# 2–Day Designing Streets for Pedestrian & Bike Safety Springfield, IL November, 2018 8:00 AM – 4:30 PM

## Day 1

## 1: Introduction to Designing for Pedestrian Safety

- o Overview
- Attendees explain their background and what they hope to learn (< 1 minute each)
- Local Perspective -- Summary of Illinois or Springfield Pedestrian and Bike Accommodations in Design, Status of Activities, Vision Zero, etc.

## 2: Walking Along the Road

o Sidewalk design elements that impact pedestrian safety

## 3: Street crossing principles:

• Principals of human behavior; the need to provide safe, frequent and convenient crossings; midblock vs. intersection crossings

## 4: Street crossings countermeasures

- Crosswalks: justification, applicability, crosswalk markings
- Improving crosswalks: illumination; beacons; signing; advance stop/yield lines
- Medians & islands: breaking long crossing into 2 steps
- Pedestrian signals: meeting warrants, innovative techniques
- Grade-separation: where it's applicable, why it fails, how to make it succeed

## 5: Intersection geometry

- Size, radius, skewed intersections, curb extensions: reducing crossing distance
- o Crosswalk placement: how to place crosswalks where they'll be used
- o Islands; right turn slip lane design

## Field Exercise – Group Work

## **6: Signalized Intersections**

- The purpose and principles of traffic signals
- Pedestrian head and push-button placement
- o Countdown pedestrian signals
- Signal timing techniques: restricting turn movements; Leading Pedestrian Interval (LPI); all ped scramble; ITS applications

# 7: Road Diets

o Reducing street width enhances pedestrian safety without compromising capacity

# 8: Roundabouts

• Proper design, essential pedestrian safety considerations

## 9: Transit Stops

• Bus stop location & design; pedestrian crossing safety

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## Day 2

# 1: Designing for Bike Safety

- o Bicyclist skills and characteristics
- o Bicyclist crashes and crash characteristics
- o Level of Traffic Stress
- o Core Safety Concepts

## 2: Designing for On-Road Bikeways

- Hierarchy of bikeways
- Shared roadway
- o Paved shoulders
- o Bike lanes
- Buffered bike lanes
- Separated or Protected bike lanes
- Design guidance

## **3: Intersection Design Techniques for Bikes**

- $\circ \quad \text{Key safety factors} \quad$
- $\circ \quad \text{Shared-use path crossings} \\$
- o BikeHAWK
- o Intersection design
- Traffic signal features for bicyclists
- "Protected" intersections

## 4: Design Polices and Safety Evaluation

- USDOT policy
- FHWA program guidance
- Evaluating needs / Data collection
- Safety evaluation tools
- Selecting Countermeasures

## Adjourn