Designing Complete Streets

- Making room for Complete Streets
- Rethinking the role of Streets
Do we have to widen roads to fit everything?

Once your street is improved, the curb will be right here.
There’s room; it needs to be recaptured
Does it fit within the available right-of-way?
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Don’t ask “How much ROW do we have?” but “What do we want, and how do we design it?”
Conventional design – from the inside out

Add up (wide) travel lane, run out of ROW
Result: one narrow curbside sidewalk
Proposed design – from the outside in

Add up desirable elements, fit in ROW; result: nice sidewalks, bike lanes, adequate travel lanes
Reinventing a roadway:
Transform a 5-lane commercial strip to …
...a safer road for everyone, without adding r.o.w.

How? Narrow travel lanes
How to make room: Road Diets

Convert 4-Lane Road to 3-Lane and TWLTL

29% crash reduction
Reclaiming road space creates room for ped islands
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This 5-lane Main Street was converted to...
Fewer travel lanes; added bike lanes; parallel to back-in diagonal parking on one side; new pavement
There’s potential on one-way streets too: Is this street operating at capacity?
This area was recaptured from a 4th travel lane; the street took on a whole new life.
Intersections – the biggest obstacles
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Rethinking The Role of Urban Streets
A “complete street” accommodates many uses and provides for all purposes of a street:

- Mobility (all modes)
- Access to destinations
- Thriving businesses
- Beauty
Wide roads and motor vehicle LOS

- Designing to LOS C or higher is waste of $$
  - Allocate space for all users, accept resulting vehicle LOS
- What about ped, bike and transit LOS?
- Shorter ped crossing increases vehicular LOS at signals
Will traffic volumes always increase? Maybe not

Since 2005 US VMT has been flat, now starting to decrease.
Wide road increase motor vehicle speed

- Speed increases crash severity for all users
- Over 35 MPH reduces roadway capacity
Speed Matters

High speeds lead to greater chance of serious injury & death

Pedestrians’ chances of death if hit by a motor vehicle

SOURCE: Killing Speed and Saving Lives, UK Department of Transportation
Transforming a street
Narrow lanes; add bike lanes, median, trees, texture
Bring in buildings that face the street
More buildings: Infill
The street now has life and is safer for all users