

# Bikeway Facility Design and Safety Improvements (TE-52)

## Course Outline

### **Module 1** (1.5 hours): Introduction and Class I Facilities (Paths & Trails)

- Introduction
- Workshop overview
- User Characteristics (Geller typology)
- Low Stress Networks
- Standards and Guides
- Design parameters (speed, width, grades etc.)
- Class I facilities
  - Widths
  - Continuity
  - User Amenities
  - Construction Materials and Life Cost considerations
  - Landscape
  - Median Facilities

Exercise: Design an intersection approach with Right Turn Lane.

### **Module 2** (1.5 hours): Class II (Bike Lanes) and Class III (Routes, Boulevards, and Greenways)

- Class II Facilities
  - Intersections and Approaches
  - Widths
  - Colored Pavements
- Class III facilities
  - Bike Boulevards
  - Sharrows

**Module 3** (1.5 hours): Class IV and Enhanced Facilities

- International Treatments
- Class IV Facilities
  - Cross sections and widths
  - One-way vs Two way
  - Intersections and Driveways
  - Bicycle Signals
  - Transitions
  - Safety Considerations
  - Maintenance

Exercise: Design layout for a Class IV bikeway in a suburban environment

**Module 4** (1.5 hours): Safety, Special Programs, and Case Studies

- Safety Management
  - Collisions and Countermeasures
- Legal and Liability Issues
- Programs and Special Facilities
  - Parking Infrastructure
  - Emerging Challenges
- Case Studies