



September 15, 2009

The Honorable Ray LaHood  
Secretary of Transportation  
U.S. Department of Transportation  
1200 New Jersey Avenue, SE  
Washington, DC 20590

Dear Secretary LaHood:

Please accept the enclosed joint application from the City of Dallas, the City of Fort Worth, and the North Central Texas Council of Governments for the TIGER grant program. This program represents an important opportunity to both advance innovative transportation investments and participate in the recovery of our nation's economy. The Regional Transportation Council (RTC) serves as the policy board for the Metropolitan Planning Organization for the Dallas-Fort Worth area, with the North Central Texas Council of Governments (NCTCOG) serving as staff to the RTC. On August 13, 2009, the RTC approved this project to be submitted for a TIGER grant. Both Dallas and Fort Worth have coordinated with NCTCOG to prepare and submit this application

Thank you for the opportunity to submit this project for consideration under the TIGER grant program. If you have any questions regarding this project, please contact Michael Morris, P.E., Director of Transportation for the North Central Texas Council of Governments, at (817) 695-9241.

Sincerely,

Tom Leppert  
Mayor, City of Dallas

Mike Moncrief  
Mayor, City of Fort Worth

B. Glen Whitley  
Chair, RTC  
Judge, Tarrant County

AW:cc  
Enclosure

**TIGER DISCRETIONARY PROGRAM  
Project Application**

**Name of Project:** Regional Connections Between Downtown Dallas and Downtown Fort Worth; Linking Livability

**Agency Submitting Project:** North Central Texas Council of Governments, City of Dallas, and City of Fort Worth

**Other Project Parties:** Dallas Area Rapid Transit, Fort Worth Transportation Authority

**Primary Contact:**

**Name:** Michael Morris

**Phone Number:** 817/695-9241

**Email Address:** mmorris@nctcog.org

**Type of Project:** Transit/Other

**Project Location:**

**City:** Dallas and Fort Worth

**County:** Dallas County and Tarrant Counties

**State:** Texas

**Congressional Districts:** Kay Granger (District 12),  
Michael Burgess (District 26),  
Joe Barton (District 6),  
Kenny Marchant (District 24),  
Pete Sessions (District 32),  
Eddie Bernice Johnson (District 30)

**Rural or Urban Area?** Urban Area

**TIGER Funds Requested:** \$96,000,000

**DUNS Number:** 10-246-2256

## **General Project Information**

**Submitting Agency/Grant Recipient:** North Central Texas Council of Governments

**Implementing Agency:** City of Dallas and City of Fort Worth

**Project Name:** Regional Connections Between Downtown Dallas and Downtown Fort Worth; Linking Livability

**Project Limits:** Dallas Streetcar: From Harwood and Main Street to Trinity Railway Express (TRE) at Union Station to the Methodist Medical Center in Oak Cliff  
Fort Worth Streetcar: From the TRE at the Intermodal Transportation Center (ITC) Station to the Downtown Starter Line  
Fort Worth Bridges: West 7<sup>th</sup> Street, North Main Street, and Henderson Street at the Trinity River

## **Project Description:**

In order to implement the Livability Principles of the US DOT, HUD and EPA, the Dallas-Fort Worth Metropolitan Planning Organization (MPO), the City of Dallas, and the City of Fort Worth propose integrating housing, employment and rail transit through the linkage of the respective downtowns and their surrounding urban neighborhoods. Anchoring the initial phase of this regional strategy, the Trinity Railway Express (TRE) connects the Intermodal Transportation Center (ITC) in Downtown Fort Worth with Union Station in Downtown Dallas. This TIGER grant is sought to fund the final design and initial construction segments of streetcar systems in each respective city to link walkable, mixed use neighborhoods in the respective urban cores with employment centers throughout the region.

In Fort Worth, the initial segment will be bridge crossings needed for the Fort Worth Streetcar and Trinity River Vision, and early implementation of the Downtown Circulator Streetcar Line. In Dallas, the initial segment will be the starter line for both Downtown and North Oak Cliff, connecting the two areas across the Trinity River into Union Station (Downtown), along with needed start up facilities (maintenance facility, etc.).

### **Fort Worth Segment:**

In Fort Worth, the alignment includes a north-south loop that connects the TRE station at the ITC with the central business district employment center. This project will create infill opportunities from underutilized blocks and civic destinations on the north and south sides of Downtown. This Downtown circulator will be the hub of the ultimate streetcar network connecting six designated urban villages, four of which are in economically disadvantaged areas. The network also includes the Near Southside Medical District, the Cultural District, Trinity Uptown, and the Historic Stockyards.

Critical to these connections are three bridges crossing the Trinity River and the new Trinity Uptown bypass channel. The first bridge is on West 7<sup>th</sup> Street, also known as the Van Zandt Viaduct, which connects Downtown to the West 7<sup>th</sup> Urban Village and the Cultural District. The remaining two bridges will be on North Main Street and Henderson Street connecting Downtown to Trinity Uptown, the Historic Marine Urban Village, and the Historic Stockyards. The latter two bridges will cross the new Trinity River bypass

channel, a massive flood control project, enabling 10,000 mixed-income housing units just north of Downtown.

Streetcar for Downtown Fort Worth Circulator Service

- 2.5 track miles (double-tracked), 10-15 minute headways, stops every 2-4 blocks
- 3 - 4 vehicles: modern, low-floor, 130-person capacity

Supporting Trinity River Bridges

- West 7<sup>th</sup> Street/Van Zandt Viaduct
- North Main Street/Bus 287 Bridge over the Trinity River
- Henderson/SH 199 Street Bridge over the Trinity River

**Dallas Segment:**

In Dallas, the proposed streetcar line originates in Downtown Dallas at Harwood and Main Street, continuing down Main Street to Houston Street through the largest job center in the North Texas area. The alignment has a stop at Union Station in Downtown Dallas, which provides access to DART’s Red/Blue Light rail lines and Fort Worth via the TRE. The line then turns south, following Houston Street over the Trinity River into Oak Cliff, where it follows Greenbriar Lane to Beckley Road, and to Zang Boulevard before turning back to downtown. The alignment would include stops at the Dallas Convention Center and Hotel, Trinity River Park (which will be the largest urban park in the United States), Methodist Medical Center (the largest employer in Dallas’ Southern Sector), the Oak Cliff Gateway area, and multiple residential areas.

Efforts by the City of Dallas to re-vision the historic Houston Street Viaduct as a multi-modal link began after uncovering the original 1912 bridge plans, which show that the bridge was constructed with the intent to develop the viaduct with two streetcar rail lines. Almost 100 years later, the Oak Cliff line will fulfill that original intent.

Streetcar

- 5.7 track miles (double-tracked), 10-15 minute headways, stops every 2-4 blocks
- 6 vehicles: modern, low-floor, 130-person capacity

**Cost/Benefit Analysis**

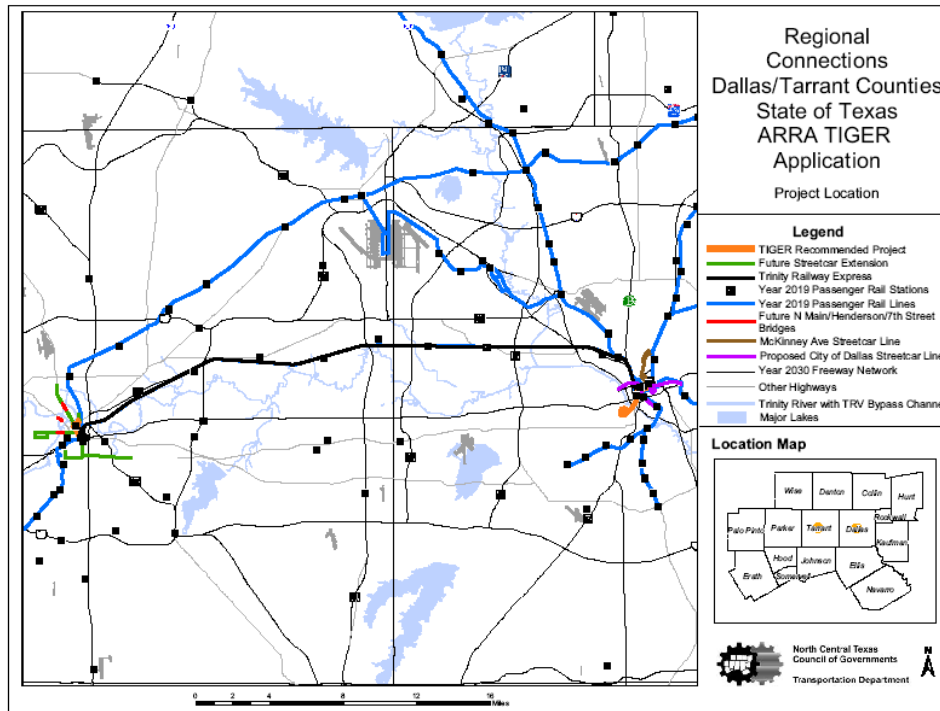
| <b>Benefits</b>                        | <b>Unit</b> | <b>Daily Benefit</b> | <b>Annual Benefit<sup>1</sup></b> | <b>Annualized Cost/Benefit Outcome<sup>2,3</sup></b> |
|--|-------------|----------------------|-----------------------------------|--|
| <b>Vehicle Hours of Travel Saved</b>   | Hours       | 157                  | 40,841                            | \$317.76/Hour  |
| <b>Reduced Vehicle Miles of Travel</b> | Miles       | 6,035                | 1,569,100                         | \$8.27/Mile  |
| <b>CO2 Emissions Reduced</b>           | Tons        | 2.70                 | 702.00                            | \$18,486/Ton   |
| <b>Fuel Saved</b>                      | Gallons     | 188                  | 48,880                            | \$265/Gallon   |
| <b>Jobs Created by Construction</b>    | Jobs        | ---                  | 921                               | \$14,090/Job   |
| <b>Long-Term Jobs Created</b>          | Jobs        | ---                  | 12,000                            | \$1,081/Job  |

1 Total Benefit vs. Annual Benefit provided for jobs benefits due to availability of data  
 2 Based on a discount rate of 3% over 30 years, costs shown in 2009 dollars  
 3 Calculated by dividing the annualized project cost by the annual benefit

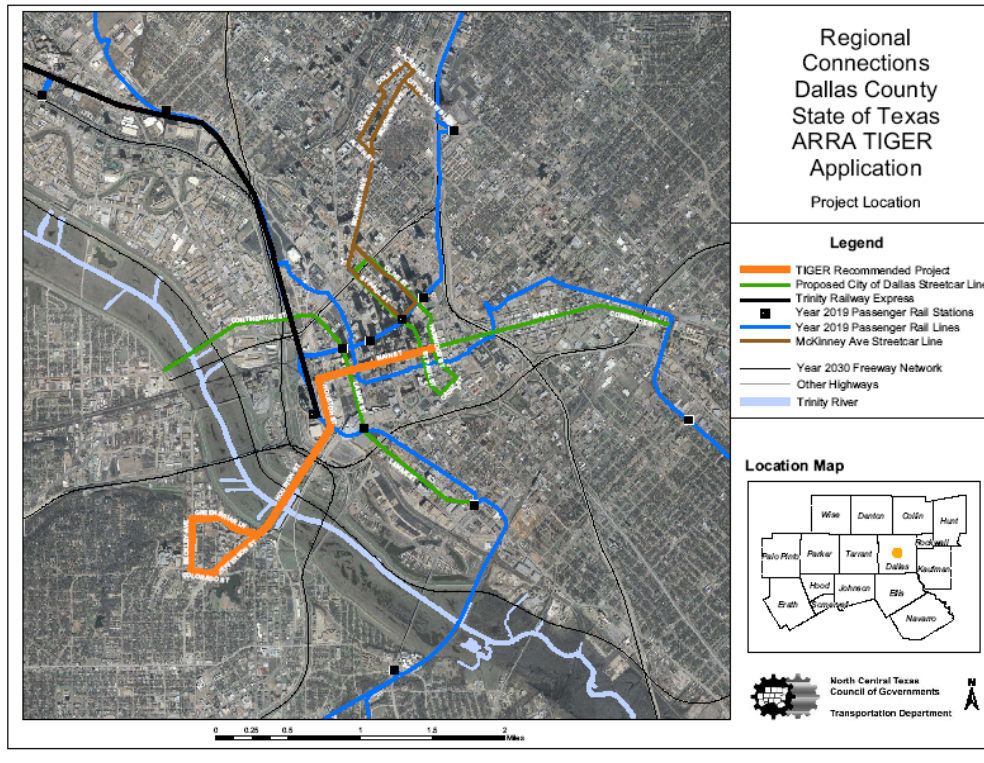
The cost/benefit methodology is online at [http://www.nctcog.org/trans/tip/private/RC\\_CostBenef.pdf](http://www.nctcog.org/trans/tip/private/RC_CostBenef.pdf)

Project Location Maps

**Exhibit 1: Regional Map:**

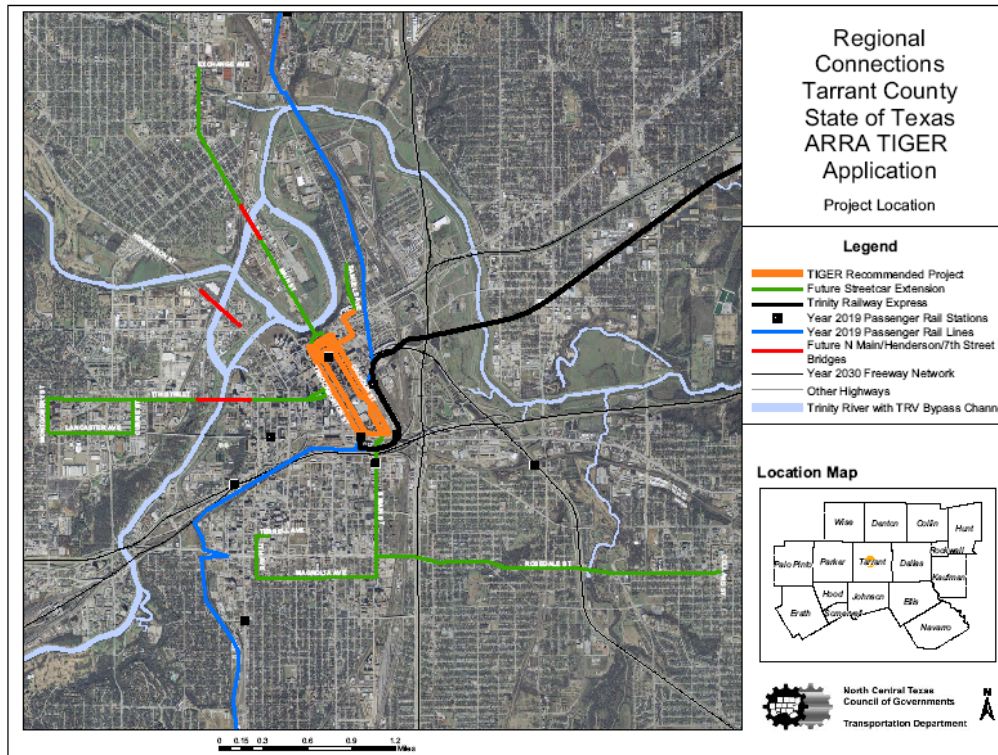


**Exhibit 2: Dallas Segment Map:**





**Exhibit 3: Fort Worth Segment Map:**



**Urban vs. Rural Need:**

As indicated in the project description above, this project fulfills a significant urban need by linking both suburban and urban neighborhoods of both cities to employment, entertainment, and other economic opportunities along the TRE, Dallas light rail system, and the proposed streetcar system in both Dallas and Fort Worth.

**Targeted Transportation Challenges:**

This project will improve transportation to and within the downtown cores of Dallas and Fort Worth by creating a seamless transit connection from the regional scale to the neighborhood scale. The implementation of bridges in Fort Worth, along with the starter streetcar lines in both cities, will provide a multi-modal link between jobs and residents. The project specifically targets commuters in mixed use districts adjacent to both downtown areas. Ridership estimates for the project are estimated at 12,070 riders per day.

Currently, North Oak Cliff is not serviced by the DART Light Rail System. The proposed streetcar would provide this critical linkage from North Oak Cliff into the Dallas CBD. North Oak Cliff is one of the most promising urban infill neighborhoods in Dallas. It is expected that up to 15,000 new units will be developed in this neighborhood in the next 10 - 15 years.

**Exhibit 4: Total Project Costs, Available Funding, and TIGER Request:**

| <b>Downtown Fort Worth Streetcar</b>  |              |                               |      |              |
|---|--------------|-------------------------------|------|--------------|
| <b>Planning and preliminary engineering</b>   | \$1,900,000  | CMAQ Funding (MPO selected)   | 80%  | \$1,520,000  |
|   |              | City, FWTA, TIF               | 20%  | \$380,000    |
| <b>Environmental review</b>   | \$100,000    | CMAQ Funding (MPO selected)   | 80%  | \$80,000     |
|   |              | City, FWTA, TIF               | 20%  | \$20,000     |
| <b>Final engineering, geotech, survey, project mgmt, inspection, public involvement</b> | \$7,400,000  | TIGER Request                 | 60%  | \$4,440,000  |
|   |              | City, FWTA, TIF               | 40%  | \$2,960,000  |
| <b>Utility relocation</b>   | \$700,000    | TIGER Request                 | 60%  | \$420,000    |
|   |              | City, FWTA, TIF               | 40%  | \$280,000    |
| <b>Construction/vehicles</b>  | \$43,700,000 | TIGER Request                 | 60%  | \$26,220,000 |
|   |              | City, FWTA, TIF               | 40%  | \$17,480,000 |
| <b>SUBTOTAL</b>   | \$53,800,000 | CMAQ Funding (MPO selected)   | 3%   | \$1,600,000  |
|   |              | City, FWTA, TIF               | 1%   | \$21,120,000 |
|   |              | TIGER Request                 | 58%  | \$31,080,000 |
| <b>Fort Worth Bridges</b>   |              |                               |      |              |
| <b>Preliminary engineering</b>  | \$5,572,000  | Fort Worth                    | 100% | \$5,572,000  |
| <b>Right-of-way</b>   | \$19,683,400 | Trinity River Vision Partners | 42%  | \$8,267,000  |
|   |              | Fort Worth                    | 31%  | \$6,115,400  |
|   |              | Federal Earmark               | 22%  | \$4,240,800  |
|   |              | State Match                   | 5%   | \$1,060,200  |
| <b>Construction</b>   | \$38,352,500 | Federal Earmark               | 27%  | \$10,501,752 |
|   |              | State Match                   | 7%   | \$2,625,438  |
|   |              | Fort Worth                    | 22%  | \$8,305,310  |
|   |              | TIGER Request                 | 44%  | \$16,920,000 |
| <b>SUBTOTAL</b>   | 63,607,900   | Fort Worth                    | 18%  | \$19,992,710 |
|   |              | Trinity River Vision Partners | 13%  | \$8,267,000  |
|   |              | Federal Earmark               | 23%  | \$14,742,552 |
|   |              | State Match                   | 6%   | \$3,685,638  |
|   |              | TIGER Request                 | 40%  | \$16,920,000 |
| <b>Downtown Dallas Streetcar</b>  |              |                               |      |              |
| <b>Planning and preliminary engineering</b>   | \$3,840,000  | MPO Funding                   | 100% | \$3,840,000  |
| <b>Environmental review</b>   | \$600,000    | MPO Funding                   | 100% | \$600,000    |
| <b>Final engineering, geotech, survey, project mgmt, inspection, public involvement</b> | \$8,200,000  | TIGER Request                 | 32%  | \$2,640,000  |
|   |              | MPO Funding                   | 68%  | \$5,560,000  |
| <b>Utility relocation</b>   | \$1,080,000  | TIGER Request                 | 100% | \$1,080,000  |
| <b>Construction/vehicles</b>  | \$44,280,000 | TIGER Request                 | 100% | \$44,280,000 |
| <b>SUBTOTAL</b>   | \$58,000,000 | MPO Funding                   | 17%  | \$10,000,000 |
|   |              | TIGER Request                 | 83%  | \$48,000,000 |

**Funding Summary:**

|                                      |                     |            |
|--------------------------------------|---------------------|------------|
| City/Local Partners/TIF Districts    | \$49,379,710        | 28%        |
| CMAQ (federal funds selected by MPO) | \$ 1,600,000        | 1%         |
| State Funding (TxDOT)                | \$ 3,685,638        | 2%         |
| Federal Earmark                      | \$14,742,552        | 8%         |
| MPO/Regional Funding                 | \$10,000,000        | 6%         |
| TIGER Funding Request                | <u>\$96,000,000</u> | <u>55%</u> |
|                                      | \$175,407,900       | 100%       |

**Project Schedule:**

**Exhibit 5: Schedule by Phase**

| <b>Phase</b>                                   | <b>Estimated Start Date</b> | <b>Estimated Completion Date</b> |
|--|-----------------------------|----------------------------------|
| <b>Henderson &amp; Main Street Bridges</b>     |                             |                                  |
| <b>Final Design</b>                            | <b>October 2009</b>         | <b>July 2010</b>                 |
| <b>Environmental Review</b>                    | ---                         | <b>Already Complete</b>          |
| <b>Construction</b>                            | <b>January 2011</b>         | <b>February 2013</b>             |
| <b>Dallas and Fort Worth Streetcar Systems</b> |                             |                                  |
| <b>Environmental Review</b>                    | <b>October 2009</b>         | <b>July 2010</b>                 |
| <b>Preliminary Design</b>                      | <b>October 2009</b>         | <b>July 2010</b>                 |
| <b>Vehicle Procurement</b>                     | <b>February 2010</b>        | <b>February 2013</b>             |
| <b>Final Design</b>                            | <b>August 2010</b>          | <b>June 2011</b>                 |
| <b>Construction</b>                            | <b>June 2011</b>            | <b>February 2013</b>             |

**Legislative Approvals Needed:** Legislative approvals are not required for this project.

[Attachment 1](#) includes letters of support from Representative Kay Granger, the Texas Department of Transportation, the City of Fort Worth, the City of Dallas, the Fort Worth Transportation Authority (FWTA), Dallas Area Rapid Transit, Downtown Fort Worth Inc., the Fort Worth Housing Authority, Fort Worth South Inc., Hamilton Properties, Oak Cliff Chamber of Commerce, Oak Cliff Transit Authority, South East Fort Worth Inc., Trinity River Vision Authority, Workforce Solutions of Tarrant County, and Downtown Dallas Inc.



## **State and Local Planning:**

### **Local Planning:**

For the past year, the City of Dallas and DART have been engaged in local planning efforts for the Downtown Dallas and surrounding neighborhood streetcar line. In Fort Worth, the City and the FWTa have coordinated with regional partners on a study of potential streetcar alignments beginning in July 2008. Final alignments were selected in December 2008. In addition, early local and regional planning for a streetcar service occurred in 1998 and 2002. This project is a result of these planning efforts. The bridges in Fort Worth are an integral part of the Trinity River Vision planning effort at the local level.

### **TIP/STIP Status:**

Henderson Street Bridge listed in FY 2011  
Main Street (Bus 287) Bridge listed in FY 2011  
Fort Worth Modern Streetcar project listed in FY 2010  
Dallas Streetcar project listed in FY 2011

### **Metropolitan Transportation Plan:**

The proposed streetcar projects in the Cities of Fort Worth and Dallas are consistent with the recommendations found in Mobility 2030: The Metropolitan Transportation Plan for the Dallas-Fort Worth Area, 2009 Amendment. These projects would link to existing rail transit services including the Trinity Railway Express and the Dallas Area Rapid Transit Light Rail System.

Dallas and Tarrant counties are classified as nonattainment for the pollutant ozone, therefore transportation conformity applies. The U.S. DOT has determined that this project is included in a conforming Metropolitan Transportation Plan and Statewide Transportation Improvement Program.

### **Statewide Transportation Plan:**

This project supports the major goals of the Texas Metropolitan Mobility Plan (TMMP), including congestion relief, improved safety, air quality, and quality of life, enhanced economic opportunities, and streamlined project delivery.

## **Technical Feasibility:**

The Dallas will own this project and will contract with DART to build, operate, and maintain the project. It was concluded that the Dallas Streetcar system would be feasible as an at-grade system. Construction will use the "shallow slab design" pioneered by Portland to reduce costs and construction time. Utilizing shallow slab construction is far more cost efficient than alternative means, and causes less disruption to businesses, traffic operations, and utilities.

The selected route will not present significant challenges to existing traffic operations, as sufficient roadway capacity exists to accommodate a streetcar line along the corridor. There is nothing inherent in the street geometry that would be a detriment to streetcar operations. Preliminary evaluation does not anticipate any major utility relocation.

The City and the Fort Worth Transportation Authority will coordinate on the construction of this facility and will also use the innovative construction techniques used by Portland, Seattle, Little Rock, and other recent streetcar projects. Previous planning studies for streetcar service in downtown Fort Worth deemed the project feasible.

Portland constructed the line at the rate of one block per week with only the lane under construction taken out of service. In addition, no major environmental issues are anticipated.

TxDOT will be letting the Henderson/Main Street Bridge projects in Fort Worth. These bridges are environmentally cleared and undergoing final design. They will be ready for construction by January 2011.

### **Financial Feasibility:**

As shown in the funding breakdown provided on pages 6 and 7, except for the TIGER funding request, the capital costs are covered by committed funding from existing federal and state sources, city bond funding, water district funding, TIF district funding, and transit authority funding. TIGER funding provides the missing gap for the first major capital investment in these corridors.

The streetcar services will take advantage of key funding mechanisms including the TIFs and Municipal Management Districts (MMD) within each city. The estimated operating and maintenance cost of \$2,000,000 per year in each city. In Fort Worth, the transit agency committed to funding up to \$2,000,000 per year for operating/maintenance (O&M) costs. In Dallas, DART's policy allows them, subject to board approval, to fund up to 50% of O&M costs. After a peer review of other streetcar operations, the cities do not think that the O&M costs for a local streetcar would surpass the \$2,000,000 cost. Any costs over the \$2,000,000 range would be borne by a combination of MMD, TIF districts, and city bond funds.

Certification of compliance with Subchapter IV of Chapter 31 of Title 40 (federal wage rate requirements) is provided at <http://www.nctcog.org/trans/tip/private/RCFedWage.pdf>.

### **Environmental Outcomes**

Anticipated environmental outcomes include reduced vehicle miles of travel, creation of workforce housing in both cities (and in economically disadvantaged areas), enhanced real estate values, enhanced recreational and tourist opportunities, and cleaner air from less vehicle miles of travel.

#### **Bridges:**

**NEPA Approval Date:** EEIS – January 2006

**Web link to final CE, ROD, or FONSI:** The web link to this document is listed below:  
<http://www.swf.usace.army.mil/pubdata/notices/CentralCity/index.asp>.

#### **Streetcars:**

**Status of NEPA Process:** In process

**Anticipated Completion Date:** July 2010

The Dallas and Fort Worth streetcar project engineering and environmental review have been funded by the Dallas-Fort Worth MPO. This EA is tentatively scheduled to be completed by July 2010. The EA would address any impacts to historic properties and noise vibration issues, and a favorable outcome is anticipated. The applicants anticipate an expedited environmental process given the proposed streetcar routes and existing conditions with no major environmental challenges anticipated. A Finding Of No Significant Impact (FONSI) is the anticipated outcome of the environmental review process.

**Description of Needed Federal Actions:**

An environmental finding will be needed on the streetcar pieces (bridges are already cleared). Additional action may be needed by the Corp of Engineers (bridge crossings) and the Texas Historical Society (as the Houston Street Viaduct is a historical bridge).

**Primary Criteria:**

**1. Long Term Outcomes**

**a. State of Good Repair:**

The streetcar will provide an alternative transportation option for residents, employees, and visitors of downtown Dallas and Fort Worth. The utilization of the streetcar by these patrons will reduce the vehicle miles traveled by automobiles in these areas. The reduced VMT (estimated at 6,035/day), combined with the expectation of a reduced level of bus service on the streetcar alignment prolong the lifecycle of the roadways in these areas. Quantifiable data is not available, but an E.D. Hovee study conducted for the City of Portland indicates that a high density streetcar neighborhood can reduce VMT by 55% (21.8 miles to 9.8 miles) when compared to a typical suburban neighborhood. The E.D. Hovee study is available at [http://nctcog.org/trans/tip/private/RC\\_HoveeStdy.pdf](http://nctcog.org/trans/tip/private/RC_HoveeStdy.pdf).

**b. Economic Competitiveness:**

The Dallas-Fort Worth region is the 12<sup>th</sup> largest metropolitan economy in the world and the 4<sup>th</sup> largest metropolitan area in the United States. Between 1990 and 2000, this region ranked 3<sup>rd</sup> in population growth, adding over 1 million people in that time. Estimates show that the Dallas-Fort Worth region is still growing by at least 100,000 people per year. Given these statistics, it is clear that the Dallas-Fort Worth region has a significant impact on both the United States and world economy.

This high growth rate has a distinct impact on traffic congestion and air quality within the region. Through the Regional Transportation Council (RTC), local elected officials have created and implemented a multimodal transportation plan based on principles of reducing congestion, improving air quality, and encouraging more sustainable development patterns. Implementing roadway projects is only one portion of a multimodal plan. Transit projects, such as the existing passenger and light rail systems, combined with the creation and

extension of streetcar systems are imperative to providing alternative transportation options and more sustainable lifestyles.

Significant changes in travel mode choices and implementation of projects such as the streetcar system are necessary to sustain a competitive economy in the 4<sup>th</sup> largest (and growing) metropolitan area in the United States.

The Regional Connections project is centrally located in Dallas and Fort Worth downtowns and connects to major employment centers and residential locations. Both Dallas and Fort Worth are spearheading major redevelopment efforts centered around the Trinity River which runs near/through both downtown areas. The City of Dallas is rezoning the Davis Street Corridor in preparation for multi-modal transit, mixed-use development. Moreover, efforts to revitalize the Historic Main Street and Jefferson Boulevard are underway to connect the retail/entertainment Bishop Arts District. Similarly, the City of Fort Worth has already rezoned areas in the Trinity River Vision area and other downtown-adjacent neighborhoods for the high density, mixed-use development associated with streetcar corridors. As part of this effort, new development codes that promote mixed use, transit oriented development have been established and will continue to be expanded.

#### Dallas Segment:

The emerging, multi-phased, Dallas Streetcar system will provide a network of intersecting streetcar lines that serve the Central Business District (CBD) and surrounding mixed-use neighborhoods. The lines will provide the bulk of the downtown core transit service, including service to the Farmers Market area, historic Deep Ellum cultural and residential district, high-density residential Arts District, the West End Historic District, Fair Park, West Dallas, North Oak Cliff, The Cedars, Uptown, Victory, and the Dallas Design District.

The existing McKinney Avenue Trolley Authority (MATA) line, operating in the Uptown area of Dallas, is currently served by a fleet of vintage and historic streetcars. The expansion of the system will utilize modern technology to provide the best and most efficient transportation options to Dallas commuters. This network has the potential to serve over 20,000 new workforce housing units in and around the CBD.

The Dallas Segment of the TIGER application represents Phase 1 of the Dallas Streetcar System called the Oak Cliff/ Main Street alignment, which includes Downtown Dallas' Union Station (with access to DART's Red/Blue Light Rail lines, and the Trinity Rail Express commuter rail to Irving, Arlington, Hurst, and Fort Worth), the Downtown Main Street retail and entertainment corridor, Dallas Convention Center and Hotel, Trinity River Park (the largest urban park space in the United States), Methodist Medical Center (the largest employer in Dallas' Southern Sector), and multiple residential areas with the potential of 7,000 to 10,000 new workforce housing units.

The City of Dallas has devoted considerable resources toward the redevelopment of the CBD. Over the last five years, 4,000 housing units have been added and 8,000 additional units are anticipated to be constructed within

the next ten years. The streetcar system will give many commuters an alternative option to personal vehicles for making local downtown trips and provide greater access to the DART light rail. This along with enhanced pedestrian and bicycle facilities will make a considerable impact on making the central city a more pedestrian-friendly community.

The City of Dallas has invested incredible resources toward the development of the community impacted by Phase I. The area is defined as the Oak Cliff Gateway Tax Increment Financing (hereinafter “the District”). The mission of the District is the promotion of the redevelopment, growth, and stabilization of the area. The accompanying goals are: 1) growth of the value of the area’s tax base through the promotion of residential and retail development and a positive reversal of urban decay through the placement of critical infrastructure improvement, 2) implementation of the pertinent recommendations of the Urban Land Institute (ULI) Study on the tracts of land composing the north and northwestern portions of the District, and 3) establishment of direct linkages with the Trinity River Corridor and the capitalization of that effort toward growth and increased tax base value on the District.

Housing unit numbers were derived from a variety of sources. The primary source for current housing numbers for Downtown Dallas is the *InTown Housing Report*, created by Downtown Dallas, Inc. Supplemental measures, as well as projections, were then pulled from the annual reports and plans for the two downtown TIF districts – Downtown Connection and City Center. Housing units for the Oak Cliff portion of the route were derived using a baseline current year estimate from *SRC DemographicsNow* for three block groups adjacent to the line (20.001, 20.002 and 20.003) for 2008, with projections estimated using the Oak Cliff Gateway TIF plan. Projections are for the year 2020. These documents are available for review at [http://nctcog.org/trans/tip/private/RC\\_TIFallARs.pdf](http://nctcog.org/trans/tip/private/RC_TIFallARs.pdf).

Currently, there are approximately 6,170 housing units along the proposed streetcar corridor. This number is projected to nearly double by 2020 to 12,443 units, with growth primarily continuing downtown due to the rapid conversion of obsolete office space to residential use in the Main Street core and the construction of new units in the Arts District in Downtown, the West End, and the Farmers Market area, Deep Ellum, the Cedars, the Bishop Arts District, and the River District of North Oak Cliff. The streetcar project is an integral part of this economic expansion initiative in a historically low income, minority community.

#### Fort Worth Segment:

In Fort Worth, the alignment includes a north-south loop that connects the TRE station at the ITC with the central business district employment center. This project will create infill opportunities from underutilized blocks and civic destinations on the north and south sides of Downtown. This Downtown circulator will be the hub of the ultimate streetcar network connecting six designated urban villages, four of which are in economically disadvantaged areas. The network also includes the Near Southside Medical District, the Cultural District, Trinity Uptown, and the Historic Stockyards.

Critical to these connections are three bridges crossing the Trinity River and the new Trinity Uptown bypass channel. The first bridge is on West 7<sup>th</sup> Street, also known as the Van Zandt Viaduct, which connects Downtown to the West 7<sup>th</sup> Urban Village and the Cultural District. The second two bridges will be on North Main Street and Henderson Street connecting Downtown to Trinity Uptown, the Historic Marine Urban Village, and the Historic Stockyards. The latter two bridges will cross the new Trinity River bypass channel, a massive flood control project, enabling 10,000 mixed-income housing units just north of Downtown. In addition to serving existing employment centers and destinations, there are over 100 acres of underutilized parcels within 1,000 feet of the Downtown streetcar alignment. Appropriate high density mixed-use zoning and tax increment finance districts are in place to support the expected economic development that will be spurred by the streetcar investment.

Special Generators of Economic Activity:

The strategic location of the project is in the proximity of airports such as Dallas-Fort Worth International Airport, Dallas Love Field Airport, the Dallas Central Business District Vertiport, Naval Air Station Fort Worth Joint Reserve Base, Fort Worth Meacham International Airport, and a number of transit stations and rail lines operated by Dallas Area Rapid Transit (DART), the Fort Worth Transportation Authority, and Trinity Railway Express (TRE). The Fort Worth project is also located near a major freight and goods movement hub, Tower 55.

Demographics of Project Area:

The project area is defined as a two- and/or five-mile radius around each of the streetcar/bridge alignments. NCTCOG’s 2030 forecast estimates an increase in population of 15%, an increase in households by 19%, and an increase in jobs of 16%. Exhibit 6 shows the forecasted figures that support these percentages.

**Exhibit 6: Demographics Within 5-Mile Radius of Project Area**

|                   | <b>2010</b> | <b>2015</b> | <b>2030</b> |
|-------------------|-------------|-------------|-------------|
| <b>Population</b> | 631,385     | 652,380     | 724,770     |
| <b>Households</b> | 232,024     | 242,211     | 276,394     |
| <b>Jobs</b>       | 796,517     | 820,150     | 924,843     |

The population, employment, and household estimates for the two- and five-mile radius are provided as a reference at <http://nctcog.org/trans/tip/private/RCDemog.pdf>.

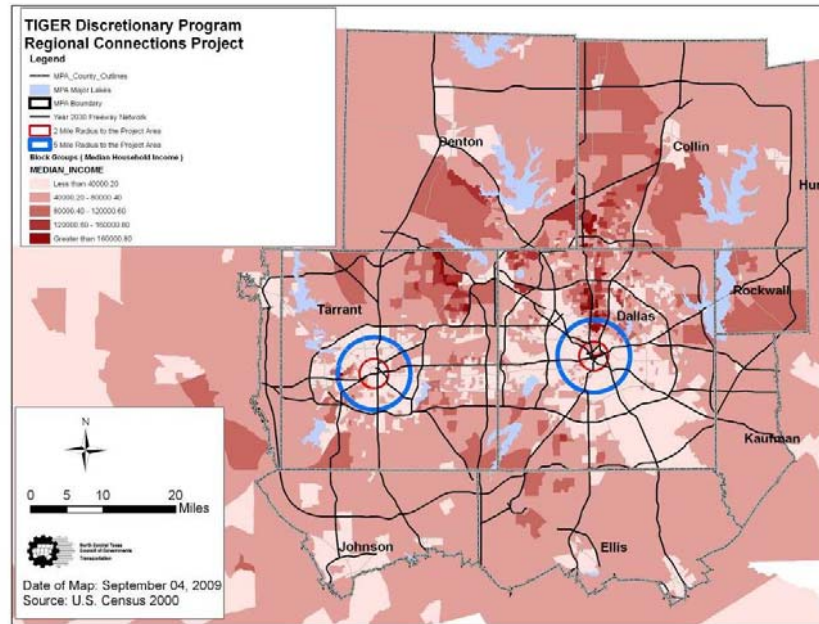
Economically Disadvantaged Area:

The areas within a two-mile radius of the Regional Connections project in both Dallas and Fort Worth are economically distressed areas as by the definition provided under 42 U.S.C. 3161. According to the 2000 Census, the median income in the two-mile radius of the project area was \$32,643, compared to the national average of \$41,994. The poverty rate within five-mile radius of the



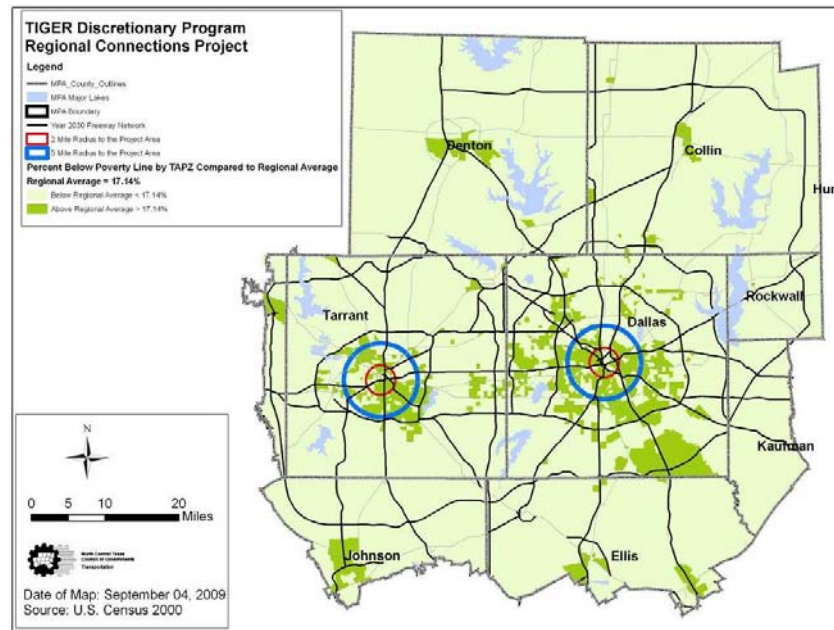
project area was 18.8% compared to the regional average at 17.1%. Exhibit 7 shows the median income geographically within both two-mile and five-mile radii of the project area. As can be seen in the map, the lighter shaded areas, representing median incomes below the national average, are centered around the project area.

**Exhibit 7: Median Income Near Project Area**



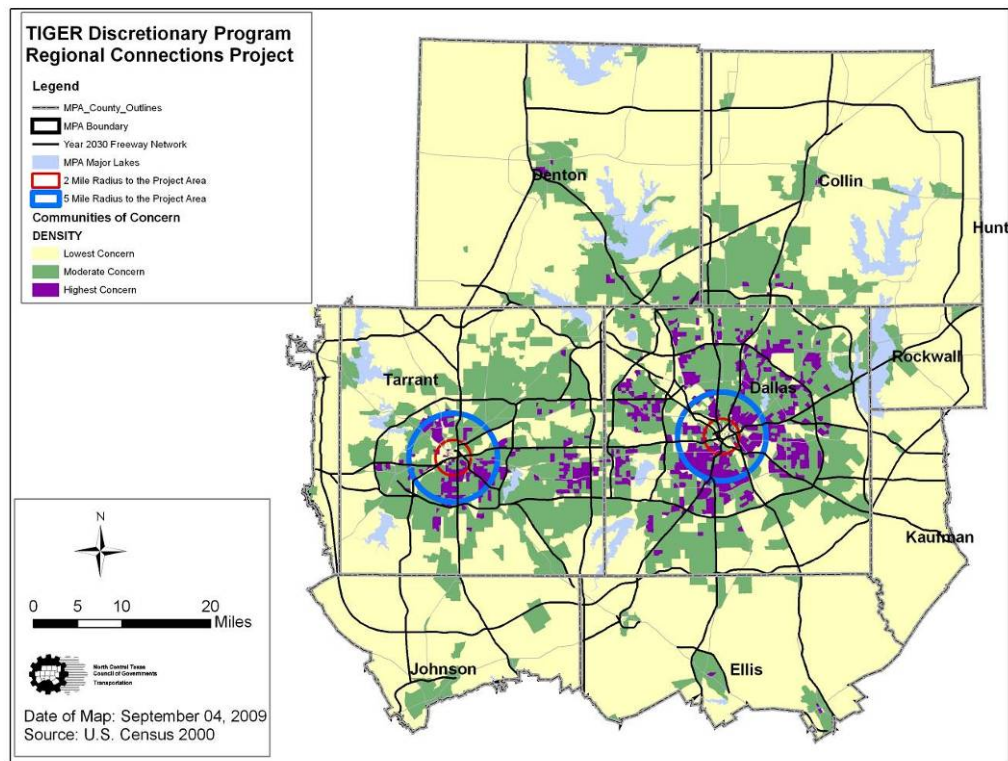
As can be seen in Exhibit 8, the poverty rate near the project area is higher than the national average as well.

**Exhibit 8: Poverty Rate Near Project Area**



The metropolitan transportation plan for the Dallas-Fort Worth area, Mobility 2030 – 2009 Amendment, addresses environmental justice communities through a comprehensive and inclusive approach. This process and analysis are fully explained at <http://www.nctcog.org/trans/mtp/2030/ej.asp>. Exhibit 9 shows that a significant portion of environmental justice communities live within the two-mile and five-mile radii of the project area. As previously indicated, the focus of economic redevelopment efforts in both downtown Dallas and Fort Worth is to encourage improved economic conditions for these populations by bringing more affordable housing and more job opportunities into the communities.

**Exhibit 9: Environmental Justice Communities Near Project Area**



The Regional Connector project will significantly impact the potential for new investment, expansion, and private sector production in Dallas and Fort Worth. According to NCTCOG’s 2030 Forecast, the number of jobs in the five-mile radius of the project area in 2000 was 730,930. The number of jobs was projected to increase to 820,150 in 2015 and to 924,843 by 2030 (an overall increase of 27%) in this project area. In 2030, the project would serve 456,624 persons and 576,314 jobs in Dallas and 268,146 persons and 348,529 jobs in Fort Worth. Given these demographics, it is readily apparent that this project will serve to increase population, employment opportunities, and income potential in the surrounding areas.

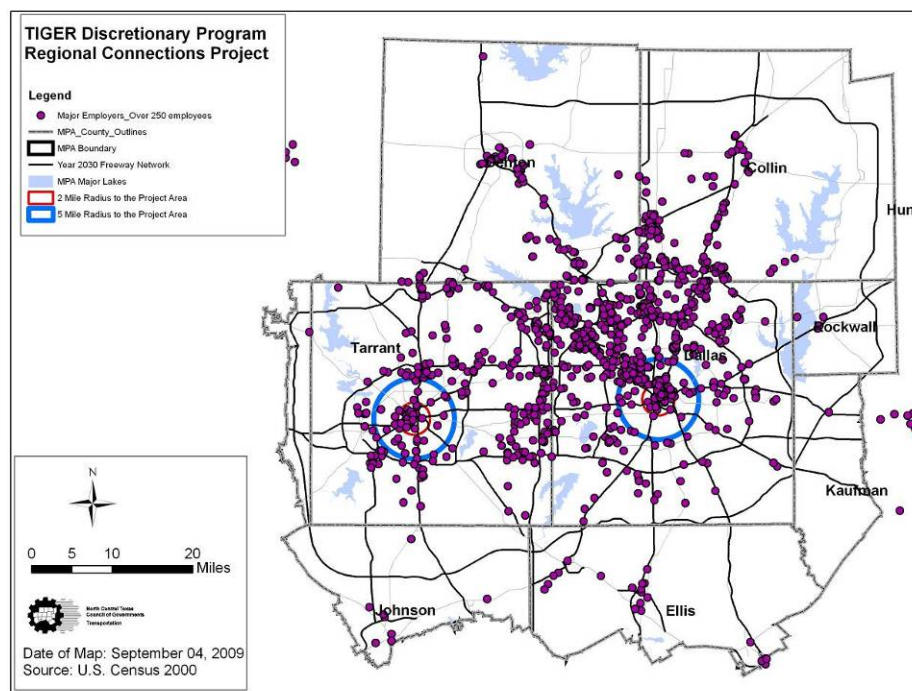
**c. Livability:**

In the regional context, livability will be enhanced because the Regional Connections investment will be a first critical step to link all the major activity centers in the region along major regional transit corridors and through urban villages. In other words, this Regional Connector initiative will link the existing investment in regional rail along with local urbanism into a context, in which people can choose to access the transit system without relying on automobile travel and park-and-ride facilities.

The Regional Connections initiative is not just about creating ad-hoc transit oriented development at one location or simply moving commuters from park-and-ride to park-and-ride; rather, it is about creating an entire transit network that links urban villages so that a person can live in one place and move around the region to another area conveniently by choosing to walk, cycle, and/or ride transit. As this system expands, it will make transit available to hundreds of thousands of “choice riders” so that transit becomes a way of life for anyone that chooses to live a more urban day-to-day lifestyle.

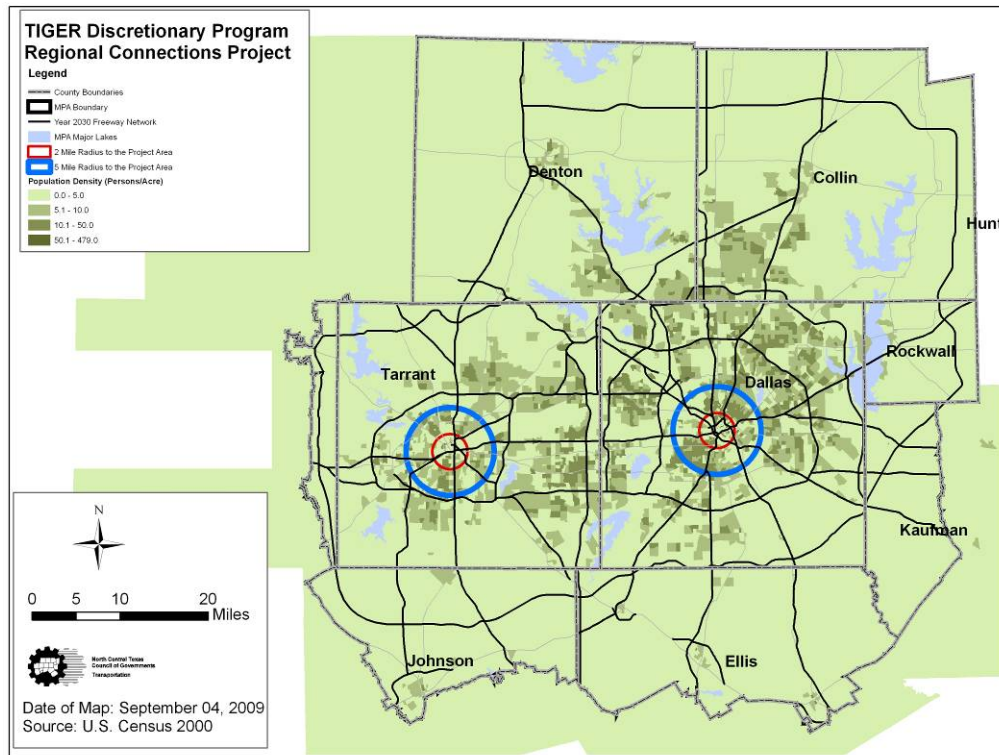
The impacted communities, covered in detail in the previous sections, would benefit by the regional nature of this project. The Regional Connections Project will provide more connectivity to existing passenger rail lines, allowing residents, employees, and employers in the project area to live, work, and play within any part of the project area (and even along transit corridors outside the project area) without having to own or operate a single occupant vehicle. Exhibits 10 and 11 demonstrate the large numbers of major employers (defined as having 250 or more employees) and the large population densities in/near the project area.

**Exhibit 10: Major Employers Near Project Area**





**Exhibit 11: Population Density In and Near Project Area**



In both Dallas and Fort Worth, the streetcar networks will connect urban villages, along with major medical, cultural, and historic districts. Implementation of the streetcar will encourage greater travel and accessibility between these zones. In addition, the growing downtown (and downtown adjacent) residential populations will become less dependent upon automobile travel if streetcars are available as an alternative. The streetcar system will allow people to literally live, work, and play, without driving a car in a metropolitan area that developed around the automobile.

This project, located at transportation hubs in downtown Dallas and Fort Worth, is an integral component of the transportation network in the Mobility Plan – 2009 Amendment. It improves transportation connectivity to existing roadway, transit, and airport facilities.

In 2001, the local elected officials of the RTC adopted a series of plans, programs, policies, and projects designed to encourage mixed use, infill, and transit oriented development. The transit connections provide a centerpiece on which to build a better land use/transportation interface that encourages development that will ultimately reduce vehicle miles of travel. Moreover, providing better land use/transportation connections will reduce the dependence of special populations (i.e., economically disadvantaged, non-drivers, senior citizens, persons with disabilities) on automobile travel. The type of development (dense, close to transit, walkable, ADA accessible) spurred by policies, programs, and projects, such as the streetcar project, will provide alternative travel options and reduce the isolation of these populations.

The public health effects of this project are immense. Walkable communities promote better overall health. Instead of having to drive to the convenience store, dry cleaners, salon, coffee shop, and even work, individuals living or working close to these areas can walk a short distance, jump on the streetcar, or bike to their destination. If their destinations are not adjacent, they can take the streetcar to the passenger rail system that will ultimately take them to a network of light rail lines on the Dallas side. The populations living and working in and beyond the project area will benefit from increased exercise and improved interactions with one another (more personal than vehicular interactions).

**d. Sustainability:**

Metropolitan regions such as North Texas are critical to the wealth of the nation and are necessary for resolution of energy, climate change, and ozone objectives. They must be involved in addressing metropolitan transportation congestion and reliability. NCTCOG and other MPO’s across the country are also the best mechanisms to implement environmental initiatives in transportation because of their experience executing projects in environmentally sensitive ways.

Ridership was used as a performance measure to estimate Vehicle Miles of Travel (VMT) reduced, Carbon Dioxide (CO<sub>2</sub>) emissions, and the global CO<sub>2</sub> benefit. By reducing vehicle miles of travel by 6,035 daily, the potential fuel savings are 188 gallons per day. The reduced VMT is estimated at 57 million miles over the lifetime of the project. In addition, air pollution emissions of Carbon Dioxide (CO<sub>2</sub>) are reduced by 2.7 tons per day and 25,665 tons over the lifetime of the project. CO<sub>2</sub> is the leading greenhouse gas emission. Using the assumptions provided in the TIGER guidance, the global CO<sub>2</sub> benefit is \$81.04/day or \$768,202 over the lifetime of the starter system alone.

**Exhibit 12: Daily Ridership Projection**

| <b>Daily Ridership Projections - 2030</b>  |                                |                                   |  |
|--|--------------------------------|-----------------------------------|--|
| <b>Rider Type</b>                          | <b>Estimated Capture Rates</b> | <b>Estimated Streetcar Counts</b> | <b>Estimated Streetcar Ridership</b>         |
| Resident                                   | 15.5% - 16.1%                  | 18,010                            | 2,821  |
| Employees                                  | 4.0% - 4.4%                    | 193,674                           | 8,032  |
| Tourism                                    | 47.8% - 51.1%                  | 12,554                            | 6,144  |
| Students                                   | 3.8%                           | 18,682                            | 710  |
| <b>Subtotal of Average Daily Ridership</b> |                                |                                   | <b>11,273 (Dallas)* + 6,434 (Fort Worth)</b> |
| <b>Total Average Daily Ridership*</b>      |                                |                                   | <b>12,070 (Region)</b>                       |

\*Dallas ridership discounted 50% due to future competing light rail line on the Dallas side.

**Exhibit 13: Benefits of Project**

| Performance Parameters                    | Benefits/Day    | Total Benefits for Project Life** |
|---|-----------------|-----------------------------------|
| Vehicle Miles of Travel Reduction (Miles) | 6,035 miles/day | 57,208,773 miles                  |
| CO <sub>2</sub> Emission (Tons)           | 2.7 tons/day    | 25,665 tons                       |
| Global CO <sub>2</sub> Benefit (Dollars)  | \$81.04/day     | \$768,202                         |

\*\*Project life for transit projects is assumed to be 30 years.

The methodology used to create these estimates along with detailed ridership estimates and benefits of the entire streetcar system build out in year 2030 are provided at [http://nctcog.org/trans/tip/private/RC\\_RiderEsts.pdf](http://nctcog.org/trans/tip/private/RC_RiderEsts.pdf). On the Fort Worth side alone (only available data for the build out system), the streetcar system at build out will yield a CO<sub>2</sub> benefit of 150,000 tons and a global carbon benefit of \$355 million dollars over the lifetime of the project.

**e. Safety:**

Data gathered in 2003 - 2008 indicates that no hazardous material spills occurred in the project limits. Crash data specific to this project area is also limited. However according to “*Safe Travels, Evaluating Mobility Management Traffic Safety Impacts*” published by the Victoria Transport Policy Institute, mobility management strategies that encourage transit ridership and increase average transit vehicle occupancy impose little incremental external risk and reduce crash rates per passenger-mile. Additionally travel demand management strategies that reduce total personal travel can provide large safety benefits. Each 1% reduction in reduced motor vehicle travel typically reduces total crashes and casualties by 1.4% to 1.8%.

**2. Job Creation and Economic Stimulus:**

The two-mile and five-mile radii of the project area (Dallas and Fort Worth combined) contain 1,160 acres and 12,000 acres of vacant land respectively. Though all of this land is not developable, the availability of large quantities of vacant land and the projections for households and populations shown in the 2030 Demographic Forecast provide an ample of opportunity and demand for new development of residential and employment centers in the area. The availability of transportation options, such as the streetcar, will significantly increase the development potential of the area and attract new businesses to the area.

In order to provide jobs and economic opportunities to the influx of people expected in the region by 2030, the region’s goal is to attract new sustainable development to the region, not shuffle existing economic development within the region. By creating better transportation connections within existing infill areas, more development will be attracted from outside.

As indicated in the Total Project Costs and Available Funding Section, the total amount of funds to be expended on construction and construction-related activities is \$126.33



million. During construction there will be a net benefit to the economy of \$127.1 million and 921 jobs. The formula used to create this figure is defined online at [http://nctcog.org/trans/tip/private/RC\\_EconImpct.pdf](http://nctcog.org/trans/tip/private/RC_EconImpct.pdf).

Even if only 10% of the job growth expected in this area (128,326 jobs added by 2030) is caused from this project, the result would be an additional 12,000 created by this project in the long-term.

During construction, businesses indirectly associated with the construction will benefit due to the increased demand created by construction workers. These businesses spread across a variety of industries and include (but are not limited to): construction, engineering, carpentry, electrical, utility, manufacturing, transportation, administration, logistics, sales, retail, restaurants, tourism, maintenance, education, and government. After construction, jobs will be created as the mixed-use commercial corridors grow and mature.

Based on NCTCOG's major employer data, there are about 200 major employers in the two-mile radius of the project area that employ over 250 employees. About 80 of those employers are in the Fort Worth area and 120 are in the Dallas area. The major employers in two-mile radius employ about 195,600 employees.

According to NCTCOG's 2030 Forecast, the number of jobs in the five-mile radius of the project area in 2010 was 796,517. The number was projected to increase to 820,150 in 2015 and 924,843 by 2030 in the five-mile radius of the project areas in Dallas and Fort Worth, which represents a 16% increase. These employers and businesses will benefit significantly by this project.

The development of a streetcar system will create a domino effect for construction and manufacturing industries. As the demand for the materials needed to build the streetcar system increases, so will the demand for those jobs needed to support the material demand. This effect will continue through (and beyond) all phases of the project. After the project has been completed, development and redevelopment along the streetcar pathways will continue, increasing construction demands into the foreseeable future. Recent studies in Portland have indicated that development within 1 block of a streetcar route is constructed on average at 90% of the allowed density. This high density development requires construction techniques and supplies not typically needed in low density suburban development.

New construction and manufacturing jobs would be created throughout each phase of the infrastructure project, beginning with design and engineering work in 2010 and followed by construction jobs in 2011. After the project has been completed, additional jobs will be created as redevelopment activity along the streetcar routes increase. Pedestrian-friendly, mixed-use development remains a priority of the cities, particularly along the proposed streetcar routes. As office and retail components come online, new jobs associated with these establishments will need to be filled.

With regard to the creation of jobs for low-income workers, due to the nature of this project and the increased pedestrian traffic at street-level retail shops, a variety of seasonal, part-time, and service jobs will be created to accommodate the increased need. Best practice hiring techniques will be used and apprenticeship programs will

increase options for low-income workers.

Through the following efforts, opportunities will be provided to small, disadvantaged, veteran-owned, service-disabled businesses. The City of Fort Worth Housing and Economic Development department provides a number of services including, but not limited to, business plan assistance, financing options, market research, minority- and women-owned business certification, access to a computer lab, procurement assistance, and access to capital. The City of Dallas offers similar services through their Business Development Services office. Local economic development organizations also provide assistance to small, disadvantaged, veteran-owned, or service-disabled businesses.

Fort Worth and Dallas have a number of community-based organizations that help connect disadvantaged workers with new opportunities. For example, Goodwill Industries International, Inc., is one of North America's leading non-profit providers of education, training, and career services for people with disadvantages (i.e., low income and disabilities). Additional organizations include (but are not limited to) Veterans Services, United Way, and Workforce Solutions. Many of these organizations receive regional funding support through the Job Access/Reverse Commute and New Freedom programs (federal funds selected by the MPO).

The City of Dallas, City of Fort Worth, and the North Texas Council of Governments support entities that comply with federal labor laws. Any procurement activities sponsored by these entities require compliance with all federal, state, and local laws. In addition, in order to qualify for incentives, businesses must abide by all federal, state, and local laws.

As indicated above, Fort Worth, Dallas, and NCTCOG comply with Title VII of the Civil Rights Act of 1964 and the Americans with Disabilities Act (ADA). Both of these laws require all private employers, state and local governments, and education institutions that employ 15 or more individuals, private and public employment agencies, labor organizations, and joint labor management committees controlling apprenticeship and training to comply. As a matter of policy and law, these agencies will follow these laws and principles for this (and all) projects.

“Economically distressed” as defined by the Governor of Texas’ Office is, “an area that has a median household income that does not exceed 75% of the median state household income.” The median household income for the state of Texas is \$46,248. The streetcar would improve access to and stimulate economic development in Dallas and Fort Worth neighborhoods that have a large percentage of residents meeting the definition of economically distressed. It is anticipated that the streetcar corridors will become high-density, mixed-income, mixed-use, walkable, urban neighborhoods with economically distressed residents benefiting greatly from the improved transit access and access to other neighborhood amenities.

Many areas within a two-mile radius of the Regional Connections project in Dallas and Fort Worth are economically distressed areas. According to the 2000 Census, the median income in the two-mile radius of the project area was \$32,643, compared to the national average at \$41,994. The poverty rate within five-mile radius of the project area was 18.8% compared to the regional average at 17.1%. Please refer to the Exhibits 7 and 8 for geographic identification of these populations.

**Secondary Criteria:**

**1. Innovation:**

This project is being funded by the City of Dallas, City of Fort Worth, the MPO, and existing state and federal sources, in coordination with local transit authorities, but only in part by those organizations. TIF districts and MMDs are intimately involved in the process, making traditional federal and state entities “minority partners” in the financial arrangement.

With regard to technology, the MPO has funded multiple projects to provide real-time information to passengers and transit operators to ensure smooth transitions between different modes (i.e., bus to rail, light rail to regional rail). The same principles would apply to this project upon implementation.

This project would also be incorporated into other existing regional and innovative programs including the Employer Trip Reduction Program, which is designed to plan and implement trip reduction and transportation demand management strategies such as subsidized transit pass, walking, bicycling, ridesharing, alternative work schedule, telecommuting, parking management, and other transportation incentive programs.

The regional Try Parking It ([www.tryparkingit.com](http://www.tryparkingit.com)) website is a commuter tracking application in which riders of the streetcar system would participate on a voluntary basis. The Regional Connections project is located in eight jurisdictions. Within the jurisdictions there are almost 200 large employers located within the limits of this project area, 26 of which have reported an active Employee Trip Reduction program and 49 are registered on the Try Parking It website.

**2. Partnership:**

**a. Jurisdictional and Stakeholder Collaboration:**

This joint application by the City of Dallas, the City of Fort Worth, and the MPO has broad support from workforce housing advocates (see attached letters from Union Development, a non-profit housing entity, the Fort Worth Housing Authority, and Workforce Solutions of Tarrant County), transit authorities, and economic development organizations such as the Oak Cliff Chamber of Commerce.

From the beginning, the cities, TIF/MMD districts, chambers of commerce, MPO, and transit authorities have been involved in the planning activities for these streetcar systems. In addition, these partners have agreed to varying levels of financial commitment to capital, operating, and maintenance costs.

**Fort Worth Segment:**

Beyond traditional local, state, and federal funding, \$27 million would be provided by the Fort Worth Downtown TIF and Lancaster TIF districts, and \$8 million by the Trinity River Vision Authority. During the 2008 modern streetcar study, it was

estimated that an additional \$9 million would be available from these two TIF's to contribute to the funding of the streetcar.

Dallas Segment:

Outside of traditional local and regional funding, financial support would be provided via the Oak Cliff Gateway TIF, Garden District TIF, as well as the newly developed Garden District MMD.

**b. Disciplinary Integration**

Beyond traditional transportation agencies, other agencies involved in the planning and project development, and supporting this project include:

- Fort Worth Housing Authority
- Trinity River Vision Authority
- Central City Redevelopment Committee
- TIF Districts
- Workforce Solutions of Tarrant County
- Oak Cliff Chamber of Commerce

It is hoped that this project can lead the way in breaking down planning, funding, and implementation barriers between different organizations with different, but coordinating missions. By removing silos between transportation (roadway and transit), environmental, housing, and other such governmental and non-profit organizations, more comprehensive and effective projects can be implemented.

**Program Specific Criteria:**

Transit projects – New Starts/Small Starts funding is not readily available for streetcar projects, so this project has not been evaluated under those programs.

**Performance Monitoring:**

It is expected that a streetcar system and associated development will bring substantial economic benefit to each city. These benefits can be demonstrated by monitoring increases in tax revenue, increases in residential and commercial development densities, and appreciation of land values along the corridors. Both cities track this information already, and these tracking efforts would continue if TIGER funding is received. In addition, the transit agencies track ridership providing a regular report on actual ridership numbers. These efforts would also continue. Finally, the Dallas-Fort Worth MPO produces an annual State of the Region report, which provides a performance based assessment of regional planning, policy, and project implementation. A copy of the latest State of the Region report is available online at <http://www.nctcog.org/trans/outreach/stateofregion/index.asp>.