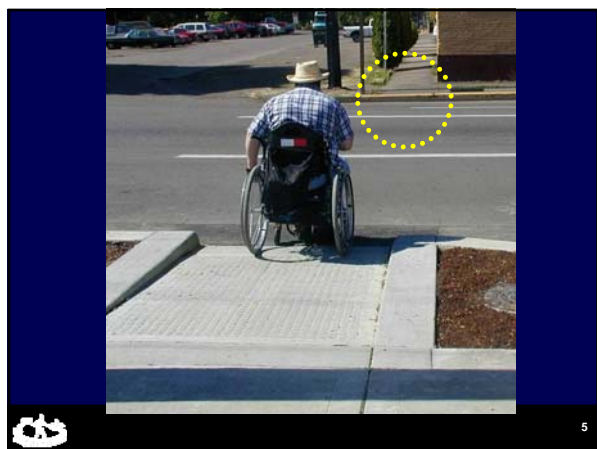




**Deerfield Beach, Florida**  
 February 16, 2012  
**Jeff Riegner**  
 Whitman, Requardt & Associates  
**Kristin Bennett**  
 City of Colorado Springs

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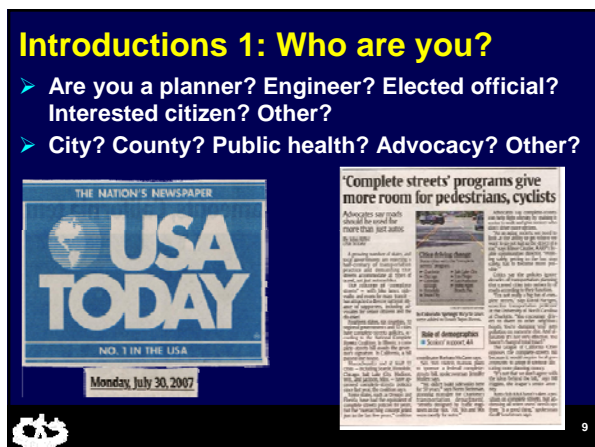




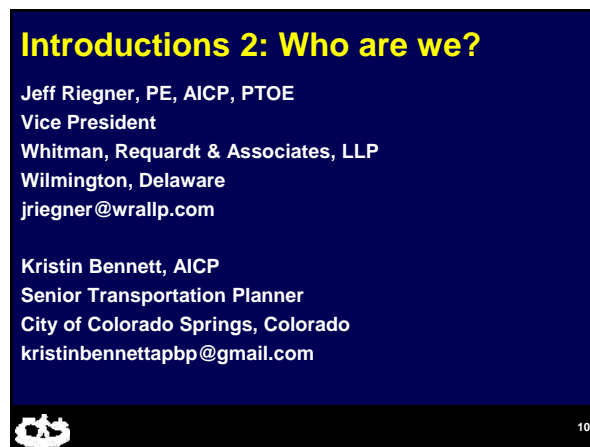
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## Complete Streets policies provide for all users



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## What is a Complete Streets policy?

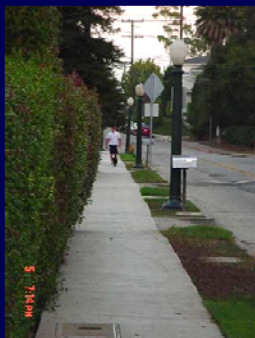
Ensures that the **entire right-of-way** is designed for all users



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## What is a Complete Streets policy?

Ensures that the **entire right-of-way** is designed for all users



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## Why have a Complete Streets policy?

➤ To make the needs of all users the **default** for **everyday** transportation planning practices:

- No need to **prove** pedestrian, bicycle, and transit facilities are **needed**
- Rather, it's **assumed** they're needed **unless proven otherwise**



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## Why have a Complete Streets policy?

- To shift transportation investments so they create better streets **opportunistically**:
- Take advantage of all planning, construction, operations and maintenance activities



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## Why have a Complete Streets policy?

- To ensure existing funds are used differently:
- Every project creates better streets **now**.





### Why have a Complete Streets policy?

- To save **money**:
  - Retrofits cost more than getting it right initially



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### Why have a Complete Streets policy?

- To gradually create a complete **network** of roads that serve all users



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### Why have a Complete Streets policy?

- To give transportation professionals political and community support for innovative solutions that help make active living possible



NYC DOT



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### Why have a Complete Streets policy?

- Because it's the right thing to do:  
 "... a Complete Streets approach offers the perfect intersection of my twin guideposts: safety and livable communities."  
 Secretary Ray LaHood  
 - November 17, 2009



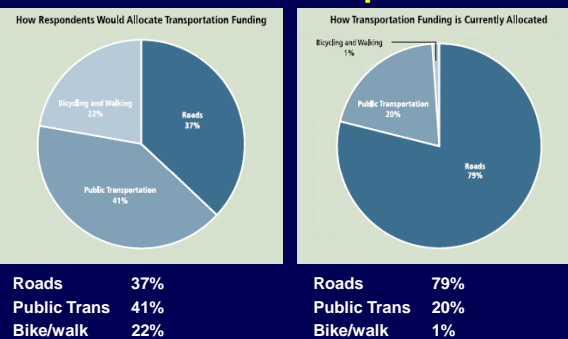
### Who wants Complete Streets?

- **Most** Americans would rather **drive less & walk more**
- **Transit is growing faster** than population or driving
- About **one-third** of Americans **don't drive**:
  - ✓ 21% of Americans over **65**
  - ✓ Children **under 16**
  - ✓ **Low income** Americans can't afford to drive



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### Americans want Complete Streets



From Active Transportation for America: the case for increased federal investment in bicycling and walking. RTC 2008

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## Benefits: older Americans

- 21% over 65 do not drive
- Over 50% of non-drivers **stay at home** on a given day because they lack travel options
- 54% of older Americans living in inhospitable neighborhoods would **walk and ride more** if things improved



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## Benefits: health

- Now Americans move without moving
- 60% are at risk for **diseases** associated with **inactivity**:
  - Obesity
  - Diabetes
  - High blood pressure
  - Other chronic diseases



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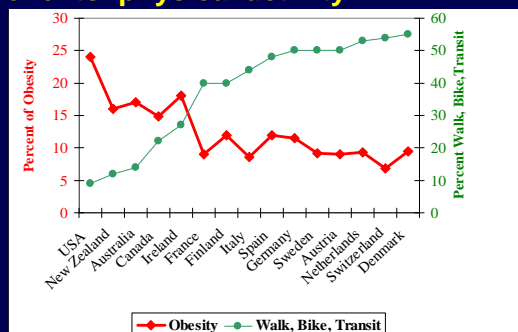
## Benefits: physical activity

- Residents more likely to **walk** in a neighborhood with **sidewalks**
- Cities with more **bike lanes** have more **bicycling**
- 1/3 of regular **transit users** meet **min. daily physical activity** requirement during their commute



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## Benefits: physical activity



Source: Pucher, "Walking and Cycling: Path to Improved Public Health,"  
Fit City Conference, NYC, June 2009

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## Benefits: safety

- **Intersections** designed for pedestrians can reduce pedestrian risk by 28%
- **Sidewalks** reduce pedestrian crash risk by 88%



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## Benefits: people with disabilities

- Improved mobility for people with disabilities and reduced need for expensive paratransit service



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### Benefits: better use of transit funds



A year of **paratransit service** for a daily commuter: \$38,500



Making a transit stop **accessible**: \$7,000-\$58,000

Source: Maryland Transit Administration



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### Benefits: the environment

- Fewer emissions
- Less noise pollution
- Less wear and tear on our roads
- Less need to widen roads



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### Benefits: Less need to widen roads

Trips in metro areas:

- **50%** - less than 3 miles
- **28%** - less than 1 mile:
  - **65%** of trips under 1 mile are now taken by car



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### Benefits: the economy and your wallet

Multi-modal streets:

- Increase home values
- Revitalize retail
- People can leave their car at home



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### How Complete Streets change the built environment



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### Complete Streets change intersection design



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### Complete Streets change intersection design



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### Complete Streets change bicycling



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### Complete Streets change bicycling



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### Complete Streets change transit



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### Complete Streets change transit



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### Complete Streets change accessibility



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### Complete Streets change accessibility



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### Complete Streets and trails

- Streets provide **access** to trails
- Complete Streets + trails = **comprehensive** non-motorized network
- Complete Streets take pressure off **overcrowded** trails



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### Complete Streets is NOT:

- A design **prescription**
  - A mandate for **immediate** retrofit
  - A **silver bullet**; other initiatives must be addressed:
    - Land use (proximity, mixed-use)
    - Environmental concerns
    - VMT reduction (i.e. pricing, gas taxes)
- ✓ (but complete streets will help!)



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### What does a Complete Street look like?

- One size doesn't fit all:
  - Complete Streets doesn't mean **every** street has sidewalks, bike lanes and transit

**There is no magic formula**



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### The many types of Complete Streets



A slow-speed shared street



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### The many types of Complete Streets



One crossing completes a Safe Route to School



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### The many types of Complete Streets



Shoulder bikeways on rural roads



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### The many types of Complete Streets



Busy multi-modal thoroughfares



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### The many types of Complete Streets



Transit routes



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### The many types of Complete Streets



Suburban thoroughfares



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### The many types of Complete Streets



Residential skinny streets



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### The many types of Complete Streets



Low traffic shared streets



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## The many types of Complete Streets



Historic Main Street



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## Complete Streets and Context Sensitive Solutions

- Complete Streets doesn't mean **every street** has sidewalks, bike lanes, transit

- Context sensitivity:

1. External context: land use
2. Internal context: who is **likely to use** the street - bicyclists, pedestrians, transit users, drivers?



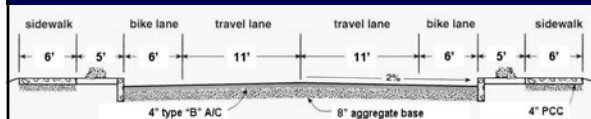
Illustration: AARP



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## What do the design guides tell us?

The AASHTO "Green Book" states:  
*"Sidewalks are **integral parts** of city streets"*  
 Not added to – a part of!



*"Shoulders are desirable on <...> urban arterials"*  
 Bike lanes are shoulders reserved for bicycle use!

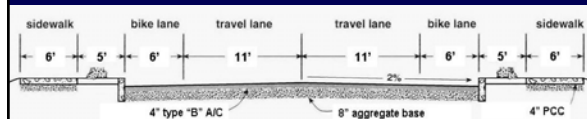
AASHTO: American Association of State Highway and Transportation Officials  
 Green Book: A Policy on Geometric Design of Highways and Streets



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## Permission

Many transportation engineers and planners  
 know how to build good streets;  
 they're seeking permission to do so



## What about funding?

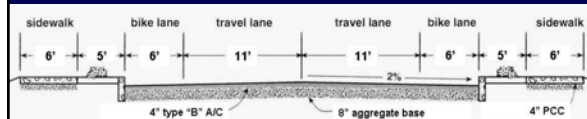
- Complete Streets is about using **existing resources** differently:
  - STP, Equity Bonus, CMAQ, TE, State, Bond measures, gas tax, sales taxes, and now the stimulus \$... the usual suspects
- While retrofit funding is important, it is not necessary to get started
- **Additional** funding is not needed



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## Does it cost more?

1. Avoid costly retrofits
2. Minimal additional funding
3. Save money with better design



### Sample low-cost improvements:

- Restripe for bike lanes without moving curbs/drainage
- Do not construct overly wide lanes (12' instead of 11')
- Sidewalks installed during drainage project add little cost
- Timing signals to control speeds and increase safety
- Countdown ped signals reduce crashes



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### Transformative moment

- Faltering national **economy**
- Increasing **gas prices** (Plan B)
- **Obesity** epidemic: CDC now recommends Complete Streets to prevent obesity
- Growing awareness: **quality of life** an economic engine
- Climate change and **sustainability**



### A Complete Streets policy...

... ensures that the entire right of way is planned, designed, and operated to provide safe access for all users."



### An ideal Complete Streets policy

1. Sets a **vision**
2. Includes **all modes**
3. Emphasizes **connectivity**
4. Applies to **all** transportation projects and phases
5. Adoptable by **all agencies** to cover **all roads**
6. Specifies and limits **exceptions**, with **management approval** required
7. Uses latest design standards and **is flexible**
8. Is **context-sensitive**
9. Sets **performance standards**
10. Includes **implementation** steps



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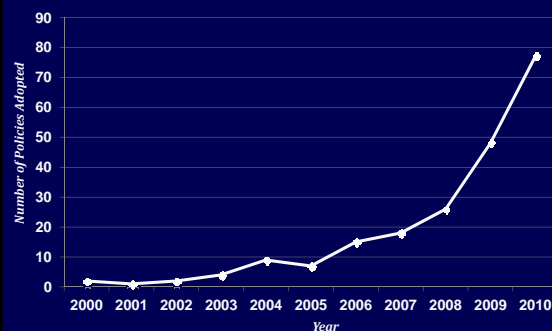
### Complete Streets

- Are sensitive to the **community**
- Serve adjacent land uses
- Serve all who potentially will use the street



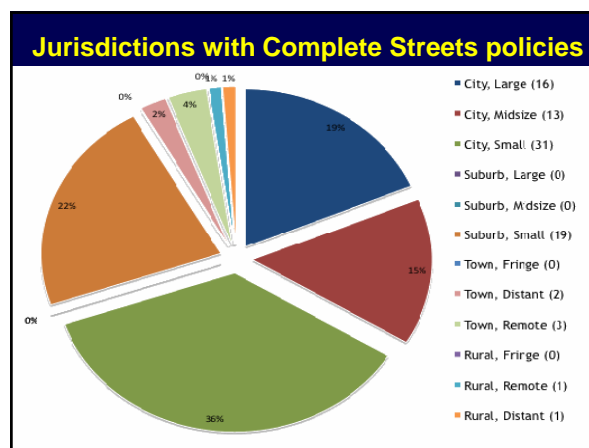
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### A growing movement



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## EXERCISE

**How will your community benefit from a Complete Streets policy?**

**Each table brainstorm 3-5 ideas**

### Complete Streets benefits for our community: Deerfield Beach, Florida

1. Demographics of the City – many senior citizens plus a lot of tourists unfamiliar with the area – so more walking would be a plus
2. Try and tie eastern and western parts of the community together – I-95 is a major dividing line
3. Need to beautify corridors to encourage walking
4. Creates a vision to guide the community on future changes – land use, transport
5. Safety issues – 10th St/Powerline (2 recent pedestrians hit); landscaping needed
6. Resurfacing of 10th from Powerline to Military but design currently does not have bike lanes in the design – why not?
7. Two schools on Hillsboro – big road to cross; using adjacent shopping areas for drop offs, etc.
8. Economic benefits – CS can help manage traffic, increase pedestrian traffic, slow vehicular traffic – could have a positive impact for businesses
9. Demographics of Century Village; pedestrian and bicycle needs on 10th Street
10. Workshop upcoming in Century Village about the changing demographics of the community – e.g., children inheriting units from parents; single women like the security of the community; more snowbirds
11. Promotes general health of the City
12. Question – how do we educate motorists on how to drive better to be more aware of pedestrians; how do we improve the skills of drivers. How do we improve the skills of bicyclists including their compliance with traffic laws
13. Environmental benefits – reduce GHG (air quality)
14. Improving access to destinations – less car oriented, connectivity among land uses