

Complete Streets: The Big Picture



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Complete Streets: Evolutionary?

- There is an increasing awareness of other transportation modes
- There is a trend toward accommodating a wider variety of users
- "Complete streets" is simply the latest step in this process

Complete Streets: Revolutionary!

- "Complete streets" is a big step beyond how design is typically done today
- Can greatly increase travel options, flexibility, usability
- Can create a network of travel for all modes

What is a Complete Street?

A Complete Street is safe, comfortable and convenient for travel via automobile, foot, bicycle, and transit.

An incomplete street:



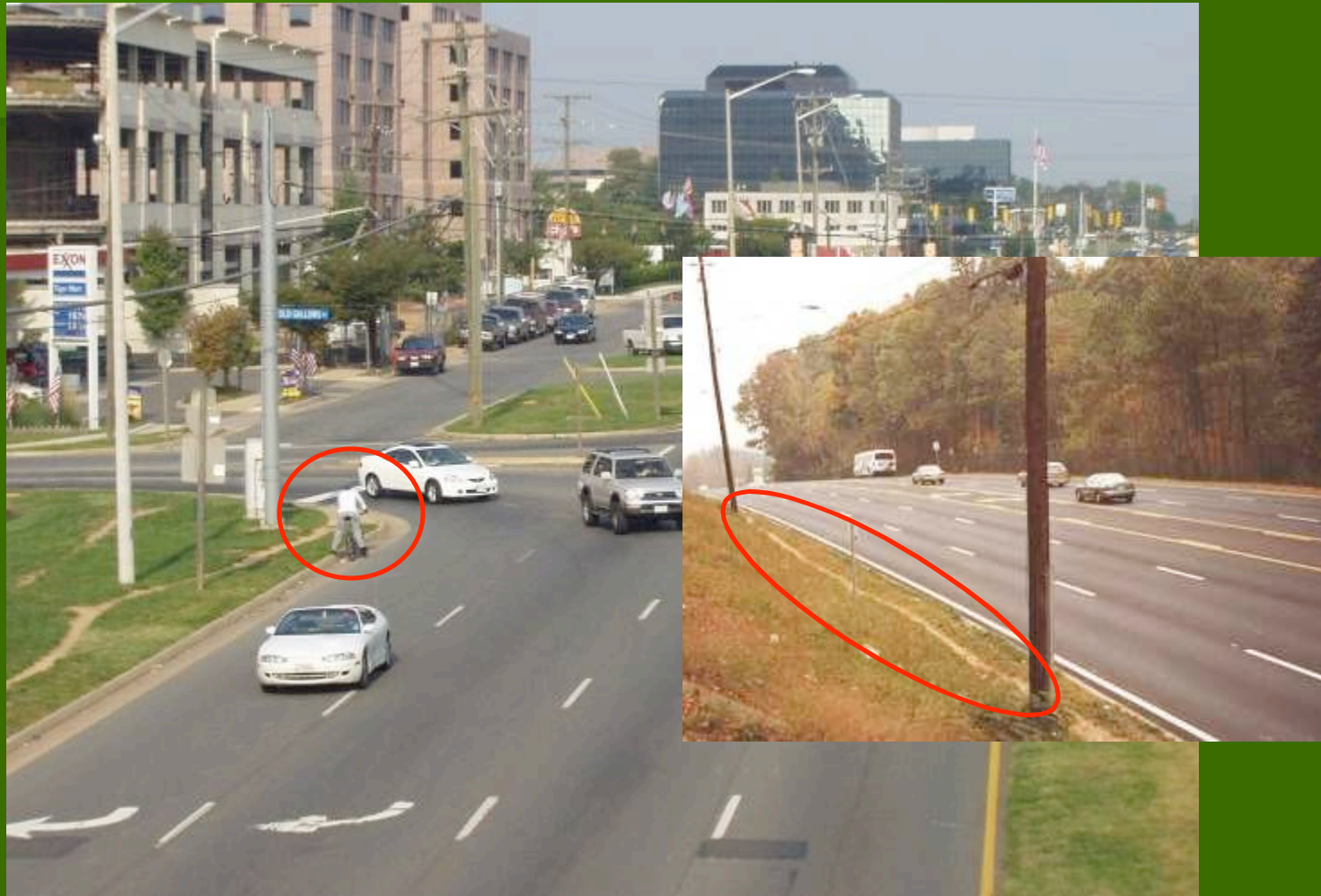
Too narrow for comfortable 'sharing'

An incomplete street:



Uninviting for transit riders

An incomplete street:



Room for vehicles, but no room for people

We know how to build right



Yet many roads are still built like this



Recently completed roadway expansion with destinations on both sides of the road. Can you spot the pedestrian?

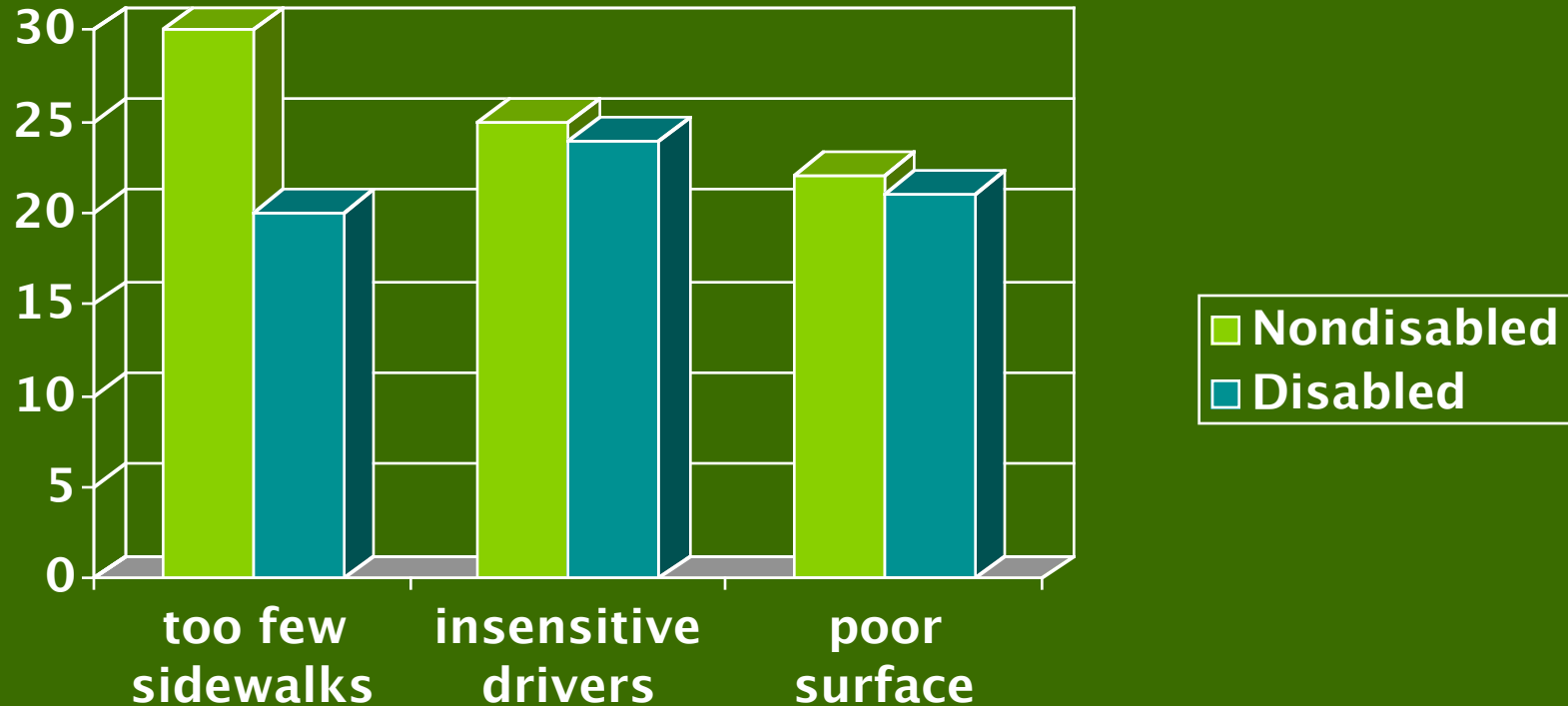
Many streets remain incomplete

- 25% of walking trips take place on roads without sidewalks or shoulders
- Bike lanes are available for only about 5% of bike trips

Natl. Survey of Ped & Bicyclist
Attitudes & Behaviors, 2002 BTS

Top pedestrian complaints are incomplete streets

Percent of peds experiencing problem



2002 Natl. Transportation
Availability & Use Survey

Why Complete Streets?

- Americans want different alternatives for mobility
- People want greater opportunities to walk & bicycle
- Current street networks don't serve these modes conveniently & comfortably (or at all)

Why Complete Streets?

- In Arizona in 2005:

nearly **20%** of all fatal crashes
involved pedestrians & bicyclists

Complete Streets Principles

- Safe access for all users
- Equitable access for all users
 - Pedestrians
 - Bicyclists
 - Transit
 - Motorists

What is a Complete Streets policy?



A Complete Streets policy ensures the **entire right of way** is **routinely designed and operated** to enable safe access **for all users**

Complete Streets Policies

- Specifies intended users
- Applies to all projects
- Adaptable to all classes of roads & streets
- Appropriate to local context and needs
- Flexible to recognize differences in streets

What is the purpose of a Complete Streets policy?

- To create a complete network of roads that serve all users
- To integrate the needs of all road users into everyday transportation planning practices

USDOT Policy

2000 USDOT Recommended Policy:

"Bicycle and pedestrian ways shall be established in new construction and reconstruction projects in all urbanized areas unless one or more of three conditions are met..."

<http://www.fhwa.dot.gov/environment/bikeped/design.htm>

The best Complete Streets policies

- Cover all users
 - Motor vehicles & occupants
 - Transit vehicles and riders
 - Pedestrians
 - Bicyclists
 - Travelers of all ages and abilities



US Access Board

The best Complete Streets policies

- Specify exceptions & require high-level approval of exceptions
- Allow flexibility in balancing user needs



The best Complete Streets policies

- Apply to all projects
 - New construction
 - Retrofit
 - Maintenance / Preservation

The best Complete Streets policies

- Direct the use of latest and best design guidelines
- Direct that complete streets solutions fit with context of community
- Establish performance standards
- Establish measurements for benchmarking & monitoring

Potential Policy Pitfalls

- Existing policies can work against Complete Streets concepts
 - sometimes unintentionally
- Thorough policy reviews & revisions can minimize unintended consequences
 - Example: Tying funding to lane-miles could discourage appropriate designs with fewer lanes

Existing Policies

	State	County	MPO	City
Public: legislation, ordinance, resolution	OR, FL, IL , MA, NC, RI, SC,	DuPage, IL Sacramento, CA San Diego, CA Jackson, MI	Columbus, OH Bay Area, CA	Chicago, IL Columbia, MO Sacramento, CA Spartanburg, SC
Internal: Policy, plans, manuals	TN, CA, KY, VA, PA, MA		Cleveland, OH Bay Area, CA Knoxville, TN Gulf Coast, FL Austin, TX	Charlotte, NC Boulder, CO Santa Barbara, CA San Diego, CA Ft. Collins, CO W. Palm Beach, FL

Existing Policies

- Three good (but not perfect) Complete Streets policy examples:
 - Massachusetts Project Design Guide
 - S. Carolina Resolution
 - Charlotte Street Design Standards

Massachusetts Project Development & Design Guide

Three guiding principles:

- Multimodal Consideration
- Context Sensitive Design
- Clear Project Development Process

Massachusetts Project Development & Design Guide

"A guiding principle of the Guidebook is that the roadway system of the Commonwealth should safely accommodate all users of the public right-of-way, including:

- pedestrians,
- people requiring mobility aids...
- bicyclists,
- drivers and passengers of transit vehicles,
- trucks,
- automobiles and motorcycles."

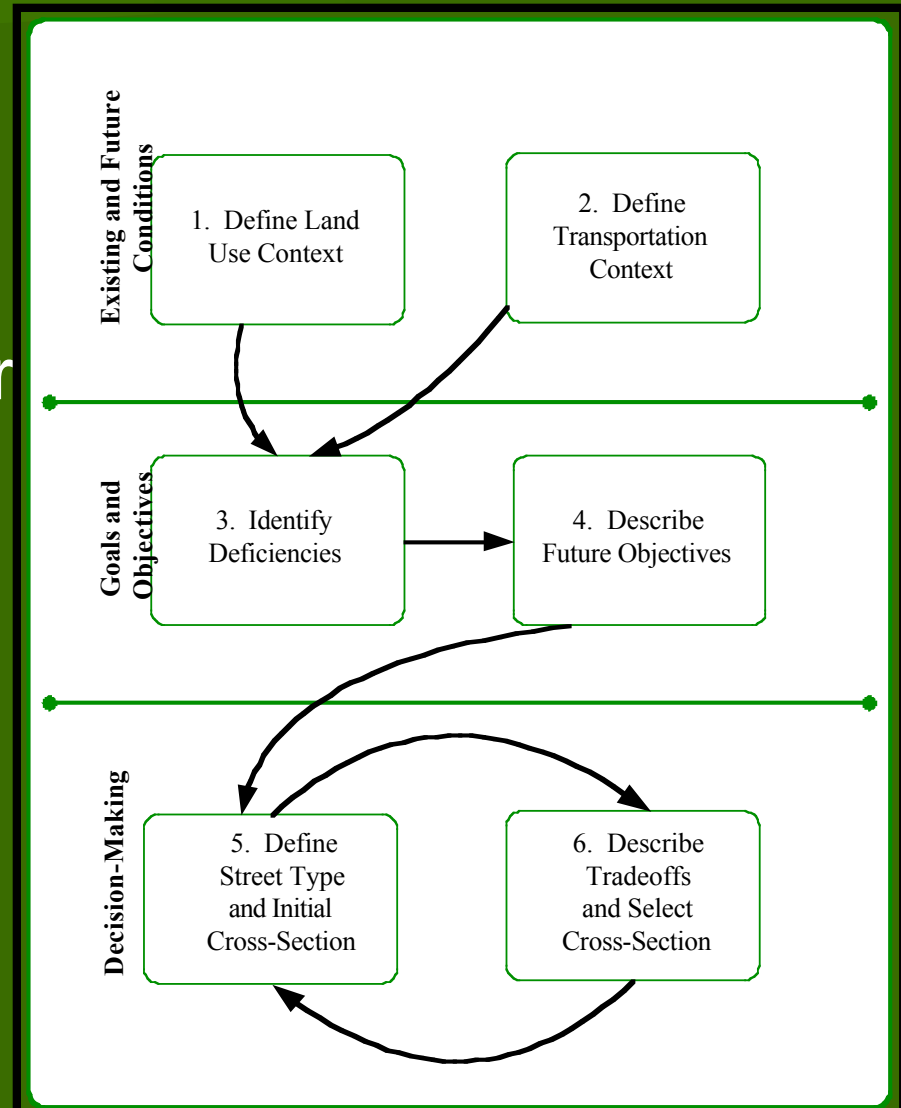
South Carolina Resolution

"...bicycling and walking accommodations should be a routine part of the Department's planning, design, construction and operating activities..."

Charlotte NC Street Design Standards

Urban Street Design Standards:

- A six-step process for considering and balancing the needs of all users



San Diego County Transnet Tax Extension:

"All new projects, or major reconstruction projects, funded by revenues provided under this Ordinance shall accommodate travel by pedestrians and bicyclists..."

Complete Streets & Context-Sensitive Design

Context-Sensitive Design:

- Project-oriented
- Location-specific
- Focused on neighborhood & adjoining land use

Complete Streets:

- Process-oriented
- Policy-based
- Systematic
- Focused on all users

Complete Streets Implementation

- Rewrite & refocus agency policies & procedures to serve all modes
- Rewrite & adapt design guidelines
- Train & develop staff skills in serving all modes
- Collect data on all users / modes for performance improvements

Benefits: for Safety

- FHWA review of safety literature found all these improved pedestrian safety:
 - Sidewalks
 - Raised medians
 - Better bus stop placement
 - Traffic calming
 - Treatments for disabled travelers

Benefits: for Older Americans

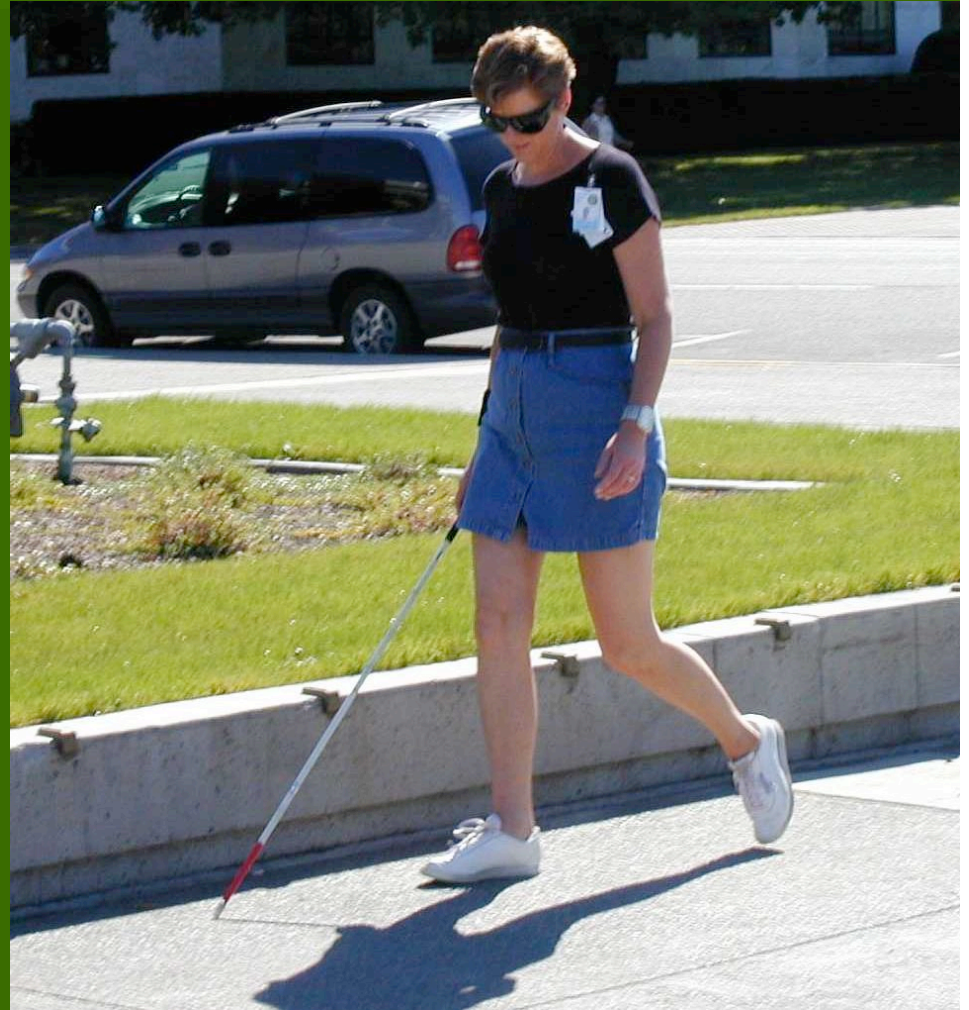
- 21% of Americans over 65 do not drive
- More than 50% of non-drivers stay at home on a given day because they lack transportation options



Photo: Michael Ronkin

Benefits: for People with Disabilities

- Complete Streets improve mobility for disabled people and reduce the need for expensive para-transit service
- New ADA rulemaking underway on accessibility in the Public Right of Way



Benefits: for Economic Activity

- Well designed multi-modal streets increase home values and help revitalize commercial areas



Photo: Charlotte DOT

Benefits: for Physical Activity

- Residents are **65%** more likely to walk in a neighborhood with sidewalks
- Greater density of bicycle facilities can encourage bicycle commuting



Benefits: for Reducing Traffic

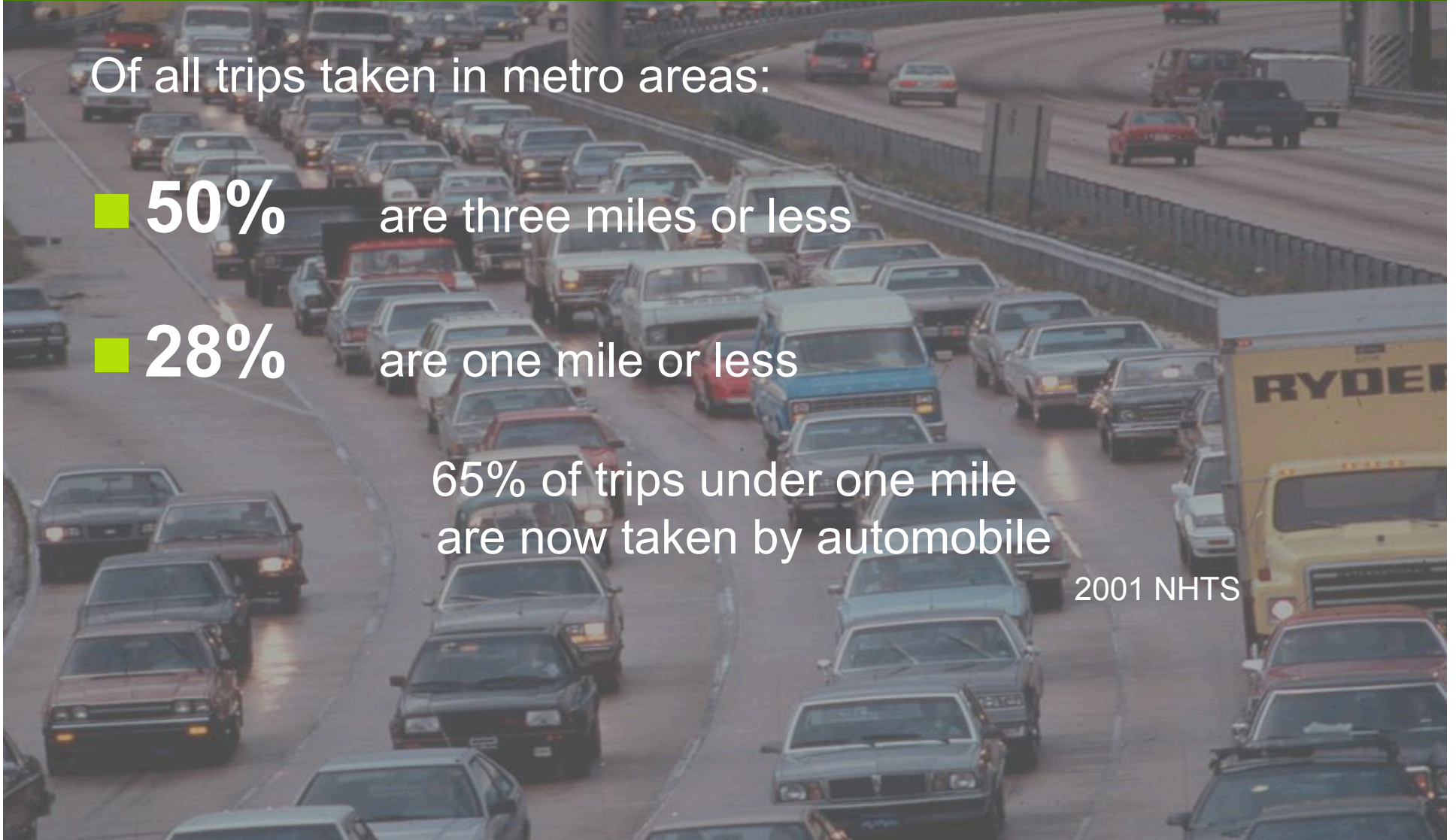
Of all trips taken in metro areas:

■ **50%** are three miles or less

■ **28%** are one mile or less

65% of trips under one mile
are now taken by automobile

2001 NHTS



The many types of Complete Streets



A quiet residential street

The many types of Complete Streets



A commercial arterial with bike lanes & sidewalks

The many types of Complete Streets



A street school children can safely cross

The many types of Complete Streets



A street that makes transit attractive

Creating Complete Streets



Bridgeport, Washington

Creating Complete Streets



Are Complete Streets expensive?

"By fully considering the needs of all non-motorized travelers (pedestrians, bicyclists, & persons with disabilities) early in the life of a project, the costs associated with including facilities for these travelers are minimized."

➤ Jeff Morales, Former Director, Caltrans

Are Complete Streets expensive?

"The cost is incremental or minimal in terms of the overall construction costs for a new facility."

➤ Whit Clement, Former Virginia Secretary of Transportation

Is this supported in design manuals?



Many transportation experts would agree this road is not well designed

Is this supported in design manuals?



Many transportation experts would agree
this road is better designed

National Complete Streets Coalition Steering Committee

- AARP
- America Bikes
- America Walks
- American Council of the Blind
- American Planning Association
- American Public Transportation Association
- American Society of Landscape Architects
- APBP
- City of Boulder
- Institute of Transportation Engineers
- League of American Bicyclists
- McCann Consulting
- NCBW
- National Parks Conservation Association
- Natural Resources Defense Council
- Paralyzed Veterans of America
- Smart Growth America
- Surface Transportation Policy Project
- Thunderhead Alliance



www.completestreets.org

- Links to success stories & existing policies
- How-to Tools
- Resources: links to helpful documents
- Newsletter sign up

