

COMPLETE STREETS BY



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Principal



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What Are Complete Streets?

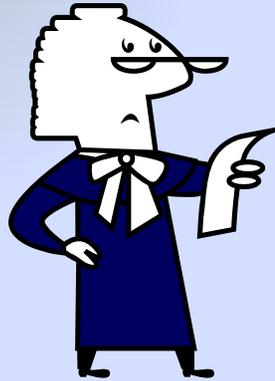


Complete Streets are designed and operated *so they are safe, comfortable, and convenient for all users* – pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

Why Complete Streets?



Why Complete Streets?



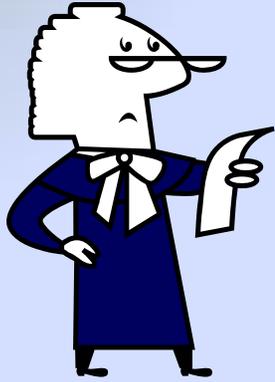
It's a Law.....



California Complete Streets Act of 2008

Commencing ***January 1, 2011***, AB 1358 requires cities and counties to revise General Plans to incorporate Complete Streets policies.

Why Complete Streets?



It's a Law.....



California Complete Streets Act of 2008

*“In order to fulfill the commitment to **reduce greenhouse gas emissions**, make the most efficient use of urban land and transportation infrastructure, and improve public health by encouraging physical activity, transportation planners must find innovative ways to reduce **vehicle miles traveled (VMT)** and to shift from short trips in the automobile to biking, walking and use of public transit.”*

Why Complete Streets?

CEQA Requirements.....

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Why Complete Streets?

Laura Sandt, pedbikeimages.org

About **1/3** of
Americans Do Not
Drive



Why Complete Streets?

Americans Want to Walk and Bike More

55% of Americans would prefer to drive less and walk more.

50% of non-drivers stay at home because they lack transportation options.



Laura Sandt, pedbikeimages.org
Falmouth, Cape Cod, Massachusetts



STPP Poll

Why Complete Streets?

Incomplete Streets Discourage Walking & Biking

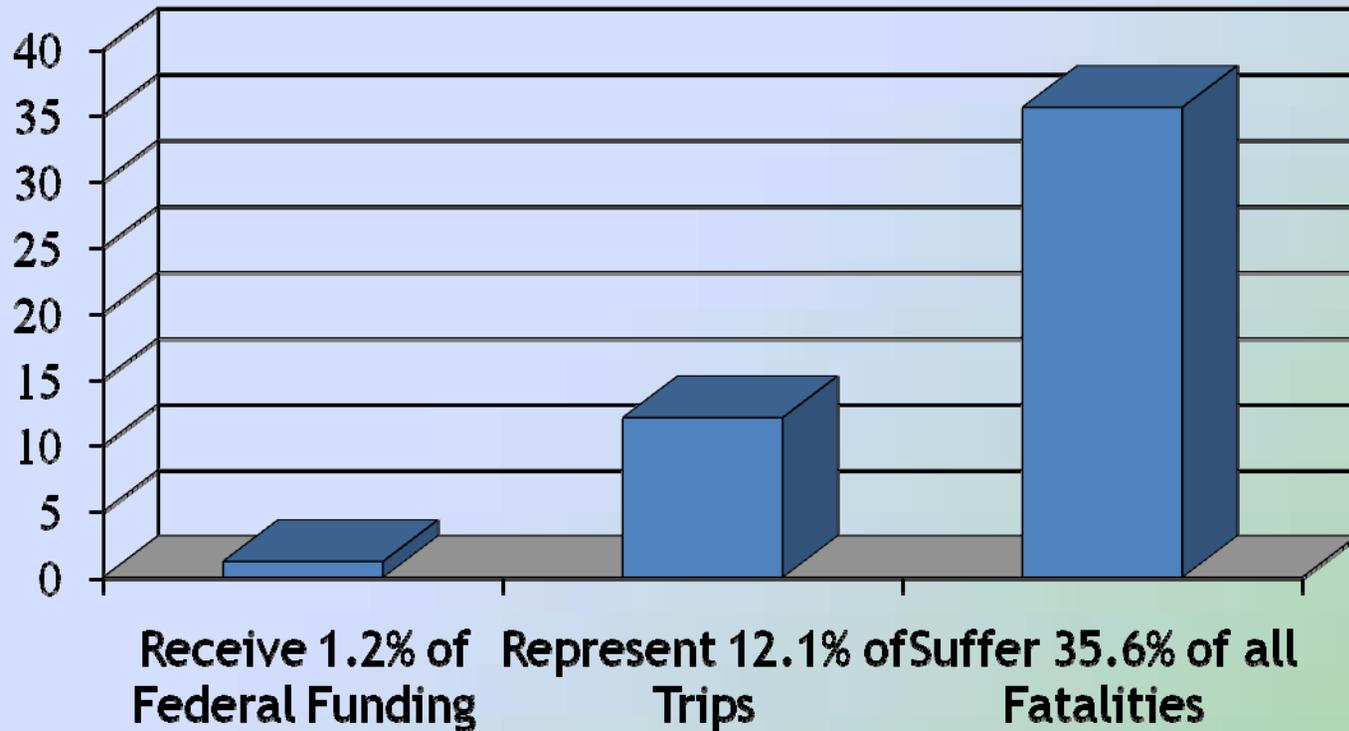
- In LA only **4.3%** of commuters bike or walk to work.
- Residents of highly walkable neighborhoods walk **twice** as often as those who live in communities with lower walkability.



Why Complete Streets?

LA needs to focus on Pedestrian and Bicyclist's Safety

LA's Pedestrians and Bicyclists...

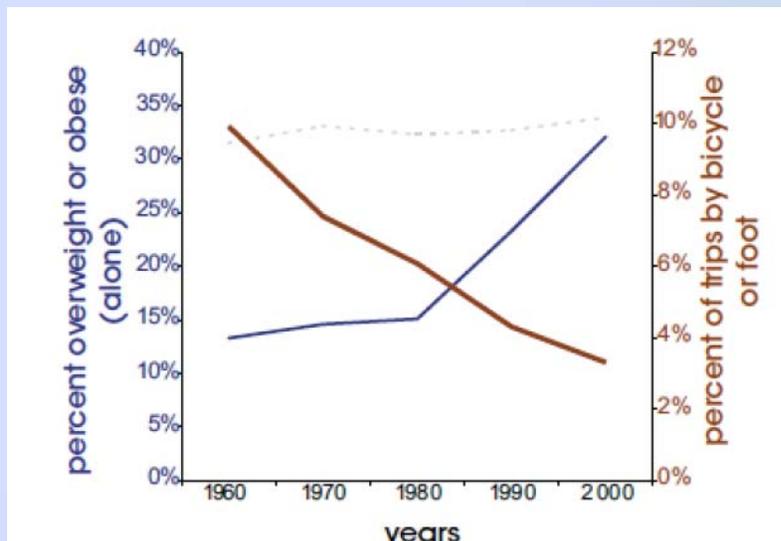


Source: FMIS, NHTS, FARS federal databases

Why Complete Streets?

Complete Streets Promote Healthy Living

- Public health experts are encouraging walking and bicycling as a response to the obesity epidemic.
- One study found that 43% of people with safe places to walk within 10 minutes of home met recommended activity levels, while just 27% of those without safe places to walk were active enough.

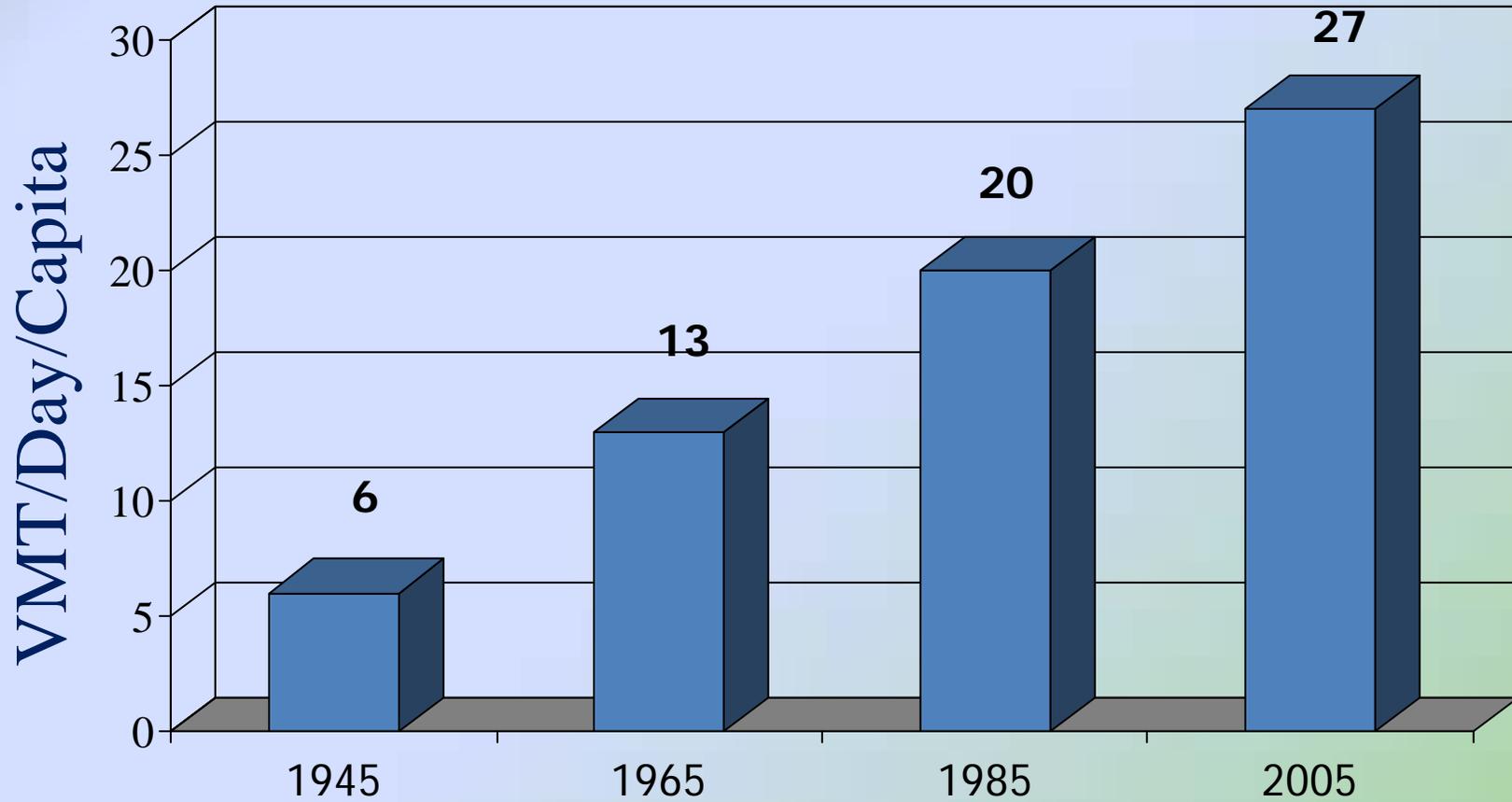


Source: peoplePoweredMovement.org



Why Complete Streets?

Complete Streets Reduces VMT



Source: Norman W. Garrick

Why Complete Streets?

Complete Streets ease traffic congestion



200 people in 177 cars



200 people in 3 buses



200 people in 1 train



200 people on 200 bikes

How Can I Make a Street Complete?

There is no magic formula...



every situation is unique...



but there are lots of tools...



Tools to Implement Complete Streets

Design and Safety of Pedestrian Facilities

A Recommended Practice of the Institute of Transportation Engineers

An Analysis of Factors Contributing to "Walking Along Roadway" Crashes: Research Study and Guidelines for Sidewalks and Walkways



REPORT NO. FHWA-RD-01-101

February 2002

U.S. Department of Transportation
Federal Highway Administration
Research and Development
Turner-Fairbank Highway Research Center
6300 Georgetown Pike
McLean, VA 22101-2206

Guide for the Planning, Design, and Operation of Pedestrian Facilities

Pedestrian Facilities Users Guide Providing Safety and Mobility

Publication No. FHWA-RD-01-102



U.S. Department of Transportation
Federal Highway Administration
Research and Development
Turner-Fairbank Highway Research Center
6300 Georgetown Pike
McLean, VA 22101-2206

PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System

SEPTEMBER 2004

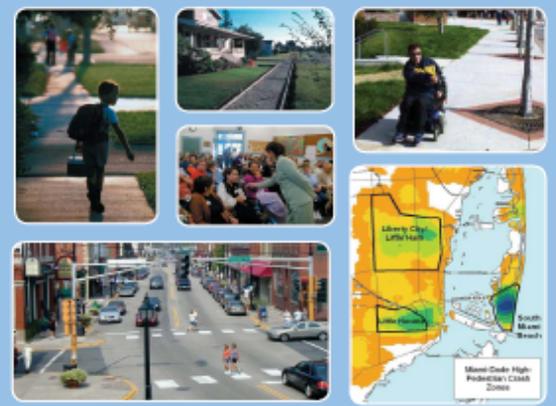


U.S. Department of Transportation
Federal Highway Administration

FHWA-SA-04-003

How to Develop a Pedestrian Safety Action Plan

DRAFT



U.S. Department of Transportation
Federal Highway Administration

FHWA-RD-05-100X



Department of State Highway Officials



IMPLEMENTATION WORK REPORT

December 2006



LINSCOTT
LAW &
GREENSPAN
engineers

Tools to Implement Complete Streets....

Complete Streets *In Every Aspect*

POLICY

Policy/Goals

Planning/Ordinance

Engineering/Design

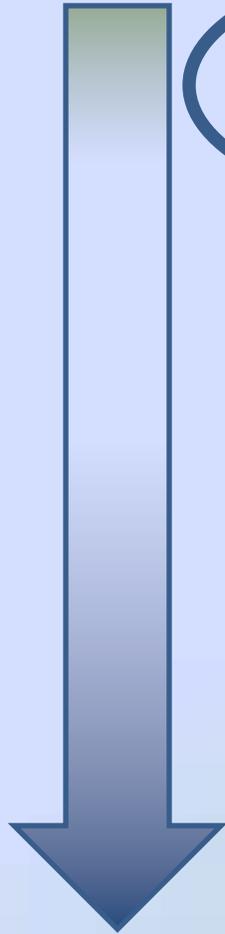
PRACTICE

Tools to Implement Complete Streets....

Complete Streets *In Every Aspect*

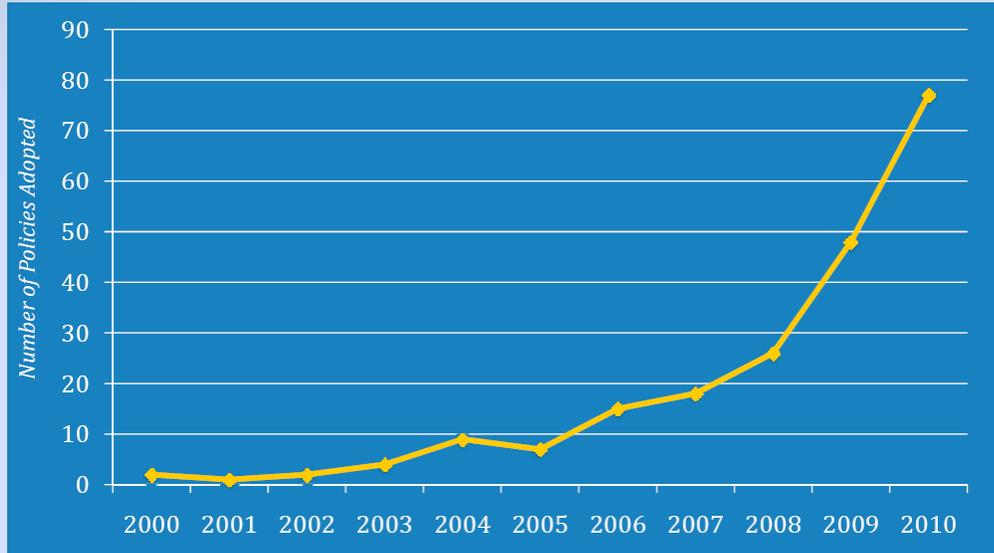
POLICY

Policy/Goals



PRACTICE

Complete Streets Policy



Source: National Complete Streets Coalition

California Complete Streets Act of 2008

Complete Streets Policy

“Commencing January 1, 2011, upon any substantive revision of the circulation element, the legislative body shall modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan.”



Update to the General Plan Guidelines: Complete Streets and the Circulation Element

December 15, 2010

STATE OF CALIFORNIA
Arnold Schwarzenegger,
Governor

GOVERNOR'S OFFICE
OF PLANNING AND
RESEARCH
Cathleen Cox,
Acting Director

1400 Tenth Street
Sacramento, CA 95814

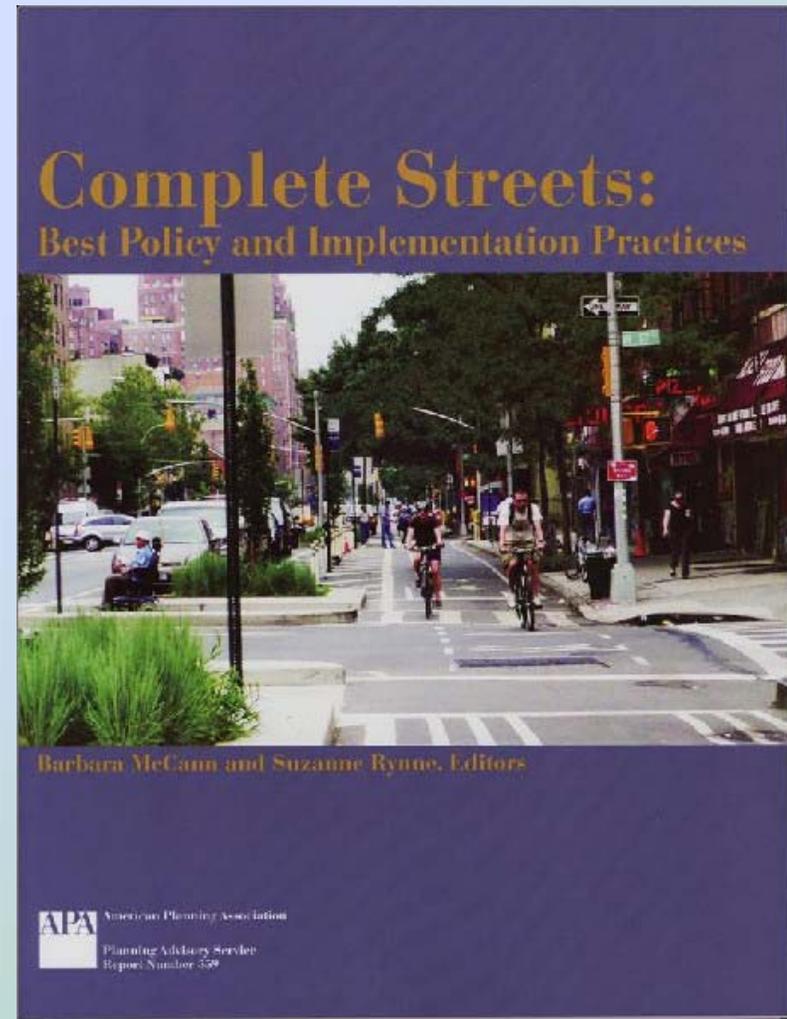
P.O. Box 3044
Sacramento, CA 95812

(916) 322-2318

www.oprc.ca.gov

Complete Streets Policy

- Types of Policies
- Policy Development Process/Best Practices
- Policy Performance Evaluation Tools
- Policy Samples and Other Jurisdictions Experiences



Tools to Implement Complete Streets....

Complete Streets *In Every Aspect*

POLICY

Policy/Goals

Planning/Ordinance

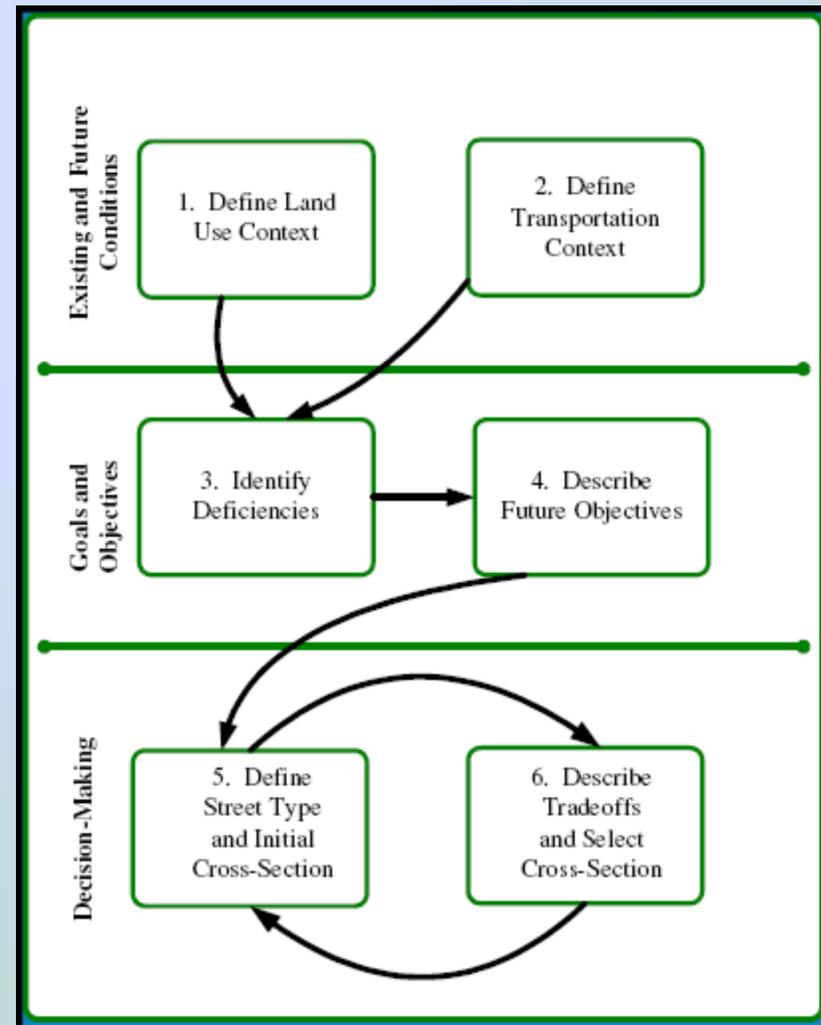
PRACTICE

Complete Streets Planning/Ordinance

- **Land Use Ordinance** (Mixed-Use, Smart Growth, Livable Communities)

- **Access Management/Street Connectivity**

- **Revise Policies, Incentives and Standards**



Source: National Complete Streets Coalition

Complete Streets Planning/Ordinance

*“although AB 1358 only requires cities and counties to modify the circulation element to plan for a balanced, multimodal transportation network, jurisdictions will need to **examine, and amend as necessary, the land use element**”*

*“A key factor in creating a successful multimodal transportation network is making sure the **planning objectives, policies, and standards reflect the rural, suburban, and/or urban context of a community within the planning area.**”*



Update to the General Plan Guidelines: Complete Streets and the Circulation Element

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Tools to Implement Complete Streets....

Complete Streets *In Every Aspect*

POLICY

Policy/Goals

Planning/Ordinance

Engineering/Design

PRACTICE

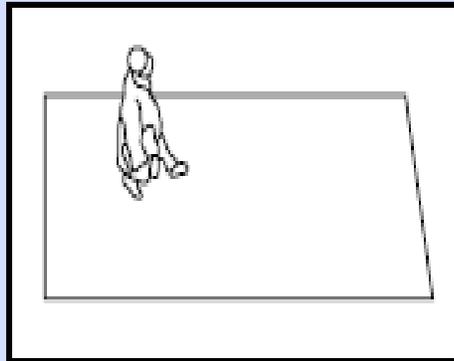
Tools to Implement Complete Streets....

Traffic Engineer's LOS Perspective has changed

Quantity

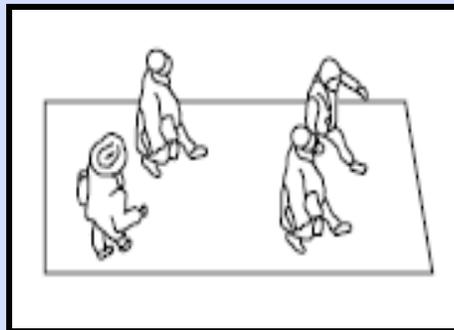
vs

Quality

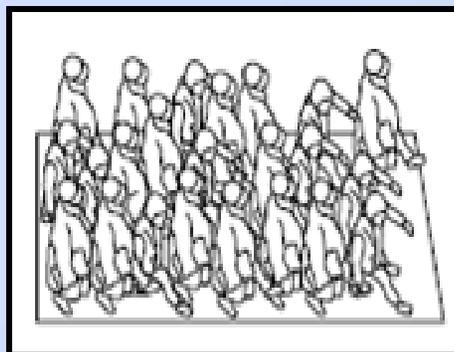


Level of Service

A / B



C / D

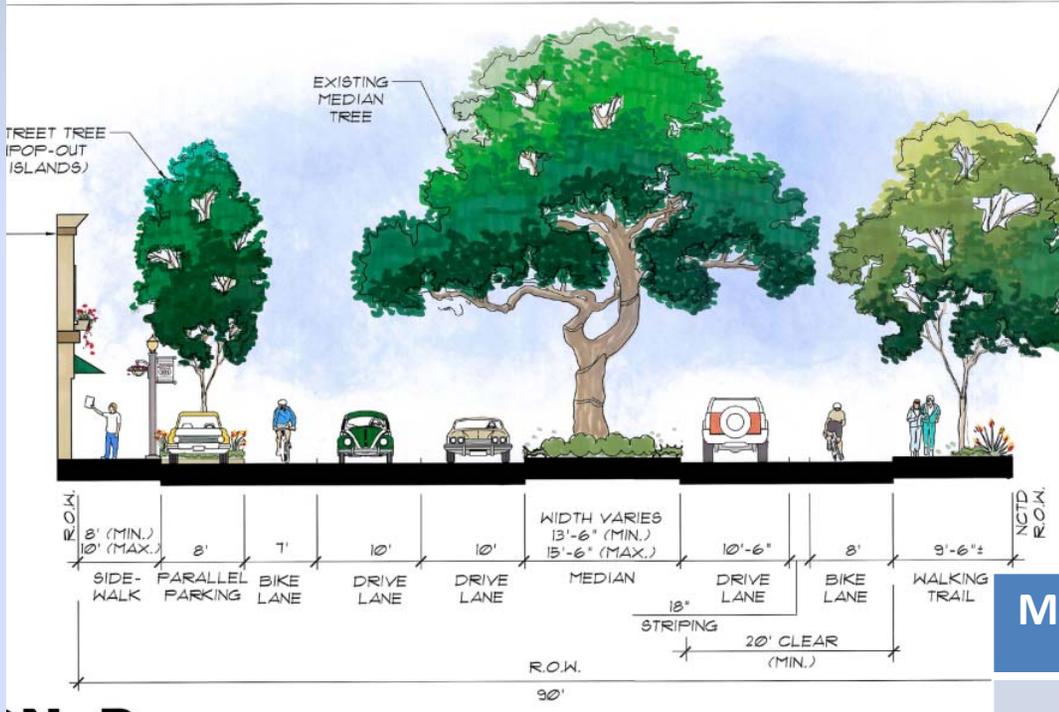


E / F



Tools to Implement Complete Streets....

Highway 101 Example



Mode	Northbound	
	Without Project	With Project
SEGMENT LOS		
Auto	F	F
Transit	-	-
Bike	D	B
Pedestrian	E	D

Tools to Implement Complete Streets....

Visual Tools



Taos, New Mexico

Existing Conditions

Tools to Implement Complete Streets....

Visual Tools



Taos, New Mexico

**Public street improvements: bike lane,
crosswalks, street trees; sidewalk-
oriented building**

Tools to Implement Complete Streets....

Visual Tools



Taos, New Mexico

Sidewalk-oriented building on left

Tools to Implement Complete Streets....

Visual Tools



Taos, New Mexico

**Sidewalk-oriented building on
right, landscaping**

Tools to Implement Complete Streets....

Visual Tools



Taos, New Mexico

Median with trees and shrubbery

Tools to Implement Complete Streets....

A complete streets policy ensures that the entire right of way is routinely designed and operated to enable safe access for all users.



Checklist

1. Motorists
2. Transit
3. Bicyclists
4. Pedestrians
5. Children
6. Disabled
7. Seniors
8. Goods

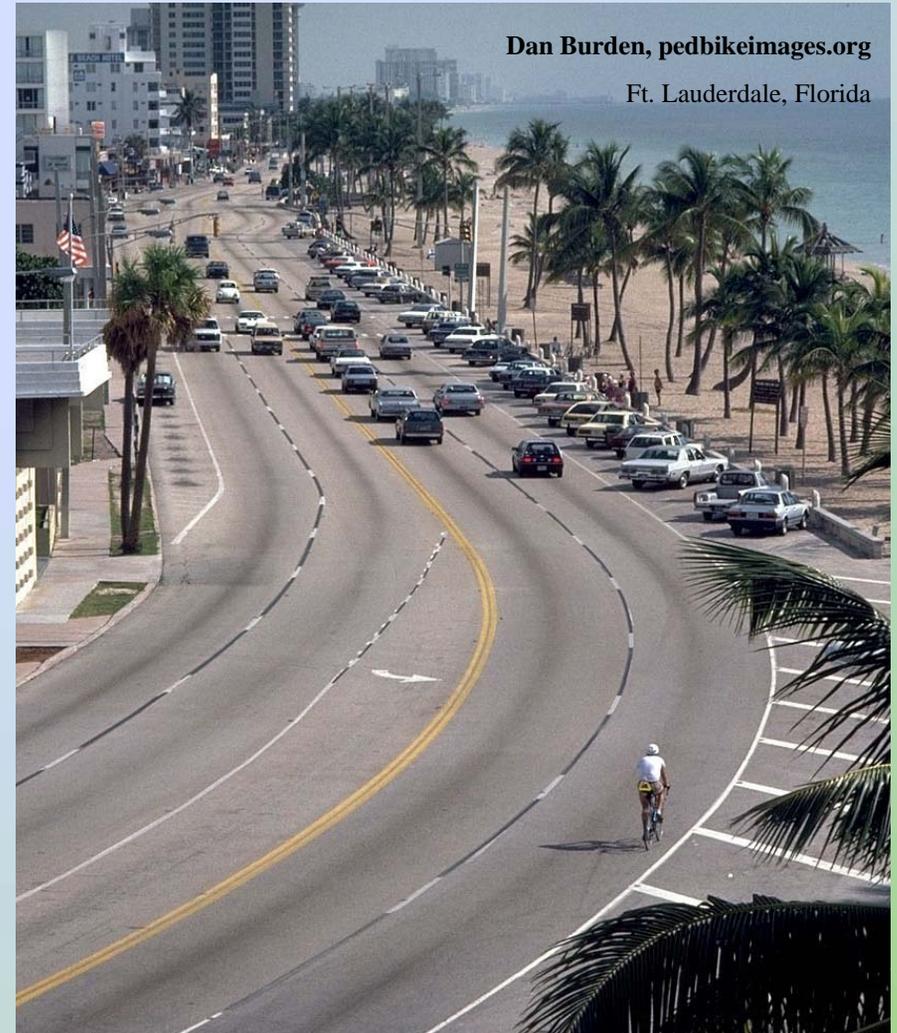


Checklist....

Motorists/Auto

Complete Streets doesn't mean converting travel lane to bike lane/sidewalk.

Complete Streets means *efficiently* planning the entire ROW to accommodate all modes of transportation.



Checklist....

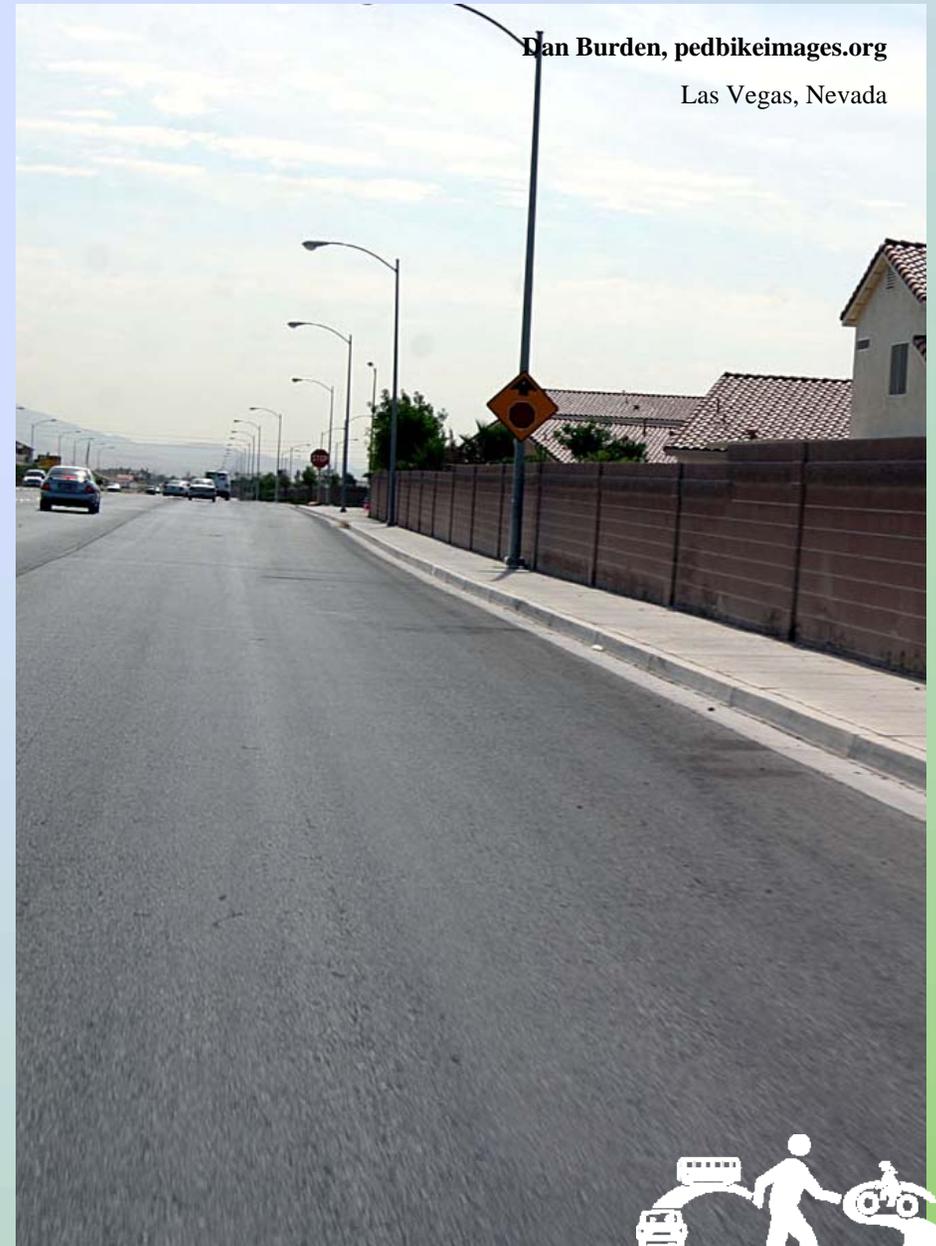
Motorists/Auto

Lane width for a freeway lane with 70 MPH
Design Speed & Heavy Truck Volume

= 12 feet

Lane width for a local street with 25 MPH
Speed Limit & Very Light Truck Volume

= 12 feet



Dan Burden, pedbikeimages.org

Las Vegas, Nevada

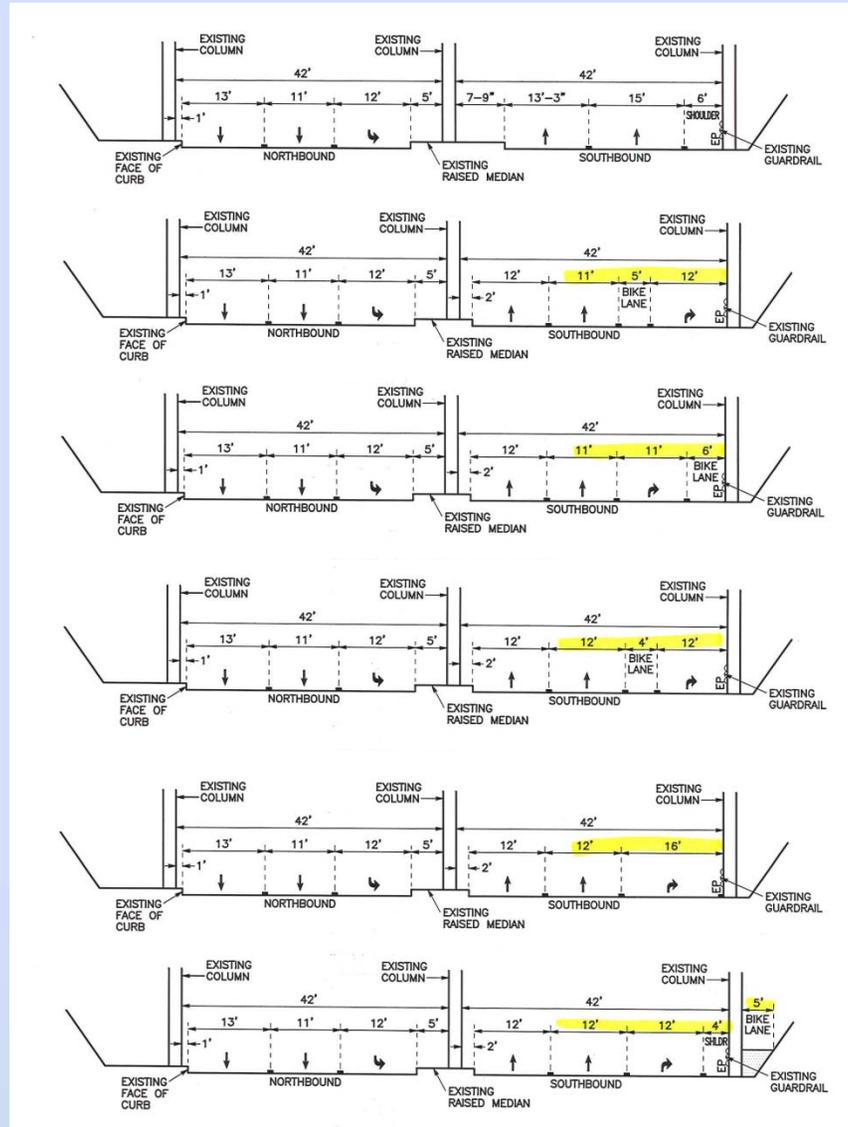
LINSCOTT
LAW &
GREENSPAN

engineers



Checklist....

Motorists/Auto



Checklist.... Transit

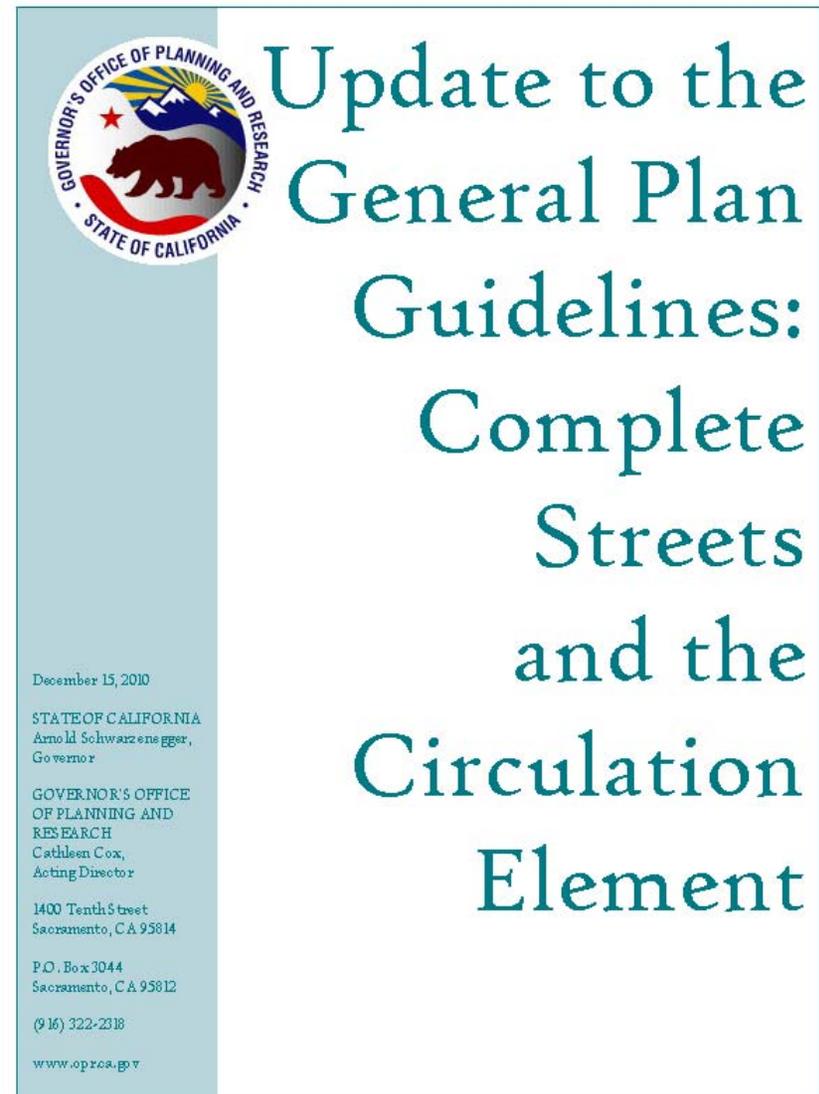


Laura Sandt, pedbikeimages.org
Portland, Oregon



Transit

- *The accessibility and accommodation of all transit users.*
- *The adoption of technology that creates a more effective usage of existing transit (ITS).*
- *Several Useful Data Collection Techniques*



Checklist.... Bicyclists



Jennifer Campos, pedbikeimages.org
Vancouver, Washington



Checklist.... Bicyclists



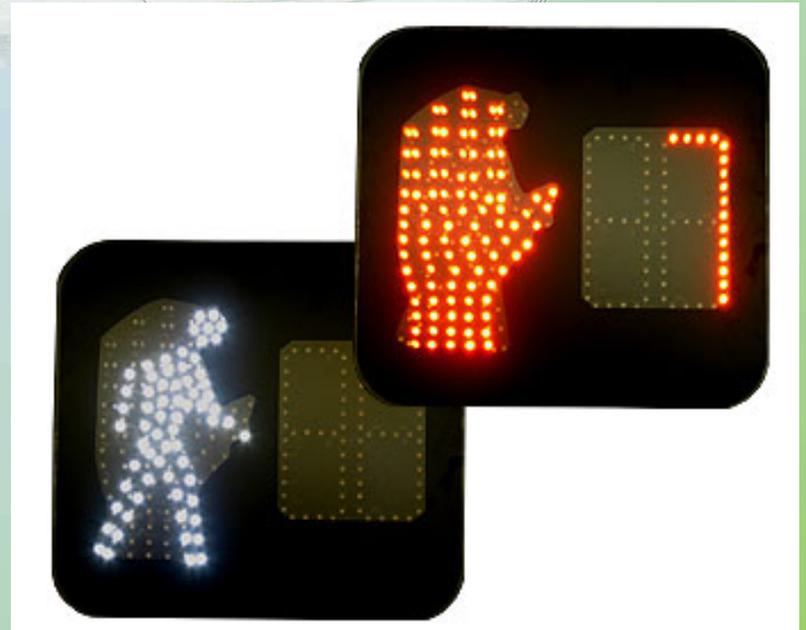
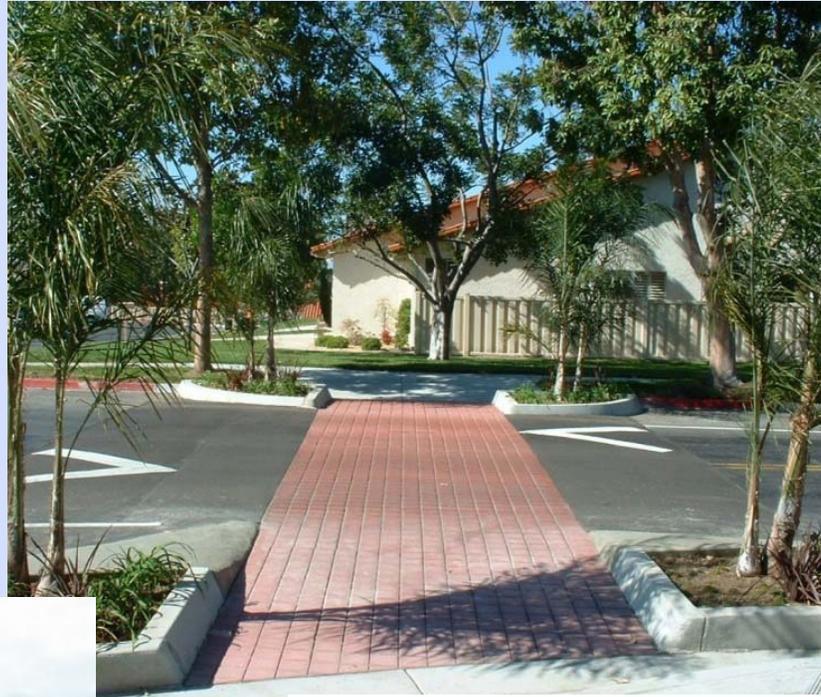
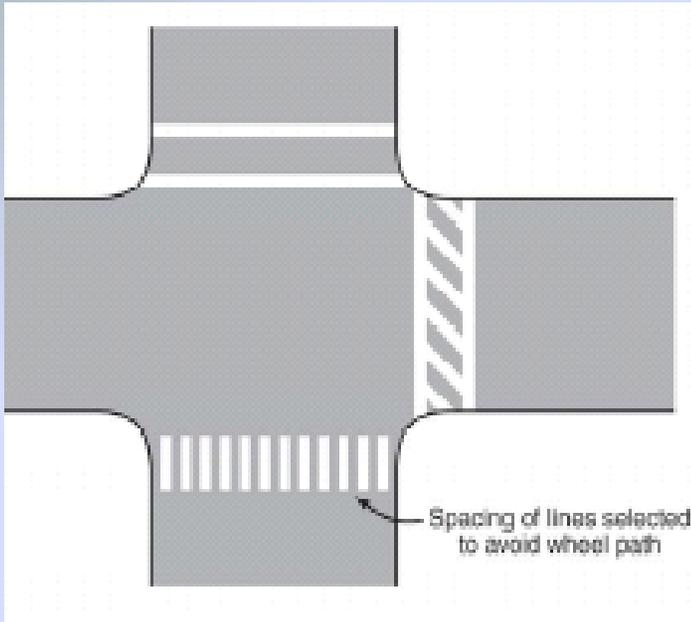
Bike Sharing



Checklist....

Pedestrians





Checklist....

Children

Safe Route to School Plans

Mike Cynecki, pedbikeimages.org

Phoenix, Arizona



Checklist....

Disabled

Americans with Disabilities Act



Checklist.... Seniors



Checklist....

Goods Movement



Dustin White, pedbikeimages.org

Budapest — Hungary

Checklist Review

1. Motorists
2. Transit
3. Bicyclists
4. Pedestrians
5. Children
6. Disabled
7. Seniors
8. Goods

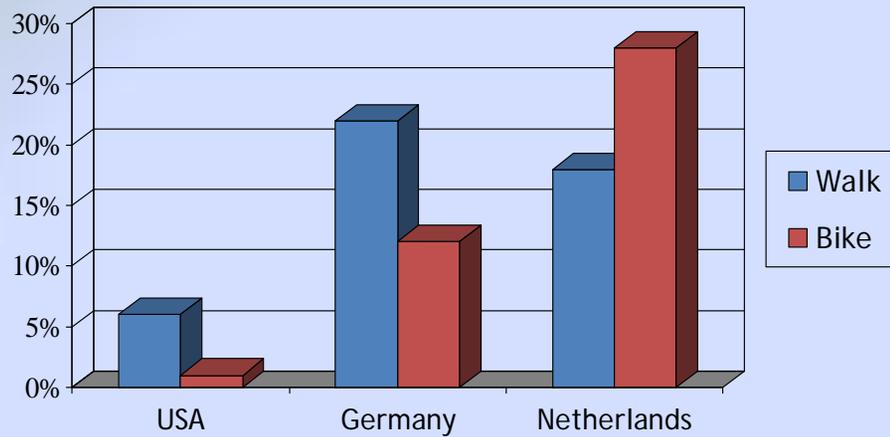


Benefits

- 1% shift from Vehicular to non-motorized transportation could reduce LA County's VMT by as much as ***40 Million*** VMT/Year
- 28% of all trips are under 1 mile.

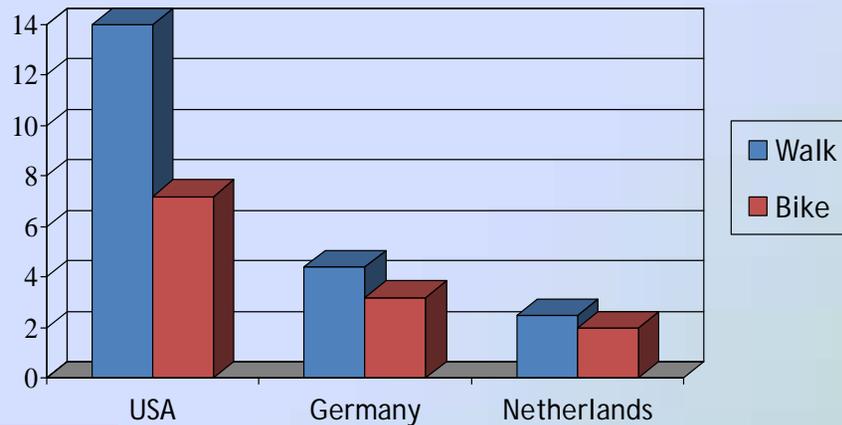
Benefits: Safety

Portion of All Trips



Europe has more
bike and
pedestrian travel...

Deaths per 100 Million km Traveled



...and far fewer deaths.



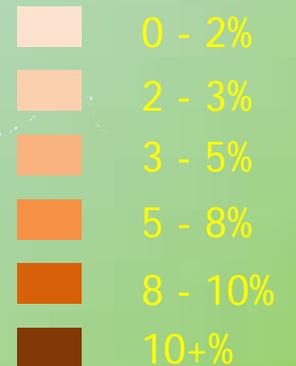
Bike Lanes Encourage Bike Commuting

Portland, Oregon

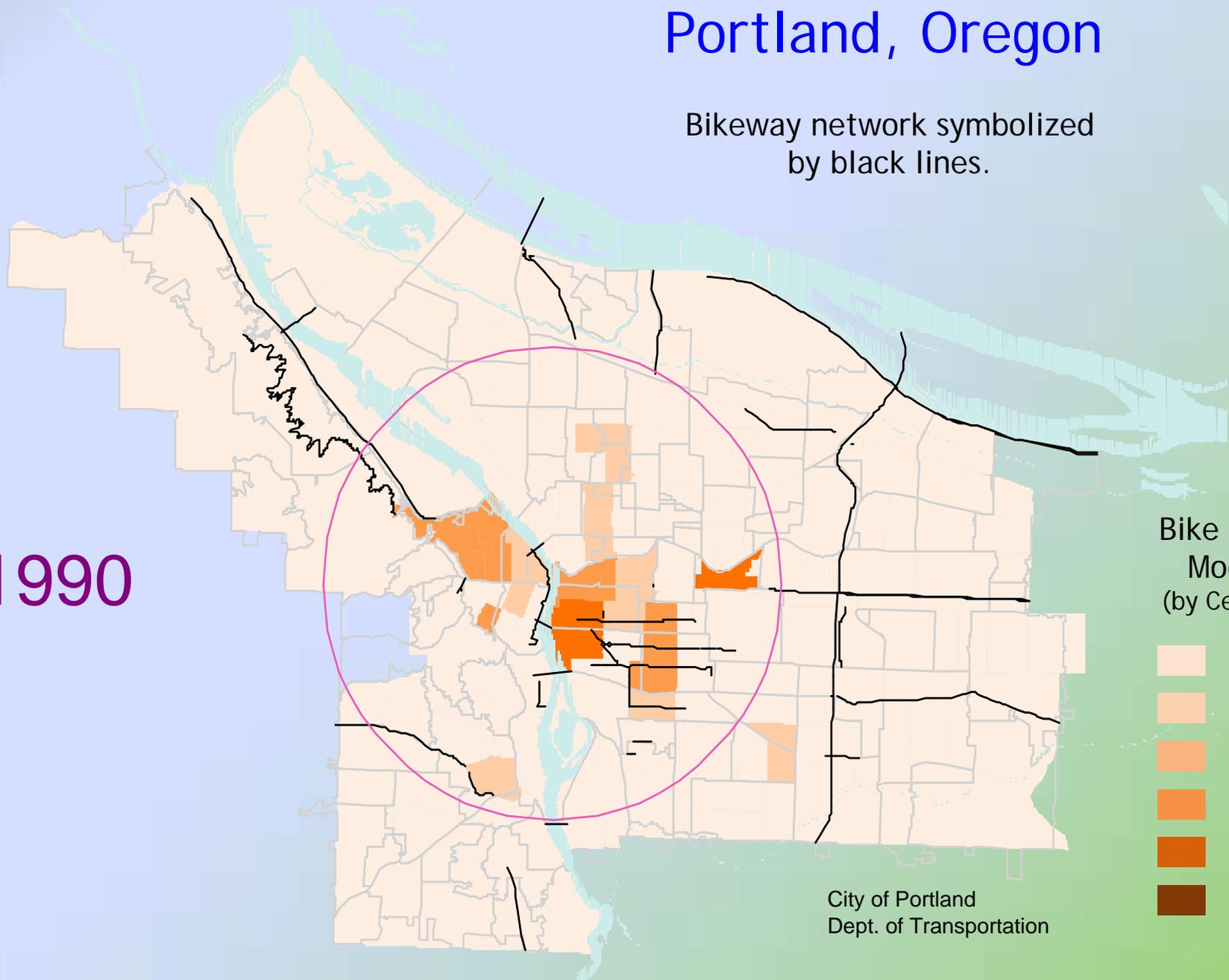
Bikeway network symbolized by black lines.

1990

Bike Commute Mode Split (by Census Tract)



City of Portland
Dept. of Transportation

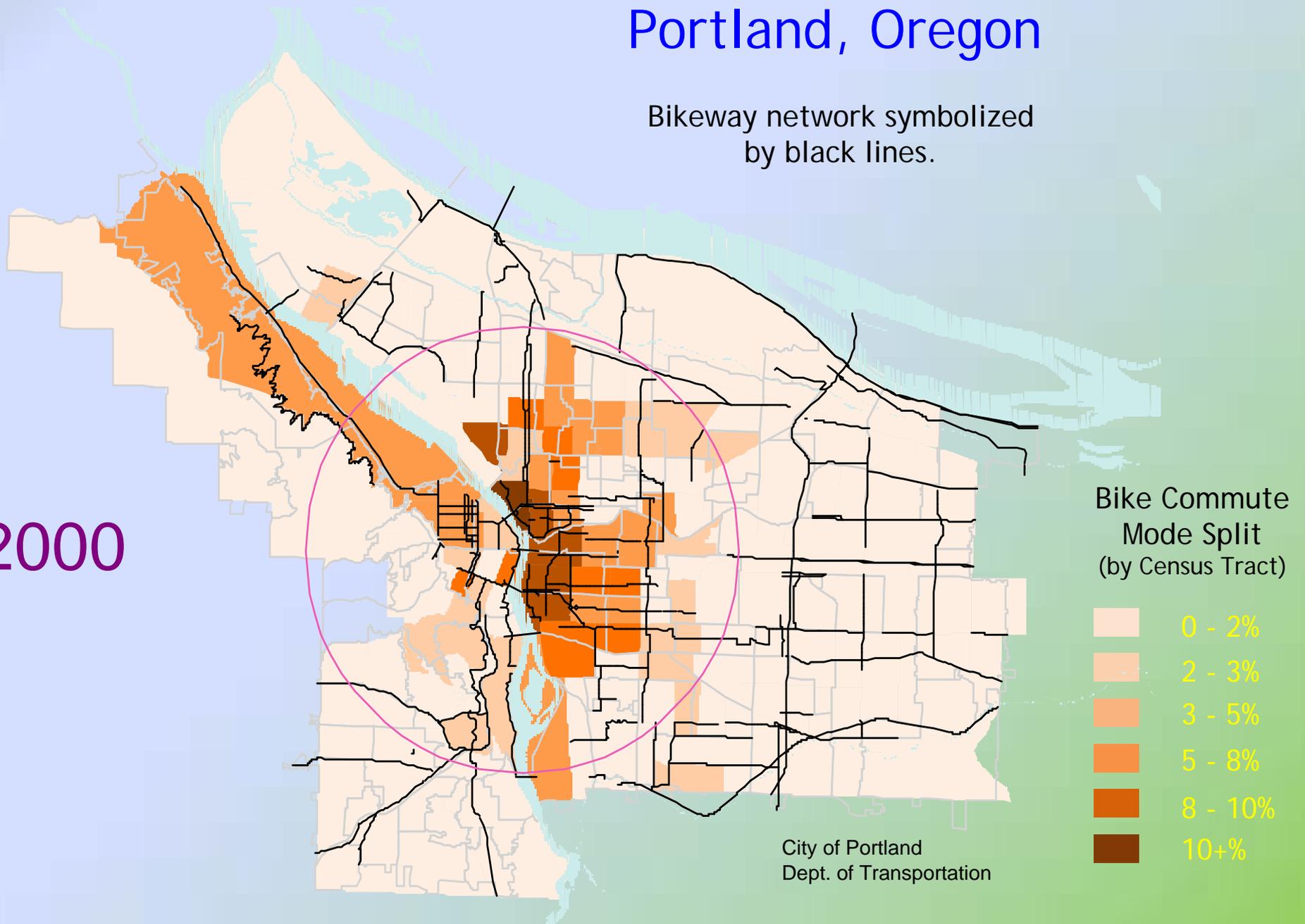


Bike Lanes Encourage Bike Commuting

Portland, Oregon

Bikeway network symbolized by black lines.

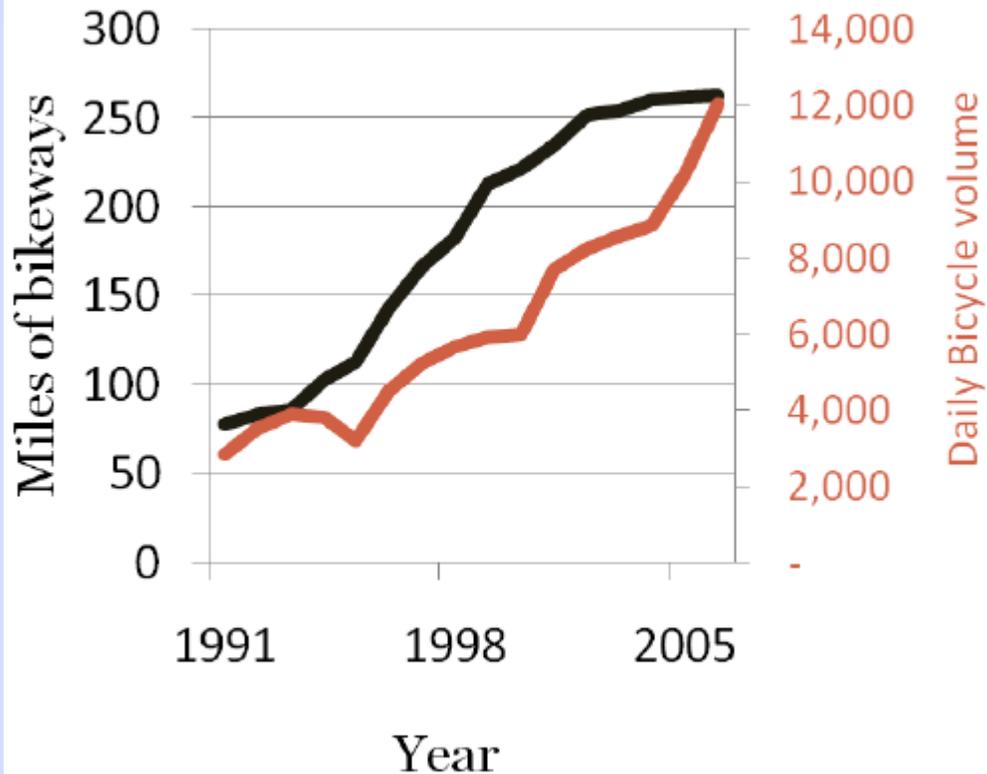
2000



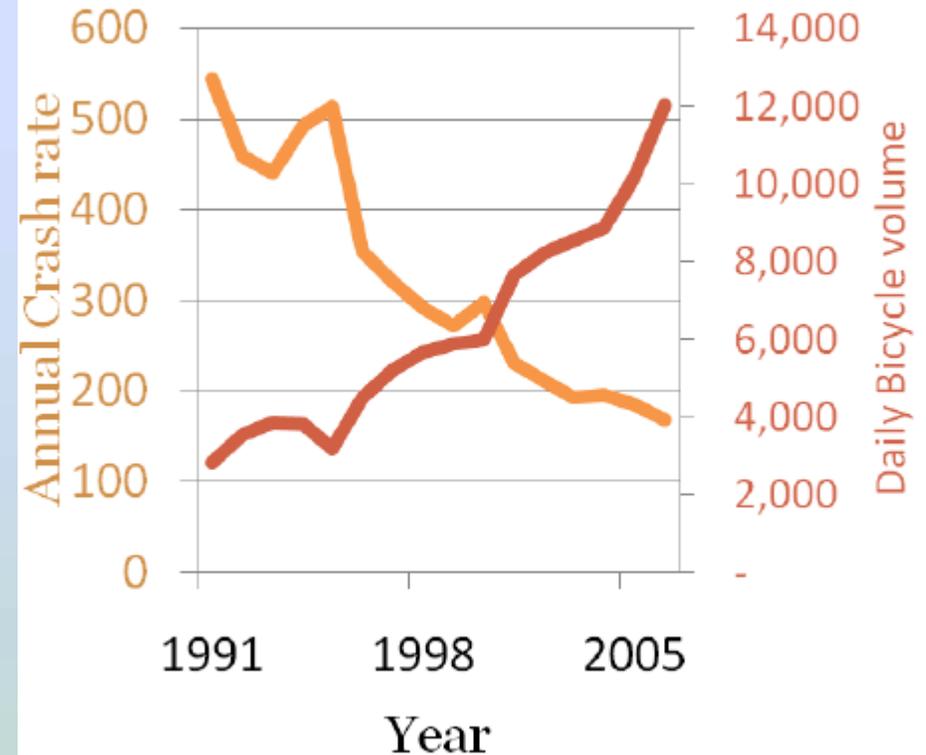
Bike Lanes Encourage Bike Commuting

Source: Portland, Oregon

Facilities /volume



Crash Rate /volume



Amount of new
VMT generated for
a family of four
traveling 20 miles?

ZERO!!!



Thank You



Together we can lead the way to more complete communities, one street at a time.