AASHTO Green Book, New AASHTO Pedestrian Guidebook, other documents

Resources:
- FHWA: STEP (Safe Transportation for Every Pedestrian) initiative
- FHWA: Field Guide for Selecting Countermeasures at Uncontrolled Pedestrian Crossing Locations
- FHWA: Toolbox of Pedestrian Countermeasures
- ALDOT: Guidance to Support Vulnerable Road Users, or “VRU guidebook”

Key resources for pedestrian facility design
Ample evidence that a sidewalk is needed...

AASHTO Green Book (2018)  
Chapter 4, Cross-Section Elements

Sidewalks are an integral part of city streets and are sometimes also provided in rural areas. However, the potential for collisions with pedestrians is higher in many rural areas due to the higher speeds and general absence of lighting. The limited data available suggest that sidewalks in rural areas are effective in reducing pedestrian collisions.

As a general practice, sidewalks should be constructed along any street or highway not provided with shoulders, even though pedestrian traffic may be light. Where sidewalks are built along a high-speed highway, buffer areas should be established so as to separate them from the traveled way.

AASHTO Green Book (2018)  
Chapter 7, Arterials

As a general practice, sidewalks should be provided along arterial streets in urban areas, even though pedestrian traffic may be light. On some sections of arterial streets that traverse relatively undeveloped areas, no initial pedestrian demand may be present, and, therefore, sidewalks may not be needed initially. Because these areas will usually be developed in the future, the design should allow for the ultimate installation of sidewalks.

FHWA: Every Day Counts  
Safe Transportation for Every Pedestrian (STEP)

Encourages use of several safety countermeasures:  
--Rectangular Rapid Flashing Beacons  
--Pedestrian Refuge Island  
--Crosswalk Visibility Enhancements  
--Pedestrian Hybrid Beacons  
--Leading Pedestrian Interval  
--Raised Crosswalk  
--Road Diet / Roadway Reconfiguration

Field Guide for Selecting Countermeasures at Uncontrolled Pedestrian Crossing Locations (FHWA-SA-17-072)

Toolbox of Pedestrian Countermeasures and Their Potential Effectiveness (FHWA-SA-18-041)
Some examples:
- Simply adding sidewalks to existing facilities
- PHBs in Mobile
- LPIs in Huntsville, Birmingham
- RRFBs in many places
- High visibility crosswalks in many places

Adding sidewalks on both sides reduces pedestrian-involved crashes by 88% (on average)

Pedestrian Hybrid Beacons (PHBs)
The City of Mobile has installed PHBs at 3 locations in the past 3 years and plans for at least 2 more...

Leading Pedestrian Intervals (LPIs)
The City of Huntsville has installed LPIs at about 20 sites since 2016
The City of Birmingham has 5 locations

RRFBs and Raised Crosswalks
Many localities have installed RRFBs, sometimes in conjunction with raised crosswalks
Example: City of Auburn on West Magnolia Avenue
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