Chicago Metropolitan Agency for Planning

Pedestrian Safety Initiative

Presented to the
CMAP Transportation Committee

August 22, 2008
by Tom Murtha

Rethinking Pedestrian Safety

Regional Pedestrian Casualties, 2005

County	Fatalities	Injuries	Total
Cook	97	4,377	4,474
DuPage	10	174	184
Kane	4	121	125
Kendall	0	7	7
Lake	7	159	166
McHenry	2	36	38
Will	8	98	106
Total	128	4,972	5,100

http://app.idph.state.il.us/emsrpt/ind-crash.asp

Recent Pedestrian Transportation Activities

- CMAP Pedestrian Safety Initiative
  - Direct Assistance to Four Communities
  - Develop Policies and Procedures for Pedestrian Safety
- PA 95-665 Complete Streets Law
- MUTCD Proposed Rules
- Public Rights-of-Way Access Advisory Committee
  - Draft Proposed Guidelines 2005
  - NPRM Expected 2008
- June 2008 Training
- Local and County Activities

Complete Streets PA 95-665

- Senate Bill 314 Introduced 2/7/07
- Passed Both Houses, Amendatory Veto
- Enacted by Legislative Override of Gubernatorial Veto.
  - Senate Vote: 53 - 0
  - House Vote: 109 – 3
- Public Act 95-665 Enacted 10/17/07
- Overwhelming Vote Demonstrates Strong Legislative Mandate for Walking and Bicycling Accommodations.

What Complete Streets Means

When We Build or Alter a Road,
We Need to Accommodate All Traffic,
Including Bicycles and Pedestrians

Complete Streets PA 95-665

- Bicycle and Pedestrian Ways Shall Be Given Full Consideration in the Planning and Development of Transportation Facilities, Including the Incorporation of Such Ways into State Plans and Programs
- In or Within One Mile of an Urban Area, Bicycle and Pedestrian Ways Shall Be Established In Conjunction with the Construction, Reconstruction, or Other Change of Any State Transportation Facility

CMAP Pedestrian Safety Initiative

- Promote What Works:
  - Sidewalks
  - Reducing Exposure through Landscaped Medians, Refuge Islands, Curb Bulbouts, and Shorter Crossing Distances
  - Controlling Vehicle Speed, e.g. through Tighter Intersection Turn Radii, Reduce Excessive Widths
  - Improved Signal Operations: Adequate Clearance Intervals, Leading Pedestrian Intervals, Protected Left Turns, Pedestrian Count-Downs
  - Enforcement and Education

Selected Recommendations: Phase I Studies

- Include pedestrian generators, crashes, anticipated travel along or across corridor in Phase I report
- If no pedestrian facilities are provided, complete bicycle and pedestrian checklist in Chapter 17.
- Describe how users (pedestrians, disabled) currently access the facility, both driving, walking, or if appropriate, by bicycle
- In discussion regarding access to mass transportation, include discussion of sidewalks.
- Include ADA scoping

Selected Recommendations: Intersection Design Studies

- Pedestrian Movements. Note likely pedestrian movements based on nearby generators such as schools, parks, business districts, etc. Also note the pedestrian crossing distances and pedestrian crossing times as defined in the current and any proposed MUTCD.
- Include pedestrian crossing distances in capacity design analysis
- Where pedestrian control signal heads are proposed, provide a pedestrian count and plans expected to affect future counts.

Selected Recommendations: Cross-Section Elements

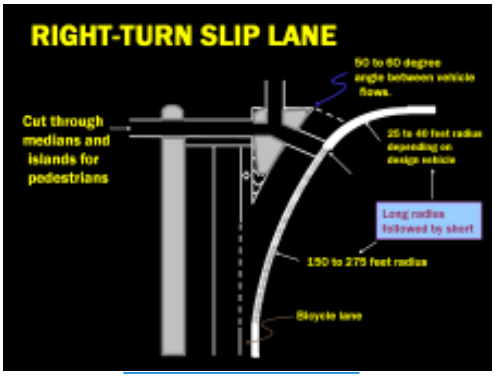
- Reference Chapter 58 for ADA Requirements
- Clarify functional use of "buffer area" for signposts, fire hydrants, street furniture, bus shelters, landscaping, etc. (These elements should not be placed in sidewalks).
- Add and define crosswalk sections.

Selected Recommendations: Intersections

- Design vehicles may be modified where pedestrian activity is present and truck volumes are not excessive. Such exceptions shall be documented showing the trade-offs of encroachment frequencies versus lower pedestrian crossing distances, pedestrian crossing times, and signal cycle lengths.
- To reduce pedestrian crossing distances, if a highway downstream of a right-turn is multi-lane, right-turning vehicles may turn into the left lane rather than the curb lane.

Selected Recommendations: Intersections (continued)

- End IDOT policy discouraging use of corner islands. Corner islands aid pedestrians by reducing crossing distances, and may reduce signal cycle lengths. Recommended language to give these serious consideration where appropriate.
- Suggest modernized corner island and turning roadway design encouraging more moderate speeds and safer pedestrian crossings.
- Avoid dual-left turn lanes where there is current or expected pedestrian activity.



Selected Recommendations: Structures

- Consider 7' sidewalk widths. For 5' sidewalk widths, include a rail or barrier to separate sidewalk from moving traffic
- Bikeways should be 10' minimum separated with a traffic barrier; but must in no case be less than 8'.
- Consider adjoining sidewalks and bikeways.

Selected Recommendations: SRA's

- SRA's shall accommodate all users.
- **Strike**: "One advantage of urban SRA's is that there typically are close parallel routes that may be considered for bicycle and pedestrian routes. Identify these parallel facilities as bicycle routes so that the SRA routes can be reserved for vehicular traffic."
- Consider the needs and use of the specific intersection per 17-4.04.3.1 curb radii. If significant pedestrian use is expected, the designer should balance the safety needs of pedestrians with truck operations. This may include allowing the use of adjacent lanes.

Selected Recommendations: Urban Highways

- Sidewalk minimum 5'
- Include buffer areas:
  2' Signs
  4' Trees
  6' Street Furniture and Snow Storage
  8' Perpendicular Curb Ramps
- Drop language regarding on-street parking.

Selected Recommendations: Highway Lighting

- Refer to FHWA Informational Report on Lighting Design for Midblock Crosswalks.
- Clarify pedestrian lighting needs, including crosswalk lighting

Selected Recommendations: Special Design Elements

- Suggested numerous changes to ensure accessible routes, consistent with chapter on sidewalks.
- Minimum clear width 48."

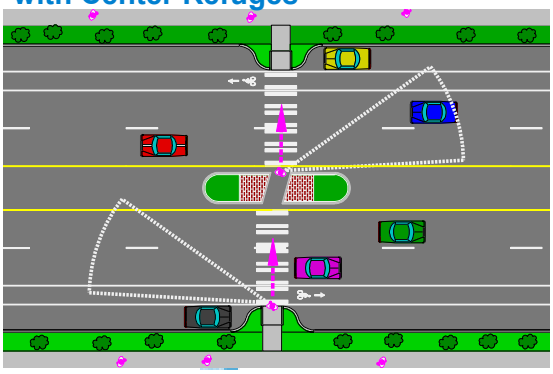
Accessibility Is Coming (And Is Required)

Technical Resources Available at
http://www.cmap.illinois.gov/bikeped/accessibility.aspx

Selected Recommendations: Pedestrian Accommodations

- General Design Considerations
- Sidewalk Design, including "zone system," sidewalk widths, buffer widths, transit connections, and driveway access management
- Intersection design, including curb radii, curb extensions, crossing islands and medians, turning roadways, and roundabouts.
- Crosswalks
- Curb ramps

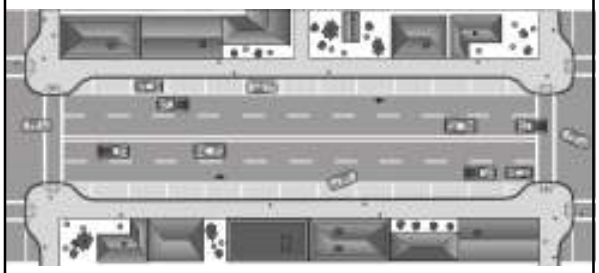
Control Pedestrian Exposure with Center Refuges



Pedestrian Accommodations (Continued)

- Crossing distances
- Medians and crossing islands
- Construction and other temporary accommodations.

Control Pedestrian Exposure with Curb Bulbouts



Integrate Bulbouts with On-street Parking.
Since Pedestrian Crossing Time Allotted Is Based on Curb-to-Curb Distances, note **Benefit for Signal Timing.**

Selected Recommendations: Local Agency Agreements

- The state and local shares of sidewalk construction (including right-of-way, utility adjustments, pedestrian barriers, retaining walls, and other similar items that are required solely for sidewalk construction) shall be the same as the overall roadway project.
- The state and local shares of replacement sidewalk construction(including right-of-way, utility adjustments, pedestrian barriers, retaining walls, and other similar items that are required solely for sidewalk construction) shall be the same as the overall roadway project.
- All sidewalk construction will be considered an integral part of the overall improvement and incorporated into the roadway cost.

Selected Recommendations: Local Agreements (Cont'd)

- Highway lighting is an integral part of the pedestrian environment. Where sidewalks are existing or will be provided, costs will be assigned to the State and local agency at the same proportion as the roadway project. Elsewhere, the local agency shall pay 100% of the marginal cost of providing highway lighting.

Pedestrian Safety Initiative

Thank You

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