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" 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
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

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**Internal:** Policy, plans, manuals

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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
"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..."
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

A Review of Pedestrian Safety Research in the United States and Abroad, Jan. 2004
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.
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 Benefits: for Reducing Traffic
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.
Many transportation experts would agree this road is better designed.

Is this supported in design manuals?
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