Re-Thinking Pedestrian Safety

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FARS Ped Crash Data
Fatality Analysis Reporting System

10 years: 2002 through 2011
- 4109 to 4892 Pedestrian Fatalities
- 11% to 14% of all Annual Fatalities

Total Fatalities Significantly Decreasing
(43,005 in 2002 to 32,367 in 2011)

Pedestrian Fatalities increasing 2009-2011
(4109 to 4432)
Almost Always Critical Injury or Death
Result in Major Tort Claims
Pima County’s Experience
- ¾’s Major Claims (in the $ millions)
- Often Young Victims
- Very Emotional
- Government’s “Deep Pockets”
Poor Ped Behavior

Frequent issues:
- j-walking (even near signals)
- not looking left/right for traffic; distracted
- not waiting for green or walk lights
But Some Peds Are Safe

- Depends on the individual level of responsibility
- Alignment of ped route re: ped generator
- Adequate time for bus transfers
Even High School Students

- ¼ mile school frontage
- 800 ped xings/day (200 jay-walkers previously)
- critical student ped crash, installed HAWK
  + awareness, enforcement, 25 mph = 0 j-walk today
Legacy Approaches to Ped Safety

Quickly Loses Effectiveness – Drivers see continuously; but peds seldom present; breeds driver disinterest.
Legacy Approaches to Ped Safety – cont.

Some TCD’s are directed at peds:

If they push the ped button, wait.
If there is close “supervision.”
Need New Approach: Focus on the Peds

Pedestrians Control the Crossing-Safety Environment by:
- deciding to cross
- where to cross
- when/moment to cross
- how to cross

The pedestrian is the “foreign” entity on the road.

After all, if not on the road – No collision.
Europe’s Approach: Control the PEDs
Direct Ped Control in the U.S.

Use of simple to elaborate Pelicans
- two part, signalized crossings
- requires peds in median to face oncoming traffic
Direct Ped Control, U.S. (2)

On road CIP Projects

At Off Site Develop.
Pima County’s New Approach
Warning & Guidance

LOOK Signs & PM’s
- high ped volumes
- Signal RT yield lanes
Pima County’s New Approach: Warning & Guidance (2)
Pima County’s New Approach: Direct Physical Control

Use of Fencing to Control J-Walking Issue
- 100’s peds on weekends to flea market
- between two HAWK’s ¼ mile apart
- breakaway square tube posts
Requirements for “Quick Market Developments

Notes:
- All required items mentioned above are to be constructed to PCDOT standards.
- Location of driveways should be determined in accordance with the Pima County Subdivision and Development Street Standards, Current Edition.
- Refer to the Pima County Department of Transportation, Transit Guidelines for Roadway Design and Construction, current edition, for placement and design of bus facilities.
- Hand rail should terminate 3 feet from the inside of curb or sidewalk.

Issues:
April 2012
PCDOT Traffic Engineering Division
Standard Details
Traffic Development Standards for Locations with High Pedestrian Volume Generators
Sheets:
1 of 2
General Requirements
Ped Railing Example for Corner “Quick Market” Site
Pima County Ped Study

Year long study – 144 ped crashes, 5 yrs
Draft report completed
Preliminary Findings (& past experience):

- very few “hot spot” repeat locations
- alcohol (driver and/or ped) involved
- often at, near ped generators (schools, libraries, special events, bus stops, “quick market” type grocery stores)
Pima County Ped Study

Outcomes

ID Common Ped Generators Crash Types
- Bus Stops
- “Quick Markets”
- Bus Stops AND “Quick Markets”

Install fencing, railing, signs
Program Qualifiers

New County Traffic Engineer

Citizen Responses

Developers’ Responses

County’s “Will”
In Summary:

Past TE Focus on Driver Not Effective

Recognize Peds Behavior - Major Factor

Change Our Focus to the PEDESTRIAN

Direct TCD at the Pedestrian:
  - signs & markings (LOOK)
  - use Direct Physical Control of Ped Move.
THANK YOU

Questions ? ?