



Texas Trails and Active Transportation Conference



North Central Texas Regional Veloweb

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Agenda

- I. Background
- II. Purpose
- III. Route Determination
- IV. Costs
- V. Strategies
- VI. Success to Date
- VII. Questions



About NCTCOG

- *The North Central Texas Council of Governments (NCTCOG) serves a 16-county region of North Central Texas, which is centered around the two urban centers of Dallas and Fort Worth.*
- *The Transportation Department, one of eight NCTCOG departments, supports the **Regional Transportation Council (RTC)**. The two form the **Metropolitan Planning Organization (MPO)**, which guides transportation policy for the twelve-county **Metropolitan Planning Area (MPA)**.*
- *The MPO serves the region by developing transportation plans and programs that address the complex needs of the rapidly growing Dallas-Fort Worth area.*

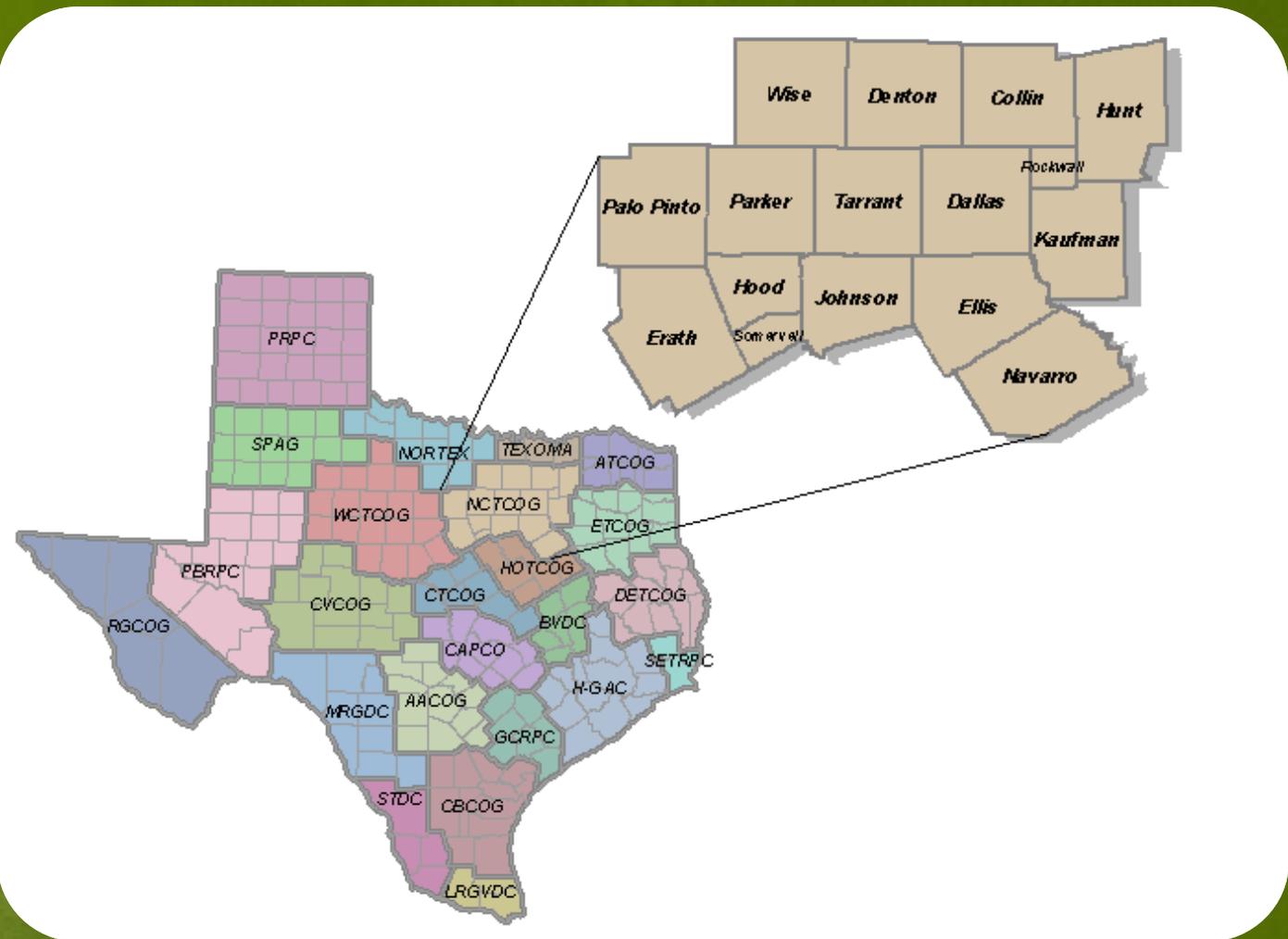


About NCTCOG

- NCTCOG has over 230 member governments including 16 counties, numerous cities, school districts, and special districts
- Recently expanded MPA from 9 to 12 counties
- Geographically the 2nd largest MPA in the nation
- Larger than 34 states in population with 6.6 million residents
- Larger than 9 states in land area



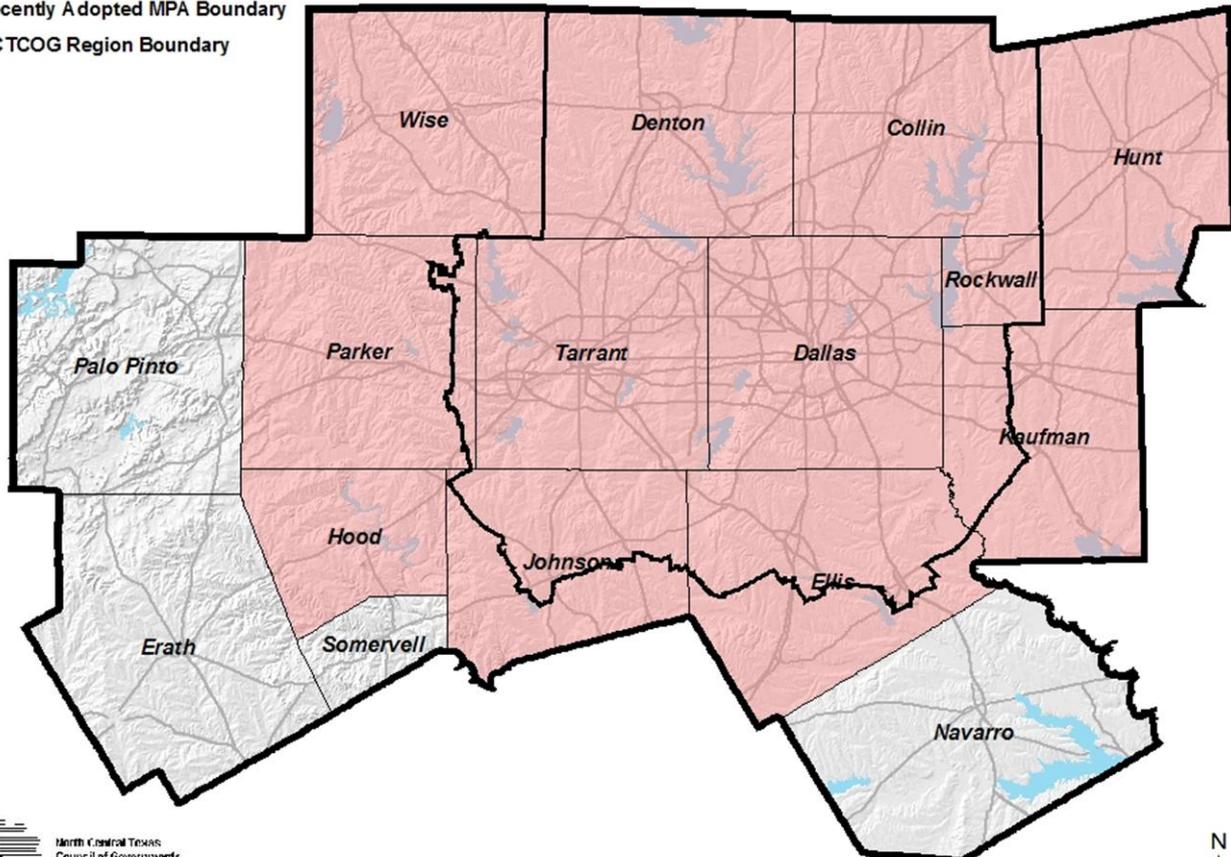
NCTCOG 16 County Region



NCTCOG Metropolitan Planning Area Boundary



- Counties within the NCTCOG Region
- Previous MPA Boundary
- Recently Adopted MPA Boundary
- NCTCOG Region Boundary





The Metropolitan Transportation Plan

- The *Metropolitan Transportation Plan* (MTP) is a federally mandated document that contains a comprehensive, multimodal “blueprint” for transportation systems and services aimed at meeting the mobility needs of the Dallas-Fort Worth Metropolitan Area through the next 20 years.
- The current version, Mobility 2030: The Metropolitan Transportation Plan for the Dallas-Fort Worth Area, 2009 Amendment, was adopted on April 9, 2009.





The MTP and the Pedestrian/Bicycle System

- ‘Chapter 15. Pedestrian/Bicycle System’ of the MTP is dedicated to projects, programs, and policies related to bicycle and pedestrian mobility and safety.



- The MTP states, “the Bicycle and Pedestrian Program was developed to offer an alternative means of travel as opposed to the traditional automobile in an effort to assist with meeting the region's air quality control measure commitments, reducing vehicle miles traveled, and improving road congestion.”





Pedestrian/Bicycle System

Objectives of the MTP include:

1. Improving safety, mobility, and access to transit for trips made by non-motorized modes of transportation.
2. Increasing the service area of bicycle and pedestrian facilities.
3. Making further progress toward the regional commuting goal of an 8% combined alternative transportation mode share.





Pedestrian/Bicycle System

Means of Commuting for the DFW Metropolitan Area

2000 Census Data

Means of Commuting to Work	Commuting to Work Mode Share
Single Occupancy Vehicle	78.8%
Car Pool	14.0%
Work at Home	3.0%
Public Transit	1.8%
Walk	1.5%
Other Means	1.0%

*2008 Census Estimates**

Means of Commuting to Work	Commuting to Work Mode Share
Single Occupancy Vehicle	79.5%
Car Pool	11.9%
Work at Home	4.1%
Public Transit	1.7%
Walk	1.3%
Other Means	1.6%

**Based on the American Community Survey*





Pedestrian/Bicycle System

For implementation of the MTP Objectives, and to increase the potential for increased bicycle and pedestrian travel, facility planning for future improvements is divided into four categories:

1. On-Street Bicycle Access Initiative
2. Regional Veloweb Project
3. Bicycle and Transportation District Project
4. Spot Improvement Program





The Regional Veloweb

A 644-mile interconnected network of off-street trails designed to provide safe efficient mobility to pedestrians and cyclists.

Design Considerations:

- Concrete surface
- Design speed of 25 miles per hour
- Recommended width of 12 feet to accommodate a variety of users
- Grade separated crossings
- Few, if any, signalized or stop sign intersections
- Easy access from roadways, particularly on-street bicycle routes
- Easy access to common trip destinations





The Regional Veloweb

Local governments should plan to ensure connectivity between the Veloweb and roads and trails in their jurisdictions. The MTP has two policies related to increasing accessibility to the Veloweb through extensive planning efforts by localities.

Veloweb Access Policies

Reference	Policy
BP3005	All local governments should include the Veloweb and connections to Veloweb in the Municipal Thoroughfare Plan, Park Plan, and Comprehensive Plan.
BP3006	New development, redevelopments, and transit-oriented developments are encouraged to be responsible to the Veloweb plan and implement new points of access to continuity with the Veloweb.





The Regional Veloweb

- The existing Regional Veloweb map was developed in 1997.
- 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 Regional Transportation Council (RTC) programs.





The Regional Veloweb

Route Determination

Individual routes were determined by:

- Creating an inventory of existing and funded trails
- Identifying facilities planned by local governments
- Identifying routes that could provide air quality benefits
- Identifying routes linking transit stations
- Examining the potential of linking routes together and providing access to important trip origins and destinations
- Examining the potential for securing free or low cost right-of-way along the proposed routes





The Regional Veloweb Route Determination

- Each route established as part of the Veloweb was included in a Geographic Information Systems (GIS) analysis to determine the potential exposure to users.
- An exposure index, based on the number of residents and employees within one mile of each Veloweb segment, was used to evaluate routes.
- All routes are recommended for right-of-way preservation.





The Regional Veloweb

Route Determination

- Projects that provide service to bicycle and pedestrian transportation districts, or that have high exposure levels or linkages to transit, are considered priority investments.
- These recommended projects form the basic bicycle and pedestrian system plan for the region.



- Candidate projects are also included in the bicycle and pedestrian system plan for the region and are recommended for right-of-way preservation.



The Regional Veloweb



The Metropolitan Transportation Plan

Bicycle-Pedestrian Transportation Districts

Legend

Recommended Veloweb Routes

- Completed: 112 miles
- Funded: 34 miles
- Needed: 289 miles

Candidate Veloweb Routes

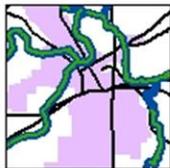
- Completed: 7 miles
- Needed: 202 miles

Bicycle-Pedestrian Transportation Districts

Within all rail corridors, all existing and planned stations are bicycle and pedestrian districts.

- Freeways
- County Boundaries
- Metropolitan Planning Area Boundary

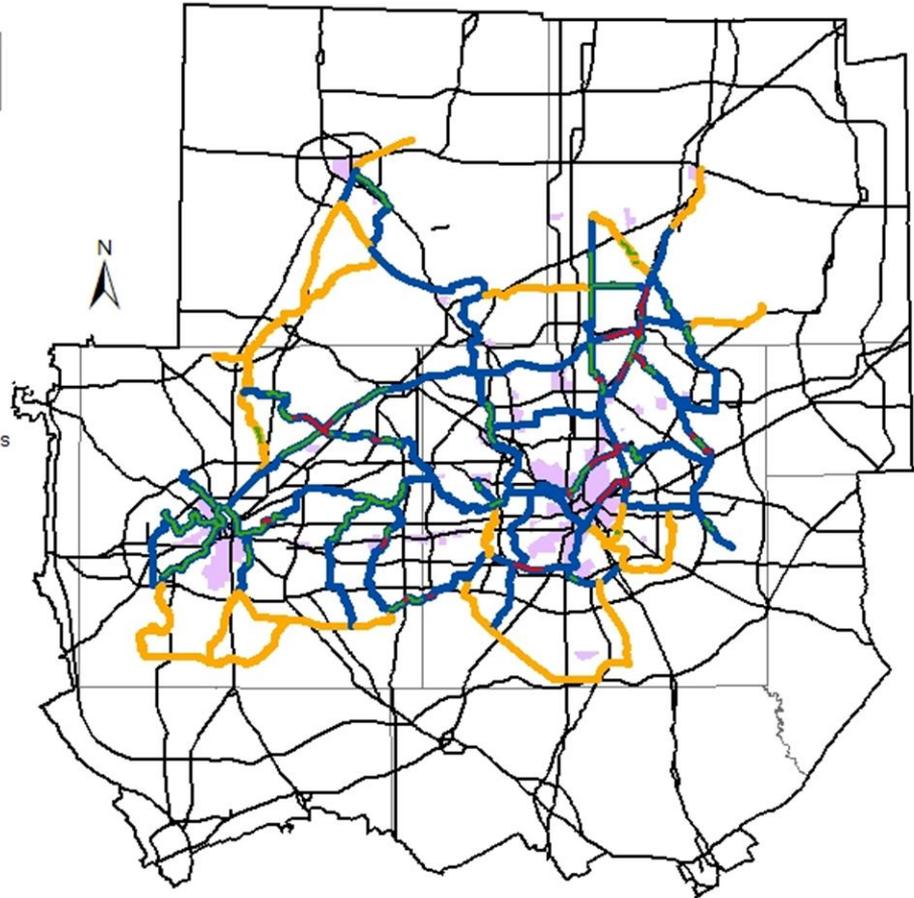
Fort Worth CBD



Dallas CBD



New facility locations indicate transportation needs and do not represent specific alignments





The Regional Veloweb Costs

- Primary costs for the development of an off-street bicycle route are right-of-way and construction.
- To reduce overall development costs, the Regional Veloweb primarily follows existing rights-of-way including land owned by the Trinity River Authority, Dallas Area Rapid Transit, and the U.S. Army Corp of Engineers.
- Other routes follow electrical easements, railroad lines, and greenways.

Facility	Estimated Costs
12-foot wide concrete trail along publicly owned right-of-way	\$817,500 per mile
Bridges, overpasses, underpasses, other major structures	\$577,700 per mile
Total Veloweb Cost	\$1,400,000 per mile plus right of way





The Regional Veloweb Costs

Facility	Total Miles	Total Cost*
Existing/Programmed	180	\$252 million
Recommended Needed	266	\$372 million
Candidate Needed	198	\$277 million
Total Needed	464	\$649 million
Regional Veloweb	644	\$901 million

*Costs based on estimated amount of \$1.4 million per mile, and include progress to date



The Regional Veloweb

Sources of Funding

- **Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)**
- **The Transportation Equity Act for the 21st Century (TEA-21)**
- **Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)**
 - **Current Federal Surface Transportation Act Extended though September 2010**



The Regional Veloweb

Sources of Funding Under SAFETEA-LU

- **Transportation Enhancement Program (TE)**
 - The Enhancement Program has allocated more than \$107 million in funds to the DFW region through 2005
 - The American Recovery and Reinvestment Act (ARRA) brought \$43,480, 971 to the Region for Stimulus Enhancement Projects
- **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



The Regional Veloweb

Additional Sources of Funding

- **Regional Transportation Council (RTC) Local Funds**
 - RTC has programmed over \$80 million towards projects that improve air quality within the Region under the following Programs
 - Local Air Quality (LAQ) Program
 - Sustainable Development Program
- **Texas Parks and Wildlife (TPWD) Trail Grants**
 - TPWD administers the National Recreational Trails Fund in Texas under the approval of the Federal Highway Administration (FHWA). This federally funded program receives its funding from a portion of federal gas taxes paid on fuel used in non-highway recreational vehicles.





The Regional Veloweb Strategies for Expediting Completion

- Encourage consistent local government action to incorporate bicycle and pedestrian facilities into policies and planning.
- Coordinate local government, transit agency, and TxDOT activities to preserve right-of-way for trail corridors and promote grade separated intersections.
- Prioritize funding recommendations based on locations that provide access to transit, access to high exposure areas, or complete a trail connection.
- Identify activity centers on the Veloweb plan and focus on constructing the Veloweb extending outward.



The Regional Veloweb

Assessing Benefits

- NCTCOG has developed methodology approved by the Federal Highway Administration (FHWA) for calculating user counts for bicycle and pedestrian facilities.
- Methodology is performed using ArcGIS and NCTCOG's 2030 Demographic Forecasts for the Region.
- Calculations take into account Bicycle and Pedestrian Needs Indexes, population, and employment (comprised of retail, service, and basic) within a one-mile buffer area of the facility.
- Gives a reliable estimate of potential exposure to users to quantify benefits.



The Regional Veloweb Criticisms

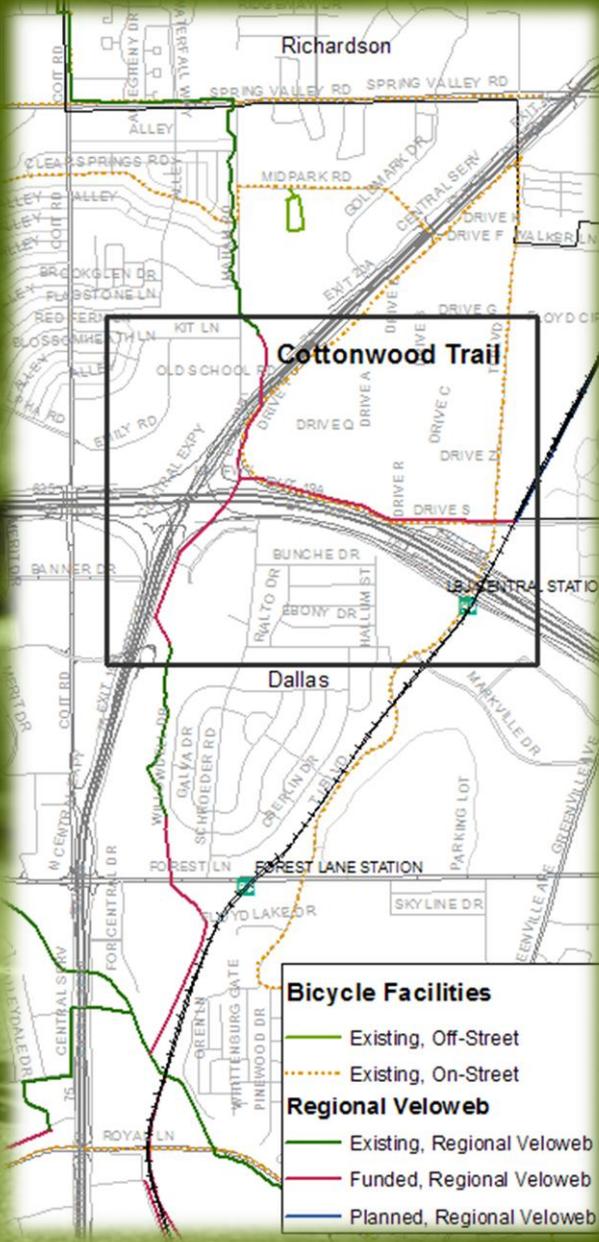
1. The Regional Veloweb has not made much progress since its inception
 - The Veloweb was designed for long range planning, and has made significant strides including the addition of over 180 miles of bicycle/pedestrian facilities since 1997.
2. The Regional Veloweb is unrealistic in the amount of funds required to complete
 - Needed Veloweb facilities amount to an estimated \$682 million versus the \$54.1 billion for needed roadways based on Mobility 2030 funding levels.
3. The Regional Veloweb is too large
 - The Regional Veloweb consists of 644 planned miles of bicycle and pedestrian facilities versus the 17,532 miles of existing roadway within the MPA.



Successful Project Examples



The Regional Veloweb Cottonwood Trail



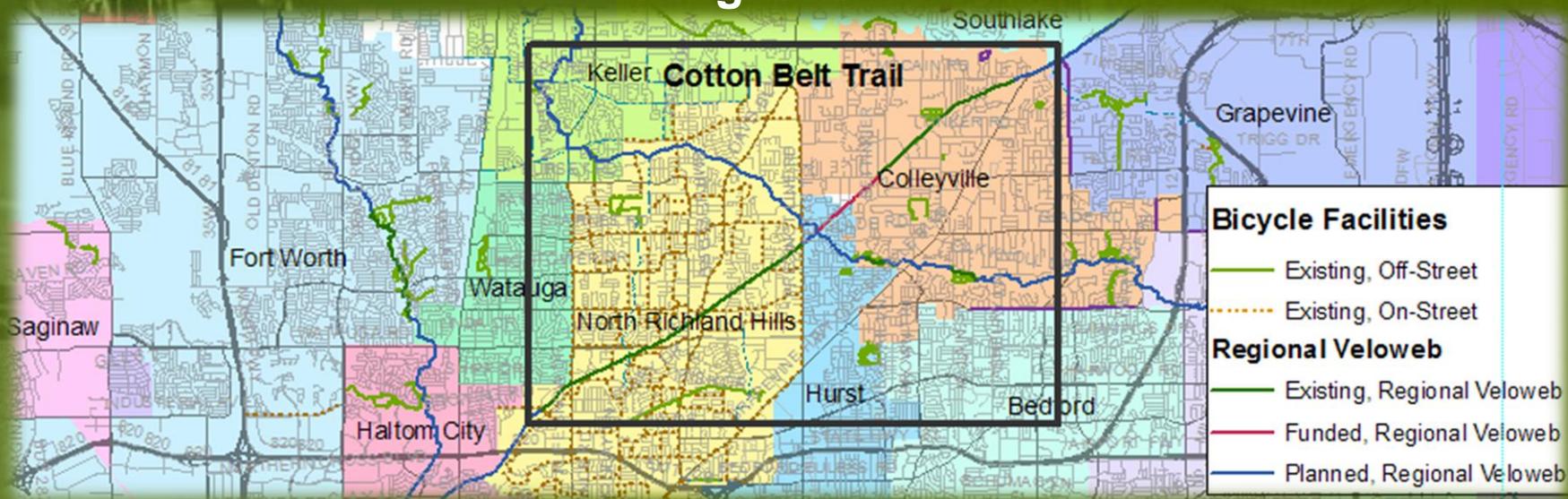
- Serves as a major bicycle and pedestrian connection through the High 5 Interchange at I.H. 635 and U.S. 75.
- Has direct connections to the Texas Instruments Dallas plant (employment of over 10,000) and two DART Light Rail Stations (LBJ/Central Station and Forest Lane Station).
- Funded through the NCTCOG 2005-06 Local Air Quality (LAQ) Call for Projects.



The Regional Veloweb Cotton Belt Trail

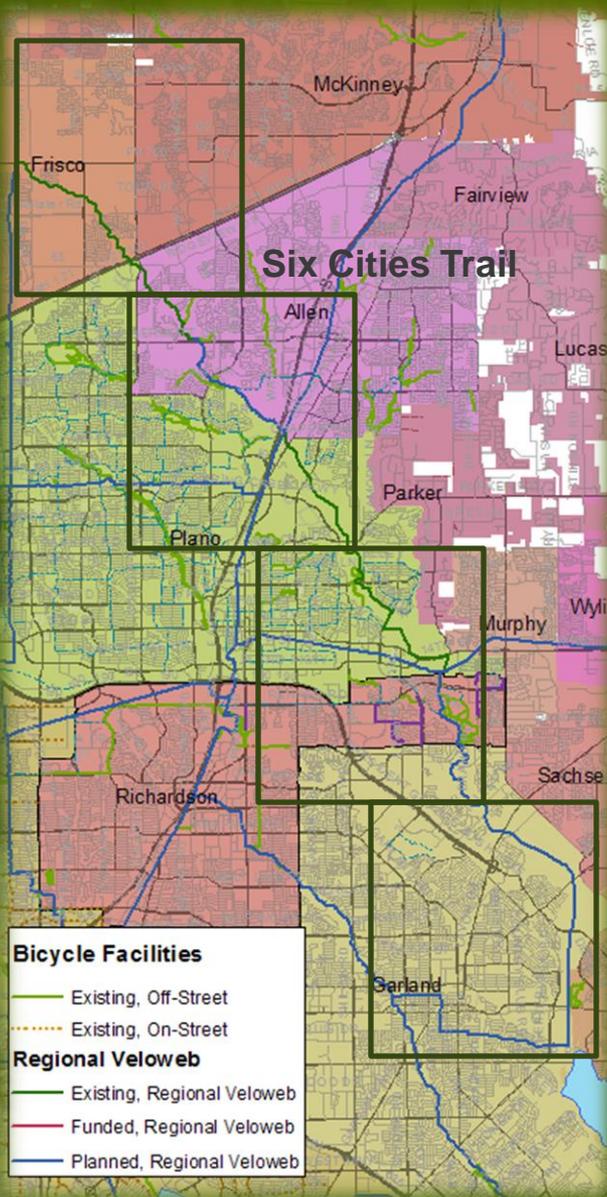


- Major East-West Segment connecting the Cities of North Richland Hills, Hurst, Colleyville, Grapevine, and will ultimately have a seamless connection from Fort Worth to Dallas.
- Utilizes the Cotton Belt rail line alignment with easements from DART.
- Funded through the CMAQ Improvement Program.



The Regional Veloweb

Six Cities Trail



- Connects Lake Ray Hubbard to the Cities of Garland, Richardson, Plano, Frisco, McKinney, and Allen with connections into Dallas.
- Utilizes the Rowlett Creek Corridor.
- Cities worked collectively to approve design plans and have prioritized local funds for implementation of the Trail.





Questions/Comments





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**NCTCOG Regional Veloweb
Website:**

<http://nctcog.org/trans/sustdev/bikeped/veloweb.asp>

