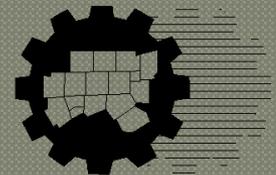


# Integrating Bicycle and Pedestrian Planning and Design at the Regional Level

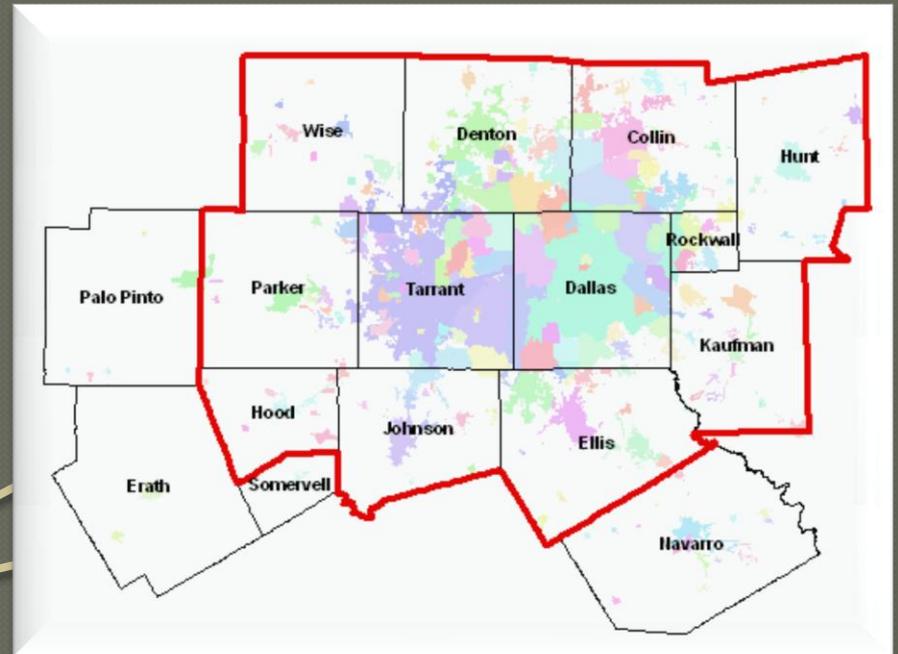
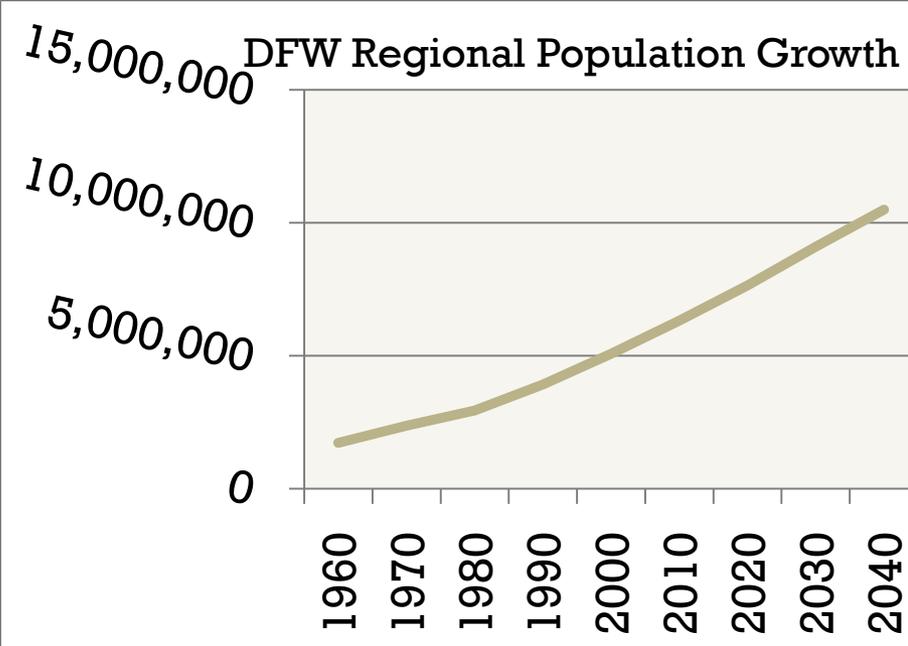
2011 Association of Metropolitan  
Planning Organizations (AMPO) Annual  
Conference

Deb Humphreys  
October 27, 2011

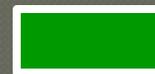
North Central Texas  
Council of Governments



# NCTCOG Region

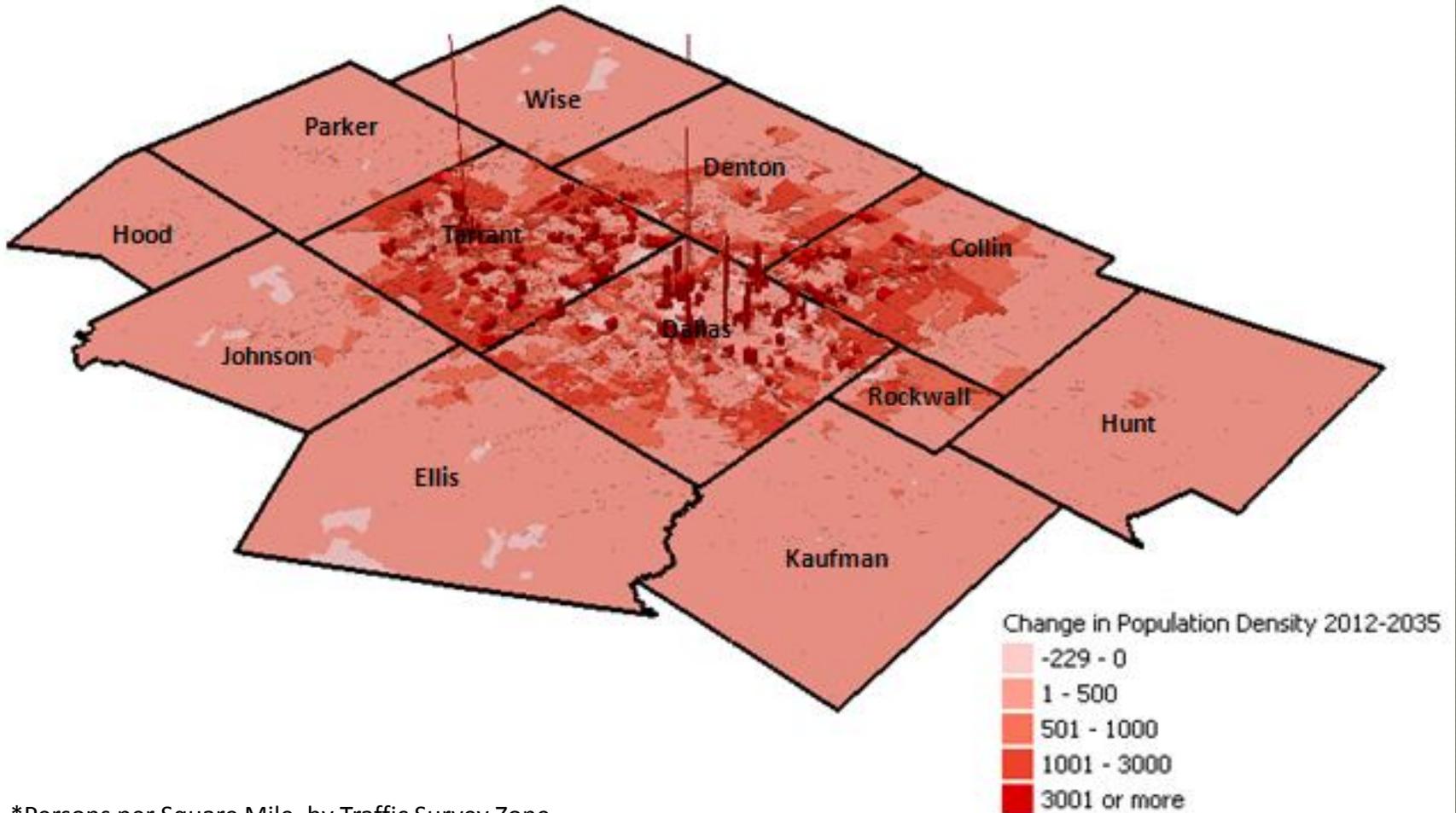


Metropolitan Planning Area (MPA) Boundary



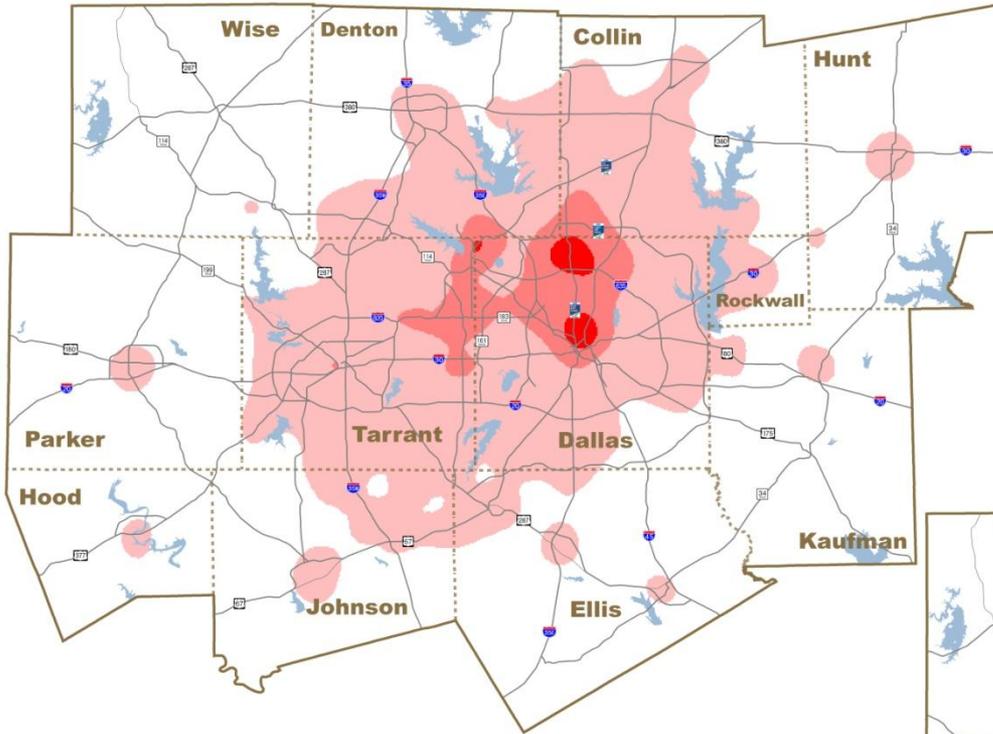
NCTCOG Region

# Changes in Population Density 2012 – 2035



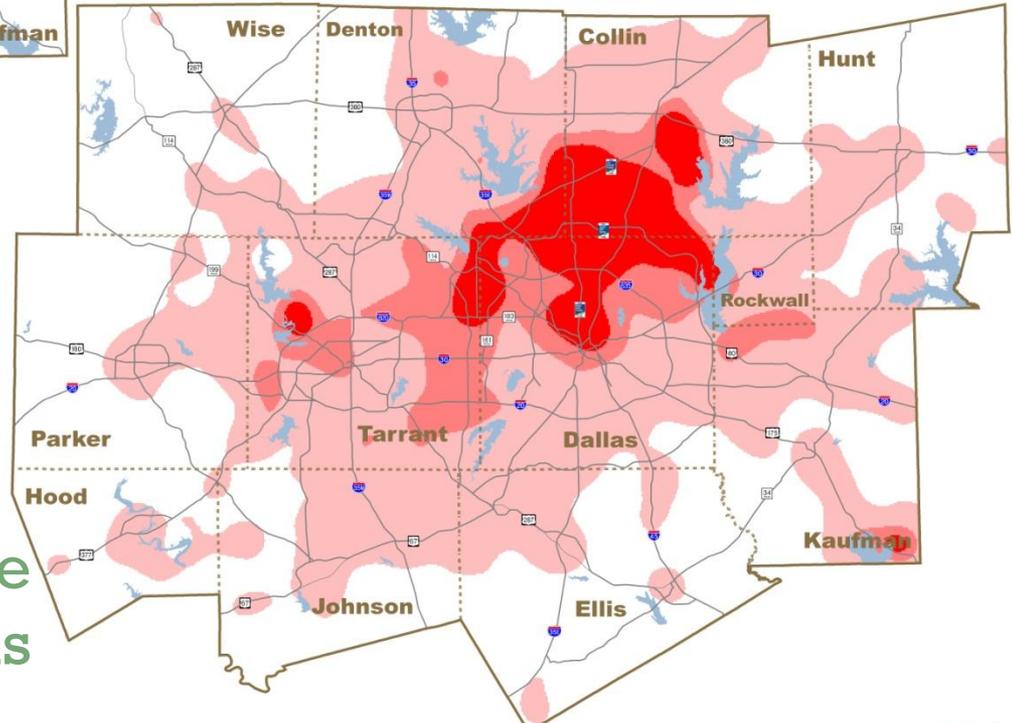
\*Persons per Square Mile, by Traffic Survey Zone

# 2012 Congestion Levels



**Cost of Congestion  
\$4.5 Billion Annually**

# 2035 Future Congestion Levels



**Cost of Congestion  
\$10.1 Billion Annually**

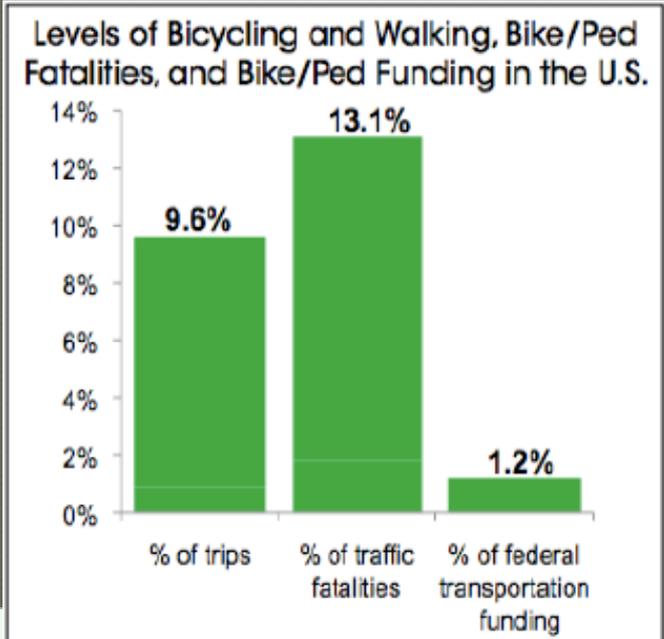


Why Should We Care?

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# Safety

- Pedestrians are 10.9% of trips in the U.S.
- Bicyclists are 1.0% of trips in the U.S.
- FY 2009: Bicycle and pedestrian funding was 2.0% of Federal-aid highway program funding.



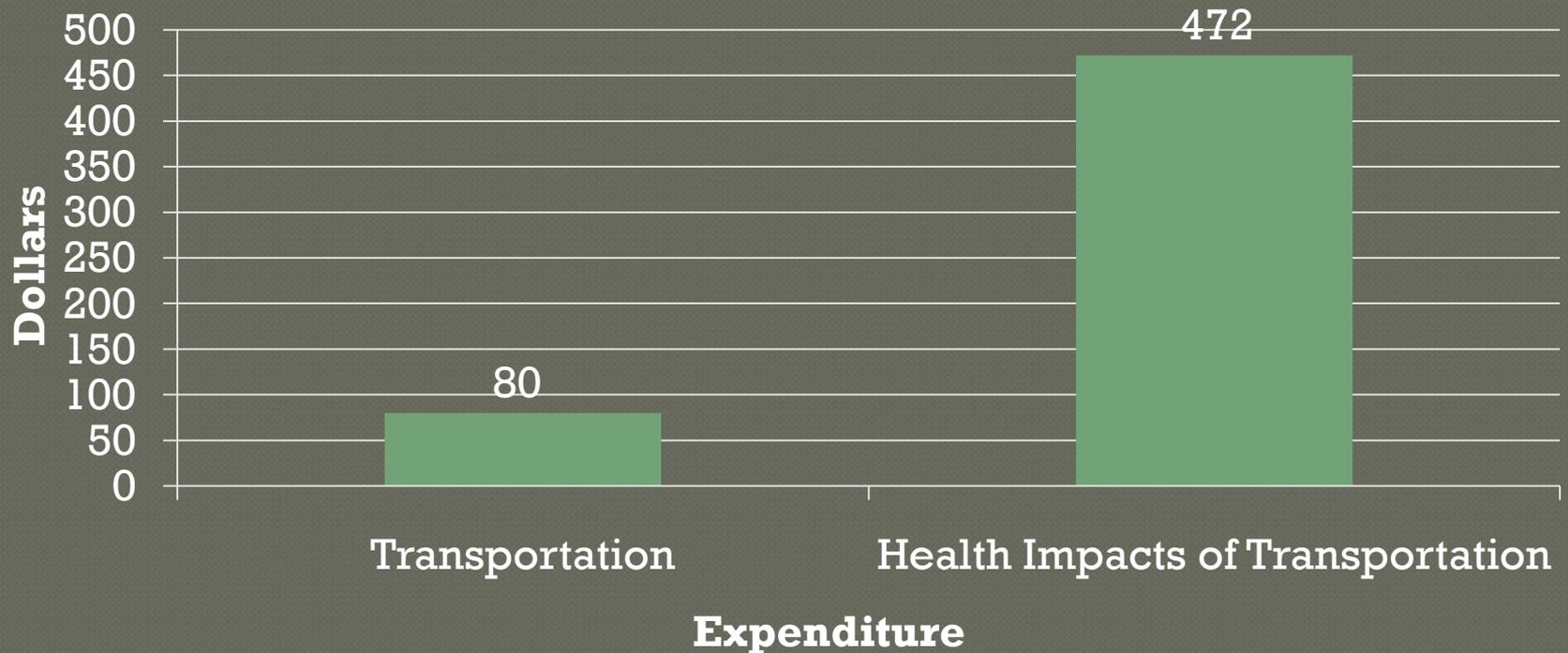
## State Pedestrian Fatalities and Federal Spending on Walking and Biking\*

Rank	State	Portion of all Pedestrian Traffic Deaths (2007-2008)	Percent of Total Federal Funding Spent on Pedestrian & Bicycle Projects (2005-2008)	Spending per Capita Under SAFETEA-LU (2005-2008)
	United States	11.8%	1.5%	\$1.46
41	Texas	12.2%	1.0%	\$0.99

\*Source: Transportation for America, <http://t4america.org/resources/dangerouslybydesign/table-5/>

# Health

**For every \$1 we spend on transportation, we spend \$6 treating disease and injury related to transportation policies.\***



\*U.S. DOT budget; Ostro, B and Chestnut, L. Assessing the Health Benefits of Reducing Particulate Matter Air Pollution in the United States. Environmental Research 76:94-106, 1998; [Crashes vs. Congestions – What’s the Cost to Society?](#); Pratt M, Macera CA, Wang G. Higher Direct Medical Costs Associated with Physical Inactivity. The Physician and Sportsmedicine 200; 28:63-70; McCubbin, Donald R. and Mark A. Delucchi (1999) The Health Costs of Motor-Vehicle-Related Air Pollution. Journal of Transport Economics and Policy 33 (3), 253 – 286.

# Economic Benefits

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- In Dallas, developers report that there is a **25%** premium for properties adjacent to the Katy Trail.\*
- The Colorado Department of Transportation determined that bicycling contributed **\$1 billion** to the economy in 2000 from manufacturing, retail, tourism, and bike races.
- Case Study: North Carolina's Outer Banks

# It Just Makes Sense...

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- About 25% of morning traffic congestion is related to parents driving their children to school.
- About 60% of trips shorter than one mile are made in a vehicle: an easy walk or bike for most people.
- About 72% of trips shorter than three miles are made in a vehicle: an easy bicycle ride for many people.
- You can park 14 bikes in the same space as you can park one car.

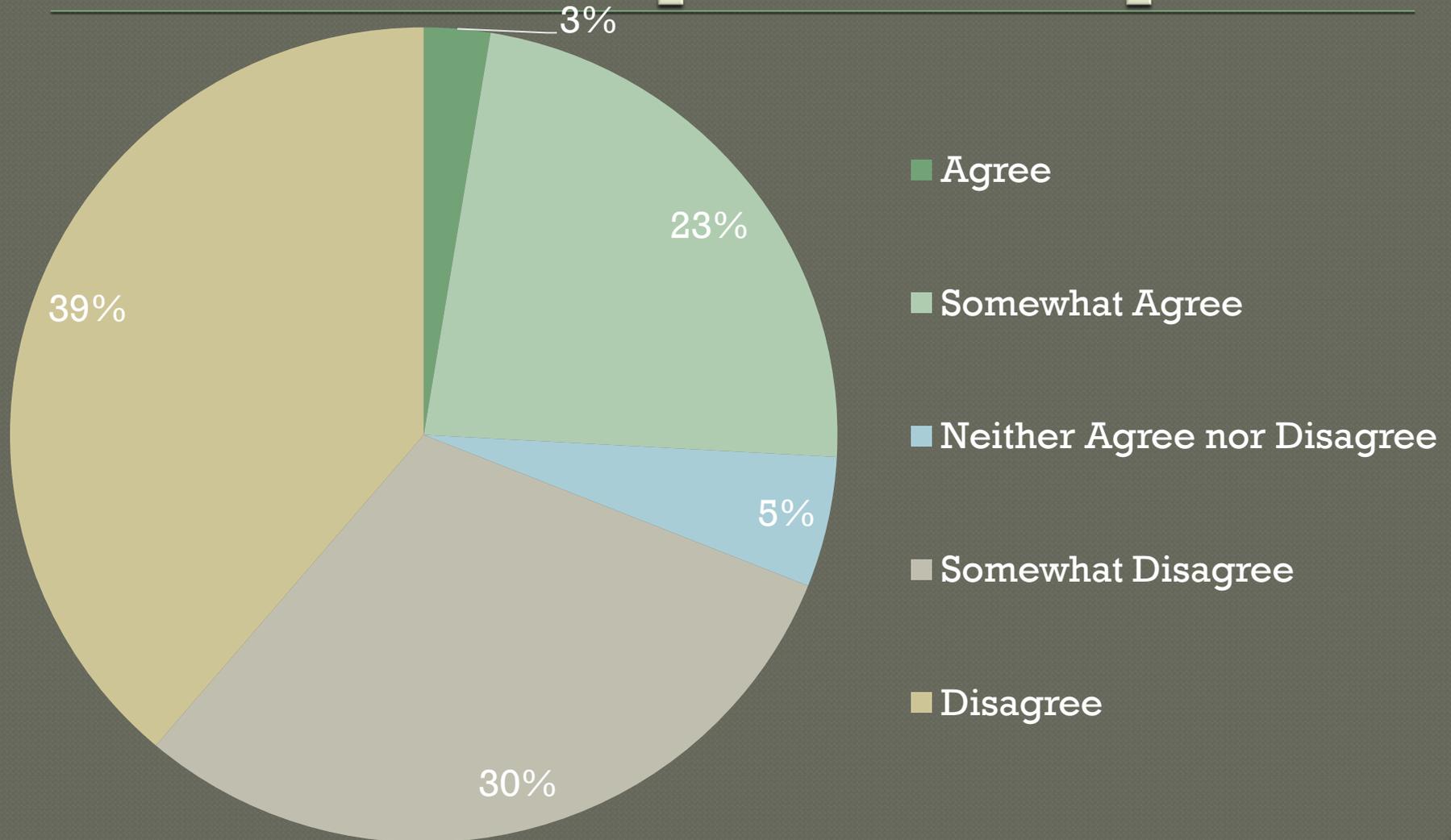
Sources:

1. [www.saferoutesinfo.org/task\\_force/](http://www.saferoutesinfo.org/task_force/)
2. [www.bikeleague.org/resources/reports/pdfs/nhts09.pdf](http://www.bikeleague.org/resources/reports/pdfs/nhts09.pdf)

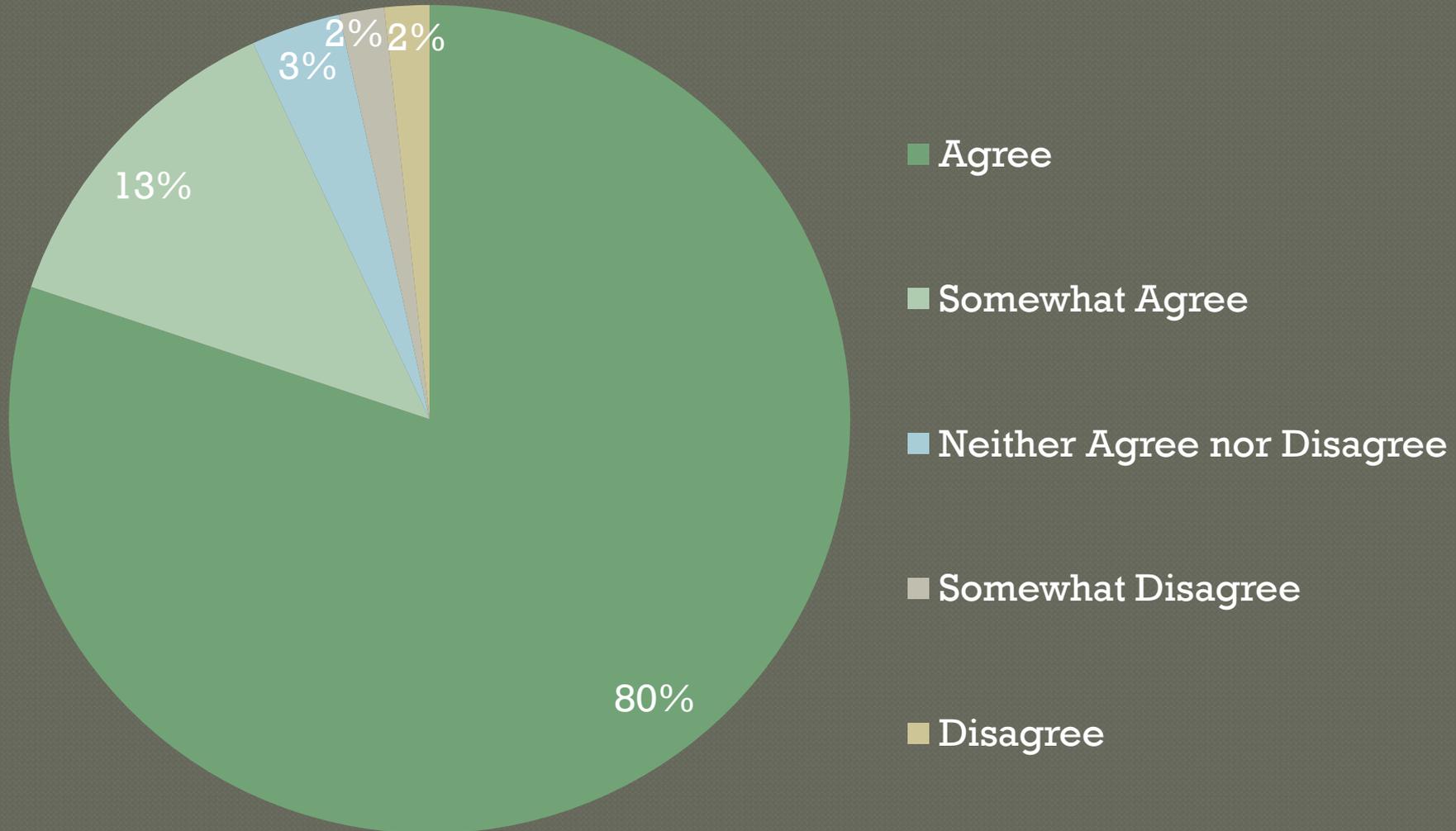
# Public Opinion

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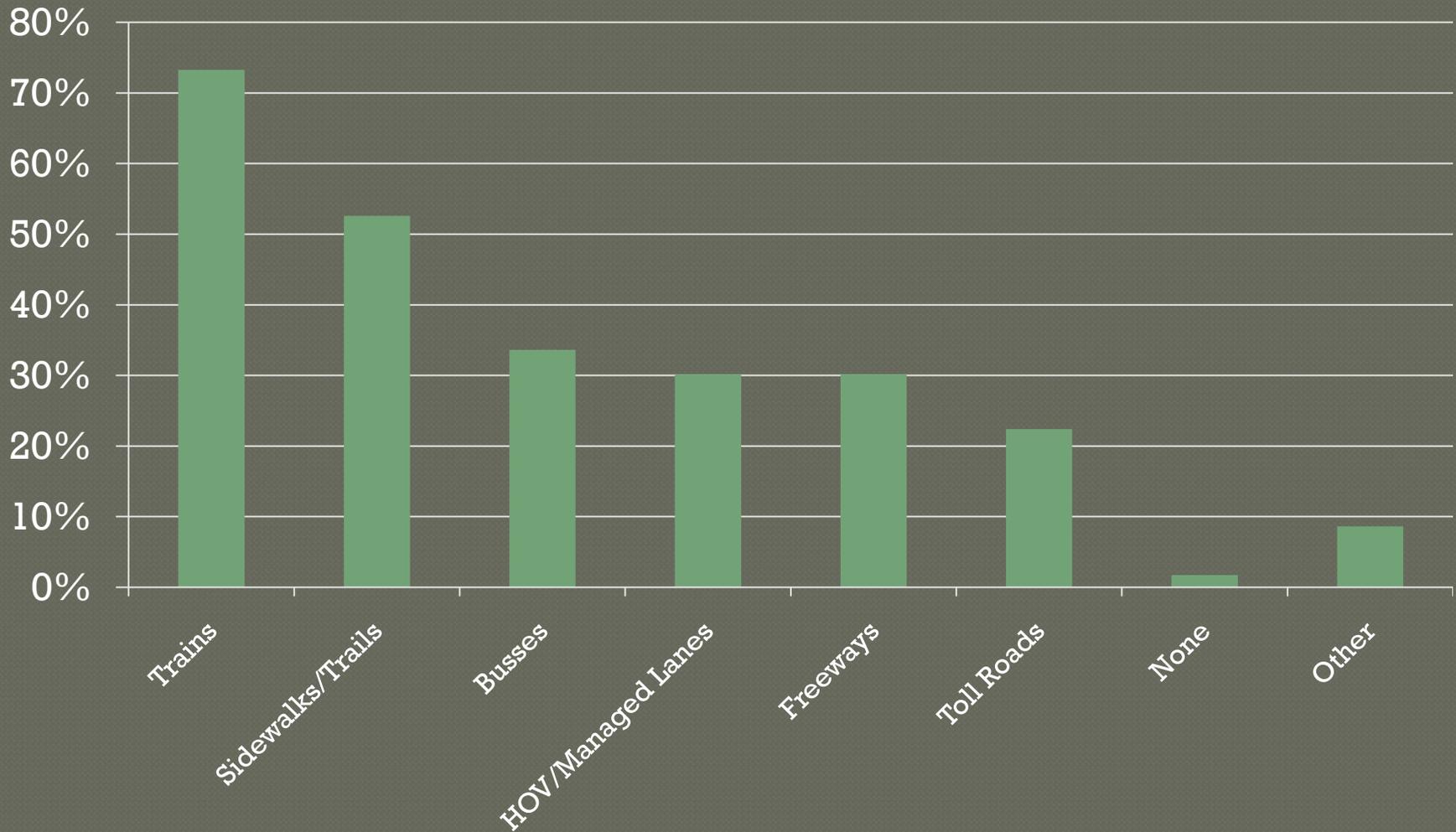
# I am satisfied with my current transportation options.



# I would like to have access to different modes of transportation.



# I would like better access to:



Source: Mobility 2035 Survey, North Central Texas Council of Governments, 2009

# 2011 Dallas Bike Plan Public Survey

- Which of the following improvements influence you to bike more often?  
*1,379 Respondents*

## #1 Response

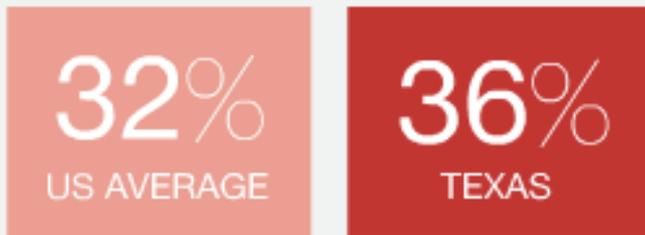
	Very Likely	Likely	Neutral	Unlikely	Very Unlikely
More bike lanes on major streets	941	286	69	27	37

# How Should We Invest in Our Future?

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# The Need for Options

Percent of Population  
without Driver's License



Projected Growth in  
Texas 65+ Population

+150%

By 2030, the US Census predicts that there will be about 5 million seniors living in Texas.

*“Once you realize that you can use your street to improve the quality of life, and the economic and environmental health of your city, I think that’s a transformative moment.”*

**-Janette Sadik-Kahn, Commissioner, NYC DOT**

# Mobility 2035: The Metropolitan Transportation Plan for North Central Texas

## Mobility

- Improving the availability of transportation options for people and goods
- Supporting travel efficiency measures and system enhancements targeted at congestion reduction and management
- Assuring all communities are provided access to the regional transportation system and planning process

## Quality of Life

- Preserving and enhancing the natural environment, improving air quality, and promoting active lifestyles
- Encouraging livable communities which support sustainability and economic vitality



# Mobility 2035: The Metropolitan Transportation Plan for North Central Texas

## System Sustainability

- Ensuring adequate maintenance and **enhancing the safety** and reliability of the existing transportation system
- Pursuing **long-term sustainable** revenue sources to address regional transportation system needs

## Implementation

- Providing for timely project planning and implementation
- Developing **cost-effective projects** and programs aimed at reducing the costs associated with constructing, operating, and maintaining the regional transportation system



# Mobility 2035: Active Transportation

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## Program Goals

1. Increase accommodation and planning for active transportation.
2. Improve safety and mobility for active transportation.
3. Increase active travel in the North Central Texas Council of Governments' region as an alternative to vehicle trips.



# Political Will

## United States Department of Transportation Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations

Signed on March 11, 2010 and announced March 15, 2010

Note: Also available on the [United States Department of Transportation Website](#)

### Purpose

The United States Department of Transportation (DOT) is providing this Policy Statement to reflect the Department's support for the development of fully integrated transportation networks. The establishment of well-connected walking and bicycling networks is an important component for livable communities, and their design part of Federal-aid project developments. Walking and bicycling foster safer, more livable, family-friendly communities; promote physical activity and health; and emissions and fuel use. Legislation and regulations exist that require inclusion of bicycle and pedestrian policies and projects into transportation plans and projects. Accordingly, transportation agencies should plan, fund, and implement improvements to their walking and bicycling networks, including linkages to transit. In addition, transportation agencies should go beyond the minimum requirements, and proactively provide convenient, safe, and context-sensitive facilities that foster by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics when appropriate. Transportation programs and facilities should be people of all ages and abilities, including people too young to drive, people who cannot drive, and people who choose not to drive.

### Policy Statement

The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because individual and community benefits that walking and bicycling provide — including health, safety, environmental, transportation, and quality of life — transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for walking and bicycling.

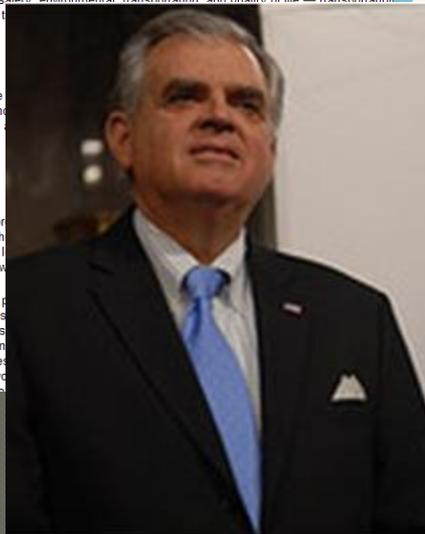
### Authority

This policy is based on various sections in the United States Code (U.S.C.) and the Code of Federal Regulations (CFR) — The Public Health and Welfare. These sections, provided in the Appendix, describe the process, should not be adversely affected by other transportation projects, and should be followed.

### Recommended Actions

The DOT encourages States, local governments, professional associations, community organizations, and similar policy statements on bicycle and pedestrian accommodation as an indication of the quality of the transportation system. In support of this commitment, transportation agencies and local governments should create safe, attractive, sustainable, accessible, and convenient bicycling and walking networks.

- Considering walking and bicycling as equals with other transportation modes: The benefits of walking and bicycling as efficient transportation modes for most short trips should be linked with transit to significantly increase trip distance. Because of the benefits of walking and bicycling as is given to other transportation modes. Walking and bicycling should not be considered secondary modes.
- Ensuring that there are transportation choices for people of all ages and abilities, especially for children, the elderly, and people with disabilities. Requirements and provide safe, convenient, and interconnected transportation networks for walking and bicycling to school and parks. People who cannot or prefer not to drive should have



SIGN UP FOR EMAIL UPDATES

KIDS' COLLECTION

Healthy Choices

Healthier Schools

Physical Activity

Accessible & Affordable Healthy Food

## America's Move to Raise a Healthier Generation of Kids

Childhood obesity or excess weight threatens the healthy future of one third of American children. We spend \$150 billion every year to treat obesity-related conditions, and that number is growing.

Obesity rates tripled in the past 30 years, a trend that means, for the first time in our history, American children may face a shorter expected lifespan than their parents.

We need to get moving. Join First Lady Michelle Obama, community leaders, teachers, doctors, nurses, moms and dads in a nationwide campaign to tackle the challenge of childhood obesity.

'Let's Move!' has an ambitious but important goal: to solve the epidemic of childhood obesity within a generation.

'Let's Move!' will give parents the support they need, provide healthier food in schools, help our kids to be more physically active, and make healthy, affordable food available in every part of our country.

President Obama Names Childhood Obesity Taskforce

- [Read Memorandum](#)
- [Read the Event Blog](#)



Our Let's Move Website is just a snapshot of the campaign and what's to come. Visit often as we will be adding new information almost every day. Check out the [blog](#) and [sign up](#) to receive new features, tips and tools.



STAY CONNECTED:



blog



PSAs



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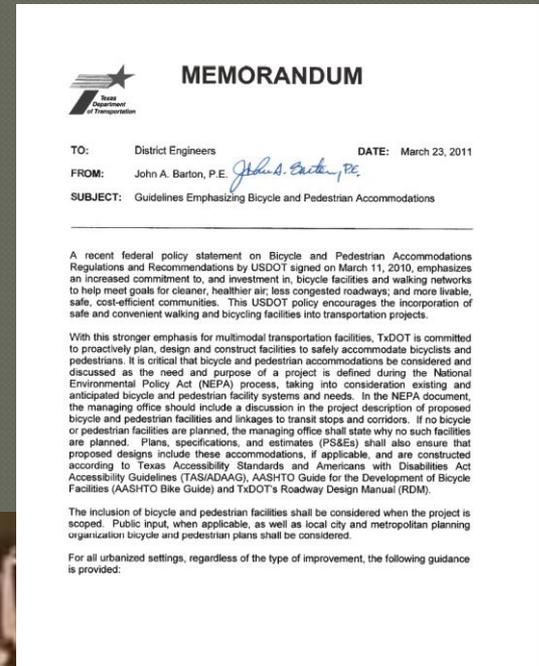


youtube



# Agency Collaboration

- TxDOT released a Memorandum on the Accommodation of Bicyclists and Pedestrians on March 23, 2011.
- Developed through coordination with Federal Highway Administration.



# Support for Active Transportation

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# NCTCOG Bicycle and Pedestrian Program

- Planning and Funding
- Mapping and Data Collection
- Access to Rail
- Safety and Education Outreach
- Bicycle and Pedestrian Advisory Committee
- Design Guidance



# Planning

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# Planning

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- **Development of Bicycle and Pedestrian Master Plans**
  - Funded and managed the 2011 Dallas Bike Plan in coordination with the City of Dallas
  - Bike Fort Worth- served on the Bicycle Study Technical Committee
- **Corridor Level Planning**
  - Arlington Division Street: Funding and managing the planning study for a multi-modal corridor
- **Unified Planning Work Program (UPWP)**
  - Requests for planning technical assistance: Hunt County and others
- **TOD Planning Studies**

# Community Values



# Providing Choice – Great Neighborhoods



## Growing Smart

Open space preservation helps communities grow smart, preventing the higher costs of unplanned development.

In the future, livable communities will be the basis for our competitiveness and economic strength. Our efforts to make communities more livable today must emphasize the right kind of growth—sustainable growth. Promoting a better quality of life for our families need never come at the expense of growth; it can be an economic



Since 1988, we've been dedicated to offering affordable housing and a public park. The development choices brought economic renewal to the Cleveland, Ohio, neighborhood.

4 THE ECONOMIC BENEFITS OF PARKS AND OPEN SPACE

## The Great Neighborhood Book

A Do-it-Yourself Guide to Placemaking

JAY WALLIASPER



PPS A PROJECT FOR PUBLIC SPACES BOOK

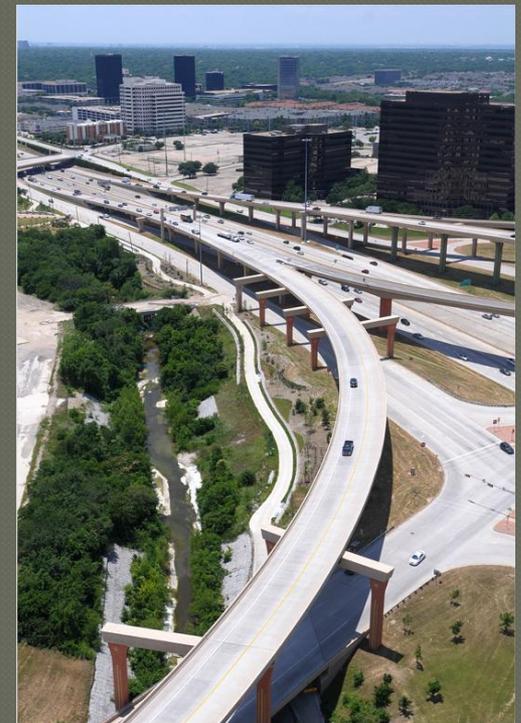
# Funding

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# Funding Programs

## Regional Transportation Council (RTC) local Funds

- RTC has programmed over \$90 million towards projects that improve air quality within the region under the following programs:
  - Local Air Quality (LAQ) Program
    - Six bicycle and pedestrian projects selected in the 2005-2006 Call for Projects (CFP)
  - Sustainable Development Program
    - Since 2001, the SD Program has funded an additional 93 Sustainable Development Planning and Infrastructure projects
- Regional Toll Revenue (RTR) Funds



# Flexible State and Federal Funds

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- **Congestion Mitigation and Air Quality Improvement Program (CMAQ)**
  - Projects funded under this program must demonstrate an air quality benefit.
- **Surface Transportation Program – Metropolitan Mobility (STP-MM)**
  - Flexible funding that may be used by states and localities for a variety of projects.
- **Transportation Enhancement (TE) Program**
  - The Enhancement Program has allocated more than \$143 million in funds to the DFW region through 2010.
  - The American Recovery and Reinvestment Act (ARRA) brought over \$43 million to the region for Stimulus Enhancement Projects.

# Safe Routes to School

- Aims to improve safety and encourage more children, including children with disabilities, to safely walk and bicycle to school.
- Programs are working to reduce traffic congestion and improve health and the environment, making communities more livable for everyone.
- Over \$14 million has been allocated to the DFW Region since 2002.

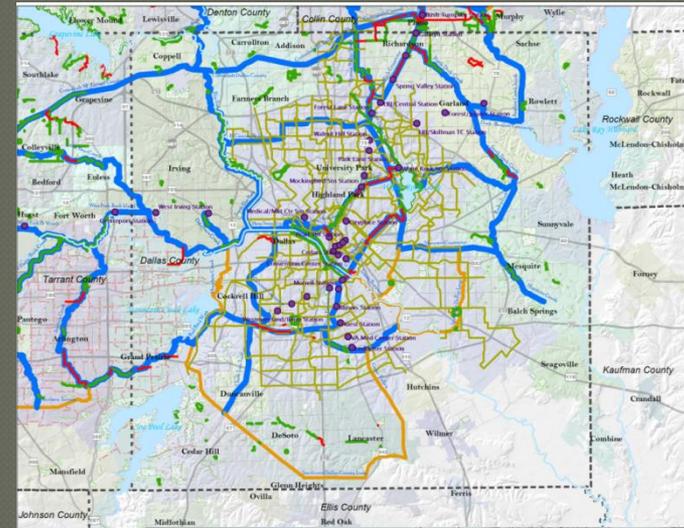


# Mapping and Data Collection

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# Mapping and Data Collection

- Collect data for trails, sidewalks, on-street bicycle facilities, and parks
- Development of a Regional Count Program
- The Regional Veloweb



# Regional Count Program

- Will update existing counts from 2002
- Will include manual and automatic counts: on-street and off-street facilities
- Will be based on the National Bicycle and Pedestrian Documentation Methodology
- Will be updated on a regular basis
- Will include a travel survey



# The Regional Veloweb

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- ① A network of off-street shared-use paths designed for use by bicyclists, pedestrians, and other non-motorized forms of transportation.
- ① Recommended routes and trails included in the Regional Veloweb are considered high priority projects and are often used as part of the evaluation process when funding becomes available for various RTC programs.

# The Regional Veloweb

## Design Considerations

- Concrete surface
- Recommended width of 12'
- Easy access from roadways, especially on-street bicycle routes
- Easy access to common trip destinations
- Few, if any, signalized stops or intersections



# The Regional Veloweb

- Original map developed in 1997
  - Consisted of 644 miles
- Update to the map in 2010 – Part of Mobility 2035
  - Expanded to 1,668 miles

	1997 Regional Veloweb	2011 Regional Veloweb Update
Length	644	1,668
Cities	50	116
Counties	4	10

Facility	Miles
Regional Veloweb, Existing	237
Regional Veloweb, Funded	31
Regional Veloweb, Planned	1,400
Total	1,668

# Bicycle and Pedestrian Off-street Facilities

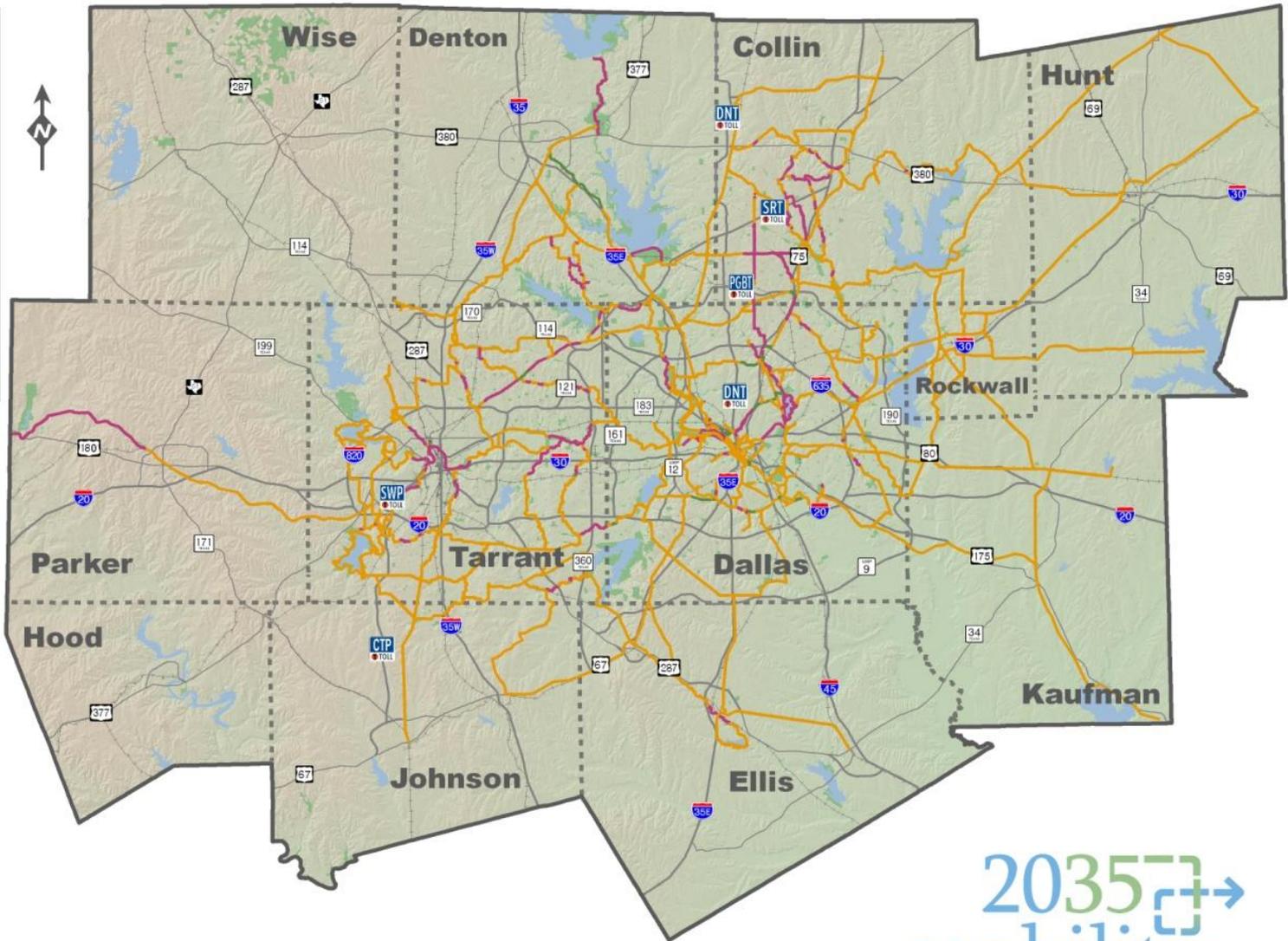
**Legend**

**Regional Veloweb**

- Existing
- Funded
- Planned

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- Major Roads
- + + + + Rail Lines
- Parks



**Fort Worth CBD**



**Dallas CBD**



Facility recommendations indicate transportation need. Corridor specific alignment, design, and operational characteristics for the Regional Veloweb system will be determined through ongoing project development.

# Bicycle and Pedestrian Transportation and the Veloweb

- Various options for facilitating accessibility to the Regional Veloweb include the following on-street treatments, in addition to off-street trails:
  - shared-use lanes,
  - dedicated bicycle lane,
  - cycle tracks,
  - wide outside lanes, and
  - shoulders.
- On-street facilities can be explored by the community for a variety of transportation purposes, including trips to work, to the local store, to the park, etc.
- On-street facilities are a great option at a substantially less cost than the typical multi-use trail.

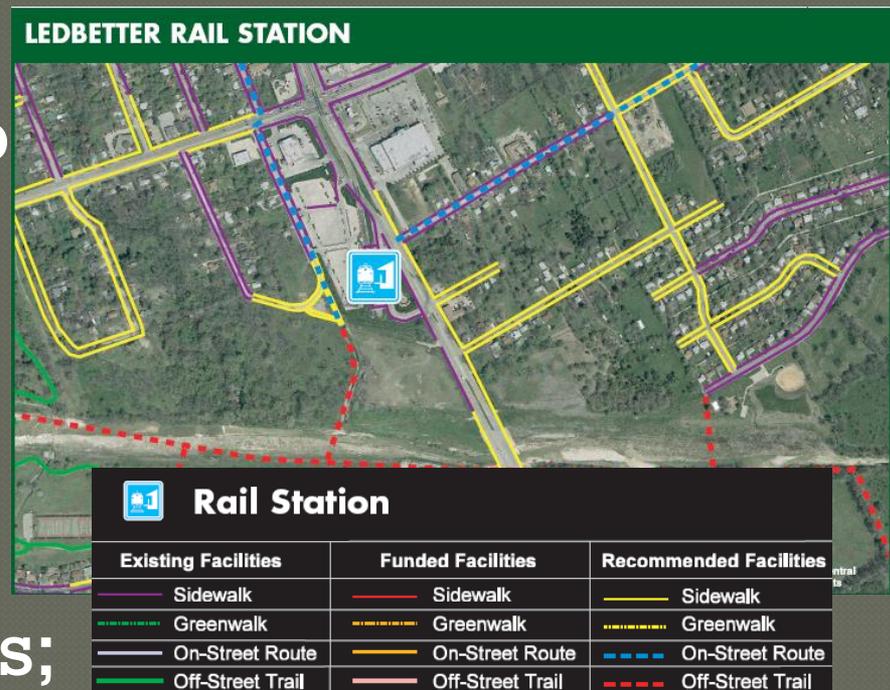


# Access to Rail

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# Access to Rail

- Completed in 2002, with an update anticipated in 2012
- Developed to increase rail ridership in conjunction with alternative modes of transportation
- Includes needs assessment for 60 existing rail stations; update will add new stations, including DCTA

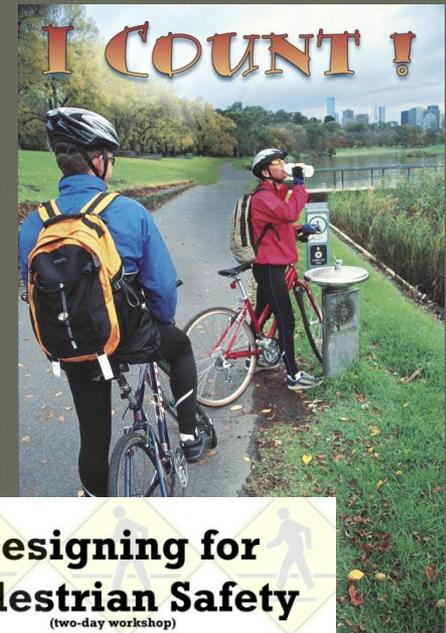


# Safety and Education Outreach

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# Safety and Education Outreach

- Developed to provide regional bicycle and pedestrian safety and education outreach
  - 2001 “I Count/Yo Cuento” Campaign
  - National Bike to Work Day Campaign
  - Create outreach materials: Regional Maps, Brochures, and Pamphlets
  - Host training/education events
  - Participate in and present at various regional events



**Designing for Pedestrian Safety**  
(two-day workshop)

**March 3 - 4**  
**Transportation Council Room**  
NCTCOG Offices, 616 Six Flags Drive  
Arlington, TX 76011

**Participants will:**

- understand the role that planning and street design play in pedestrian safety.
- learn effective solutions and best practices in design and operations for pedestrian safety.
- take part in a field exercise to share engineering and policy solutions.

For more information and to RSVP, please visit [www.nctcog.org/pedworkshops](http://www.nctcog.org/pedworkshops), or contact Deb Humphreys at [dhumphreys@nctcog.org](mailto:dhumphreys@nctcog.org) or (817) 608-2394.

# Bicycle and Pedestrian Advisory Committee

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# Bicycle and Pedestrian Advisory Committee

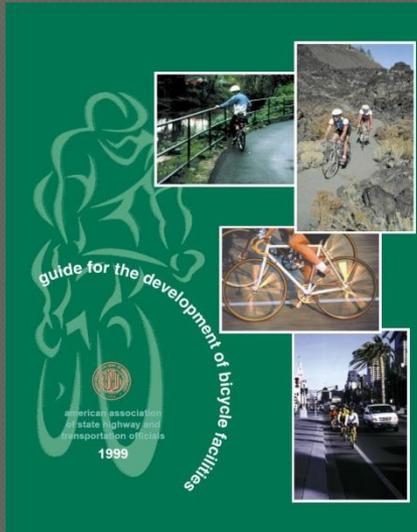
- Assembled to provide technical expertise, planning review, and public outreach support
- Member designation through the Surface Transportation Technical Committee (STTC)
- Consists of 56 members
- Quarterly meetings open to community members and interested parties



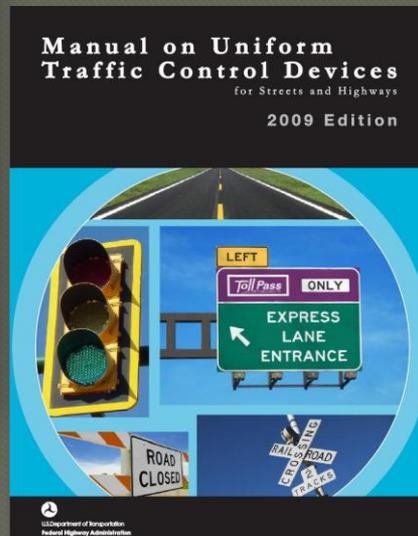
# Design Guidance

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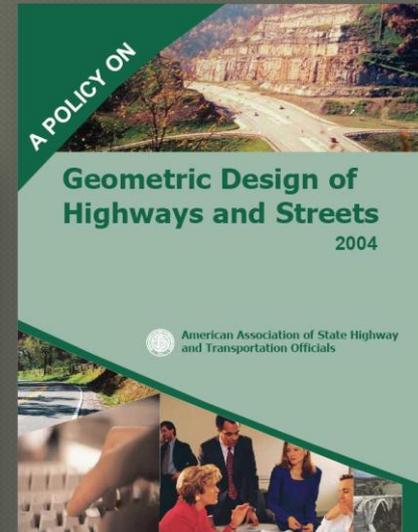
# Design Guidance



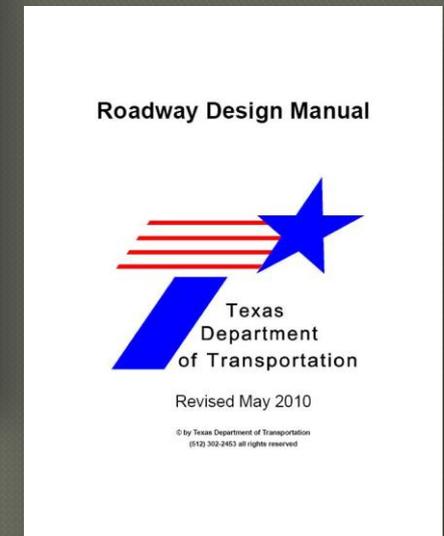
**American Association of State Highway and Transportation Officials (AASHTO):**  
*Guide for the Development of Bicycle Facilities*, 1999



**U.S. Department of Transportation Federal Highway Administration:**  
*Manual on Uniform Traffic Control Devices* (MUTCD), 2009

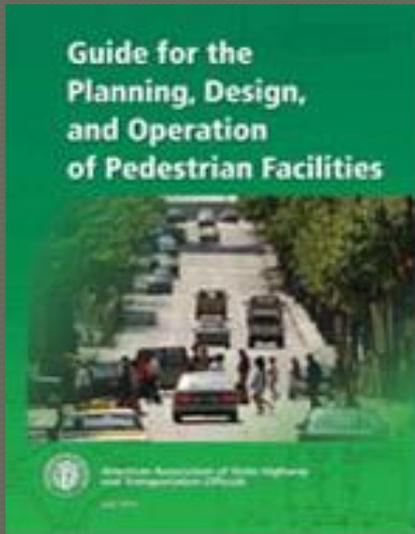


**American Association of State Highway and Transportation Officials (AASHTO):**  
*Geometric Design of Highways and Streets* (Green Book), 2004

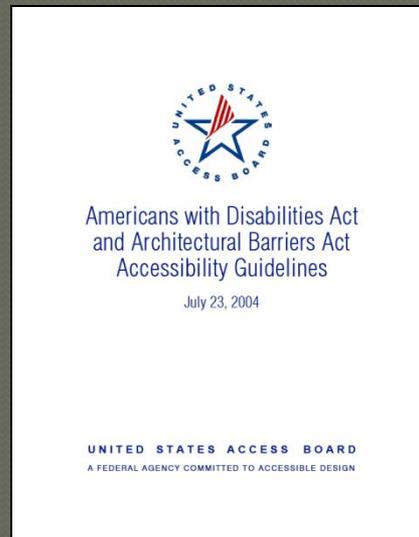


**Texas Department of Transportation:**  
*Roadway Design Manual*, Revised May 2010

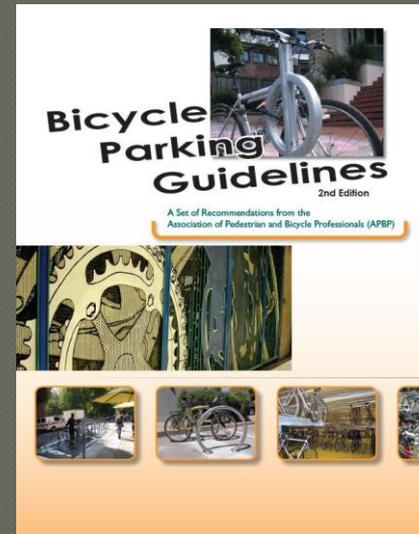
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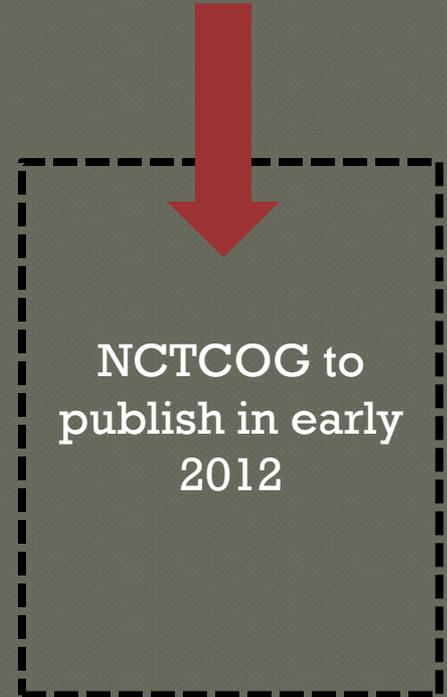
**American Association of State Highway and Transportation Officials (AASHTO):**  
*Guide for the Planning, Design, and Operation of Pedestrian Facilities, 1st Edition*



**U.S. Access Board:**  
*Americans with Disabilities Act Accessibility Guidelines (ADAAG)*



**Bicycle Parking Guidelines, 2nd Edition:** *A set of recommendations from the Association of Pedestrian and Bicycle Professionals*



**NCTCOG:** *Bicycle and Pedestrian Planning and Design Best Practices Guide*

# Complete Streets

- NCTCOG currently in the approval process for a Regional Complete Streets Policy
- Guidance not a requirement
- Intent: Local governments will consider all modes of transportation during the planning, design, construction, and operation phases
- Encourages local governments to adopt an official Complete Streets Policy



# Questions

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“The most damaging phrase in the language is: ‘it’s always been done that way’.”

- Grace Murray Hopper

# Contact Information

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Transportation Planner

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(817) 608-2394

NCTCOG Bicycle and Pedestrian  
Homepage:

[www.nctcog.org/bikeped](http://www.nctcog.org/bikeped)