TIGER V

Trinity River Vision Bridges

PROJECT NARRATIVE





FORT WORTH, TEXAS



616 Six Flags Drive Arlington, TX 76005

Co-applicant:





TIGER DISCRETIONARY GRANT PROGRAM Project Application

Name of Project:	Trinity River Vision Bridges Project
Agency Submitting Project:	North Central Texas Council of Governments (MPO)
Other Project Parties:	Texas Department of Transportation (Implementing Agency, Grantee) City of Fort Worth (Partnering Agency)
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Type of Project:	Road and Bridge
Project Location:	
City:	Fort Worth
County:	Tarrant County
State:	Texas
Congressional Districts:	District 12 (Rep. Kay Granger)
Type of Jurisdiction:	Urban Area
TIGER Funds Requested:	\$16,443,140
Total Project Cost:	\$112,768,342
DUNS Number:	10-246-2256





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	City of Fort Worth, Mayor Betsy Price	 Tarrant Regional Water District,
	 City of Fort Worth, City Taxas Department of 	General Manager Jim Oliver
	 Texas Department of 	 Iffinity Kiver vision Authority,

- Transportation, Fort Worth District Engineer Maribel Chavez
- **Regional Transportation** Council, Chair Pete Kamp
- Tarrant County, County Administrator GK Maenius
- Tarrant County, Judge B. Glen Whitley
- **Board President GK Maenius**
- Fort Worth Chamber of Commerce, President Bill Thornton
- Fort Worth Black Chamber of Commerce, President Devoyd Jennings
- Fort Worth Hispanic Chamber of Commerce, President Asusena Resendiz

*Not included in Appendix B; letter will be sent directly to the USDOT

C. NEPA Support Documents D. Federal Wage Rate Certification Statement E. Project Maps



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The FWCC

to

existing system of levees and channels of which 86 percent in the Fort Worth System no longer provide adequate flood protection. The FWCC project will enhance current levels of flood protection, restore components of the natural riverine system that were sacrificed when the

existing flood control system was constructed in the 1960s, facilitate urban revitalization, and provide major quality-of-

life enhancements (ecosystem improvements and recreation) for citizens of the region.

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I. Project Description

Project Overview

The U.S. Army Corps of Engineers (USACE) is six years into a 15-year, long-term sustainable design flood control project called the Trinity River Vision Central City Project, or commonly referred to as the Fort Worth Central City (FWCC) Project. With coordination from the community and local agencies, the USACE developed the FWCC Project that includes a new 8,400 linear foot bypass channel, three flood control isolation gates, a stormwater pump station, a dam, three bridges, and numerous valley storage mitigation and ecosystem restoration areas. The three bridges or the Trinity River Vision Bridges are the main transportation components of this project and will connect the north and northwest sections of the City of Fort Worth (City) to downtown.



The Fort Worth Central City Project

The City of Fort Worth, Trinity River Vision Authority (TRVA), North Central Texas Council of Governments (NCTCOG), Texas Department of Transportation (TxDOT), and other agencies have developed a partnership to implement this infrastructure program. Responsibilities under this partnership include relocating existing utilities (stormwater, sanitary sewer, water, and franchise utilities), constructing local street modifications, and building the Trinity River Vision Bridges to clear the way for the construction of the USACE projects, including the new flood control channel. The NCTCOG, TxDOT, and the City are seeking to partner with the U.S. Department of Transportation (USDOT) to construct the Trinity River Vision Bridges over the channel.





The Trinity River Vision Bridges include the Henderson Street, White Settlement, and Main Street Bridges. The local sponsors have committed \$54,035,629, which combined with existing (committed) federal, state, and regional funding sources of \$42,289,573, leaves a \$16,443,140 funding gap. Receipt of a TIGER grant for this project will fully fund this multi-modal bridge project.

Trinity River Vision Bridge Overview







Trinity River Vision Bridges Combating Suburban Sprawl

Combating sprawl with the creation of inner city work force housing opportunities and transportation alternatives is critical for the City and the Dallas/Fort Worth region. The FWCC project combines needed transportation improvements and flood control to address one of

Fort Worth's biggest challenges in this effort, which is mobility. Fort Worth grew by over 39 percent in just 10 years and was recently named the fastestgrowing metropolitan area by the U.S. Census Bureau in 2011. However, very little of this growth has occurred in the central city. The negative impacts caused by this suburban sprawl growth pattern make it imperative to Fort



Henderson and White Settlement Bridges and Surrounding Area

Worth's continued economic growth that investment be made in central city in frastructure improvements such as the Trinity River Vision Bridges.

The Trinity River Vision Bridges are integral to the FWCC project, and they are the solution to this challenge. Combined FWCC public improvements and new smart-growth zoning and development standards will allow an 800-acre, aging industrial area adjacent to downtown (Trinity Uptown) to be transformed into a walkable, high-density, mixed-use neighborhood in the central city; a viable, sustainable alternative to suburban sprawl.

With the implementation of the new Trinity River bypass channel, levees that were once a barrier to development will be replaced with a flood control system that provides a publicly accessible riverwalk amenable for private development. Approximately 7,000 households and 3 million square feet of commercial space are projected as a result of these improvements.





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Main Street Bridge and Surrounding Area

Maintaining a Federally Authorized Flood Control Project

The FWCC project is a critical flood control project that provides flood protection for the highest level of expected events for over 2,400 acres of neighborhoods in Fort Worth. Authorized by Congress in 2006, the project's key component is an 8,400 linear foot Trinity River bypass channel. The bypass channel provides needed protection, but poses a real transportation challenge. The channel essentially cuts off Henderson Street, White Settlement Road, and Main Street (which are some of the main thoroughfares into the City) eliminating access into downtown Fort Worth from the north and northwest sectors of the City.

The construction of the Trinity River Vision Bridges is the solution to this challenge. It will provide a safe river crossing, maintain a multi-modal transportation connection, and preserve efficient functionality of the flood control project. Building the Trinity River Vision Bridges is part of the local/regional partners' commitment to support the efforts of our Federal partner, the USACE, to address flood concerns. If the Trinity River Bridges are built now (prior to the USACE construction of the bypass channel), construction costs will be significantly less due to construction on dry land without additional access issues caused by spanning the channel itself.

Addressing Existing Roadway Safety

Public safety is the number one concern of project partners, and the existing Henderson, White Settlement and Main streets are aging thoroughfares with safety implications. The community has had long-term safety concerns with the at-grade Fort Worth and Western Railroad crossings on Henderson and White Settlement. The new Henderson and White Settlement Bridges





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eliminate these dangerous crossings by providing a grade separation that elevates the bridges over the railway.

Additionally, the poor intersection configuration of the existing roadway does not promote safe pedestrian activity. Inadequate sidewalks and limited space for a bike lane pose hazards to the non-motorized users. The new Trinity River Vision Bridges will significantly upgrade the safety and performance by adding both sidewalks and bike lanes, bringing the roadways up to industry standards that will meet or exceed the City's mobility guidelines. The project will also support the projected bicycle/pedestrian growth of Trinity Uptown and the surrounding area.

Reducing Traffic Congestion and Promoting Circulation

After completing a constructability review of the plans for the Trinity River Vision Bridges and traffic studies for the area, the project team incorporated a traffic roundabout into the White Settlement and Henderson designs. The roundabout will prevent traffic from backing up on the White Settlement and Henderson bridges, reducing both the overall size required for the structure itself and the congestion in the area by eliminating traffic signals at the next major intersection. A traffic roundabout can process 20 percent more traffic than traditional intersections ultimately moving more traffic through the area in less time. Modern roundabouts make roads safer for drivers and pedestrians because they cut traffic speed by one third, while also cutting the delay time in half for each vehicle. Roundabouts satisfy the mobility guidelines for Trinity Uptown, which promotes pedestrian-friendly design and are more cost effective than traditional traffic signals.

Addressing Future Transportation Needs and a Growing Population

The Dallas/Fort Worth region is expected to reach a population of over 9 million by 2030. While the new bypass channel will increase flood protection for this growing population, the channel itself will eliminate access to the north and northwest sectors of Fort Worth. However, construction of the Trinity River Vision Bridges will maintain multi-modal access to this section of the community, downtown Fort Worth, and Trinity Uptown. The Trinity River Vision Bridges will serve as the main corridors for Trinity Uptown, a master-planned community that will support and sustain the growing population. Providing transportation arteries that support alternate modes of transportation affords the public options to reduce emissions, and ultimately, our dependence on oil.

Construction Zones and Growing Pains

A common problem in growing and thriving communities is maintaining or building roadways while minimizing negative impacts to the public during construction. Downtown Fort Worth will have multiple major arteries under construction during the next few years, creating a potential problem for the public and economic stability. Maintaining access to businesses, preventing long idle times while cars sit in traffic, and providing alternate routes to major destinations is critical to reduce the growing pains for our community during construction. To



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address these concerns, a four-lane Henderson Street detour and a two-lane Main Street detour will provide alternate routes during the Trinity River Vision Bridges construction.



Typical Cross Section

II. Project Parties

The public infrastructure for the Trinity River Vision Bridges Project is being funded and managed through a partnership of eight governmental and non-profit agencies. This partnership consists of the North Central Texas Council of Governments, the Texas Department of Transportation, City of Fort Worth, Tarrant County, U.S. Army Corps of Engineers, Tarrant Regional Water District, the Trinity River Vision Authority, and Streams & Valleys, Inc.

North Central Texas Council of Governments (NCTCOG) has pledged funding a portion of the project cost and plays a facilitating role in the transportation infrastructure development.

Texas Department of Transportation (TxDOT) will be the recipient of the grant and lead the construction of the Trinity River Vision Bridges project. TxDOT also plays a facilitating role in the transportation infrastructure. TxDOT will own the Henderson and Main Street bridges, as they are part of the State Highway System. (The City of Fort Worth will assume ownership of the White Settlement bridge upon completion of construction by

The following are the other partners on this project and their responsibilities:

The City of Fort Worth. As mentioned previously, the City is one of the local sponsors for the project and has been involved in the last six years on the project.

The City has funded pre-construction activities. As indicated above, the City of Fort Worth will assume ownership (and maintenance) of the White Settlement bridge upon completion of construction by TxDOT.





TxDOT.)

Tarrant County has pledged funding for a portion of the project cost and plays a facilitating role in the infrastructure development.

Trinity River Vision Bridges Project

U.S. Army Corps of Engineers (USACE) will design and construct the flood control channel, valley storage mitigation, and ecosystem restoration areas.

Tarrant Regional Water District (TRWD) is a political subdivision of the State of Texas and is responsible for the land acquisition, easements, relocation and demolition.

Trinity River Vision Authority (TRVA) manages/oversees the schedule, finance, and education component for the participating project partners and is the governing body for the larger Trinity Uptown project. The TRVA is a quasi-

governmental entity created to act as the umbrella management authority overseeing the project schedule, financing, and public outreach for all partners. In addition to the development of the TRVA, the partners have also established Citizen Advisory Committees to help provide planning input. These committees facilitate participation from various groups, including developers, members from the business community, and local citizens.

Streams & Valleys, Inc. is a non-profit organization. They are heavily involved in planning to assure that all components (roads, parks, greenways, canals and river trails) are accessible to all Fort Worth citizens.

Grant Funds and Sources/Uses of Project Funds III.

The total cost of the project is \$112,768,342 with 48 percent committed by local agencies, 37 percent committed with existing federal, state, or regional resources, and the remaining 15 percent being requested from the TIGER program. The North Central Texas Council of Governments (NCTCOG) is seeking a TIGER V grant in the amount of \$16,443,140. The US DOT would receive any cost savings on the project if the bids come in under the estimate.

The receipt of the TIGER V grant funds will allow this project to start construction in 2014, prior to the construction of the bypass channel. Timing becomes critical, as this will allow the construction of the Trinity River Vision Bridges while the property is still dry and without a channel to cross. If the bridge is not constructed in this manner, both the cost and the duration of construction for the bridges will substantially increase. With all three bridges bidding as one project, cost savings will result from economics of scale in unit prices and mobilization.

Each local partner has committed funding that total the 48 percent match guaranteed with this application. Project partners created a 40-year tax increment finance (TIF) district to serve as one of the local funding sources. A TIF district generates funding by capturing the tax increment derived from the difference in appraised value between the year the reinvestment zone is established (base year) and each year the reinvestment zone is in existence. Over the life of the TIF, the increase in property taxes is captured for use exclusively within the TIF













boundary. The City, County and TRWD have agreed to put 80 percent of all TIF revenues back into the project for payment in any local project cost. The TIF funds will also be used for design and construction of other components of the Trinity Uptown project that were not included in this TIGER V grant request.

Below, Table 1 shows the TIGER V requested funding amount, along with existing committed dollars:

Phase	TIGER V	Local Partners/ Federal/State/		TOTAL
		TIF	Regional	
Design & Right-	0.2	\$28 627 501	0.2	\$28 627 501
of-Way	\$ 0	\$38,037,301	φυ	\$38,037,301
Construction	\$16,443,140	\$15,398,128	\$42,289,573	\$74,130,841
TOTAL	\$16,443,140	\$54,035,629	\$42,289,573	\$112,768,342
Percentage of Total	15%	48%	37%	100%

Table 1: Funding Sources and Amounts

IV. Selection Criteria

a. Long-Term Outcomes

i. State of Good Repair

The existing conditions along Henderson Street, White Settlement Road, and Main Street are such that continual maintenance activities are required to maintain the poor condition of the roadway facility. It is estimated that maintenance costs of an asphalt facility are annually approximately \$15,000 per road, and that the facility will require a complete overlay every 10 years at a cost of approximately \$500,000 per road. Each road is currently in need of an overlay. For purposes of this analysis, it is assumed that these funds will continue to be sunk costs associated with attempting to maintain the roadway in its existing condition. With the TIGER V funds, Henderson, White Settlement, and Main will be constructed as concrete facilities, and will have minimal maintenance needs over the initial 20-year life span. The state of good repair savings translates into approximately \$3.6 million for the avoided roadway maintenance costs, and approximately \$5.1 million for the avoided vehicle repair costs over the 20-year project life for the Trinity River Bridges areas of the Trinity Uptown development.

ii. Economic Competitiveness

Realignment of the Trinity River followed by the successful implementation of the Trinity River Vision Project (referred to locally as Trinity Uptown) would have a dramatic impact on Fort Worth's economic development future. According to the Center for Economic Development



North Central Texas Council of Governments

Trinity River Vision Bridges Project

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and Research at the University of North Texas¹, the \$435 million in construction-related spending required to realign the Trinity River will translate into a total impact of \$609 million in economic activity, supporting almost 6,100 jobs and accounting for \$16 million in state and local tax revenue.

Trinity Uptown aims to revitalize an 800-acre area north of downtown Fort Worth with a combination of public improvements and private development. The Trinity Uptown plan embraces the concept of livability, striving to create a walkable community along the river that hosts a variety of businesses, recreation, and residential opportunities. High-density, mixed-use zoning and a form-based code set for the area promote this mindset.

Once completed, ongoing commercial business activity and residential spending within Trinity Uptown should support nearly 6,500 jobs. Approximately 20,000 residents will occupy the 7,000 new housing units. The development of Trinity Uptown will bring diverse and substantial benefits, both in terms of its overall economic impact and its role in enhancing the image of Fort Worth.

Early results indicate the realignment of the Trinity River and implementation of the Trinity Uptown master plan are already having a positive impact on the area. A number of important projects are nearing completion. New development and construction activity has surpassed the projections of the financing plan for the Trinity Uptown area. Over the past five years, the Trinity Uptown Tax Increment Financing District (TIF) has attracted over \$213.9 million in new construction private sector activity. The five local taxing entities that created the TIF have agreed to reinvest this incremental revenue each year in the zone for the next 40 years.

The challenge now facing Trinity Uptown is that the new development (outlined in Table 2) is located in the small portion of Trinity Uptown, which is not negatively impacted by transportation infrastructure limitations and flood plain issues. Unless Trinity Uptown can fund the needed transportation improvements outlined in this grant application, the implementation of the master plan risks stalling until funds become available.

¹ Clower, T. L., & Weinstein, B. L. (2005). Economic and fiscal impacts of the Corps of Engineers' Trinity River Vision project in Tarrant County Texas. Denton, Texas: University of North Texas at Denton, Center for Economic Development and Research.



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Year	Baseline	Taxable Value	Increment					
2005	\$128,628,104	\$168,794,363	\$40,166,259					
2006	\$128,628,104	\$211,096,713	\$82,468,609					
2007	\$111,579,244	\$241,704,119	\$130,124,875					
2008	\$111,601,748	\$248,084,744	\$136,482,996					
2009	\$111,601,748	\$275,626,427	\$164,024,679					
2010	\$111,601,748	\$316,846,609	\$205,244,861					
2011	\$111,601,748	\$330,149,276	\$218,547,528					
2012	\$111,601,748	\$375,952,904	\$264,351,156					

Table 2: Trinity Uptown Tax Base Growth

Source: Tarrant Appraisal District

The economic benefits associated with redeveloping Trinity Uptown are outlined in the Benefit-Cost Analysis (Appendix A). Apart from increasing the local tax base and attracting thousands of new jobs to the area, improving the transportation infrastructure of Trinity Uptown will increase the productivity of existing residents and underutilized land. Lower income Trinity Uptown residents who are currently working will have access to higher paying jobs in the immediate area. Unemployed and underemployed residents seeking work will have increased employment opportunities as new employers move to the area. Enhanced access to reclaimed land will increase property values above and beyond the cost of future real estate investment.

Economically Distressed Area

The Trinity Uptown area has been struggling economically for the past few decades. The Trinity Uptown plan is designed to improve the economic conditions of the area by attracting new employers to the area, improving transportation capacity which increases access to regional employment opportunities, and enhancing livability.

While Tarrant County as a whole does not qualify as an Economically Disadvantaged Area, Trinity Uptown represents a smaller area within the county that has economically disadvantaged attributes, such as higher unemployment rates and lower per capita income levels. Trinity Uptown overlaps five census tracts using Census 2000 boundaries. In Census 2010, two Census tracts were combined. The American Community Survey (ACS) 2007 to 2011 uses Census 2010 boundaries. Over the past ten years, total population has declined by 25 percent, while the City of Fort Worth at large has grown 36 percent. Figure 1, on the following page, shows the census tracts in Trinity Uptown and Table 3 shows the population by census tract.



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Source: TXP, Inc.

Table 3:	Trinity	Uptown	Population	by	Census	Tract
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Census Tract	Census 1990	Census 2000	ACS 2007 to 2011	Census 2010
1008	5,717	6,675	6,296	5,901
1009	2,303	2,475	2,270	2,009
1010	3,592	4,270	N.A.	N.A.
1011	1,788	551	N.A.	N.A.
1020	1,151	915	1,174	1,316
1232	N.A.	N.A.	2,093	1,896
Total	14,551	14,886	11,833	11,122

Source: U.S. Census Bureau Note: Census tracts 1010 and 1011 merged into tract 1232.

The unemployment rate for local residents is much higher than national and regional averages. Using the most recent sub-county dataset from the 2007 to 2011 ACS 5-year Estimates, the Trinity Uptown unemployment rate was 11.0 percent. For this same period, the national and Tarrant County unemployment rates were 8.7 percent and 7.8 percent respectively. According to the U.S. Bureau of Labor Statistics, the current national unemployment rate is 7.5 percent. Regardless of dataset used, the Trinity Uptown unemployment rate is well above the local and national average. Table 4 highlights the labor force and unemployment rates of the census tracts in this area and Figure 2 shows the unemployment rate geographically.





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Census Tract	Labor Force	Employed	Unemployed	Unemployment Rate
1008	3,001	2,684	317	10.6%
1009	1,048	1,000	48	4.6%
1020	693	632	61	8.8%
1232	967	766	201	20.8%
Total	5,709	5,082	627	11.0%

Source: U.S. Census Bureau — America Community Survey

Figure 2: Trinity Uptown Unemployment Rates by Census Tract (2010 Census Boundaries)



Source: U.S. Census Bureau — America Community Survey

Trinity Uptown per capita income and household (HH) income statistics are below the national and regional averages. The national per capita income figure is \$27,915. The current per capita income rate of the Trinity Uptown area is \$16,078 – this represents a per capita incomes rate that is only 57.6 percent of the national average. Table 5 outlines the per capita and household income data by census tract.

Table 5: Trinity Uptown Per Capita Income & Household Income Data (ACS 2007 to 201	! 1)
------------------------------------------------------------------------------------	--------------

Census Tract	Households	Per Capita Income	Median HH Income	Mean HH Income
1008	1,886	\$13,914	\$37,329	\$43,817
1009	693	\$11,413	\$24,621	\$35,028
1020	544	\$29,864	\$48,438	\$61,379
1232	713	\$19,913	\$38,631	\$53,054
Total	3,836	\$16,078	N.A.	N.A.

Source: U.S. Census Bureau — America Community Survey





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According to the Federal Highway Administration's (FHWA) Office of Planning, Environment, and Realty Executive Geographic Information System website, Tarrant County is not identified as economically distressed. According to 42 U.S.C. 3161, Economically Distressed Areas (EDAs) are areas where the unemployment is 1 percent or more above the national average or the per capita income is 80 percent or less than the national average.

Clearly, the Trinity Uptown area meets the definition of an economically distressed area. Based on the most recently published data from the federal government, the area's unemployment rate and per capita incomes levels meet and actually exceed the requirements.

Primary Selection Criteria – Economic Competitiveness

Job Creation & Near-term Economic Impact

According to U.S. Census Bureau – Longitudinal Employer-Household Dynamics (LEHD) dataset, approximately 5.9 percent of Trinity Uptown residents currently work in the construction sector, which translates to 330 workers. Over the past two years, over 160 Trinity Uptown construction workers have lost their jobs. Infrastructure spending on this project will create near term jobs for existing unemployed residents and other workers in the metropolitan area.

The public sector will spend a substantial amount of money on infrastructure related to the Trinity Uptown Master Plan. The following Table 6 highlights the economic impact of \$714.3 million in direct engineering services, environmental remediation, demolition, and construction spending by year. The TIGER Grant would pay for a portion of these improvements.

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Year	Direct Spending	Output	Value Added	Earnings	Employment*
2008	\$28,232,893	\$52,347,040	\$34,204,208	\$14,951,525	320
2009	\$22,215,976	\$43,464,044	\$25,487,822	\$11,607,991	268
2010	\$47,640,456	\$95,008,268	\$53,524,899	\$24,767,832	589
2011	\$59,395,992	\$122,155,257	\$64,407,833	\$30,623,475	761
2012	\$67,708,844	\$138,227,615	\$74,064,960	\$34,980,207	860
2013	\$45,813,559	\$94,037,527	\$49,794,667	\$23,633,325	586
2014	\$86,812,572	\$178,703,805	\$94,035,546	\$44,747,695	1,114
2015	\$37,511,405	\$77,180,055	\$40,655,795	\$19,337,893	481
2016	\$63,285,668	\$130,932,161	\$68,137,782	\$32,575,196	817
2017	\$64,420,440	\$133,797,195	\$69,034,832	\$33,123,546	835
2018	\$72,953,498	\$151,732,226	\$78,045,772	\$37,496,372	947
2019	\$51,875,132	\$107,934,949	\$55,469,403	\$26,659,651	674
2020	\$46,684,123	\$97,213,794	\$49,868,748	\$23,986,387	607
2021	\$16,091,443	\$33,508,821	\$17,188,879	\$8,267,783	209
2022	\$3,654,963	\$7,611,095	\$3,904,231	\$1,877,920	48
Total	\$714,296,964	\$1,463,853,850	\$777,825,377	\$368,636,798	9,116

 Table 6: Trinity Uptown - Economic Impact of Local Public Sector Infrastructure Spending

 (\$2008)

Source: TXP, Inc.

* Construction-related employment is also referred to as "person years of employment"





The private sector will also spend roughly \$1.5 billion (\$2008) on residential and commercial construction over the next 30 to 40 years. Table 7 highlights the total impact of construction spending.

Table 7: Trinity Uptown - Economic Impact of Local Public Sector Infrastructure Spending(\$2008)

Year	Direct Spending	Output	Value Added	Earnings	Employment*
Construction	\$1,539,757,985	\$3,206,392,027	\$1,644,769,479	\$791,127,653	20,022

Source: TXP, Inc.

* Construction-related employment is also referred to as "person years of employment"

Long-term Term Outcomes

As indicated above, the larger Trinity Uptown project will make additional land available for development, and studies have identified a significant market demand for commercial and residential space in the new land that will be made available. In 2009, the Trinity River Vision Authority retained Gideon Toal to update its original market demand study for Trinity Uptown. Gideon Toal found that the potential for a prosperous and dynamic Trinity Uptown was strong, with significant interest from local and national real estate developers. A longterm build out schedule was established that informs planning and infrastructure activities within Trinity Uptown. Specifically, the area is divided into five sectors, each with a different land use pattern. Gideon Toal estimated it will take roughly 30 to 40 years for full build out depending on the pace of economic recovery. Total improvements will result in a tax base increase of \$1.5 billion.

Figure 3: Trinity Uptown by Sector



Source: Trinity River Vision



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Trinity River Vision Bridges Project

 Table 8: Trinity Uptown Projected Real Estate Development by Sector (Square Feet)

Sector	Office	Retail	Hotel	Multifamily	High-rise Retirement	Total
А	392,580	410,500	180,000	985,000	300,000	2,268,080
В	1,002,750	895,000	0	4,665,200	0	6,562,950
С	370,000	120,000	214,000	1,314,000	0	2,018,000
D	20,000	75,000	0	206,875	0	301,875
Е	0	0	180,000	220,000	0	400,000
Total	1,785,330	1,500,500	574,000	7,391,075	300,000	11,550,905

Source: Trinity River Vision TIF Update, Gideon Toal

Table 9: Trinity Uptown Projected Population and Employment by Sector at Build-Out

Sector	Residential Units	Population	Employment
А	1,168	3,213	1,966
В	4,241	11,663	3,796
С	1,195	3,285	1,408
D	188	517	190
E	200	550	360
Total	6,992	19,228	7,720

Source: Gideon Toal; TXP, Inc.

To validate the Trinity Uptown forecast, the North Central Texas Council of Governments (NCTCOG) traffic survey zones dataset was examined and aggregated at the census tract level. This forecast takes into account the 30 to 40 year Trinity Uptown Master Plan implementation timeline. Over the next 20 years and assuming the necessary infrastructure is put in place, the Trinity Uptown region should add 9,000 new residents, 3,300 new households, and 15,000 new jobs. Table 10 highlights the NCTCOG population and employment forecast numbers.

Census	2012 Population	2035 Population	2012 Households	2035 Households	2012 Employment	2035 Employment
1008	5,232	5,939	1,912	2,130	1,470	2,286
1009	2,296	3,642	839	1,306	1,538	2,100
1020	1,280	2,953	468	1,059	11,073	18,310
1232	2,520	8,149	921	2,922	11,648	17,562
Total	11,328	20,683	4,140	7,417	25,729	40,258

Table 10: NCTCOG Population & Employment Forecast

Source: North Central Texas Council of Governments, TXP, Inc.

Land Productivity

A primary benefit of the Trinity Uptown plan is to improve the productive value of land by removing it from the flood plain and providing adequate transportation access. Because the land was not previously developable, transportation access to the area was limited. When fully implemented, nearly 246 acres will become available for public and private sector redevelopment. Table 11 shows the land that will become developable through implementation of this project and Figure 4 shows this information geographically.





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Table 11: Developable Land in Trinity Uptown at Full Implementation

Sector	Existing Developable	Former Flood Plain Property	Total Developable Land
А	126.7	0	126.7
В	134.4	151.5	285.9
С	29.6	74.2	103.8
D	118.5	18.3	136.8
Е	224.8	2.2	227.0
Total	634.0	246.3	880.2

Source: Kimley-Horn and Associates, Inc.



Figure 4: Developable Land in Trinity Uptown

Source: Trinity River Vision

A good comparison for what will likely happen to Trinity Uptown land and productive value over the long-term is downtown Fort Worth. Located across the Trinity River, the core of downtown Fort Worth is home to 4,500 residents. Total employment in downtown Fort Worth exceeds 48,000 jobs. In terms of acreage, greater downtown Fort Worth covers 1,600 acres. There is slight overlap in boundaries between Trinity Uptown and downtown Fort Worth, which allows the Trinity Uptown to capture spillover activity from downtown Fort Worth if transportation access allows residential and commercial users to easily flow from one area to another.

In terms of land values (excluding improvements), the average value per acre in downtown Fort Worth is \$583,180. In Trinity Uptown, the average value per acre of land is \$159,198.





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Presently, over 34 percent of land in Trinity Uptown is underutilized, vacant, or farmland. These land uses are not typical of a dense urban environment, and the project will enable higher utilization.

The Trinity Uptown master plan envisions land uses and activity that are analogous to the downtown area. It is reasonable to use this delta in land values to estimate the increase in productive value as a result of transportation investments in Trinity Uptown. Therefore, for every acre of land the transportation investments impacts, the productive value of land should increase \$423,982. This increase is a one-time gain in productive value and does not include the amount spent on new construction on the land. Figure 5 shows the geographic extent of both the downtown and Trinity Uptown areas. Tables 12 and 13 outline the land values by land use type in both areas.



Figure 5: Downtown Fort Worth and Trinity Uptown

Source: Downtown Fort Worth, Inc.

Table 12: Lana values in Downlown Fort worth (2013)									
Land Use	Acres	Land Value	Land Value Per Acre						
Single Family Residential	84.5	\$15,058,575	\$178,312						
Multi-Family Residential	56.6	\$30,020,703	\$530,234						
Vacant	253.6	\$111,726,709	\$440,506						
Ag/Farm Land	47.1	\$1,412,421	\$29,989						
Commercial	793.5	\$606,481,657	\$764,272						
Utilities	120.2	\$25,813,870	\$214,788						
Total	1,355.5	\$790,513,935	\$583,180						

Table 12: Land Values in Downtown Fort Worth (2013)

Source: Tarrant Appraisal District



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Table 13: Land Values in Trinity Uptown (2013)

Land Use	Acres	Land Value	Land Value Per Acre
Single Family Residential	10.1	\$7,961,473	\$786,722
Multi-Family Residential	2.9	\$3,417,567	\$1,177,667
Vacant	203.8	\$37,869,003	\$185,782
Ag/Farm Land	145.2	\$4,480,617	\$30,868
Commercial	591.0	\$107,477,164	\$181,863
Utilities	68.1	\$936,848	\$13,766
Inventory Lot	0.4	\$466,200	\$1,220,375
Total	1,021.4	\$162,608,872	\$159,198

Source: Tarrant Appraisal District

Wage Pr

Labor Productivity

As a result of Trinity Uptown being an economically disadvantaged area, per capita income levels and wage rates are below regional and national averages. The estimated average wage rate for a Trinity Uptown resident is \$35,051. The Tarrant County average is \$56,290. On average, a Trinity Uptown resident earns \$21,239 less than the county average. The successfully implementation of the Trinity Uptown plan and related infrastructure projects will results in thousands of new jobs locating in the area with higher estimated incomes. Table 14 shows the wage rates in the Trinity Uptown area.

Tuble 14. Thinky Optown Estimated mage naies (2007 to 2011)								
Census Tract	Aggregate HH Income	Working Residents	Avera Work					

Table 14. Trinity Untown Estimated Wage Rates (2007 to 2011)

Census Tract	Income	Working Residents	Working Resident
1008	\$82,638,862	2,684	\$30,789
1009	\$24,274,404	1,000	\$24,274
1020	\$33,390,176	632	\$52,833
1232	\$37,827,502	766	\$49,383
Total	\$178,130,944	5,082	\$35,051

Source: U.S. Census Bureau – America Community Survey

The Trinity Uptown master plan details a mix of land uses for the 800 acres. The two predominant land uses for the area are office and retail. This balance matches the pattern in downtown Fort Worth. Since downtown employment opportunities are clustered in higher wage professions such as business services, finance, and information technology combined with retail trade, the Tarrant County average wage is realistic proxy for downtown.

Given the land costs and existing regional wage levels by industry sector, it is reasonable to assume the average new full-time job in Trinity Uptown will pay close to the regional average wage of \$56,290. For each new job that is filled by a current Trinity Uptown resident, their labor productive will increase by \$21,239 per year by earning a higher wage.



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Travel Time

For purposes of this analysis, the travel time benefits calculated will be the delay savings of vehicles using the average time value of \$15.40 per person per hour, the average 25.5-minute commute (as discussed below in the sustainability portion of this report) and the projected 18 percent of residents who would choose a different mode than a single-occupancy-vehicle. The travel time savings associated with reduced commuting translates into approximately \$10.9 million for Sector B and \$3.3 million for Sector C over the 20-year project life for the Trinity River Bridges areas of the Trinity Uptown development.

iii. Livability

The Trinity River Vision Bridges Project is a catalyst to the Trinity Uptown Project that will create a walkable, livable urban community on the north side of Downtown Fort Worth. The Trinity River Vision Bridges will be constructed as "complete streets" that will allow for multi-modal transportation. In addition, the proposed Trinity Uptown transportation network will eliminate the requirement to utilize an automobile for safe and efficient travel. The Trinity River Vision Bridges and the Trinity Uptown project will allow for a variety of mode choices including bicycle, pedestrian, and vehicular. In addition, transit modes of transportation are currently available that connect downtown Fort Worth to downtown Dallas, and to DFW airport. These transit facilities allow access to regional destinations.

While multiple livability benefits will be experienced via this project, only one calculation was performed to capture this benefit. Using NCHRP Report 552 (Guidelines for Analysis of Investments in Bicycle Facilities), an estimate was made of the cost savings experienced by individuals that experience at least 30 minutes of light physical activity per day (the type of which that can be experienced via walking and biking). This median annual benefit for these individuals is \$128 (from NCHRP Report 552). It is estimated that an additional 2 percent of the population of Fort Worth would experience this benefit by having a livable, walkable work and entertainment destination, even if they do not live within the venue. The City of Fort Worth 2011 Comprehensive Plan projects a 2.2 percent annual population growth rate. The multi-modal connectivity savings associated with these residents choosing different modes of transportation translates to approximately \$23.6 million for Sector B and \$7.3 million for Sector C over the 20-year project life for the Trinity River Vision Bridges areas of the Trinity Uptown Development.

iv. Environmental Sustainability

Providing an urban mixed-use living environment and transportation network will provide existing and future residents of Fort Worth with viable alternatives to automobile travel for making necessary local and regional trips. This project will reduce vehicle emissions by providing new residents more opportunities to walk, bike, or ride public transportation rather than drive. Please note that the economic benefits of creating housing closer to work are factored



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into the increase in property values outlined above. The project provides an additional benefit by reducing vehicle emissions.

According to the U.S. Census Bureau State & County Quick Facts, the average commute time in Tarrant County is 25.5 minutes. If the average commute speed is 35 miles per hour, the average distance would be 15 miles each way. Additionally, the Census shows that over 90 percent of commuters in the City of Fort Worth drive, with only a small fraction choosing to carpool.

It is anticipated that 3,838 residential units will be constructed by 2032. Given the area's proximity to major employment and entertainment areas, as well as its access to public transportation, residents are likely to choose alternative modes of transportation. Using the procedure outlined by the Institute of Transportation Engineers (ITE), an internal trip capture analysis was conducted for the Trinity Uptown Project to determine what percentage of residents in the project area will choose to commute via a form of transportation other than a single-occupancy -vehicle (walk, bike, or bus). The results of this internal trip capture analysis determined that approximately 18 percent of residents would choose a different mode than a single-occupancy-vehicle. The completion of 3,838 housing units, if each had an average of two commuters in the household, would result in 7,676 commuters of which 1,380 (18 percent) could choose an alternative form of commuting. For every person choosing to not commute by single-occupancy vehicle, 2.88 metric tons of CO₂ will be reduced.

Two factors must be considered in determining the economic impact of the project's reduction in emissions. First, an economic cost per ton of emissions reduced must be established. According to the National Highway Traffic Safety Administration (NHTSA), the "domestic value of reducing CO2 emissions" was set at \$2 per metric ton in 2007, with a growth rate of 2.4 percent per year. Second, the analysis must account for the pace of residential unit construction over 20 years. The emission reduction savings associated with the change in transportation patterns translates to approximately \$63,500 in Sector B and \$19,500 in Sector C over the 20-year period for the Trinity River Vision Bridges areas of the Trinity Uptown Development.

v. Safety

The current undivided configuration of White Settlement Road and the high volumes at the intersection of White Settlement Road and Henderson Street both contribute to the crashes along these facilities. A three-year summary of incidents along these facilities was compiled. From 2009 to 2011, a total of 15 incidents (seven on White Settlement Road, seven at the intersection of White Settlement Road and Henderson Street, and one at the railroad crossing at White Settlement Road) were documented by the City of Fort Worth Police Department.

Using the information contained within the document *Treatment of the Economic Value of a Statistical Life in Departmental Analyses – 2011 Interim Adjustment*, the value of statistic life



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(VSL) is \$6.2 million. Incidents are reduced by an appropriate factor from the Abbreviated Injury Scale (AIS) based on the severity of the crash to capture their value. Based solely on the installation of a median, it has been documented that accident rates can be reduced by 55 percent in urban areas. Additionally, the realignment of Henderson Street and White Settlement Road will eliminate two at-grade railroad crossings. The existing number of crashes over the three-year period was annualized and monetized, then reduced according to the proposed improvements. Installation of the proposed improvements will result in a potential annual safety cost savings of approximately \$329,000 per year for White Settlement and \$309,000 per year for Henderson.

It was assumed that the number of crashes would increase at the same rate as the AADT along Henderson Street, White Settlement Road, and Main Street. The savings associated with safety improvements along the Trinity River Vision Bridges translates to approximately \$30.6 million for White Settlement, \$7.2 million for Henderson, and \$12.2 million for Main over the 20-year project life of the Project.

b. Job Creation and Near-Term Economic Activity

As stated in the Economic Competitiveness section previously, the Trinity River Vision Bridges will have a significant economic impact. All of the projects related to FWCC are managed by a Fair Contracting Committee that was organized by TRVA for the purpose of combining forces to create jobs within the community and protecting the local economic investment. The Fair Contracting Committee works directly with the Fort Worth Black Chamber of Commerce and the Fort Worth Hispanic Chamber of Commerce (along with other entities) to connect with their constituents and membership.

The committee has provided various community outreach programs to educate local contractors about upcoming opportunities. Through newsletters, contractor registration and website access, along with networking events, local businesses can stay informed about upcoming opportunities like the Trinity River Vision Bridges project. The Fair Contracting Committee also set a 25 percent Minority and Women Owned Business Enterprise (MWBE) participation goal for each project. So far, project partners have seen a 50 percent commitment of contracts to minority and small business firms.

The partners have established a vendor database where any vendor can register to perform vendor searches, view reports, and receive notifications of bid opportunities, networking events, and educational workshops. This information is available on the TRVA website http://www.trinityrivervision.org/Contracting.aspx. The following link is from the site to the vendor database: http://vendors.trinityrivervision.org/default.aspx.





c. Innovation

Innovative Signature Bridge Design

The Trinity River Vision Bridges will be a prominent structure over the bypass channel, visible to pedestrians along the channel and residents living nearby. To promote a more livable community, the City has designed an innovative signature bridge that will become a landmark in the community and promote economic development in the region. Using a unique "V-pier" design, the bridge will have dramatic, soaring V-shaped piers that reach out 60 feet to support a slender, elegant bridge deck. In addition to its signature appearance, the bridge design has the following benefits:

- The V-piers reduce by half the number of bridge supports that touch the ground, thus reducing the bridge's footprint and minimizing its environmental impact.
- The long, cantilevered edges of the bridge deck create a "winged" profile that maximizes the sunlight under the bridge that improves the pedestrian experience under the bridge.
- The signature bridge design comes at an economical price. The V-pier signature bridge design is 50 percent less expensive than an initial alternate bridge design, saving over \$15 million.

Energy Efficient LED Lighting

The bridge handrails and V-piers are lit with innovative, energy efficient LED lighting that will save approximately \$500,000 over the lifetime of the bridge and reduce CO2 emissions by 33 percent as compared with traditional lighting. Furthermore, this lighting will enhance pedestrian safety and improve the livability of the community with attractive architectural lighting of the bridge. LED lighting has much lower maintenance costs compared with traditional lighting. In fact, LED fixtures only require replacement every 20 years, compared with every two years for traditional lights.

d. Partnership

The North Central Texas Council of Governments and the City of Fort Worth have been working with the partners identified in Section III for over six years. TxDOT has the experience in constructing roads and bridges in partnership with the City. Tarrant County will provide part of the local match as this project component is a major thoroughfare in the county. The TRWD will provide part of the local match and the necessary properties needed for construction. As described in Section II, the TRVA is the overarching organization by which the scheduling and cost management will be coordinated.



e. Results of Benefit-Cost Analysis

Summarized in the table on the next page are the project benefits for the Trinity River Vision Bridges. Over a 20-year period, the \$112,768,342 investment would result in over \$133.2 million in net benefits using a 3 percent discount rate and \$60.4 million in net benefits using a 7 percent discount rate. This value results in a benefit-cost ratio of 2.34 and 1.67 based on a 3 percent and 7 percent discount rate, respectively.

Without a TIGER V grant, this level of economic benefit is impossible to duplicate. TIGER V represents the crucial, final piece in the funding package of this project.



North Central Texas Council of Governments	
Trinity I	

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	Trinity River Vision Bridges												
	Project Costs	State of (Good Repair		Economic Con	npetitiveness		Livability	Sustainability	Safety			
Year	Capital Costs	Avoided Roadway Maintenance Costs	Avoided Vehicle Repair Costs	Productive Land Value	Increase in Wages	Travel Time Savings	Travel Time Savings RR Crossing	Multi-Modal Connectivity Benefits	Emission Reductions	Reduction in Crashes	Total Net Benefit (Cost)	of Total Net of Total Benefit (Cost) Benefit (NPV (7%) of Total Net Benefit (Cost)
2013	(\$38,637,501)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$38,637,501)	(\$37,512,137)	(\$36,109,814)
2014 - Q1	\$0												
2014 - Q2 2014 - Q3 2014 - Q4	(\$4,753,204) (\$4,909,045) (\$4,986,967)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,007,422	(\$13,641,794)	(\$12,858,700)	(\$11,915,272)
2015 - Q1	(\$4,849,871)												
2015 - Q2 2015 - Q3	(\$4,849,871) (\$5,008,982)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,084,843	(\$18,791,126)	(\$17,196,542)	(\$15,339,156)
2015 - Q4	(\$5,167,245)												
2016 - Q2 2016 - Q3	(\$5,243,728) (\$4,980,569)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,162,265	(\$19,252,850)	(\$17,105,908)	(\$14,687,907)
2016 - Q4	(\$4,946,738)												
2017 - Q1	(\$4,189,902)												
2017 - Q2 2017 - Q3	(\$3,701,616) (\$3,524,966)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,239,687	(\$12,945,511)	(\$11,166,912)	(\$9,229,971)
2017 - Q4 2018 - Q1 2018 - Q2	(\$2,766,714) (\$2,524,439) (\$2,480,904)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$658,554	(\$4,346,789)	(\$3,640,367)	(\$2,896,449)
2018	\$0	\$22,500	\$119,181	\$96,988,942	\$877,763	\$105,840	\$57,943	\$838,960	\$478	\$658,554	\$99,670,161	\$83,472,190	\$66,414,436
2019	\$0	\$45,000	\$250,021	\$0	\$1,800,456	\$211,681	\$60,253	\$1,714,820	\$984	\$1,394,530	\$5,477,744	\$4,453,907	\$3,411,264
2020	\$0	\$1,500,000	\$261,680	\$0	\$2,769,832	\$314,661	\$62,370	\$1,752,577	\$1,509	\$1,471,951	\$8,134,579	\$6,421,512	\$4,734,399
2021	\$0	\$45,000	\$273,339	\$0	\$3,787,704	\$420,501	\$64,873	\$1,791,094	\$2,058	\$1,549,373	\$7,933,941	\$6,080,705	\$4,315,538
2022	\$0	\$45,000	\$284,999	\$0	\$4,855,950	\$526,341	\$67,183	\$1,830,562	\$2,639	\$1,626,795	\$9,239,468	\$6,875,032	\$4,696,877
2023	\$0	\$45,000	\$296,658	\$0	\$5,976,515	\$629,321	\$69,300	\$1,870,791	\$3,240	\$1,704,216	\$10,595,041	\$7,654,083	\$5,033,628
2024	\$0	\$45,000	\$308,317	\$0	\$7,151,409	\$735,161	\$71,803	\$1,911,971	\$3,869	\$1,781,638	\$12,009,167	\$8,422,988	\$5,332,214
2025	\$0	\$45,000	\$319,976	\$0	\$8,382,716	\$841,002	\$73,920	\$1,954,007	\$4,532	\$1,859,060	\$13,480,212	\$9,179,369	\$5,593,809
2026	\$U ©0	\$45,000	\$331,635	\$U ©0	\$9,672,588	\$943,982	\$76,230	\$1,996,994	\$5,218	\$1,936,481	\$15,008,128	\$9,922,141	\$5,820,411
2027	\$U \$0	\$45,000	\$343,295	\$U \$0	\$11,023,237	\$1,049,622 \$1,155,662	\$76,540	\$2,040,932	\$5,94Z	\$2,013,903	\$10,000,090	\$10,000,001	\$6,010,054
2020	φ0 \$0	φ45,000 \$45,000	φ304,904 \$366,613	φU \$0	\$13,437,029 \$13,916,294	\$1,100,002	\$82,968	\$2,000,021 \$2,131,756	\$0,090	\$2,091,325 \$2,168,746	\$19,257,331	\$12,086,710	\$6 324 362
2023	30 \$0	\$1,500,000	\$378,272	\$0 \$0	\$15,463,521	\$1,200,042	\$85,278	\$2,131,730	\$8 293	\$2,100,740	\$23 224 656	\$13,642,038	\$6 871 338
2031	\$0 \$0	\$45,000	\$389,931	\$0 \$0	\$17,081,265	\$1 470 323	\$87,588	\$2,226,575	\$9 142	\$2,323,590	\$23,633,413	\$13,477,805	\$6,534,836
2032	\$0	\$45,000	\$401,591	\$0 \$0	\$18,772,172	\$1,573,303	\$89,898	\$2,275,553	\$10.027	\$2,401,011	\$25,568,554	\$14,156,689	\$6.607.400
2033	\$0	\$45,000	\$413,250	\$0	\$20,538,977	\$1,679,143	\$92,208	\$2,325,673	\$10,958	\$2,478,433	\$27,583,641	\$14,827,566	\$6,661,810
Totals	(\$112,768,342)	\$3,607,500	\$5,093,711	\$96,988,942	\$154,507,448	\$14,279,866	\$1,201,200	\$30,926,727	\$83,048	\$34,858,544	\$228,778,645	\$133,224,885	\$60,374,997





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V. Project Readiness and NEPA

This project is ready to begin immediately after receiving notification of the grant award. In fact, the City of Fort Worth will be submitting the 95 percent design for TxDOT's review on June 3, 2013. The City has received concurrence for the Categorical Exclusion for the Trinity River Vision Bridges Project and the letters for each bridge are included in the **Appendix C**.

Project Schedule

In September 2011, the City began the design on the bridge projects and anticipates completing the final design in September 2013. The bridge procurement phase can begin as early as September 2013, after which the project will be ready to start construction. Concurrent with the bridge design, the City and the franchise utility companies will complete utility relocation construction by November 2013 prior to the Trinity River Vision Bridges letting. Tarrant Regional Water District (TRWD) has completed the right-of-way acquisition and is in the process of relocating the businesses and demolishing the buildings. They are scheduled to be complete with this work by October 2013.

Trinity River Vision Bridges Schedule

	Tack Namo	Duration	Ctort	Finich	2007 2009 2009 2019 2011 2012 2012 2014 2017 2016 2017 2018 2019
		Duration	Start	FINISH	2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
	Trinity River Vision Bridges	2569 days	Thu 6/26/08	Tue 5/1/18	
2	Land Purchase	1267 days	Thu 6/26/08	Fri 5/3/13	
3	Relocation	1216 days	Fri 10/31/08	Fri 6/28/13	
4	Demolition	1197 days	Sun 3/1/09	Sat 9/28/13	
5	Property Ready for Construction	782 days	Sat 10/30/10	Mon 10/28/13	
6	Water and Sanitary Sewer Relocations	525 days	Mon 10/31/11	Fri 11/1/13	
7	Franchise Utility Relocations	551 days	Fri 9/30/11	Fri 11/8/13	
8	Bridge Design and Construction	1720 days	Wed 9/28/11	Tue 5/1/18	÷
9	Design	464 days	Wed 9/28/11	Mon 7/8/13	
10	TxDOT District Receives Federal Letter of Authority	0 days	Wed 8/28/13	Wed 8/28/13	♦ 8/28
11	Final Design	53 days	Mon 7/8/13	Wed 9/18/13	Ū
12	Categorical Exclusion	245 days	Fri 3/16/12	Thu 2/21/13	-
13	Railroad Agreements	339 days	Tue 5/15/12	Fri 8/30/13	-
14	Advance Funding	65 days	Mon 6/3/13	Fri 8/30/13	•
15	Procurement	72 days	Thu 9/19/13	Fri 12/27/13	•
16	Construction	1129 days	Thu 1/2/14	Tue 5/1/18	





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As noted in Table 15, for the duration of the construction, this project is expected to create a total of 1,576 jobs.

Year	Qrt	Construction	Total Output	Total Value- added	Total Earnings	Total Jobs
2014	2	\$4,753,204.00	\$11,885,387	\$6,470,061	\$3,839,638	101
2014	3	\$4,909,045.00	\$12,275,067	\$6,682,192	\$3,965,527	104
2014	4	\$4,986,967.00	\$12,469,911	\$6,788,259	\$4,028,472	106
2015	1	\$4,849,871.00	\$12,127,102	\$6,601,644	\$3,917,726	103
2015	2	\$4,849,871.00	\$12,127,102	\$6,601,644	\$3,917,726	103
2015	3	\$5,008,982.00	\$12,524,959	\$6,818,226	\$4,046,256	106
2015	4	\$5,167,245.00	\$12,920,696	\$7,033,654	\$4,174,101	110
2016	1	\$5,244,080.00	\$13,112,822	\$7,138,242	\$4,236,168	111
2016	2	\$5,243,728.00	\$13,111,942	\$7,137,763	\$4,235,883	111
2016	3	\$4,980,569.00	\$12,453,913	\$6,779,551	\$4,023,304	106
2016	4	\$4,946,738.00	\$12,369,318	\$6,733,500	\$3,995,975	105
2017	1	\$4,189,902.00	\$10,476,850	\$5,703,295	\$3,384,603	89
2017	2	\$3,701,616.00	\$9,255,891	\$5,038,640	\$2,990,165	79
2017	3	\$3,524,966.00	\$8,814,177	\$4,798,184	\$2,847,468	75
2017	4	\$2,768,714.00	\$6,923,169	\$3,768,773	\$2,236,567	59
2018	1	\$2,524,439.00	\$6,312,360	\$3,436,266	\$2,039,242	54
2018	2	\$2,480,904.00	\$6,203,500	\$3,377,007	\$2,004,074	53
Total		\$74,130,841	\$185,364,168	\$100,906,901	\$59,882,893	\$1,576

Table 15: Economic Impact of Construction

Environmental Approvals

As stated previously, the City has received concurrence for the Categorical Exclusion for the Trinity River Vision Bridges Project and the letters for each bridge are included in the **Appendix C.**

This project is also a part of a larger project implemented by the USACE more commonly named the Fort Worth Trinity River Central City Project. Components of this project are already under construction. This project has a completed environmental review under the National Environmental Policy Act. The Fort Worth District of the USACE released the draft Environmental Impact Statement (EIS) on June 24, 2005. The Environmental Protection Agency (EPA) expressed concerns regarding the proposed project, with a focus on potential air quality impacts. The EPA requested additional information regarding emissions from construction activities and how the proposed project relates to the State Implementation Plan. The USACE provided the additional information which alleviated the EPA's concerns.

Following thorough review of comments received from the public, special interest groups, and other federal, state and local agencies, the final EIS identifies plans to increase flood damage reduction potential and/or prevent future damages through establishing hydraulic and





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hydrologic mitigation through new and creative methodologies that will reduce environmental impacts and provide for improved aesthetic properties. This EIS also addressed the three bridges required as part of the larger flood control project.

The final EIS also provides opportunities for ecosystem improvement, including increased connectivity of existing high resource value environmental and recreational opportunities between isolated natural resources based along the Trinity River in Fort Worth.

The final EIS was submitted on January 1, 2006 and can be found at http://www.swf.usace.army. mil/pubdata/notices/CentralCity/index.asp. In an official comment letter, the EPA expressed that it did not object to the proposed action. The final EIS was approved by the Department of the Army, Office of the Assistant Secretary, saying that the EIS is in compliance with all environmental requirements, including National Environmental Policy Act, the Endangered Species Act, the National Historic Preservation Act, the Clean Air Act, and the Clean Water Act. This Record of Decision has been included in **Appendix C**. The Programmatic Agreement between the U.S. Army Corps of Engineers, the City of Fort Worth, and the Texas Historical Commission is also included in **Appendix C**.

A subsequent Final Supplemental No. 1 to the Final EIS was issued on March 21, 2008, which included an additional study area in the Riverside Oxbow area which is immediately downstream of the Central City project. The Final Supplemental document can be found at http://www. swf.usace.army.mil/Pubdata/notices/CentralCity/fseis.asp. This Final Supplemental has been approved by the Department of the Army, Office of the Assistant Secretary saying that the Modified Central City Project is technically sound and is in compliance with all environmental requirements, including the National Environmental Policy Act, the Endangered Species Act, the National Historic Preservation Act, the Clean Air Act, and the Clean Water Act. This Record of Decision has been included in **Appendix C** and supersedes the aforementioned Record of Decision.

Legislative Approvals

The Trinity River Vision Bridges project requires approvals from the City of Fort Worth, TxDOT, and the Fort Worth and Western Railroad. The project has already received approvals by the Fort Worth City Council for the planned development and pursuit of alternate funding. The City Council adopted the Trinity Uptown Core and Peripheral Zones in accordance with the Comprehensive Plan on June 8, 2010 and has directed the City staff to pursue funding alternatives for the Trinity River Vision Project in addition to the funds the City already has available (http://www.developmentexcellence.com/tools/docs/TRWD/TrinityUptownDevelopmentStandardsGuidelines.pdf).

The City has also prepared the Local Project Advance Funding Agreement (LPAFA) between the City and TxDOT, which is anticipated to receive approval at the July 9, 2013 City Council





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meeting. With the City Council's approval of the LPAFA, the City and TxDOT can execute the LPAFA completed by the end of August 2013. The City and TxDOT are currently finalizing their agreements with the Fort Worth and Western Railroad. The City's agreement will be on the July 9, 2013 City Council meeting for approval and the TxDOT agreement is expected to be completed by the end of August 2013.

State and Local Planning

The Trinity River Vision Bridges have been included in the NCTCOG Mobility 2035 Plan: The Metropolitan Transportation Plan for North Central Texas and the Mobility 2035 – 2013 Amendment. In addition, the bridge projects can be found in the 2013 – 2016 Transportation Improvement Program (TIP)/Statewide Transportation Improvement Program) for North Central Texas. The individual TIP listings for each project can be found in Chapter 7 (Project Listings) of the 2013-2016 TIP/STIP, which is available online at: http://www.nctcog.org/trans/tip/13_16TIP/2013-2016TIP.asp. The Henderson Bridge is identified in the TIP/STIP under TIP Code 52453 and CSJ 0171-05-081. The Main Street Bridge is identified in the TIP/STIP under TIP Code 52499/CSJ 0014-01-022. And, the White Settlement Bridge is identified under TIP Code 53125/CSJ 0902-48-697.

Technical Feasibility

The Fort Worth Central City is a complex project. To manage this project, the project partners have developed a management plan, which includes teams for the executive management, program management, project management, project design, property acquisition, planning, financing, program controls, public information fair contracting, and support services. These teams have developed specific design criteria and controls to mitigate the risk on programs scope, schedule and budget. To create the budget, each partner developed cost estimates with contingency based on the status of the design for each project. The program management team incorporated these costs with an escalation factor into the program schedule to create the budget.

The Trinity River Vision Bridges include the Henderson Street, White Settlement Road, and Main Street bridges. These projects total 6,100 linear feet of multi-modal, four lane roadways. The three bridges included a total of 2,150 linear feet over the proposed USACE Fort Worth Central City Bypass Channel. Two of the bridges also cross existing railroad tracks. Since these bridges will be constructed at the same time, there will be a four lane detour for the Henderson Street Bridge and a two lane detour for the Main Street Bridge to accommodate traffic capacity into downtown Fort Worth. The White Settlement Street Bridge will use the local street network and will not require a separate detour. Maps of the projects are provided in **Appendix E**.





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As indicated above, the design has been reviewed by TxDOT on multiple occasions, and the environmental clearance has been received. Other preconstruction activities are being completed in the Summer and Fall of 2013, so the project will be ready for construction in Winter 2013. The project has undergone significant technical reviews by multiple agencies, and they have found the project to be technically feasible.

Financial Feasibility

As stated previously in Section III: Grants Funds and Sources/Uses of Project Funds, local partners have secured and committed \$54,035,629 (48 percent) for the Trinity River Vision Bridges. NCTCOG is requesting \$16,443,140 (15 percent) from the DOT to complete the project. Any cost overruns can be handled by the project partners or from the TIF funds. The US DOT would receive any cost savings on the project if the bids come in under the estimate. The following is the detailed project budget:

	Total	
Item Description	Item Cost	Percent of Project
Design	\$10,477,501	9.3%
Right-of-Way Acquisition	\$28,160,000	25.0%
Approaches*	\$12,152,600	10.8%
Access Streets*	\$1,991,900	1.8%
Channel Excavation/Roadway Removal	\$1,435,000	1.3%
Detours	\$2,588,773	2.3%
Drainage	\$1,034,300	0.9%
Erosion Control	\$529,500	0.5%
Traffic Control	\$371,000	0.3%
Bridge (V Pier)*	\$39,654,000	35.2%
Illumination	\$3,777,400	3.3%
Landscaping/Hardscaping*	\$2,512,100	2.2%
Mobilization (5%)	\$3,213,276	2.8%
Contingency/Inflation (5%)	\$4,870,992	4.3%
Total	\$112,768,342	100%

*The items noted above include a multi-modal construction component which is 3 percent of the total project cost

VI. Federal Wage Rate Certification

TxDOT will comply with the requirements of subchapter IV of Chapter 31 of Title 40, United States Code of Federal Regulations (Federal Wage Rate Requirements) for all work associated with this project. In addition, NCTCOG's federal wage rate certification is attached as **Appendix D**.



TIGER V

Trinity River Vision Bridges

APPENDIX A BENEFIT-COST ANALYSIS





616 Six Flags Drive Arlington, TX 76005

Co-applicant:





Appendix A Benefit-Cost Analysis

Project Summary

The North Central Texas Council of Governments and the local partners will match \$16,443,140 in TIGER V funds with \$54,035,629 in local funding and \$42,289,573 in federal/state/regional funding for the construction of the Trinity River Vision Bridges in support of the long-term sustainable USACE Fort Worth Central City (FWCC) flood control project. Over a 20-year period, the \$112,768,342 investment would result in over \$133.2 million (\$232.7 million to \$99.5 million) in net present benefits using a 3 percent discount rate and \$60.4 million (\$150.5 million to \$90.2 million) in net present benefits using a 7 percent discount rate. This would result in a benefit-cost ratio of 2.34 and 1.67 based on a 3 percent and 7 percent discount rate, respectively.

This project will provide access to an economic redevelopment project to create a more livable and dynamic uptown area just north of downtown Fort Worth, Texas. This \$112,768,342 investment will allow for the transformation of a part of the City as it develops from an underutilized industrial area to a unique community for job creation, economic development, and an active, healthy community versus the typical auto-oriented suburban community in the Dallas / Fort Worth Metroplex.

In particular, the Trinity River Vision Bridges benefits are directly tied to Sectors B and C (Economic Competitiveness: Figure 3 on Page 14) of the Trinity Uptown Project. Sectors B and C includes reclaiming 225 acres of land that was in the former flood plain. This reclamation would not be possible without the Trinity River Vision Bridges project. Including the new developable land, these sectors include 1,195 residential units and 1,408 jobs.

Current Infrastructure Baseline

White Settlement Road, Henderson Street and Main Street are all auto-oriented, fourlane arterial facilities with a two-way left-turn lane. Currently, White Settlement Road and Henderson Street have a signal at their intersection and both have an at-grade crossing with the Fort Worth and Western Railroad.

Project Description

The Trinity River Vision Bridges will realign White Settlement Road, Henderson Street and Main Street to reclaim 225 acres of former flood plain area. The realigned roadways will





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be constructed as "complete streets" to encourage walkable, pedestrian-friendly facilities. The redesign will create a grade-separated railroad crossing for White Settlement Road and Henderson Street and construct a roundabout at a previously signalized intersection.

Project Justification and Long-Term Outcomes

This project will provide access to an area that will be cut-off by the USACE FWCC flood control project. The access will allow for new central city development. Additionally, this project will create a more livable and dynamic uptown area just north of downtown in Fort Worth and the immediately impact areas of the Trinity River Vision Bridges will create 1,195 residential units and 1,408 jobs.

There is significant market demand for commercial and residential space in Trinity Uptown if additional land was available for development. In 2009, the Trinity River Vision Authority retained Gideon Toal to update its original market demand study for Trinity Uptown. Gideon Toal found that the potential for a prosperous and dynamic Trinity Uptown was strong, with significant interest from local and national real estate developers. A long-term build-out schedule was established that includes planning and infrastructure activities within Trinity Uptown. Specifically, the area is divided into five sectors, each with a different land use pattern. Gideon Toal estimated that it will take roughly 30 to 40 years for full build-out depending on the pace of economic recovery. Total improvements will result in a tax base increase of \$1.5 billion.

Projected Users

The users of this facility include more than those who reside in the 1,195 residential units and work at the 1,408 jobs. The Trinity River Vision Bridges project area will be a destination. These sectors will create enhanced recreational facilities for citizens of Fort Worth and will become a national tourist destination. The citizens and visitors can enjoy staying in a hotel in the Trinity River Vision Bridges Sectors B and C and enjoy future recreational and entertainment facilities.

Economic Impacts

Apart from increasing the local tax base and attracting thousands of new jobs to the area, improving the transportation infrastructure of Trinity Uptown will increase the productivity of existing residents and underutilized land. Lower income Trinity Uptown residents who are currently working will have access to higher paying jobs in the immediate area. Unemployed and underemployed residents seeking work will have increased employment opportunities as new employers move to the area. Enhanced access to reclaimed land will increase property values above and beyond the cost of future real estate investment.

Upon completion of the overall project, 225 acres of land within Sectors B and C will be converted to a more productive use, including potential for 370,000 square feet of office, 120,000 square feet of retail, 214,000 square feet of hotel, and 1,314,000 square feet of multifamily housing.





Identification of Project Costs

The total capital project cost for the Trinity River Vision Bridges project is projected to be \$112,768,342. It should be noted that this estimate includes total project delivery costs (design, survey, construction, material testing, and other project management costs). The following Table A-1 provides the total cost of the project.

Table A-1: Project Costs

Project Costs		
Year	Total Costs	
2013	\$ 38,637,501	
2014 - Q1	\$-	
2014 - Q2	\$ 4,753,204	
2014 - Q3	\$ 4,909,045	
2014 - Q4	\$ 4,986,967	
2015 - Q1	\$ 4,849,871	
2015 - Q2	\$ 4,849,871	
2015 - Q3	\$ 5,008,982	
2015 - Q4	\$ 5,167,245	
2016 - Q1	\$ 5,244,080	
2016 - Q2	\$ 5,243,728	
2016 - Q3	\$ 4,980,569	
2016 - Q4	\$ 4,946,738	
2017 - Q1	\$ 4,189,902	
2017 - Q2	\$ 3,701,616	
2017 - Q3	\$ 3,524,966	
2017 - Q4	\$ 2,768,714	
2018 - Q1	\$ 2,524,439	
2018 - Q2	\$ 2,480,904	
2018	\$-	
2019	\$-	
2020	\$-	
2021	\$-	
2022	\$-	
2023	\$-	
2024	\$-	
2025	\$-	
2026	\$-	
2027	\$-	
2028	\$-	
2029	\$-	
2030	\$-	
2031	\$-	
2032	\$-	
2033	\$-	
Total	\$ 112 769 3/2	

Identification of Project Benefits

The following project benefits are quantified in the following sections:

- State of Good Repair (savings from the elimination of on-going roadway maintenance costs and removal, savings from vehicle repair costs avoided due to substandard roadway conditions)
- Economic Competitiveness (increase in property values, modal diversion to transit trips, and travel time savings)
- Livability (value associated with improved bicycle, pedestrian, and transit access)
- **Sustainability** (emission reduction)
- **Safety** (reduction in the likelihood of severe and fatal crashes)

Benefits – State of Good Repair

The existing condition along White Settlement Road, Henderson Street, and Main Street are such that continual maintenance activities are required to maintain the poor condition of the roadway facility. It is estimated that maintenance costs of White Settlement Road as an asphalt facility are approximately \$15,000 annually, and that the facility will have a complete overlay every 10 years at a cost of approximately \$500,000. White Settlement Road is currently in need of an overlay. For purposes of this analysis, it is assumed that funds will continue to be sunk costs associated with

attempting to maintain the roadway in its existing condition. With the TIGER V funds, White Settlement Road, Henderson Street, and Main Street will be constructed as concrete facilities, and will have minimal maintenance needs over the initial 20-year life span. The state of good




repair savings translates into approximately \$3.6 million for the avoided roadway maintenance costs, and approximately \$5.1 million for the avoided vehicle repair costs over the 20-year project life for the Trinity River Bridges areas of the Trinity Uptown development.

	Table A-2	: State of	Good Rep	bair, Roadwa	y Maintenance	Costs
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Year	Annual Maintenance Expenditures to be Avoided
2013	\$-
2014	\$-
2015	\$
2016	\$-
2017	\$ -
2018	\$ 22,500
2019	\$ 45,000
2020	\$ 1,500,000
2021	\$ 45,000
2022	\$ 45,000
2023	\$ 45,000
2024	\$ 45,000
2025	\$ 45,000
2026	\$ 45,000
2027	\$ 45,000
2028	\$ 45,000
2029	\$ 45,000
2030	\$ 1,500,000
2031	\$ 45,000
2032	\$ 45,000
2033	\$ 45,000
TOTAL	\$ 3,607,500

Additional costs are borne by road users due to damage that occurs to their vehicles. Based on the information contained in Table A-4 of the report titled *Road Work Ahead (a 2010 publication of the U.S. PIRG Education Fund)*, it states that the "Average Additional Operating Costs Due to Rough Roads" in Texas is \$336 per motorist per year. For purposes of this analysis, it is assumed that 1 percent of this annual cost for motorists is attributable to the poor conditions along Henderson Street, White Settlement Road, and Main Street (which equates to \$3.36 per vehicle per year). Based on the *Trinity Uptown Traffic Impact Study* completed by Kimley-Horn and Associates, Inc. in March of 2006, in this 20-year scenario the following are the projected AADT for each street:

- White Settlement Road is projected to have an AADT of 41,000 vehicles;
- Henderson Street is projected to have an AADT of 35,000 vehicles; and
- Main Street is projected to have an AADT of 47,000 vehicle.





Table A-3.1: Stage of Good Repair, Vehicle Table A-3.2: Stage of Good Repair, **Repair Costs – White Settlement Road**

Year	AADT	Avoided Vehicle Repair Costs
2013	11,494	\$-
2014	12,969	\$-
2015	14,444	\$-
2016	15,919	\$ -
2017	17,394	\$ -
2018	18,869	\$ 31,700
2019	20,344	\$ 68,356
2020	21,819	\$ 73,312
2021	23,294	\$ 78,268
2022	24,769	\$ 83,224
2023	26,244	\$ 88,180
2024	27,719	\$ 93,136
2025	29,194	\$ 98,092
2026	30,669	\$ 103,048
2027	32,144	\$ 108,004
2028	33,619	\$ 112,960
2029	35,094	\$ 117,916
2030	36,569	\$ 122,872
2031	38,044	\$ 127,828
2032	39,519	\$ 132,784
2033	40,994	\$ 137,740
	TOTALS	\$ 1,577,418

Year	AADT	Avoided Vehicle Repair Costs
2013	26,926	\$-
2014	27,330	\$-
2015	27,734	\$-
2016	28,138	\$-
2017	28,542	\$-
2018	28,946	\$ 48,629
2019	29,350	\$ 98,616
2020	29,754	\$ 99,973
2021	30,158	\$ 101,331
2022	30,562	\$ 102,688
2023	30,966	\$ 104,046
2024	31,370	\$ 105,403
2025	31,774	\$ 106,761
2026	32,178	\$ 108,118
2027	32,582	\$ 109,476
2028	32,986	\$ 110,833
2029	33,390	\$ 112,190
2030	33,794	\$ 113,548
2031	34,198	\$ 114,905
2032	34,602	\$ 116,263
2033	35,006	\$ 117,620
	TOTALS	\$ 1,670,400

Vehicle Repair Costs – Henderson Street

Table A-3.3: Stage of Good Repair, Vehicle Repair Costs – Main Street

Year	AADT	Avoided Vehicle Repair Costs
2013	15,171	\$-
2014	16,762	\$ -
2015	18,353	\$ -
2016	19,944	\$-
2017	21,535	\$ -
2018	23,126	\$ 38,852
2019	24,717	\$ 83,049
2020	26,308	\$ 88,395
2021	27,899	\$ 93,741
2022	29,490	\$ 99,086
2023	31,081	\$ 104,432
2024	32,672	\$ 109,778
2025	34,263	\$ 115,124
2026	35,854	\$ 120,469
2027	37,445	\$ 125,815
2028	39,036	\$ 131,161
2029	40,627	\$ 136,507
2030	42,218	\$ 141,852
2031	43,809	\$ 147,198
2032	45,400	\$ 152,544
2033	46,991	\$ 157,890
	TOTALS	\$ 1,845,893



Trinity River Vision Bridges Project



Benefits – Economic Competitiveness

For the transportation investment, the region will experience an increase in both land and labor productivity.

- For each acre of former flood plain property that is positively impacted by the transportation investment, the productive land value should increase \$423,982 per acre. This increase will likely occur by the time the project is completed as the price of the land adjusts to comparable properties in the downtown area.
- For each new higher paying job filled by an existing Trinity Uptown resident, labor productivity should increase by \$21,239 per year plus wage inflation is subsequent years. Not all jobs will be filled by Trinity Uptown residents, but current unemployment and underemployment in the area will cause some shift in employment decisions.

There is a tremendous amount of infrastructure investment that will occur in Trinity Uptown over the next 10 to 15 years. While this is an interconnected master plan, specific infrastructure projects will have a disproportionate impact on adjacent properties. Therefore, the overall expected increase in land and labor productivity for Trinity Uptown should not be attributed to an individual project. Each major project has its own unique impact on adjacent properties and should be evaluated separately and as part of the entire system. The following methodology was used to estimate the benefits of these projects:

Step 1: The amount of land impacted by the transportation investment is limited to the sector where the project is located.

Step 2: The transportation investment is designed in part to provide access to reclaimed flood plain properties and other parcels that are underutilized (ex. vacant). Only the amount of land within close proximity of the transportation investment is used in the benefits calculation.

Step 3: For the transportation investment project, developable land comes online based on the construction timeline. The productive value is only added when the land is available to the private sector to utilize.

Step 4: An annual 2 percent inflation factor was applied to the land values until the property becomes developable.





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Step 5: The Trinity Uptown master plan details the amount of new development by sector. A subset of total new employment is attributable to the transportation investment. In addition, the existing Trinity Uptown unemployed labor force was used as the upper bound for jobs that can be filled by local residents. To be conservative, the maximum number of higher paying new jobs filled by local residents over the next 20 years is equal to current Trinity Uptown unemployment statistic or 627 potential workers.

Step 6: Total employment growth in each sector is based on the Trinity Uptown master plan and the NCTCOG TSZ forecast.

Step 7: An annual 2 percent wage inflation factor was applied to net increase in earnings.

Land Productivity

Upon completion of the overall project, approximately 151 acres of land in Sector B and 74 acres of land in Sector C will be converted to a more productive use. For the BCA, the Main Street Bridge (Sector B) investment impacts about 90 percent of the 151 acres or 136.4 acres. The White Settlement Road and Henderson Street Bridges transportation investment impacts about 90 percent of the 74 acres or 67 acres. The impacted land comes online by 2018. The net impact or "delta" on land productivity follows:

Note: Delta in land productivity between Uptown and Downtown values is inflated 2 percent per year.

Year 2018

Sector B

= 136.4 acres x 477,472 per acre (delta in land productivity between Uptown and Downtown)

= \$65,103,344 in increase land productivity

Sector C

= 66.8 acres x \$477,472 per acre (delta in land productivity between Uptown and Downtown)

= \$31,885,598 in increase land productivity





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Figure A-1: Sector B – Main Street Bridge Impact Area



Source: Kimley-Horn and Associates, Inc., TXP, Inc.



Figure A-2: Sector B – Development Status in Main Street Bridge Impact Area

Source: Kimley-Horn and Associates, Inc., TXP, Inc.





Figure A-3: Sector C – White Settlement Street Bridge and Henderson Street Bridge Impact Area



Source: Kimley-Horn and Associates, Inc., TXP, Inc.

Figure A-4: Sector C – Development Status in White Settlement Street Bridge and Henderson Street Bridge Impact Area



Source: Kimley-Horn and Associates, Inc., TXP, Inc.





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Table A-4: Land Productivity

Land Productivity							
Year	Sector B	Sector C	Total Costs				
2013	\$-	\$-	\$-				
2014	\$-	\$-	\$-				
2015	\$-	\$-	\$-				
2016	\$-	\$-	\$-				
2017	\$-	\$-	\$-				
2018	\$65,103,344	\$31,885,598	\$96,988,942				
2019	\$-	\$-	\$-				
2020	\$-	\$-	\$-				
2021	\$-	\$-	\$-				
2022	\$-	\$-	\$-				
2023	\$-	\$-	\$-				
2024	\$-	\$-	\$-				
2025	\$-	\$-	\$-				
2026	\$-	\$-	\$-				
2027	\$-	\$-	\$-				
2028	\$-	\$-	\$-				
2029	\$-	\$-	\$-				
2030	\$-	\$-	\$-				
2031	\$-	\$ -	\$-				
2032	\$-	\$-	\$-				
2033	\$-	\$-	\$-				
Total	\$65,103,344	\$31,885,598	\$96,988,942				

Labor Productivity

Total employment in Sectors B and C will approach 1,600 new jobs at the end of 20 years. Approximately 40 percent or 638 jobs will be filled by existing Trinity Uptown residents (using existing unemployed residents as the upper bound). The closest population centers to these areas are census tracts 1008 and 1020 for Sector B and 1009 and 1232 for Sector C. These four census tracts have 627 unemployed residents. It is reasonable to assume a large percentage of initial workers will come from Trinity Uptown due to proximity, improved transportation infrastructure, and higher wages. In addition, the majority of this area is positively impacted by the transportation investment.

Table A-5.1: Labor Productivity – Sector B

Year Total Year New Jobs in Sector B		Filled by Existing Residents Net Increase Labor Productivity Per Job		Total Increase Labor Productivity
2013	0	0	\$-	\$-
2014	0	0	\$ 22,097	\$-
2015	0	0	\$ 22,539	\$-
2016	0	0	\$ 22,990	\$-
2017	0	0	\$ 23,450	\$-
2018	31	16	\$ 23,919	\$ 373,822
2019	63	31	\$ 24,397	\$ 766,812
2020	95	47	\$ 24,885	\$ 1,179,720
2021	127	64	\$ 25,383	\$ 1,613,321
2022	160	80	\$ 25,890	\$ 2,068,417
2023	193	96	\$ 26,408	\$ 2,545,841
2024	226	113	\$ 26,936	\$ 3,046,451
2025	260	130	\$ 27,475	\$ 3,571,139
2026	294	147	\$ 28,025	\$ 4,120,825
2027	329	164	\$ 28,585	\$ 4,696,464
2028	363	182	\$ 29,157	\$ 5,299,042
2029	399	199	\$ 29,740	\$ 5,929,581
2030	434	217	\$ 30,335	\$ 6,589,138
2031	470	235	\$ 30,941	\$ 7,278,805
2032	507	253	\$ 31,560	\$ 7,999,714
2033	544	272	\$ 32,191	\$ 8,753,036
		· · · · · · · · · · · · · · · · · · ·	TOTAL	\$ 65,832,129





Year Total Year New Jobs in Sector B		Filled by Existing Residents Productivity Per Job		Total Increase Labor Productivity	
2013	0	0	\$-	\$-	
2014	0	0	\$ 22,097	\$-	
2015	0	0	\$ 22,539	\$-	
2016	0	0	\$ 22,990	\$-	
2017	0	0	\$ 23,450	\$-	
2018	31	16	\$ 23,919	\$ 373,822	
2019	63	31	\$ 24,397	\$ 766,812	
2020	95	47	\$ 24,885	\$ 1,179,720	
2021	127	64	\$ 25,383	\$ 1,613,321	
2022	160	80	\$ 25,890	\$ 2,068,417	
2023	193	96	\$ 26,408	\$ 2,545,841	
2024	226	113	\$ 26,936	\$ 3,046,451	
2025	260	130	\$ 27,475	\$ 3,571,139	
2026	294	147	\$ 28,025	\$ 4,120,825	
2027	329	164	\$ 28,585	\$ 4,696,464	
2028	363	182	\$ 29,157	\$ 5,299,042	
2029	399	199	\$ 29,740	\$ 5,929,581	
2030	434	217	\$ 30,335	\$ 6,589,138	
2031	470	235	\$ 30,941	\$ 7,278,805	
2032	507	253	\$ 31,560	\$ 7,999,714	
2033	544	272	\$ 32,191	\$ 8,753,036	
			TOTAL	\$ 65,832,129	

Table A-5.2: Labor Productivity – Sector C

Benefits – Livability

The Trinity River Vision Bridges Project is a catalyst to the Trinity Uptown Project that will create a walkable, livable urban community on the north side of Downtown Fort Worth. White Settlement Road, Henderson Street, and Main Street will be constructed as a "complete street" that will allow for multi-modal transportation. In addition, the proposed Trinity Uptown transportation network will eliminate the requirement to utilize an automobile for safe and efficient travel. The Trinity River Vision Bridges and the Trinity Uptown Project will allow for a variety of transportation choices including bicycle, pedestrian, and vehicular. In addition, transit modes of transportation are currently available that connects downtown Fort Worth to downtown Dallas, and to DFW airport. These transit facilities allow access to regional destinations.

While multiple livability benefits will be experienced via this project, only one calculation was performed to capture this benefit. Using NCHRP Report 552 (Guidelines for Analysis of Investments in Bicycle Facilities), an estimate was made of the cost savings experienced by individuals that experience at least 30 minutes of light physical activity per day (the type of which can be experienced via walking and biking). The median annual benefit for these individuals is \$128 (from NCHRP Report 552). It is estimated that an additional 2 percent of Fort Worth's population would experience this benefit by having a livable, walkable work and entertainment destination, even if they do not live within the area. The City of Fort Worth 2011





Comprehensive Plan projects a 2.2 percent annual population growth rate. The multi-modal connectivity savings associated with residents choosing different modes of transportation translates to approximately \$23.6 million for Sector B and 7.3 million for Sector C over the 20-year project life for the Trinity River Vision Bridges areas (Sectors B and C) of the Trinity Uptown project as shown below:

Year	Projected City Population	Population Directly Benefited (2%)	Annual Value Per Person	Citywide Livability Benefit (Trinity Uptown)	Citywide Livability Benefit (Sector B - 56.8%)	Citywide Livability Benefit (Sector C - 17.5%)			
2013	791,210	0							
2014	808,620	0							
2015	826,410	0		E	Existing				
2016	844,590	0							
2017	863,170	0							
2018	882,160	8,822	\$ 128	\$ 1,129,152	\$ 641,358	\$ 197,602			
2019	901,570	18,031	\$ 128	\$ 2,307,968	\$ 1,310,926	\$ 403,894			
2020	921,400	18,428	\$ 128	\$ 2,358,784	\$ 1,339,789	\$ 412,787			
2021	941,670	18,833	\$ 128	\$ 2,410,624	\$ 1,369,234	\$ 421,859			
2022	962,390	19,248	\$ 128	\$ 2,463,744	\$ 1,399,407	\$ 431,155			
2023	983,560	19,671	\$ 128	\$ 2,517,888	\$ 1,430,160	\$ 440,630			
2024	1,005,200	20,104	\$ 128	\$ 2,573,312	\$ 1,461,641	\$ 450,330			
2025	1,027,310	20,546	\$ 128	\$ 2,629,888	\$ 1,493,776	\$ 460,230			
2026	1,049,910	20,998	\$ 128	\$ 2,687,744	\$ 1,526,639	\$ 470,355			
2027	1,073,010	21,460	\$ 128	\$ 2,746,880	\$ 1,560,228	\$ 480,704			
2028	1,096,620	21,932	\$ 128	\$ 2,807,296	\$ 1,594,544	\$ 491,277			
2029	1,120,750	22,415	\$ 128	\$ 2,869,120	\$ 1,629,660	\$ 502,096			
2030	1,145,410	22,908	\$ 128	\$ 2,932,224	\$ 1,665,503	\$ 513,139			
2031	1,170,610	23,412	\$ 128	\$ 2,996,736	\$ 1,702,146	\$ 524,429			
2032	1,196,360	23,927	\$ 128	\$ 3,062,656	\$ 1,739,589	\$ 535,965			
2033	1,222,680	24,454	\$ 128	\$ 3,130,112	\$ 1,777,904	\$ 547,770			
			TOTALS	\$ 41,624,128	\$ 23,642,505	\$ 7,284,222			

Table A-6: Livability, Multi-modal Connectivity

Benefits – Sustainability

Providing an urban mixed-use living environment and transportation network will provide existing and future residents of Fort Worth with viable alternatives to automobile travel for making necessary local and regional trips. This project will reduce vehicle emissions by providing new residents more opportunities to walk, bike, or ride public transportation rather than drive. Residents that live in Trinity Uptown will not live far from work centers. Please note that the economic benefits of creating housing closer to work are factored into the increase in property values outlined above. The project provides an additional benefit by reducing vehicle emissions.

According to the U.S. Census Bureau State and County Quick Facts, the average commute time in Tarrant County is 25.5 minutes. If the average commute speed is 35 miles per hour, the average distance would be 15 miles each way. Additionally, the Census shows that over 90 percent of commuters in Fort Worth drive, with only a small fraction choosing to carpool. See Table A-7 on the following page.





Table A-7: Means of Commuting

Means of Commuting	Number	Percent
Car, Truck, or Van - Drove Alone	235,157	79.5%
Car, Truck, or Van - Carpooled	35,916	12.1%
Public Transportation (Excluding Taxicab)	4,938	1.7%
Walked	5,777	2.0%
Other	3,626	1.2%
Worked at Home	10,468	3.5%

It is anticipated that 3,838 residential units will be constructed by 2032. Given the area's proximity to major employment and entertainment areas as well as its access to public transportation, residents are likely to choose alternative modes of transportation. Using the procedure outlined by the Institute of Transportation Engineers (ITE), an internal trip capture analysis was conducted for the Trinity Uptown project to determine what percentage of residents in the project area will choose to commute via a form of transportation other than a single-occupancy-vehicle (walk, bike, or bus). The results of this internal trip capture analysis determined that approximately 18 percent of residents would choose a different mode than a single-occupancy vehicle. The completion of 3,838 housing units (if each had an average of 2 commuters in the household) would result in 7,676 commuters, of which 1,380 (18 percent) could choose an alternative form of commuting. For every person choosing to not commute by single occupancy vehicle, 2.88 metric tons of CO₂ will be reduced.

Table A-8: Emissions Statistics

Emission Statistics				
Average Commute Distance (Roundtrip, miles)	29.8			
Work Days Per Year	250.0			
Number of Employees Choosing Alternate Route	1.0			
Vehicle Miles Reduced	7,400.0			
Average Fule Mileage Per Gallon	22.6			
Gallons of Fuel Saved	327.4			
CO2 Emissions (lbs.) Reduced	6,352.2			
CO2 lbs./metric Ton	2,204.6			
Total CO2 Emissions (tons) Reduced	2.88			

Two factors must be considered in determining the economic impact of this project's reduction in emissions. First, an economic cost per ton of emissions reduced must be established. According to the National Highway Traffic Safety Administration (NHTSA), the "domestic value of reducing CO_2 emissions: was set at \$2 per metric ton in 2007, with a growth rate of 2.4 percent per year. Second, the analysis must account for the pace of residential unit construction over 20 years. The emission reduction savings associated with the change in transportation patterns translates to approximately \$63,500 in Sector B and \$19,500 in Sector C over the





20-year project life for the Trinity River Vision Bridges areas (Sectors B and C) of the Trinity Uptown Development as shown below:

Table A-9: Emissions Reduction

Year	# of Commuters	# Resident Commuter Choosing Alternate Modes	Domestic Value/Ton	Tons of CO₂ Reduced	Sustainability Value (Trinity Uptown)	Sustainability Value (Sector B - 56.8%)	Sustainability Value (Sector C - 17.5%)
2013	281	27					
2014	281	27					
2015	281	27			Existing		
2016	281	27					
2017	281	27					
2018	480	86	2.60	248	\$ 643	\$ 365	\$ 113
2019	960	173	2.66	498	\$ 1,325	\$ 752	\$ 232
2020	1,439	259	2.72	746	\$ 2,031	\$ 1,153	\$ 355
2021	1,919	345	2.79	994	\$ 2,770	\$ 1,573	\$ 485
2022	2,399	432	2.85	1,244	\$ 3,551	\$ 2,017	\$ 622
2023	2,879	518	2.92	1,492	\$ 4,361	\$ 2,477	\$ 763
2024	3,358	604	2.99	1,740	\$ 5,207	\$ 2,957	\$ 911
2025	3,838	691	3.06	1,990	\$ 6,100	\$ 3,465	\$ 1,067
2026	4,318	777	3.14	2,238	\$ 7,023	\$ 3,989	\$ 1,229
2027	4,798	864	3.21	2,488	\$ 7,997	\$ 4,542	\$ 1,400
2028	5,277	950	3.29	2,736	\$ 9,004	\$ 5,114	\$ 1,576
2029	5,757	1,036	3.37	2,984	\$ 10,055	\$ 5,711	\$ 1,760
2030	6,237	1,123	3.45	3,234	\$ 11,161	\$ 6,339	\$ 1,953
2031	6,717	1,209	3.53	3,482	\$ 12,304	\$ 6,989	\$ 2,153
2032	7,196	1,295	3.62	3,730	\$ 13,496	\$ 7,665	\$ 2,362
2033	7,676	1,382	3.71	3,980	\$ 14,748	\$ 8,377	\$ 2,581

Travel Time

For purposes of this analysis, the travel time benefits calculated will be the delay savings of vehicles using the average time value of \$15.40 per person per hour, the average 25.5-minute commute as discussed previously, and the projected approximately 18 percent of residents would choose a different mode than a single-occupancy vehicle. The travel time savings associated with reduced commuting translates into approximately \$10.9 million for Sector B and \$3.3 million for Sector C over the 20-year project life for the Trinity River Vision Bridges areas (Sectors B and C) of the Trinity Uptown Development as shown on the following page.



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Table A-10: Travel Time

Year	# Residents	# Resident Commuter Choosing Alternate Modes	Daily Total Time Saved (hr.)	Annual Travel Time Savings (250 Work Days) (Trinity Uptown)	Annual Travel Time Savings (250 Work Days) (Sector B - 56.8%)	Annual Travel Time Savings (250 Work Days) (Sector C - 17.5%)							
2013	281	27											
2014	281	27											
2015	281	27		Existing									
2016	281	27											
2017	281	27											
2018	480	86	37	\$ 142,450	\$ 80,912	\$ 24,929							
2019	960	173	74	\$ 284,900	\$ 161,823	\$ 49,858							
2020	1,439	259	110	\$ 423,500	\$ 240,548	\$ 74,113							
2021	1,919	345	147	\$ 565,950	\$ 321,460	\$ 99,041							
2022	2,399	432	184	\$ 708,400	\$ 402,371	\$ 123,970							
2023	2,879	518	220	\$ 847,000	\$ 481,096	\$ 148,225							
2024	3,358	604	257	\$ 989,450	\$ 562,008	\$ 173,154							
2025	3,838	691	294	\$ 1,131,900	\$ 642,919	\$ 198,083							
2026	4,318	777	330	\$ 1,270,500	\$ 721,644	\$ 222,338							
2027	4,798	864	367	\$ 1,412,950	\$ 802,556	\$ 247,266							
2028	5,277	950	404	\$ 1,555,400	\$ 883,467	\$ 272,195							
2029	5,757	1,036	440	\$ 1,694,000	\$ 962,192	\$ 296,450							
2030	6,237	1,123	477	\$ 1,836,450	\$ 1,043,104	\$ 321,379							
2031	6,717	1,209	514	\$ 1,978,900	\$ 1,124,015	\$ 346,308							
2032	7,196	1,295	550	\$ 2,117,500	\$ 1,202,740	\$ 370,563							
2033	7,676	1,382	587	\$ 2,259,950	\$ 1,283,652	\$ 395,491							
			TOTALS	\$ 19,219,200	\$ 10,916,506	\$ 3,363,360							

There is a benefit associated with the travel time savings for automobile traffic that will no longer have to be delayed at the at-grade railroad crossing on White Settlement Road and Henderson Street. It was estimated that three trains use this crossing daily, and based on estimates of train length and speed, an average wait time of three minutes was approximated per train crossing. As a result, 0.63 percent of daily traffic is stopped by the train. The number of vehicles stopped daily and annually is estimated by considering the daily time stopped and the AADT. Ultimately, using the average time value of \$15.40 per person per hour, as previously discussed, there is a benefit in the delay savings of these vehicles. Since each vehicle is stopped approximately three minutes, the value per vehicle stopped is \$0.77 (3 min/60 min * \$15.40). The travel time savings associated with the elimination of the at-grade railroad crossing translates to approximately \$0.50 million over the 20-year period for the White Settlement Road and Henderson Street bridges area (Sector C) of the Trinity Uptown development as shown on the next page:





 Table A-11.1: Travel Time Savings — Removal of At-Grade Rail Crossing White

 Settlement Road

Year	AADT	Number of Vehicles Stopped at Train Daily (0.63% of AADT)	Number of Vehicles Stopped at Train Annually (250 Work Days)	Cost of Vehicles Stopped at Train Annually (\$0.77 per vehicle stopped)
2013	11,494	72	18,000	
2014	12,969	82	20,500	
2015	14,444	91	22,750	Existing
2016	15,919	100	25,000	
2017	17,394	110	27,500	
2018	18,869	119	29,750	\$ 22,908
2019	20,344	128	32,000	\$ 24,640
2020	21,819	137	34,250	\$ 26,373
2021	23,294	147	36,750	\$ 28,298
2022	24,769	156	39,000	\$ 30,030
2023	26,244	165	41,250	\$ 31,763
2024	27,719	175	43,750	\$ 33,688
2025	29,194	184	46,000	\$ 35,420
2026	30,669	193	48,250	\$ 37,153
2027	32,144	203	50,750	\$ 39,078
2028	33,619	212	53,000	\$ 40,810
2029	35,094	221	55,250	\$ 42,543
2030	36,569	230	57,500	\$ 44,275
2031	38,044	240	60,000	\$ 46,200
2032	39,519	249	62,250	\$ 47,933
2033	40,994	258	64,500	\$ 49,665
	TOTALS	3,472	868,000	\$ 580,773

 Table A-11.2: Travel Time Savings — Removal of At-Grade Rail Crossing Henderson

 Street

Year	AADT	Number of Vehicles Stopped at Train Daily (0.63% of AADT)	Number of Vehicles Stopped at Train Annually (250 Work Days)	Cost of Vehicles Stopped at Train Annually (\$0.77 per vehicle stopped)
2013	26,926	170	42,500	
2014	27,330	172	43,000	
2015	27,734	175	43,750	Existing
2016	28,138	177	44,250	
2017	28,542	180	45,000	
2018	28,946	182	45,500	\$ 35,035
2019	29,350	185	46,250	\$ 35,613
2020	29,754	187	46,750	\$ 35,998
2021	30,158	190	47,500	\$ 36,575
2022	30,562	193	48,250	\$ 37,153
2023	30,966	195	48,750	\$ 37,538
2024	31,370	198	49,500	\$ 38,115
2025	31,774	200	50,000	\$ 38,500
2026	32,178	203	50,750	\$ 39,078
2027	32,582	205	51,250	\$ 39,463
2028	32,986	208	52,000	\$ 40,040
2029	33,390	210	52,500	\$ 40,425
2030	33,794	213	53,250	\$ 41,003
2031	34,198	215	53,750	\$ 41,388
2032	34,602	218	54,500	\$ 41,965
2033	35,006	221	55,250	\$ 42,543
	TOTALS	4,097	1,024,250	\$ 620,428





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Benefits – Safety

The current undivided configuration of White Settlement Road and the high volumes at the intersection of White Settlement Road and Henderson Street both contribute to the crashes along these facilities. A three-year summary of incidents along these facilities was compiled. From 2009 to 2011, a total of 15 incidents (seven on White Settlement Road, seven at the intersection of White Settlement Road and Henderson Street, and one at the railroad crossing at White Settlement Road) were documented by the City of Fort Worth Police Department.

Using the information contained within the document, "*Treatment of the Economic Value of a Statistical Life in Departmental Analyses – 2011 Interim Adjustment*," the value of statistic life (VSL) is \$6.2 million. Incidents are reduced by an appropriate factor from the Abbreviated Injury Scale (AIS) based on the severity of the crash to capture their value. Based solely on the installation of a median, it has been documented that accident rates can be reduced by 55 percent percent in urban areas. Additionally, the realignment of Henderson Street and White Settlement Road will eliminate two at-grade railroad crossings. The existing number of crashes over the three-year period was annualized and monetized, then reduced according to the proposed improvements. Installation of the proposed improvements will result in a potential annual safety cost savings of approximately \$329,000 per year for White Settlement and \$309,000 per year for Henderson. The results are documented in Tables A-12.1-12.3 below:

Injury Type	Existing Average # Accidents Per Year	Cost Per Accident	Total Cos		Potential Average # of Accidents per year	Pot Ar	ential Total nnual Cost	Potential Annual Cost Savings			
White Settlement Rd.											
AIS 1 3.33 \$ 18,600 \$ 62,000 1.83 \$ 34,100 \$ 27,900											
AIS 2	0.67	\$ 291,400	\$	194,267	0.37	\$	106,847	\$	87,420		
AIS 3	0.67	\$ 651,000	\$	434,000	0.37	\$	238,700	\$	195,300		
		White S	Sett	lement Ro	d. Railroad Crossing						
AIS 1	1.00	\$ 18,600	\$	18,600	0	\$	-	\$	18,600		
TOTALS	5.67	N/A	\$	708,867	2.57	\$	379,647	\$	329,220		

Table A-12.1: Safety: Annual Cost Savings White Settlement Road

Table A-12.2: Safety Annual Cost Savings — Henderson Street

Injury Type	Existing Average # Cost Per Accidents Per Year Accident Total Cost Potential Average # Potential Accidents Per Year Annual				ential Total nnual Cost	Potential Annual Cost Savings					
Henderson St.											
AIS 1	1.00	\$ 18,600	\$	18,600	0.55	\$	10,230	\$	8,370		
AIS 2	0.67	\$ 291,400	\$	194,267	0.37	\$	106,847	\$	87,420		
AIS 3	0.67	\$ 651,000	\$	434,000	0.37	\$	238,700	\$	195,300		
			He	nderson S	St. RR X-ing						
AIS 1	1.00	\$ 18,600	\$	18,600	0	\$	-	\$	18,600		
TOTALS	3.33	N/A	\$	665,467	1.28	\$	355,777	\$	309,690		



Injury Type	Existing Average # Accidents Per Year	Cost Per Accident	Total Cost		Potential Average # of Accidents per year	Potential Total Annual Cost		Potential Annual Cost Savings				
Main St.												
AIS 1	1.00	\$ 18,600	\$	18,600	0.55	\$	10,230	\$	8,370			
AIS 2	0.67	\$ 291,400	\$	194,267	0.37	\$	106,847	\$	87,420			
AIS 3	0.67	\$ 651,000	\$	434,000	0.37	\$	238,700	\$	195,300			
TOTALS	2.33	N/A	\$	646,867	1.28	\$	355,777	\$	291,090			

Table A-12.3: Safety — Annual Cost Savings

It was assumed that the number of crashes would increase at the same rate as the AADT along Henderson Street, White Settlement Road, and Main Street. The savings associated with safety improvements along the Trinity River Vision Bridges translates to approximately \$15.5 million for White Settlement, \$7.2 million for Henderson, and \$12.2 million for Main over the 20-year project life of the Project.

Table A-13.1: Safety: Annual Crash Savings — White Settlement Road

Year	AADT	Annual Crash Cost Savings with Improvements
2013	11,494	\$-
2014	12,969	\$ 371,468
2015	14,444	\$ 413,716
2016	15,919	\$ 455,964
2017	17,394	\$ 498,212
2018	18,869	\$ 540,460
2019	20,344	\$ 582,709
2020	21,819	\$ 624,957
2021	23,294	\$ 667,205
2022	24,769	\$ 709,453
2023	26,244	\$ 751,701
2024	27,719	\$ 793,949
2025	29,194	\$ 836,197
2026	30,669	\$ 878,445
2027	32,144	\$ 920,693
2028	33,619	\$ 962,941
2029	35,094	\$ 1,005,189
2030	36,569	\$ 1,047,437
2031	38,044	\$ 1,089,686
2032	39,519	\$ 1,131,934
2033	40,994	\$ 1,174,182
	TOTALS	\$ 15,456,498





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Table A-13.2: Safety: Annual CrashSavings — Henderson Street

Year	AADT	Annual Crash Cost Savings with Improvements
2013	26,926	\$-
2014	27,330	\$ 314,337
2015	27,734	\$ 318,983
2016	28,138	\$ 323,630
2017	28,542	\$ 328,276
2018	28,946	\$ 332,923
2019	29,350	\$ 337,570
2020	29,754	\$ 342,216
2021	30,158	\$ 346,863
2022	30,562	\$ 351,510
2023	30,966	\$ 356,156
2024	31,370	\$ 360,803
2025	31,774	\$ 365,449
2026	32,178	\$ 370,096
2027	32,582	\$ 374,743
2028	32,986	\$ 379,389
2029	33,390	\$ 384,036
2030	33,794	\$ 388,682
2031	34,198	\$ 393,329
2032	34,602	\$ 397,976
2033	35,006	\$ 402,622
	TOTALS	\$ 7,169,589

Table A-13.3: Safety: Annual CrashSavings — Main Street

Year	AADT	Annual Crash Cost Savings with Improvements
2013	15,171	\$-
2014	16,762	\$ 321,617
2015	18,353	\$ 352,144
2016	19,944	\$ 382,671
2017	21,535	\$ 413,198
2018	23,126	\$ 443,725
2019	24,717	\$ 474,252
2020	26,308	\$ 504,779
2021	27,899	\$ 535,306
2022	29,490	\$ 565,832
2023	31,081	\$ 596,359
2024	32,672	\$ 626,886
2025	34,263	\$ 657,413
2026	35,854	\$ 687,940
2027	37,445	\$ 718,467
2028	39,036	\$ 748,994
2029	40,627	\$ 779,521
2030	42,218	\$ 810,048
2031	43,809	\$ 840,575
2032	45,400	\$ 871,102
2033	46,991	\$ 901,629
	TOTALS	\$ 12,232,457

Summary of Benefits

The project benefits for the Trinity River Vision Bridges are summarized in the table on the next page. Over a 20-year period, the \$112,768,342 investment would result in over \$133.2 million (\$232.7 million to \$99.5 million) in net present benefits using a 3 percent discount rate and \$60.4 million (\$150.5 million to \$90.2 million) in net present benefits using a 7 percent discount rate. This would result in a benefit-cost ratio of 2.34 and 1.67 based on a 3 percent and 7 percent discount rate, respectively.

Without a TIGER V grant, this level of economic benefit is impossible to duplicate. TIGER V represents the crucial, final piece in the funding package of this project. In the absence of federal funding, only a very small portion of the project will be possible in the near term.





Trinity River Vision Bridges Project

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	Trinity River Vision Bridges													
	Project Costs	State of a	Cood Popoir		Economia Cor		Vision Bridges	Livebility	Suctoinshility	Sofoty				
	Project Costs	State of	Good Repair		Economic Cor	npetitiveness		Livability	Sustainability	Salety	Total Net	NPV (3%)	NPV (7%)	
Year	Capital Costs	Avoided Roadway Maintenance Costs	Avoided Vehicle Repair Costs	Productive Land Value	Increase in Wages	Travel Time Savings	Travel Time Savings RR Crossing	Multi-Modal Connectivity Benefits	Emission Reductions	Reduction in Crashes	Benefit (Cost)	of Total Net Benefit (Cost)	of Total Net Benefit (Cost)	
2013	(\$38,637,501)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$38,637,501)	(\$37,512,137)	(\$36,109,814)	
2014 - Q1	\$0													
2014 - Q2	(\$4,753,204)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,007,422	(\$13,641,794)	(\$12,858,700)	(\$11,915,272)	
2014 - Q3	(\$4,909,045)			-							,			
2014 - Q4	(\$4,986,967)													
2015 - Q1	(\$4,849,871)													
2015 - Q2	(\$4,049,071)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,084,843	(\$18,791,126)	(\$17,196,542)	(\$15,339,156)	
2015 - Q3	(\$5,000,902)													
2016 - 01	(\$5,244,080)													
2016 - Q2	(\$5,243,728)										(**********		(*********	
2016 - Q3	(\$4,980,569)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,162,265	(\$19,252,850)	(\$17,105,908)	(\$14,687,907)
2016 - Q4	(\$4,946,738)													
2017 - Q1	(\$4,189,902)													
2017 - Q2	(\$3,701,616)	¢0	02	\$0	\$0	\$0	02	¢0	02	\$1,239,687	(\$12.045.511)	(\$11.166.012)	(\$0.220.071)	
2017 - Q3	(\$3,524,966)	4 0	φU	φυ	Φ 0	Φ 0	φU	4 0	φU	φ1,239,00 <i>1</i>	(\$12,945,511)	(\$11,100,912)	(\$9,229,971)	
2017 - Q4	(\$2,768,714)													
2018 - Q1	(\$2,524,439)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$658.554	(\$4,346,789)	(\$3.640.367)	(\$2,896,449)	
2018 - Q2	(\$2,480,904)	+-	÷-	+-	+-	+-	+-	+-	+-	+,	(+.,,,	(+-,,,	(+=,===,,	
2018	\$0	\$22,500	\$119,181	\$96,988,942	\$877,763	\$105,840	\$57,943	\$838,960	\$478	\$658,554	\$99,670,161	\$83,472,190	\$66,414,436	
2019	\$0	\$45,000	\$250,021	\$0	\$1,800,456	\$211,681	\$60,253	\$1,714,820	\$984	\$1,394,530	\$5,477,744	\$4,453,907	\$3,411,264	
2020	\$U \$0	\$1,500,000	\$201,080	\$U ©0	\$2,769,832	\$314,001 \$420,501	\$62,370 \$64,972	\$1,752,577	\$1,509	\$1,471,951	\$8,134,579	\$6,421,512	\$4,734,399	
2021	\$U \$0	\$45,000	\$273,339	φ0 \$0	\$3,707,704	\$420,301 \$526,341	\$04,073 \$67,100	\$1,791,094 \$1,920,562	\$2,000	\$1,049,373 \$1,049,373	\$7,933,941	\$0,060,703	\$4,515,556	
2022	30 \$0	\$45,000	\$206,659	φ0 \$0	\$4,655,950 \$5,076,515	\$020,041 \$620,221	\$60,103	\$1,030,302	\$2,039	\$1,020,795	\$9,239,400	\$0,075,052	\$4,090,077	
2024	90 \$0	\$45,000	\$308,317	\$0 \$0	\$7 151 409	\$735 161	\$71.803	\$1,070,791	\$3,240	\$1 781 638	\$12,009,167	\$8,422,988	\$5,332,214	
2025	\$0	\$45,000	\$319,976	\$0	\$8,382,716	\$841,002	\$73,920	\$1,954,007	\$4,532	\$1,859,060	\$13,480,212	\$9 179 369	\$5 593 809	
2026	\$0 \$0	\$45.000	\$331.635	\$0 \$0	\$9.672.588	\$943,982	\$76,230	\$1,996,994	\$5.218	\$1,936,481	\$15.008.128	\$9.922.141	\$5,820,411	
2027	\$0	\$45,000	\$343,295	\$0	\$11,023,257	\$1,049,822	\$78,540	\$2,040,932	\$5,942	\$2,013,903	\$16,600,690	\$10,655,351	\$6,016,854	
2028	\$0	\$45,000	\$354,954	\$0	\$12,437,029	\$1,155,662	\$80,850	\$2,085,821	\$6,690	\$2,091,325	\$18,257,331	\$11,377,365	\$6,184,390	
2029	\$0	\$45,000	\$366,613	\$0	\$13,916,294	\$1,258,642	\$82,968	\$2,131,756	\$7,471	\$2,168,746	\$19,977,490	\$12,086,710	\$6,324,362	
2030	\$0	\$1,500,000	\$378,272	\$0	\$15,463,521	\$1,364,482	\$85,278	\$2,178,642	\$8,293	\$2,246,168	\$23,224,656	\$13,642,038	\$6,871,338	
2031	\$0	\$45,000	\$389,931	\$0	\$17,081,265	\$1,470,323	\$87,588	\$2,226,575	\$9,142	\$2,323,590	\$23,633,413	\$13,477,805	\$6,534,836	
2032	\$0	\$45,000	\$401,591	\$0	\$18,772,172	\$1,573,303	\$89,898	\$2,275,553	\$10,027	\$2,401,011	\$25,568,554	\$14,156,689	\$6,607,400	
2033	\$0	\$45,000	\$413,250	\$0	\$20,538,977	\$1,679,143	\$92,208	\$2,325,673	\$10,958	\$2,478,433	\$27,583,641	\$14,827,566	\$6,661,810	
Totals	(\$112,768,342)	\$3,607,500	\$5,093,711	\$96,988,942	\$154,507,448	\$14,279,866	\$1,201,200	\$30,926,727	\$83,048	\$34,858,544	\$228,778,645	\$133,224,885	\$60,374,997	



	Trinity River Vision Bridges												
	Project Costs	State of	Good Repair		Economic Cor	mpetitiveness		Livability	Sustainability	Safety	Total Not	NDV (29/)	NDV (7%)
Year	Capital Costs	Avoided Roadway Maintenance Costs	Avoided Vehicle Repair Costs	Productive Land Value	Increase in Wages	Travel Time Savings	Travel Time Savings RR Crossing	Multi-Modal Connectivity Benefits	Emission Reductions	Reduction in Crashes	Benefit (Cost)	of Total Net Benefit (Cost)	of Total Net Benefit (Cost)
2013	(\$38,637,501)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$38,637,501)	(\$37,512,137)	(\$36,109,814)
2014 - Q1	\$0												
2014 - Q2	(\$4,753,204)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1 007 422	(\$13,641,794)	(\$12,858,700)	(\$11 915 272)
2014 - Q3	(\$4,909,045)	φ0	ψũ	ψu	ψU	φυ	ψü	φυ	ψü	\$1,001,422	(\$10,011,101)	(\$12,000,100)	(\$11,010,212)
2014 - Q4	(\$4,986,967)												
2015 - Q1	(\$4,849,871)												
2015 - Q2	(\$4,849,871)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1.084.843	(\$18,791,126)	(\$17,196,542)	(\$15,339,156)
2015 - Q3	(\$5,008,982)			• -	• •				• -	• / /	(*	(* / * * * * /	(*
2015 - Q4	(\$5,167,245)												
2016 - Q1	(\$5,244,080)												
2016 - Q2	(\$5,243,728)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,162,265	(\$19,252,850)	(\$17,105,908)	(\$14,687,907)
2016 - Q3	(\$4,980,569)												
2016 - Q4	(\$4,946,738)												
2017 - Q1	(\$4,109,902)												
2017 - Q2	(\$3,701,010)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,239,687	(\$12,945,511)	(\$11,166,912)	(\$9,229,971)
2017 - Q3	(\$3,324,900)												
2017 - Q4	(\$2,700,714)												
2018 - 02	(\$2,324,433)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$658,554	(\$4,346,789)	(\$3,640,367)	(\$2,896,449)
2018	\$0	\$22,500	\$119 181	\$96 988 942	\$877 763	\$105 840	\$57 943	\$838,960	\$478	\$658 554	\$99 670 161	\$83 472 190	\$66 414 436
2019	\$0 \$0	\$45.000	\$250.021	\$0	\$1,800,456	\$211.681	\$60,253	\$1,714,820	\$984	\$1.394.530	\$5,477,744	\$4,453,907	\$3,411,264
2020	\$0	\$1.500.000	\$261,680	\$0	\$2,769,832	\$314.661	\$62.370	\$1.752.577	\$1.509	\$1,471,951	\$8,134,579	\$6.421.512	\$4,734,399
2021	\$0	\$45,000	\$273,339	\$0	\$3,787,704	\$420,501	\$64,873	\$1,791,094	\$2,058	\$1,549,373	\$7,933,941	\$6,080,705	\$4,315,538
2022	\$0	\$45,000	\$284,999	\$0	\$4,855,950	\$526,341	\$67,183	\$1,830,562	\$2,639	\$1,626,795	\$9,239,468	\$6,875,032	\$4,696,877
2023	\$0	\$45,000	\$296,658	\$0	\$5,976,515	\$629,321	\$69,300	\$1,870,791	\$3,240	\$1,704,216	\$10,595,041	\$7,654,083	\$5,033,628
2024	\$0	\$45,000	\$308,317	\$0	\$7,151,409	\$735 <u>,</u> 161	\$71,803	\$1,911 <u>,</u> 971	\$3,869	\$1,781,638	\$12,009,167	\$8,422,988	\$5,332,214
2025	\$0	\$45,000	\$319,976	\$0	\$8,382,716	\$841,002	\$73,920	\$1,954,007	\$4,532	\$1,859,060	\$13,480,212	\$9,179,369	\$5,593,809
2026	\$0	\$45,000	\$331,635	\$0	\$9,672,588	\$943,982	\$76,230	\$1,996,994	\$5,218	\$1,936,481	\$15,008,128	\$9,922,141	\$5,820,411
2027	\$0	\$45,000	\$343,295	\$0	\$11,023,257	\$1,049,822	\$78,540	\$2,040,932	\$5,942	\$2,013,903	\$16,600,690	\$10,655,351	\$6,016,854
2028	\$0	\$45,000	\$354,954	\$0	\$12,437,029	\$1,155,662	\$80,850	\$2,085,821	\$6,690	\$2,091,325	\$18,257,331	\$11,377,365	\$6,184,390
2029	\$0	\$45,000	\$366,613	\$0	\$13,916,294	\$1,258,642	\$82,968	\$2,131,756	\$7,471	\$2,168,746	\$19,977,490	\$12,086,710	\$6,324,362
2030	\$0	\$1,500,000	\$378,272	\$0	\$15,463,521	\$1,364,482	\$85,278	\$2,178,642	\$8,293	\$2,246,168	\$23,224,656	\$13,642,038	\$6,871,338
2031	\$0	\$45,000	\$389,931	\$0	\$17,081,265	\$1,470,323	\$87,588	\$2,226,575	\$9,142	\$2,323,590	\$23,633,413	\$13,477,805	\$6,534,836
2032	\$0	\$45,000	\$401,591	\$0	\$18,772,172	\$1,573,303	\$89,898	\$2,275,553	\$10,027	\$2,401,011	\$25,568,554	\$14,156,689	\$6,607,400
2033	\$0	\$45,000	\$413,250	\$0	\$20,538,977	\$1,679,143	\$92,208	\$2,325,673	\$10,958	\$2,478,433	\$27,583,641	\$14,827,566	\$6,661,810
Totals	(\$112,768,342)	\$3,607,500	\$5,093,711	\$96,988,942	\$154,507,448	\$14,279,866	\$1,201,200	\$30,926,727	\$83,048	\$34,858,544	\$228,778,645	\$133,224,885	\$60,374,997

TIGER V

Trinity River Vision Bridges

APPENDIX B LETTERS OF SUPPORT



616 Six Flags Drive Arlington, TX 76005

....

Co-applicant:





KAY GRANGER 12TH DISTRICT, TEXAS

APPROPRIATIONS COMMITTEE

CHAIRWOMAN, STATE AND FOREIGN OPERATIONS SUBCOMMITTEE

MEMBER, DEFENSE SUBCOMMITTEE

MEMBER, TRANSPORTATION, HOUSING AND URBAN DEVELOPMENT, AND RELATED AGENCIES

Congress of the United States

House of Representatives

WASHINGTON OFFICE: 1026 LONGWORTH HOUSE OFFICE BUILDING WASHINGTON, D.C. 20515 (202) 225–5071 FAX: (202) 225–5683

> DISTRICT OFFICE: SUITE 407 1701 RIVER RUN ROAD FORT WORTH, TX 76107 (817) 338–0909 FAX: (817) 335–5852 kaygranger.house.gov

May 23, 2013

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

Dear Secretary LaHood:

I am writing to express my support for the application submitted by the North Central Texas Council of Governments (NCTCOG) to the U.S. Department of Transportation for the Trinity River Vision Project in Fort Worth, Texas, for funding through the 2013 Transportation Investment Generating Economic Recovery (TIGER) grant program.

As you know, the Trinity River Vision project exemplifies smart growth principles, which are critical to the future development of North Texas. The project combines transportation improvements and flood control with the community's desire to make the river a more integral part of central Fort Worth, one of the fastest-growing large cities in the nation. The public improvements, including three new bridges, are expected to foster a more walkable, higher-density, mixed-use neighborhood, which is a more sustainable alternative to suburban sprawl. Additionally, the project will have an enormous economic impact to the area, bringing in multiple job and business opportunities.

If awarded, this grant will fund the construction of the White Settlement Road Bridge which will allow all three bridges to be built, each consisting of four lanes for vehicles, two 10-foot wide sidewalks for pedestrians and two 5-foot wide striped bike lanes. These bridges are critical transportation components to the overall project which will greatly improve the regional mobility and multi-modal transportation.

Thank you for your consideration of this application. Please feel free to contact me directly if you have any questions.

Sincerely Kay Granger Member of Congress

EMAIL ME BY VISITING KAYGRANGER.HOUSE.GOV/CONTACTME

PRINTED ON RECYCLED PAPER

FORT WORTH

May 30, 2013

The Honorable Ray Lahood Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Secretary Lahood:

On behalf of the City of Fort Worth, we are pleased to support the application submitted by the North Central Texas Council of Governments (NCTCOG) to the US Department of Transportation for the Trinity River Vision Bridges project in Fort Worth, Texas, for funding through the 2013 Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant Program.

The Trinity River Vision Bridges project exemplifies smart growth principles, which are critical to the future development of North Texas. The project combines transportation improvements and flood control with the community's desire to make the river a more integral part of central Fort Worth, one of the fastest-growing large cities in the nation. The public improvements, including three new bridges, are expected to foster a more walkable, higher-density, mixed-use neighborhood, which is a more sustainable alternative to suburban sprawl. Additionally, the project will have an enormous economic impact to the area, bringing in multiple job and business opportunities.

Specifically, the project includes the construction of three new bridges, each one consisting of four lanes for vehicles, two 10-foot wide sidewalks for pedestrians and two 5-foot wide striped bike lanes. This project is included in Mobility 2035: The Metropolitan Transportation Plan for North Central Texas and Mobility 2035: The Metropolitan Transportation Plan for North Central Texas – 2013 Update. All federally funded surface transportation projects must also be included in the Transportation Improvement Program (TIP). This project is included in the 2013-2016 Transportation Improvement Program for North Central Texas.

Again, the City of Fort Worth fully supports the 2013 TIGER Grant application submitted by NCTCOG for the Trinity River Vision Bridges project. This important project would improve regional mobility and multi-modal transportation options and have a positive economic impact on North Texas. Thank you for your full and fair consideration of this application.

Sincerely, Betsy Price

Mayor

BETSY PRICE, MAYOR



2501 SW LOOP 820 • FORT WORTH, TEXAS 76133 • (817) 370-6500 May 29, 2013

The Honorable Anthony Foxx Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Secretary Foxx:

The Texas Department of Transportation's (TxDOT) Fort Worth District supports the North Central Texas Council of Governments' (NCTCOG) request for funding through the 2013 Transportation Investment Economic Recovery (TIGER) Discretionary Grant Program for the Trinity River Vision Project in Fort Worth, Texas. This project will construct new bridges on White Settlement Road, Main Street (BUS 287) and Henderson Street (SH 199).

The Trinity River Vision project addresses critical flood control and transportation needs important to the City of Fort Worth and Tarrant County. TxDOT has worked extensively with its partner agencies: the City of Fort Worth, Tarrant Regional Water District, Trinity River Vision Authority, Tarrant County, NCTCOG, U.S. Army Corps of Engineers and the Federal Highway Administration (FHWA) to develop and deliver this project.

Please consider this letter of support in NCTCOG's TIGER Discretionary Grant Program request for funding.

Sincerely

Mariber P. Chavez, P.E. District Engineer Fort Worth District



Regional Transportation Council

The Transportation Policy Body for the North Central Texas Councill of Governments (Metropolitan Planning Organization for the Dallas-Fort Worth Region)



May 22, 2013

The Honorable Ray LaHood Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590 The Honorable Anthony Foxx Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Secretary LaHood and Secretary Foxx:

The Regional Transportation Council (RTC) serves as the Metropolitan Planning Organization (MPO) for the Dallas-Fort Worth area, a membership roster of our organization is enclosed. On behalf of the RTC, we are pleased to support the application submitted by the North Central Texas Council of Governments (NCTCOG) to the US Department of Transportation for the Trinity River Vision Bridges project in Fort Worth, Texas, for funding through the 2013 Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant Program.

The Trinity River Vision Bridges project exemplifies smart growth principles, which are critical to the future development of North Texas. The project combines transportation improvements and flood control with the community's desire to make the river a more integral part of central Fort Worth, one of the fastest-growing large cities in the nation. The public improvements, including three new bridges, are expected to foster a more walkable, higher-density, mixed-use neighborhood, which is a more sustainable alternative to suburban sprawl. Additionally, the project will have an enormous economic impact to the area, bringing in multiple job and business opportunities.

Specifically, the project includes the construction of three new bridges, each one consisting of four lanes for vehicles, two 10-foot wide sidewalks for pedestrians and two 5-foot wide striped bike lanes. This project is included in <u>Mobility 2035</u>: The Metropolitan Transportation Plan for <u>North Central Texas</u> and <u>Mobility 2035</u>: The Metropolitan Transportation Plan for North Central <u>Texas – 2013 Update</u>. All federally funded surface transportation projects must also be included in the Transportation Improvement Program (TIP). This project is included in the 2013-2016 Transportation Improvement Program for North Central Texas.

Again, the RTC fully supports the 2013 TIGER Grant application submitted by NCTCOG for the Trinity River Vision Bridges project. This important project would improve regional mobility and multi-modal transportation options and have a positive economic impact on North Texas. If you have any questions regarding this project, please contact me or Michael Morris, P.E., Director of Transportation for the North Central Texas Council of Governments, at <u>mmorris@nctcog.org</u> or (817) 695-9241. Thank you for your full and fair consideration of this application.

Sincerely,

Bete Kamp

Pete Kamp Chair, Regional Transportation Council Mayor Pro Tem, City of Denton

RH:hc Enclosure

cc: Michael Morris, P.E., NCTCOG

Regional Transportation Council

Pete Kamp, Chair Mayor Pro Tem City of Denton

Kathryn Wilemon, Vice Chair Mayor Pro Tem City of Arlington

Mike Cantrell, Secretary Commissioner Dallas County

Ron Brown Commissioner Ellis County

Sheri Capehart Councilmember City of Arlington

Maribel Chavez, P.E. District Engineer TxDOT, Fort Worth District

Rudy Durham Mayor Pro Tem City of Lewisville

Andy Eads Commissioner Denton County

Charles Emery Board Chair Denton County Transportation Authority

Mark Enoch Board Member Dallas Area Rapid Transit

Gary Fickes Commissioner Tarrant County

Rob Franke, P.E. Mayor City of Cedar Hill

Sandy Greyson Councilmember City of Dallas

Bill Hale, P.E. District Engineer TxDOT, Dallas District

Roger Harmon County Judge Johnson County **Vonciel Jones Hill** Councilmember City of Dallas

John Horn County Judge Hunt County

Clay Lewis Jenkins County Judge Dallas County

Jungus Jordan Councilmember City of Fort Worth

Sheffie Kadane Councilmember City of Dallas

Geralyn Kever Councilmember City of McKinney

Linda Koop Councilmember City of Dallas

Brad LaMorgese Councilmember City of Irving

Stephen Lindsey Councilmember City of Mansfield

Laura Maczka Mayor Pro Tem City of Richardson

Scott Mahaffey Board Chair Fort Worth Transportation Authority

Matthew Marchant Mayor City of Carrollton

Maher Maso Mayor City of Frisco

Bill McLendon Councilmember City of Hurst

John Monaco Mayor City of Mesquite Mike Nowels Board Member North Texas Tollway Authority

Mark Riley County Judge Parker County

Danny Scarth Councilmember City of Fort Worth

Lissa Smith Mayor Pro Tem City of Plano

Jere Thompson Citizen Representative City of Dallas

T. Oscar Trevino Jr., P.E. Mayor City of North Richland Hills

William Velasco, II Citizen Representative City of Dallas

Bernice J. Washington Board Member Dallas/Fort Worth International Airport

Duncan Webb Commissioner Collin County

B. Glen Whitley County Judge Tarrant County

John Willis Mayor Pro Tem City of Garland

Zim Zimmerman Mayor Pro Tem City of Fort Worth



TARRANT COUNTY COMMISSIONERS COURT

G. K. MAENIUS COUNTY ADMINISTRATOR

May 28, 2013

The Honorable Ray LaHood Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

The Honorable Anthony Foxx Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Secretary LaHood and Secretary Foxx:

I write in support of the North Central Texas Council of Governments (NCTCOG) request for funding through the 2013 Transportation Investment Economic Recovery (TIGER) Discretionary Grant Program for Trinity River Vision Bridge Project in Fort Worth, Texas including construction of bridges at White Settlement Road, Main Street, and Henderson Street.

Our community is very proud of our Trinity River Vision project because not only does it address important flood control and transportation needs but it transforms a historically underutilized industrial area to a vibrant waterfront neighborhood. The new bridge and related transportation improvements are imperative to continue inner city revitalization efforts which help address our region's mobility and congestion challenges.

This project is projected to bring over \$1.6 billion in business activity per year. Through enhanced flood control, smart growth planning, and critical transportation improvements we are fostering a walkable, high-density, mixed use neighborhood in our central city, a viable, sustainable alternative to suburban sprawl. A cooperative partnership of the City of Fort Worth, Tarrant Regional Water District, Trinity River Vision Authority, Tarrant County, Texas Department of Transportation and the US Army Corps of Engineers is committed to bringing this project to fruition. Please consider this letter my show of support for this critical project and the NCTCOG TIGER request for funding.

Sincerely,

mis 20 G.K. Maenius

County Administrator



B. GLEN WHITLEY COUNTY JUDGE of TARRANT COUNTY

May 28, 2013

The Honorable Ray LaHood Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

The Honorable Anthony Foxx Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Secretary LaHood and Secretary Foxx:

Tarrant County is pleased to support the application submitted by the North Central Texas Council of Governments (NCTCOG) to the US Department of Transportation for the Trinity River Vision Bridges project in Fort Worth, Texas, for funding through the 2013 Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant Program.

The Trinity River Vision exemplifies smart growth principles, which are critical to the future development of North Texas. The project combines transportation improvements and flood control with the community's desire to make the river a more integral part of central Fort Worth, one of the fastest-growing large cities in the nation. The public improvements, including three new bridges, are expected to foster a more walkable, higher-density, mixed-use neighborhood, which is a more sustainable alternative to suburban sprawl. Additionally, the project will have an enormous economic impact to the area, bringing in multiple job and business opportunities.

This project includes new bridges at White Settlement, Main Street and Henderson Street and is included in <u>Mobility 2035: The Metropolitan Transportation Plan for North Central Texas</u> and <u>Mobility 2035: The Metropolitan Transportation Plan for North Central Texas – 2013 Update</u>. All federally funded surface transportation projects must also be included in the Transportation Improvement Program (TIP). This project is included in the 2013-2016 Transportation Improvement Program for North Central Texas.

County Administration Building, 100 East Weatherford Street Fort Worth, Texas 76196-0101 · (817) 884-1441 · FAX: (817) 884-2793 gwhitley@tarrantcounty.com

Again, Tarrant County fully supports the 2013 TIGER Grant application submitted by NCTCOG for bridge construction associated with the larger Trinity River Vision project. This important project would improve regional mobility and multi-modal transportation options and have a positive economic impact on North Texas. Thank you for your full and fair consideration of this application.

Sincerely,

D. Alen Whithy

B. Glen Whitley County Judge



Board Members

Victor W. Henderson, President Hal S. Sparks, III, Vice President Jack R. Stevens, Secretary Marty V. Leonard, Secretary Pro-Tem Jim W. Lane, Director

James M. Oliver, General Manager

May 23, 2013

The Honorable Ray LaHood Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

The Honorable Anthony Foxx Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Secretary LaHood and Secretary Foxx:

The Tarrant Regional Water District (TRWD) strongly supports the North Central Texas Council of Governments (NCTCOG) request for funding through the 2013 Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant Program. If awarded, this request will fund the Trinity River Vision Bridge project which includes new bridges located at White Settlement, Main Street and Henderson Street in Fort Worth, Texas.

TRWD is making a significant investment in flood control and recreation infrastructure in Fort Worth's urban core. Combined with the Texas Department of Transportation's mobility improvements, the Trinity River Vision project will address infrastructure needs and revitalization of an aging industrial area. Through enhanced flood control, smart growth planning, and critical transportation improvements we are fostering a walkable, high-density, mixed use neighborhood in our center city, a viable, sustainable alternative to suburban sprawl. Additionally, the project will have an enormous economic impact, creating over 16,000 permanent jobs, 600 construction jobs per year and a projected \$1.6 billion dollars in business activity per year.

A cooperative partnership comprised of the Trinity River Vision Authority, Tarrant Regional Water District, City of Fort Worth, Tarrant County, Texas Department of Transportation and the US Army Corps of Engineers are committed to bringing this project to fruition. Thank you for your consideration of this application. This funding will help us address long-range transportation needs for this region.

Sincerely,

Victor W. Henderson Board President



P.O. Box 4508 Fort Worth, Texas 76164

800 E. Northside Drive Fort Worth, Texas 76102 Office: 817-335-2491 Fax: 817-877-5137 **Board Members**

Victor W. Henderson Hal S. Sparks, III Jack R. Stevens Marty V. Leonard Jim Lane

May 23, 2013

The Honorable Ray LaHood Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590 The Honorable Anthony Foxx Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Secretary LaHood and Secretary Foxx:

The Tarrant Regional Water District strongly supports the application submitted by the North Central Texas Council of Governments (NCTCOG) to the US Department of Transportation for the Trinity River Bridges project in Fort Worth, Texas, for funding through the 2013 Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant Program.

The Trinity River Vision exemplifies smart growth principles, which are critical to the future development of North Texas. The project combines transportation improvements and flood control with the community's desire to make the river a more integral part of central Fort Worth, one of the fastestgrowing large cities in the nation. The public improvements, including three new bridges, are expected to foster a more walkable, higher-density, mixed-use neighborhood, which is a more sustainable alternative to suburban sprawl. Additionally, the project will have an enormous economic impact to the area, bringing in multiple job and business opportunities.

Again, the Tarrant Regional Water District fully supports the 2013 TIGER Grant application submitted by NCTCOG for bridge construction associated with the larger Trinity River Vision Project. This important project would improve regional mobility and multi-modal transportation options and have a positive economic impact on North Texas.

Sincerely,

/Jim-∕Oliver General Manager Tarrant Regional Water District



May 28, 2013

The Honorable Ray LaHood Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590 The Honorable Anthony Foxx Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Secretary LaHood and Secretary Foxx:

The Trinity River Vision Authority (TRVA) strongly supports the North Central Texas Council of Governments (NCTCOG) request for funding through the 2013 Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant Program. If awarded, this request will fund the Trinity River Vision Bridge project which includes new bridges located at White Settlement, Main Street and Henderson Street in Fort Worth, Texas.

TRVA is making a significant investment in flood control and recreation infrastructure in Fort Worth's urban core. Combined with the Texas Department of Transportation's mobility improvements, the Trinity River Vision project will address infrastructure needs and revitalization of an aging industrial area. Through enhanced flood control, smart growth planning, and critical transportation improvements we are fostering a walkable, high-density, mixed use neighborhood in our center city, a viable, sustainable alternative to suburban sprawl. Additionally, the project will have an enormous economic impact, creating over 16,000 permanent jobs, 600 construction jobs per year and a projected \$1.6 billion dollars in business activity per year.

A cooperative partnership comprised of the Trinity River Vision Authority, Tarrant Regional Water District, City of Fort Worth, Tarrant County, Texas Department of Transportation and the US Army Corps of Engineers are committed to bringing this project to fruition. Thank you for your consideration of this application. This funding will help us address long-range transportation needs for this region.

Sincerely,

G.K. Maenius Board President

307 West 7th Street, Suite 100 Fort Worth, Texas 76102 trinityrivervision.org



May 24, 2013

The Honorable Ray LaHood Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590 The Honorable Anthony Foxx Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Secretary LaHood and Secretary Foxx:

The Fort Worth Chamber of Commerce strongly supports the North Central Texas Council of Governments (NCTCOG) funding request through the 2013 Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant Program for the Trinity River Vision Bridges project including new vehicular bridges located at White Settlement Road, Main Street, and Henderson Street.

Fort Worth was named the fastest-growing metropolitan area in the U.S by the Census Bureau in 2011, proven by an over 39% increase in population in just ten years. This has created a significant burden on our existing infrastructure. The Trinity River Vision project combines flood control and transportation improvements with the community's desire to make the river a more integral part of our central city. The public improvements will foster a walkable, high-density, mixed use neighborhood in our central city, a viable, sustainable alternative to suburban sprawl. Additionally, the project will have an enormous economic impact, bringing in over 16,000 permanent jobs, 600 construction jobs per year and a projected \$1.6 billion dollars in business activity per year.

This inner city revitalization will clean up parks, provide housing, and create opportunities not thought possible in this part of the city. As strong supporters of projects that exemplify smart growth and sustainability, we recognize the importance of this effort to our region. Please consider this letter as our voice of support for this application.

Sincerely,

Silf Houton

Bill Thornton President



May 20, 2013

The Honorable Ray LaHood Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590 The Honorable Anthony Foxx Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Secretary LaHood and Secretary Foxx:

The Fort Worth Metropolitan Black Chamber of Commerce strongly supports the North Central Texas Council of Governments (NCTCOG) funding request through the 2013 Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant Program for the Trinity River Vision Bridges project in Fort Worth, Texas which includes a new bridge a White Settlement Road, Main Street, and Henderson Street.

Fort Worth was named the fastest-growing metropolitan area in the U.S by the Census Bureau in 2011, proven by an over 39% increase in population in just ten years. This has created a significant burden on our existing infrastructure. The Trinity River Vision project combines flood control and transportation improvements with the community's desire to make the river a more integral part of our central city. The public improvements will foster a walkable, high-density, mixed use neighborhood in our central city, a viable, sustainable alternative to suburban sprawl. Additionally, the project will have an enormous economic impact, bringing in over 16,000 permanent jobs, 600 construction jobs per year and a projected \$1.6 billion dollars in business activity per year.

This inner city revitalization will clean up parks, provide housing, and create opportunities not thought possible in this part of the city. As strong supporters of projects that exemplify smart growth and sustainability, we recognize the importance of this effort to our region. We are also having Mr. Phil Wilson, the Executive Director of the Texas Department of Transportation, as the keynote speaker at our Annual membership Luncheon, on June 28th. That is how interested we are in transportation issues in our city. Please consider this letter as our voice of support for this application.

May 20, 2013 Page Two

Sincerely, Juning Devoyd Jerming President / C E O



May 28, 2013

The Honorable Ray LaHood Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590 The Honorable Anthony Foxx Secretary of Transportation United States Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Secretary LaHood and Secretary Foxx:

The Fort Worth Hispanic Chamber of Commerce strongly supports the North Central Texas Council of Governments (NCTCOG) funding request through the 2013 Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant Program for the Trinity River Vision Bridges project including new bridge construction at White Settlement Road, Henderson Street and Main Street in Fort Worth, Texas.

Fort Worth was named the fastest-growing metropolitan area in the U.S by the Census Bureau in 2011, proven by an over 39% increase in population in just ten years. This has created a significant burden on our existing infrastructure. The Trinity River Vision project combines flood control and transportation improvements with the community's desire to make the river a more integral part of our central city. The public improvements will foster a walkable, high-density, mixed use neighborhood in our central city, a viable, sustainable alternative to suburban sprawl. Additionally, the project will have an enormous economic impact, bringing in over 16,000 permanent jobs, 600 construction jobs per year and a projected \$1.6 billion dollars in business activity per year.

In the City of Fort Worth, we have many partners and the TRVA (Trinity River Vision Authority) is one that we hold in the highest regard. Their vision is a key component to the future success of our beautiful City. They have created a foresight that addresses transportation and our economic future. It would be a huge win for the Department of Transportation to invest in this visionary project.

This inner city revitalization will clean up parks, provide housing, and create opportunities not thought possible in this part of the city. As strong supporters of projects that exemplify smart growth and sustainability, we recognize the importance of this effort to our region. Please consider this letter as our voice of support for this application.

Sincerely,

Asusena Resendiz President and CEO
TIGER V

Trinity River Vision Bridges

APPENDIX C NEPA SUPPORT DOCUMENTS





616 Six Flags Drive Arlington, TX 76005

Co-applicant:







November 2, 2012

CC 902-48-697 Categorical Exclusion Tarrant County CSJ: 0902-48-697

White Settlement Road at Bypass Channel

Robert F. Tally, Jr., P.E. Division Administrator Federal Highway Administration, Texas Division 300 East 8th Street, Suite 826 Austin, TX 78701

Dear Mr. Tally:

TxDOT is proposing to construct a new bridge and approaches on White Settlement Road over the planned flood control bypass channel and over the existing FW&W Railroad and a roundabout at the intersection with South Commercial Street. The environmental review document was revised to address FHWA comments, and replacement pages were provided to your office by the TxDOT Fort Worth District. Tribal coordination concluded on October 25, 2012. No further resource agency coordination or public involvement is necessary.

Your concurrence is requested that this project is a categorical exclusion. If you have any questions, please contact Scott Ford, AICP, at 512-416-2687.

Sincerely,

ndaug Kummitte for

Melissa A. Neeley Director of Project Delivery Management Environmental Affairs Division

Date:

Concur:

ederal Highway Administration



August 1, 2012

HP 2008(345) Categorical Exclusion Tarrant County CSJ: 0171-05-081

SH 199 Bridge at Bypass Channel

Robert F. Tally, Jr., P.E. Division Administrator Federal Highway Administration, Texas Division 300 East 8th Street, Suite 826 Austin, TX 78701

Dear Mr. Tally:

TxDOT is proposing to construct a new bridge on SH 199 over the planned flood control bypass channel and over the existing FW&W Railroad, approaches, and a roundabout at the new intersection with White Settlement Road. Coordination with TPWD was completed on March 8, 2012. SHPO concurred there will be no adverse effect to historic properties on July 24, 2012. TxDOT archaeologists determined on August 22, 2007, that additional work was not required.

Attached are three copies of the CE document for the proposed project. The CE document was revised based on ENV review, and attached are three copies of the associated comment and response matrix.

No further resource agency coordination or public involvement is necessary. Your concurrence is requested that this project is a categorical exclusion. If you have any questions, please contact Scott Ford, AICP, at 512-416-2687.

Sincerely,

e CO

Melissa A. Neeley Director of Project Delivery Management Environmental Affairs Division

Attachment Reference: ENV 850 Concur: Date: ederal Highway Administration

THE TERAS PLAN REDUCE CONGESTION • ENHANCE SAFETY • EXPAND ECONOMIC OPPORTUNITY • IMPROVE AIR QUALITY PRESERVE THE VALUE OF TRANSPORTATION ASSETS



January 28, 2013

HP 2008(344) Categorical Exclusion Tarrant County CSJ: 0014-01-022

BU 287P Bridge at Bypass Channel

Robert F. Tally, Jr., P.E. Division Administrator Federal Highway Administration, Texas Division 300 East 8th Street, Suite 826 Austin, TX 78701

Dear Mr. Tally:

TxDOT is proposing to construct a new bridge and approaches on BU 287P (locally known as North Main Street) at the location of the proposed bypass channel in Fort Worth. Tribal coordination was completed on January 14, 2013. Additional coordination with TPWD concluded on January 17, 2013.

Attached are two copies of the CE document for the proposed project. The CE document was revised based on FHWA review, and attached is the associated comment and response matrix. A copy of the attachments was delivered to Barbara Maley by the TxDOT Fort Worth District.

Your concurrence is requested that this project is a categorical exclusion. If you have any questions, please contact Scott Ford, AICP, at 512-416-2687.

Sincerely,

0

Melissa A. Neeley Director of Project Delivery Management Environmental Affairs Division

Attachments

ederal Highway Administration

Date:

Concur:



DEPARTMENT OF THE ARMY OFFICE OF THE ASSISTANT SECRETARY CIVIL WORKS 108 ARMY PENTAGON WASHINGTON DC 20310-0108

APR 07 2006

MEMORANDUM FOR THE DIRECTOR OF CIVIL WORKS

Subject: Upper Trinity River, Central City, Fort Worth, Texas – Project Report and Environmental Impact Statement

I am responding to your memorandum dated 16 March 2006, requesting my concurrence in the Corps of Engineers' (Corps) recommendation that the proposed project described in the subject documents is technically sound and environmentally acceptable.

The Recommended Plan is the Community-Based Alternative. The recommended plan would include the creation of an 8,400 foot-long bypass channel for the Clear Fork Trinity River, creation of an interior water feature utilizing a portion of the former channel of the Clear Fork, the construction of several dams, flood protection levees, road and bridge improvements, wetland, prairie and bottomland hardwood ecosystem restoration measures, and trail systems and water-based recreation opportunities. Of this recommended plan, the Corps' portion of the project identified for implementation in accordance with Section 116 of Public Law 108-447 includes those portions of the overall project that emphasize the flood control/hydraulic aspects that are fully functional. Specifically, the Corps' project includes the bypass channel, the isolation gates, the Samuels Avenue Dam, and most real estate, business and property owner relocations and soft costs associated with these features. (Soft costs include activities such as planning, design, survey and testing, legal support, program management, and construction oversight). Also included in the Corps' project is all hydraulic (valley storage) and environmental mitigation required for the Central City Project, and all the cultural resources mitigation excepting mitigation of impacts to buried archeological resources that may be discovered in conjunction with project features other than those included in the Corps' project.

Based on the information provided in the Corps of Engineers submittal package, I have determined that the Central City Project is technically sound and environmentally acceptable.

In faul Woodley,

John Paul Woodley, Jr. Assistant Secretary of the Army (Civil Works)

Printed on Recycled Paper

RECORD OF DECISION

UPPER TRINITY RIVER, CENTRAL CITY, FORT WORTH, TEXAS

The Final Project Report dated March 2006, and Final Environmental Impact Statement (FEIS) dated January 2006, for the Upper Trinity River, Central City, Fort Worth, Texas address the water resources need for Fort Worth, Texas. The report was prepared in response to Public Law 108-447, Section 116, dated December 8, 2004. Based on the review of this project and the views of interested agencies and the concerned public, I find both the Community Based Alternative recommended by the Army Corps of Engineers in the Project Report and FEIS for the overall Central City Project, and Corps participation in that alternative, to be technically sound and environmentally acceptable.

Current Army Corps of Engineers (Corps) investigations into water resources problems and opportunities in the Upper Trinity River Basin were authorized by the United States Senate Committee on Environment and Public Works Resolution, dated April 22, 1988. In 2002, the Corps initiated plan formulation for the Central City area, in accordance with the Water Resources Council's "Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies," and within the Corps current mission areas, which include flood damage reduction, ecosystem restoration, and recreation. The study authority was subsequently modified by Public Law 108-447, Section 116, which authorized the Secretary of the Army to undertake the Central City Project, as generally described in the Trinity River Vision Master Plan, dated April 2003. The Central City Project in the Trinity River Vision Master Plan was developed at a conceptual level by the local community and, in addition to the Corps mission areas, included urban revitalization as a primary goal. This overall Central City Project is envisioned as a multi-agency project, to be implemented through the joint efforts and funding of several Federal, state and local agencies. The project authorization contained in P.L. 108-447, Section 116, authorizes Corps of Engineers participation in the Central City project at a total cost not to exceed \$220,000,000, and specifies that the Corps and non-Federal share will each be \$110,000,000. Corps participation is authorized if the Secretary "determines the work is technically sound and environmentally acceptable."

As interdependent parts of the larger Central City Project, the Corps participation features and the other agency participation features are connected actions. All the actions comprising the overall Central City Project have therefore been included in the scope of analysis of the FEIS. The January 2006 FEIS documents the investigation of various alternative plans for providing flood damage reduction, ecosystem improvements, urban revitalization, and recreation along the Central City section of the Upper Trinity River in Fort Worth, Texas. Three alternatives were considered: the No Action Alternative, the Principles and

Record of Decision

Guidelines Based Alternative, and the Community Based Alternative. The description and discussion of these alternatives in the FEIS is hereby incorporated by reference. The Principles and Guidelines Based Alternative is the environmentally preferable alternative because it provides the most ecosystem restoration benefits. However, neither the Principles and Guidelines Based Alternative nor the No Action Alternative fulfill the overall project purposes and goals of the Trinity River Vision Master Plan Central City Project in which the Corps is authorized to participate. Therefore, these two alternatives are not considered "practicable" alternatives. The Community Based Alternative is the only practicable alternative, and is also the least environmentally damaging practicable alternative. The Community Based Alternative best meets all the project goals without unacceptable environmental and social impacts and is therefore the agency's recommended plan.

Within the fiscal constraint of the section 116 authorization, Corps participation in the recommended plan, the Community Based Alternative, will be comprised of flood control/hydraulic features and required hydraulic, environmental and cultural mitigation. While the specific features contained within the Corps participation component of the Community Based Alternative are identified later in this ROD, all of the features of the Community Based Alternative are listed below:

- Bypass channel, approximately 8,400 feet in length and 300-400 feet wide between the top of levees to carry the flood flows around the Central City area;
- Samuels Avenue Dam designed to create a normal water surface elevation of approximately 525 feet to link the Stockyards area by boat;
- Three isolation gates designed to restrict flood flows to the new bypass channel and to isolate the interior area from flood flows. A stormwater pump station would operate with the isolation gates to reduce flooding in two interior drainage areas;
- Valley storage mitigation sites upstream and downstream of the Samuels Avenue Dam;
- Street and highway improvements for Henderson Street, White Settlement Road Bridges, North Main Street Bridge, and University Drive; pavement and traffic engineering improvements to improve capacity, movement, and provision for automobiles and public transit.
- Utility relocations, including water, sanitary and storm sewer, electric, gas, and telecommunications.
- Interior water feature.
- Ecosystem Restoration of two Trinity River oxbows.
- Trail network of approximately 10 miles of waterfront trails and an approximately 3.5 mile boating loop.

Record of Decision

- Wetland, riparian, and terrestrial mitigation in the Riverbend and Rockwood areas, and aquatic habitat mitigation in Ham Branch and Lebow Creek.
- Cultural resource mitigation.

The recommended plan, the Community Based Alternative, accomplishes all four dimensions of the Central City project purpose, i.e. Flood Damage Reduction, Ecosystem Restoration, Urban Revitalization, and Recreation, whereas the Principles and Guidelines Based Alternative does not specifically provide for urban revitalization. The recommended plan provides protection for the Standard Project Flood with 4 feet of freeboard and improves the performance of the interior drainage components. Additionally, the recommended plan will facilitate revitalization of the Central City area by establishing the conditions for levee removal along the river, which will promote better connection and access to the Trinity River. The plan also provides substantial recreation opportunities and some ecosystem restoration. Although the plan has some adverse effects to fish and wildlife habitat, these effects will be fully mitigated and there will be no unacceptable adverse effects remaining. The plan is strongly supported by local governments, as evidenced by their development of a Tax Increment Financing District and substantial bond revenue that will be used for the local cost share.

The recommended Community Based Alternative requires hydraulic mitigation due to a loss of 5,250 acre feet of valley storage from construction of the shorter more efficient bypass channel. Three sites are identified in the Community Based Alternative to provide valley storage mitigation. Construction of the bypass channel and associated valley storage sites would not increase downstream water surface elevations or downstream flow. The alternative fully complies with the criteria established in the Corridor Development Certificate process, and, in fact, exceeds the criteria relative to restoration of valley storage for the Standard Project Flood volume.

Although all practicable means to avoid or minimize environmental harm have been adopted, the recommended Community Based Alternative would have adverse effects to aquatic habitat in Marine and Lebow Creeks. A plan to mitigate these impacts has been developed and adopted in cooperation with the U.S. Fish and Wildlife Service and state of Texas resource agencies. The aquatic mitigation plan includes improving aquatic habitat through physical habitat modification and providing improved base flow within Lebow Creek. Additional aquatic habitat improvement will be provided in Ham Branch through physical habitat modification, including establishment of riffle and pool complexes. The recommended plan will also adversely impact riparian and upland forest and emergent wetlands primarily from valley storage mitigation activities in the Riverbend area. A mitigation plan for these resources has also been developed and adopted that includes establishment of 1.43 acres of emergent wetland, development of 76.2 acres of riparian woodland and 45.5

Record of Decision

acres of upland forest within the Riverbend valley storage mitigation area and the Rockwood area. The mitigation plan also includes habitat improvement of 12.2 acres and 13.3 acres of existing riparian and upland forest, respectively. Monitoring, enforcement, and adaptive management will be utilized to assure aquatic and terrestrial environmental mitigation goals are met. A Section 404(b)(1), Clean Water Act, analysis has been completed and is included in the FEIS. The recommended plan is in compliance with the 404(b)(1) guidelines. The Corps will secure a water quality certification from the Texas Commission on Environmental Quality (TCEQ) under Section 401 of the Clean Water Act prior to initiation of project construction.

Implementation of the recommended plan will potentially have adverse effects on eleven historic architectural properties eligible for the National Register of Historic Places. A plan to mitigate the impacts of the Community Based Alternative on historic architectural resources has been developed and adopted in consultation with the Texas Historical Commission as well as numerous stakeholder groups. Specific components of the mitigation plan are contained in the executed Programmatic Agreement among the USACE, the Texas Historical Commission and the City of Fort Worth.

Those features identified for Corps of Engineers participation (Corps Component) in accordance with the cost limitations contained in P.L. 108-447, Section 116, emphasize the flood control/hydraulic aspects of the Central City Project and develop a fully-functioning hydraulic (flood control) system. Specifically, the Corps Component consists of the bypass channel, the isolation gates, the Samuels Avenue Dam, and most real estate, business and property owner relocations and soft costs associated with these features. ("Soft costs" include activities such as planning, design, survey and testing, legal support, program management and construction oversight). Lands required for the Corps Component that are already owned by the Sponsor, the City of Fort Worth, or Tarrant County will be provided to the project. Also included in the Corps Component are all valley storage and habitat mitigation required for the overall Central City Project, and all cultural resources mitigation (excepting mitigation of impacts to buried archeological resources that may be discovered in conjunction with project features other than those include in the Corps Component).

In order to ensure that the Corps Component is fully functional when complete, the Project Cooperation Agreement (PCA) between the Corps and the non-Federal sponsor will be conditioned to require certain base conditions. Specifically, utility relocations, demolition, and the cleanup of substances regulated by the Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation, and Liability Act will be performed by the sponsor as a non-project cost prior to construction start for appropriate elements of the Corps Component. Additionally, new bridges, to be

Record of Decision

constructed by the Texas Department of Transportation at the North Main Street and Henderson Street intersections with the bypass channel, will be base conditions of the PCA.

The project has been extensively coordinated with the public and with resource agencies. The project is in compliance with all environmental requirements, including the Endangered Species Act, the National Historic Preservation Act, the Clean Air Act, and the Clean Water Act.

All applicable laws, executive orders, regulations, and local plans were considered in evaluating alternatives. The recommended plan is the least environmentally damaging practicable alternative and incorporates features to avoid, minimize, or mitigate adverse environmental and social impacts. Based upon the review of FEIS and comments received from other agencies and the public, I find that the project benefits gained by construction of the recommended plan outweigh the adverse effects. Therefore, I have determined that the Community Based Alternative (the recommended plan for the overall Central City Project) and the Corps Component of that plan are in the public interest. This Record of Decision completes the National Environmental Policy Act process.

7 April 2006

John Faul Woodley, John Paul Woodley, Jr.

John Paul Woodley, Jr. Assistant Secretary of the Army (Civil Works)

1	PROGRAMMATIC AGREEMENT BETWEEN									
2	THE US ARMY CORPS OF ENGINEERS,									
3	THE CITY OF FORT WORTH, TEXAS									
4	AND									
5	THE TEXAS HISTORICAL COMMISSION									
6	(STATE HISTORIC PRESERVATION OFFICER),									
7	REGARDING THE IMPLEMENTATION OF THE CENTRAL CITY PORTION									
8	<u>OF THE TRINITY RIVER VISION MASTER PLAN, FORT WORTH, TEXAS</u>									
9										
10	WHEREAS the US Among Come of Engineers (USACE) the Townert Designal Water									
11	District the City of Fort Worth and Torrent County (collectively, the Derthere) have									
12	partnered together to improve flood control and provide ecosystem improvement urban									
13	revitalization and recreation opportunities along the Trinity River in a project known as									
15	Central City: and									
16	Soundar Sky, and									
17	WHEREAS, for the purposes of this agreement, Central City encompasses the following									
18	construction activities:									
19										
20	Bypass Channel									
21	 Levee System and adjoining embankment 									
22	 Dam downstream of Samuels Avenue 									
23	Flood Isolation gates									
24	 Street and Highway Improvements 									
25	 Pedestrian Bridges 									
26	• Interior water feature									
27	• Utility relocations									
28	 Valley storage mitigation sites 									
29	 Environmental mitigation sites 									
30	Pumping Station									
31										
32	WHEREAS, all other construction activities not specifically listed herein are separate									
33	undertakings and are therefore not part of this agreement; and									
34	WUTERFAC 4 - USACE - 14 - D. to a with the second state Terror Weterical									
33	Commission (THC) which is also the State Historic Dresservation Office (SHDO) has									
30	determined the Area of Potential Effect (APE) developed a survey methodology and has									
38	identified properties eligible for inclusion on the National Register of Historic Places									
39	(NRHP) as shown in Attachment A and further detailed in the report entitled <i>Below the</i>									
40	Bluff, Development at the Confluence of the West and Clear Fork of the Trinity River.									
41	<i>1849-1966</i> ; and									
42										
43	WHEREAS, the USACE has determined that the Project will have an adverse effect									
44	upon properties included in or eligible for inclusion in NRHP as shown in Attachment A;									
45	and									
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47	WHEREAS, the Trinity River Bluff, defined as the wooded escarpment located on the
48	slope from the south bank of the river to the crest of the slope, extending from the Tarrant
49	County Courthouse to the general area across from LaGrave Field to the west, is not
50	NRHP eligible, but is acknowledged as vitally important to the understanding of the
51	history of Fort Worth and the continued preservation of the resource is encouraged to
52	preserve the City's rich cultural heritage; and
53	
54	WHEREAS, this undertaking will have no immediate impact on the Trinity River bluff
55	other than visual; and
56	
57	WHEREAS, it is understood that private development that may occur within the APE
58	could adversely affect historic properties listed in Appendix A in future years as a result
59	of this undertaking; and
61	WHEREAS the USACE nursuant to 36 CEP Part 800 regulations implementing
62	Section 106 of The National Historic Preservation Action (16 U.S. C. 470f) has invited
63	the Advisory Council on Historic Preservation (Council) to participate in this
64	consultation and the Council has declined to participate in a letter dated August 29, 2005:
65	and
66	
67	WHEREAS, the THC, the City of Fort Worth, Texas and the USACE have participated
68	in the consultation and have been invited to be signatories to this Programmatic
69	Agreement; and
70	
71	WHEREAS, the USACE, with the assistance of the THC, recognizes the following
72	entities as interested parties and has invited the Tarrant Regional Water District, Tarrant
73	County, The National Trust for Historic Preservation, Historic Fort Worth, Inc., North
74	Fort worth Historical Society, Tarrant County Historical Commission, Historic
75	to sign as concurring parties in this agreement; and
70	to sign as concurring parties in this agreement, and.
78	NOW, THEREFORE: USACE, the City of Fort Worth, Texas and the THC agree that
79	the consultation process for the Project shall be carried out in accordance with the
80	following stipulations to satisfy USACE's Section 106 responsibilities for the
81	undertaking.
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84	
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86	
8/	Supulations
00	1 Mitigation Measures
09 00	1. Milligation Micasules.
91	The following mitigation measures take into account the adverse effects of Central City
92	on historic properties that will be demolished or altered in such as manner as to affect the

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historic integrity of the property. The USACE, with the exception of Stipulation 5 by the
 City of Fort Worth, will ensure that the following measures are carried out:/

A. ARCHITECTURE

(1) Recordation:

The purpose of the recordation is to provide current and future generations access to archival information and narrative history that comprehensively documents the Central City area from its beginnings to the time prior to the initiation of the construction of the Central City Project.

Many of the affected structures are undistinguished architecturally, although together, they form a cohesive portrait of the Central City area. The intent of the document is to capture the historic nature of the area as a whole rather than to document individual parts in order to produce a more comprehensive understanding of the area's historical development.

To achieve this, the current historic context entitled *Below the Bluff*, *Development at the Confluence of the West and Clear Fork of the Trinity River*, 1849-1966, will be expanded to include:

- An expanded contextual history of the area, including examination of the importance of the built and natural environment in relationship to historical social/economic development of the surrounding neighborhoods.
- Expanded coverage of the construction and history of the existing USACE levee system.
- Inclusion of additional historic photographs and maps of the area, including fold-out historic aerial photographs and Sanborn maps.

• Large format photography of up to 75 views of the area, including at least one view of every historic structure adversely affected by the undertaking. Demolition of the NHRP eligible structures listed as adversely affected in Appendix A may commence upon acceptance of the mitigative photography by the THC. The USACE will forward photographic proofs to the THC for a 30 day review and comment period, upon which the THC will furnish an e-mail or letter approval of the number of photographs and the quality of the compositional views, or a detailed request of views needed to adequately document the affected structures.

	137 138 139 140	 A detailed architectural description of each NRHP eligible structure in the area of potential effect that meets the Historic American Building Survey Level III requirements.
	141 142 143 144 145	 Ethnographers will conduct oral histories of a minimum of 10, and a maximum of 20 persons with social, economic or historical ties to the area. The interview subjects will be selected in consultation with the Tarrant County Historical Commission and other local historical societies. Transcripts will be included in the appendix.
	146 147	Professional Standards
	148	
	149	All personnel conducting research and documentation will meet the Secretary of
	150	the Interior's professional qualification standards as defined in the Federal
	151	Register Volume 48 No. 190 page 44738.
	152	
	153	Document Review
	154	
	155	The draft document will be submitted for a 60 day review and comment period to
	156	all signatory and concurring parties to this agreement within 24 months. All
	157	comments received will be considered by the Corps and the document revised
	158	before re-submittal to the signatories within 90 days of the end of the comment
	159	period for review of each other's comments.
	160	F
	161	The final document will be distributed within 40 months from the receipt of
	162	funds.
	163	
	164	Printing and Distribution
	165	
	166	• 100 hardbound copies of the revised historic context on archival paper
	167	will be provided to distribute among signatories concurring parties
	168	and regional libraries and educational institutions
	160	 200 compact disks containing the document in the Adobe Acrobat
	170	Portable Document File (PDF) format will be made available to the
	171	nublic
	171	public.
	172	Curation of Original Matariala
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	174	O (11) 1.1. I is a literative sector to since will be shown to
	175	• One set of labeled archival photographic contact prints will be given to
	176	the Tarrant County Historical Commission, one set to the THC and
	177	one set with the original negatives will be given to the University of
а. С	178	l exas at Arlington Library special collections.
	179	
	180	 The oral history tapes will be given to University of Texas at Arlington
	181 .	Library Special Collections.

The revised historic context document will serve as mitigative documentation of the adversely affected structures as required under Section 110 (b) of the NHPA.

(2) Architectural Salvage

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On properties that will be demolished by the undertaking, the USACE and its Partners will consult with the THC to determine if the property contains significant architectural features that could be reused, displayed, interpreted or curated. If such features exist, the signatories, with the property owner, will consider measures to ensure that selected features are removed in a manner that minimizes damage and are delivered to an appropriate party for curation and reuse at the expense of the party receiving the materials.

196 (3) NRHP Nomination

198 All properties listed in Attachment A that are not destroyed or substantially 199 altered to preclude nomination by the Central City Project, will be nominated to 200 the NRHP, barring the objection of the property owner. Nomination materials will 201 be prepared for all eligible properties regardless of owner's consent or objection, 202 completed with information that can be obtained without a right of entry. All 203 nominations will be submitted by USACE to the THC in draft form within 24 204 months of the undertaking, and resubmitted until the document is accepted by the 205 THC and the National Park Service

(4) Educational Materials

A. The historic context developed in Stipulation (a)(1) above will be used to develop a training module to be available for use in the Fort Worth Independent School District (FWISD) to educate students on the history of the Central City area and to gain understanding of the importance of the built and natural environment in relationship with historical context. The training module will be developed in consultation with the FWISD to meet their curriculum specific needs.

217The training module will be complete and ready for use by the FWISD before 24218months from the USACE receiving funding for this activity.

220 B. From the historic context developed in Stipulation (A) (1) above, the USACE 221 will contract a interpretive materials study that will recommend a comprehensive 222 approach to provide interpretive materials to the general public concerning the 223 history and significance of the project area APE and locations of historical 224 interest. The document will provide detailed suggestions and prototypes of 225 interpretive materials and displays that can be incorporated in private 226 development and the public streetscape as the project is realized. Actual 227 implementation of the study is dependent upon future funding by others. 228

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230	(5) Protection of NRHP Properties by the City of Fort Worth
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232	The USACE has no control over the subsequent build out by private development
233	resulting from this undertaking in the coming years or any method available to
234	influence the protection of historic properties outside of a federal undertaking.
235	
236	Therefore, the City of Fort Worth will enforce all current measures in-place to
237	promote the protection of NRHP eligible structures that have the potential of
238	being affected by the Central City project. These measures are:
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240	Properties currently designated by the City of Fort Worth as Demolition Delay,
241	Historic and Cultural Landmark or Highly Significant Endangered will be
242	reviewed for all actions taken, which may alter or demolish in whole or in part the
243	property, including any change to the appearance or materials. This review will
244	require a public hearing before the Historic and Cultural Landmarks Commission
245	(HCLC) and may result in the approval or denial of any request.
246	
247	Written notification will be sent via standard mail to the property owners of all
248	eligible properties providing information about the local designation process,
249	benefits and types of designation, and obligations associated with ownership of a
250	locally designated historic property, as follows:
251	
252	A. Demolition Delay: Properties identified as resources within the City that
253	merit protection and are subject to a delay in the issuance of a wrecking
254	permit for a maximum of 180 days in order to explore alternatives to
255	demolition. The structure may subsequently be changed without
256	constraints.
257	B. Historic and Cultural Landmark: Properties identified as important to the
258	history of the City and subject to review by the HCLC for any changes to
259	the exterior of the structure and property. Demolition permits may be
200	granted only where loss of significance or economic hardship can be
201	proven.
202	C. Highly Significant Endangered: Properties identified as the City's most
203	important historic sites and deemed endangered. The properties are
204	subject to the same requirements as Historic and Cultural Landmark
-203	properties. D Education of property sympose shout local and federal pressynttion
200	D. Education of property owners about local and rederal preservation
207	in conjunction with the TLIC that outlines ontions available to owners of
200	in conjunction with the Tric that outlines options available to owners of
209	instone properties.
270	Where owners consent to local historic designation the City of Fort Worth will
271	provide assistance in obtaining the desired designation. However, because the
272	property within the Area of Potential Effect is located within. Toy Increment
273	Finance District #0, created in December 2002, any property designated after that
2/4	rmance District #9, created in December 2005, any property designated after that

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275	date will not be eligible for the City tax incentives available to locally designated
276	properties until after the retirement of the district.
277	
278	(6). Design Review Process
279	a o ao
280	A. USACE Design Review
281	
282	In consultation with THC, the USACE will seek methods to avoid or
283	minimize any adverse visual effects of construction activities of this
284	undertaking within the APE as described in this agreement
285	X
286	
287	1 THC will designate a primary point of contact for review.
288	Contact can be changed by notifying signatores.
289	
290	2. USACE will designate a primary point of contact for review.
291	Contact can be changed by notifying signatories.
292	
293	3. At or before 30% completion, the signatories and concurring
294	parties will consult to determine if any elements will require
295	further review, and to what extent.
296	
297	4. After each submittal, the THC will have a 30-day
298	comment/review period and an additional 45-day comment/review
299	period to resolve comments with the USACE.
300	
301	5. Should the USACE and the THC not be able to resolve issues
302	after these two review/comments periods regarding the
303	appropriateness of the design, the dispute resolution clause of this
304	agreement shall apply.
305	
306	B. City of Fort Worth Design Review (Relating to Non-TxDOT aspects of
307	Central City)
308	
309	In consultation with TX SHPO and other interested parties, the City of
310	Fort Worth will seek methods to avoid or minimize any adverse effects of
311	City designed, constructed, or sponsored physical infrastructure within the
312	APE related to or necessitated by this undertaking.
313	x
314	1. Designs will be submitted to the TX SHPO for a 30-day review
315	and comment period.
316	
317	Should the City and TX SHPO not be able to resolve issues
318	regarding the appropriateness of the design, the dispute
319	resolution clause of this agreement shall apply.
320	

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321 (B.) ARCHEOLOGY

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The USACE will ensure the following stipulations are carried out concerning
 archaeological resources within the footprint of the USACE Central City construction
 project. The construction footprint constitutes the APE for archaeological resources:

326 (1) Identification of Historic Properties 327 a. Survey. The USACE shall identify historic properties within the 328 construction footprint of the USACE project by having the entire APE surveyed by professional archaeologists meeting the Secretary of the 329 330 Interior's professional qualification standards as defined in the Federal 331 Register Volume 48 No. 190 page 44738. 332 b. Determination of National Register Eligibility. The USACE, in consultation with the SHPO, will seek to determine which cultural 333 334 resources located during the survey are eligible for inclusion in the NRHP 335 accordance with 36CFR Part 800.4. 336 c. Test Excavations. In the event that additional information is required to 337 assess the eligibility of any cultural resources for inclusion in the NRHP, 338 the USACE and SHPO shall consult to prepare a test excavation plan. 339 (2) Determination of Effect 340 a. The USACE shall assess the effect of the undertaking on all historic 341 properties within the construction APE in consultation with the SHPO and the Council in accordance with 36 CFR Part 800.5 342 343 b. If the effect will be adverse, as defined in 36 CFR Part 800.5, the USACE 344 will develop a treatment plan. 345 (3) Treatment of Historic Properties

a. <u>Avoidance</u>. Whenever possible, historic properties will be avoided by project impacts and protected in place.

b. <u>Data Recovery Plan</u>. A detailed data recovery plan shall be developed by the USACE in consultation with the SHPO for those historic properties to which impacts cannot be avoided. After each submittal, the THC will have a 30-day comment/review period and an additional 45-day comment/review period to resolve comments with the USACE. Should the USACE and the THC not be able to resolve issues after these two review/comments periods regarding the appropriateness of the design, the dispute resolution clause of this agreement shall apply. The plan shall specify, at a minimum:

- i. the historic property, properties, or portions of properties where data recovery is to be carried out;
- any historic property, properties, or portions of properties that will be destroyed/altered/transferred without data recovery;
- 360 361

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iii. the research questions to be addressed through the data recovery

362 363	iv. the methods to be used, with explanation of their relevance to the research questions	
364 365	v. the methods to be used in analysis, data management, and dissemination of data, including a schedule;	
366	vi. the proposed disposition of recovered materials and records;	
367 368 369 370 371	vii. proposed methods for involving the interested public in the data recovery including, but no limited to methods by which Federally recognized Indian Tribes who historically used this region or continue to use the area, will be kept informed of the work and afforded the opportunity to participate;	
372 373 374	 viii. proposed methods for disseminating the results of the work to the interested public and to appropriate Federally recognized Indian Tribes who historically used this region or continue to use the area; and 	5 4 :
375 376	ix. proposed schedule for the submission of progress reports to the SHPO.	
377 378 379 380	If necessary, additional property-specific data recovery strategies will be developed within the overall framework of the data recovery plan for direction of work at individual properties or groups of properties. The need for such additional strategies will be determined in consultation with the SHPO.	
381 382 383 384	(4) Treatment of Human Remains. Treatment of human remains, including prehistoric and historic burials, will be carried out in accordance with a comprehensive plan detailed in the research design developed under stipulation (3)b.	
385	(5) Discovery	×.
386 387 388 389	 a. If previously unidentified cultural resources are identified during construction, construction shall stop in the vicinity of the resource, and the USACE cultural resources technical point of contract shall be notified within 24 hours of the discovery. 	
390 391 392 393	 b. The USACE shall immediately notify the SHPO. Within 48 hours of notification, field assessment will be undertaken. Assessment of the site by the USACE under 36 CFR Part 60 will be completed within 5 days or less of discovery. 	
394 395 396	c. If the cultural resource is determined to be eligible for inclusion in the NRHP, a treatment plan will be specified by the USACE within 10 days of assessment in consultation with the SHPO.	
397	(6) Reporting	
398 399 400 401 402	Upon completion of each major phase of work (survey, testing, or data recovery), draft reports shall be submitted to the USACE and the SHPO. Comments shall be provided to the USACE within 30 calendar days from receipt. The SHPO will be provided 20 copies of the final report. The final report will be distributed among interested parties, including the appropriate	
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403 federally-recognized Indian Tribes according to a plan prepared by the 404 USACE and consulting parties. 405 406 407 2. Document Review and Comment: 408 409 The THC will be afforded thirty (30) days after receipt to comment on any 410 documentation submitted by the USACE. 411 412 3. Notification and Annual Reporting 413 414 1. Concurring Parties may request to receive copies from the USACE of anything 415 submitted to the THC under Design Review per stipulation 1.A.6. 416 417 2. The USACE will provide all parties an annual update of all activities pertaining to the 418 stipulations of this agreement within 30 days of each anniversary of signing the 419 agreement. 420 421 4. Dispute Resolution: 422 423 Should any party to this agreement object at any time to any actions proposed or the 424 manner in which the terms of this PA are implemented, the USACE shall consult with 425 the objecting party(ies) to resolve the objection. If the USACE determines, within 30 426 days, that such objection(s) cannot be resolved, the USACE will: 427 428 A. Forward all documentation relevant to the dispute to the Council in 429 accordance with 36 CFR Part 800.2(b)(2). Upon receipt of adequate 430 documentation, the Council shall review and advise the USACE on the resolution 431 of the objection within 30 days. Any comment provided by the Council, and all 432 comments from the parties to the PA, will be taken into account by the USACE 433 in reaching a final decision regarding the dispute. 434 435 B. If the Council does not provide comments regarding the dispute within 30 436 days after receipt of adequate documentation, the USACE may render a decision 437 regarding the dispute. In reaching its decision, the USACE will take into account 438 all comments regarding the dispute from the parties to the PA. 439 440 C. The USACE responsibility to carry out all other actions subject to the terms of this PA that are not the subject of the dispute remain unchanged. The USACE 441 will notify all parties of its decision in writing before implementing that portion of 442 443 the undertaking subject to dispute under this stipulation. The USACE decision 444 will be final. 445 446 447 448

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5. Duration, Amendments and Termination:

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This agreement will be null and void if its terms are not carried out within fifteen (15) years from the date of its execution. Prior to such time, the USACE may consult with the other signatories to reconsider the terms of the agreement and amend in accordance with this stipulation.

Any party to this agreement may propose, in writing, to USACE the terms and/or stipulations of this agreement to be amended. USACE will consult with the other parties to this agreement to consider such an amendment.

Any party to this agreement may terminate it by providing thirty (30) days notice to the other parties, provided that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. In the event of termination, USACE will comply with 36 CFR Part 800. with regard to the activities covered by this agreement.

Execution and implementation of this agreement evidences that USACE has satisfied its Section 106 and 110 responsibilities for the undertaking.

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469	US ARMY-GORPS OF ENGINEERS, FORT WORTH DISTRICT
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471	A Day and a second
472	By June Wall Date ZI MAR 2006
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475	TEXAS HISTORICAL COMMISSION
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477	
478	By: Luner 12 Date 03.11.06
479	
480	CITY OF FORT WORTH
481	
482	14th 2.20.06
483	By: Date

Parties invited to Concur: Tarrant Regional Water District By: Date 6/30/06Tarrant County By: Date 5/29/06The National Trust for Historic Preservation Date *By:*____ Historic Fort Worth, Inc. Mg Date 8/24/06 North Fort Worth Historical, Sogiety <u> <u>y</u> Date <u>07/11/</u></u> Leion By: Tarrant County Historical Commission By: 60 By Date \$/31/0(0 Historic Landmarks, Inc. Judith Affarmae Date 10/2/06 By:(City of Fort Worth Historic and Cultural Landmarks Commission 6-28-06 Jun Dates oll 1C By:

ATTACHMENT A

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NRHP-Eligible Pre-1966 Buildings, Structures, and Landscapes within the Central City APE

	Central City						
Addeaso	Survey Property	y Year	Thoma	Description	Intrasity	Effort	Eligibility
Fort Worth Power and Light/TXU	I-A	1910	Industry	Masonry multi-storied structures with arched windows.	High	No Adverse	Eligible A, C
Fort Worth Power and Light/TXU	1-B	1940	Industry	Concrete Retention Pond	Moderate	No Adverse	Eligible A, C
Fort Worth Power and Light/TXU	1-C	1940	Industry	Concrete Intake Station	Moderate	No Adverse	Eligible A, C
Fort Worth Power and Light/TXU	I-F	1940	Industry	One story masonry with arched windows	High	No Adverse	Eligible A, C
Fort Worth Power and Light/TXU	1-G	Circa 1940	Industry	Smokestacks	High	No Adverse	Eligible A, C
J				(Demolished 9/2005)			
818 North Main Bud Sellers Auto	40	c 1921	Industry	Brick masonry with colored design patterns; sheet metal building in back with newer 2-bay addition.	Moderate	No Adverse	Eligible A, C
834-842 North Main Texas Refinery Co.	50	c 1928	Industry	Masonry and stucco, tile roof accent; Spanish style.	High	No Adverse	Eligible A, C
900 North Main Walter Dearman Truck	53	c 1946	Industry	One story metal frame with bowstring truss roof. CMU administration building attached to front.	High	Adverse	Eligible A, C
909 North Main Texas Refinery Co.	52	1946	Industry	One story flat roof masonry, glass block windows.	Poor	Adverse	Eligible A, C
917/919 North Main Texas Refinery Co.	56/57	c 1946	Industry	One story masonry steel windows.	High	Adverse	Eligible A, C
1012 North Main Ellis Pecan Company	62	1926	Social History/ Commerce	Brick auditorium; arched steel sash window.	High	No Adverse	Bligible A, C
601 North Throckmorton Hutchinson Pipe & Waste Material Co.	13-A	1940	Industry	Block masonry with shingled barrel vault roof.	High	Adverse	Eligible A, C
601 North Throckmorton Hutchinson Pipe & Waste Material Co.	13-B	1940	Industry	Block masonry with sheet metal building on a concrete foundation	High	Adverse	Eligible A, C

Table I-1 (cont'd)

Address	Central City Survey Property Number	Year Built	Theme	Description	Integrity	Effect	Eligibility Status
806 North Throckmorton Southwestern Brass Works	42-A	1927	Industry	Sheet metal manufacturing building; original materials.	High	Adverse	Eligible A, C
806 North Throckmorton Southwestern Brass Works	42-B	1927	Industry	Single story wood frame,	High	Adverse	Eligible A
901 North Throckmorton McKinley Iron Works	47-A	1931	Industry	Two story masonry.	Moderate	Adverse	Eligible A, C
901 North Throckmorton McKinley Iron Works	47-B	1931	Industry	Two story masonry.	Moderate	Adverse	Eligible A, C
901 North Throckmorton McKinley Iron Works	47-C	c 1945	Industry	One story masonry loading dock.	High	Adverse	Eligible A, C
609 North Houston Hobbs Trailers	14	1950	Industry	Brick masonry; concrete construction with large plate glass; shingle roof accent	Moderate	Adverse	Eligible A, C
841 North Houston McKinley Iron Works	48-A	1935	Industry	One story metal frame corrugated siding, bowstring roof truss.	High	Adverse	Eligible A, C
205 North 7 th Street National Educators Life Warehouse	31	1949	Industry	Two story brick Moderne; steel sash windows; limestone banding.	High	Adverse	Eligible A, C
625 North Commerce Hobbs Trailers	15	1928	Industry	One story metal frame corrugated siding.	High	No Adverse	Eligible A, C
648 North Commerce Carruthers Stone	18	1930	Industry	One story metal corrugated siding.	High	No Adverse	Eligible A, C
1024 North Commerce Western Paint & Roofing	64	1920	Industry	One story load bearing brick; clerestory lighting.	High	No Adverse	Eligible A, C
825 North Calhoun	46	1947	Industry	Dual one story metal buildings with bow truss roof.	Moderate	No Adverse	Eligible A, C
1107 North Calhoun Machine Shop	65	1939	Industry	One story load bearing brick; clearstory lighting.	High	No Adverse	Eligible A, C

Table I-1 (cont'd)

Address	Central City Survey Property Number	Year Built	Theme	Description	Integrity	Effect	Eligibility Status
336 Greenleaf Street	70	1925	Residential	Single family residence; wood frame with corrugated metal roof; possible addition to side of house.	Moderate	No Adverse	Eligible A, C
701 North Henderson Triple A Package Store	87	1946	Industry	One story masonry Streamline Moderne.	High	No Adverse	Eligible A, C
900 Woodward City of Fort Worth	96-A	1940	Industry	Two story masonry incinerator.	High	No Adverse	Eligible A, C
Henderson Street Bridge	101	1930	Transporta tion/Engineering	Open spandrel concrete arch.	High	No Adverse	Eligible A, C
SL, SF and Texas Railway Bridge	102	1902	Transporta tion/Engineering	Iron through-truss span with concrete piers	High	No Adverse	Eligible A, C
Paddock Viaduct	103	1902	Transporta tion/Engineering	Long timber trestles, with steel truss supported by concrete piers.	High	No Adverse	NRHP-listed
Flood Control System	104	1910- 1957	Flood Control Develop ment/Engineering	Levces, sumps, sluices, Nutt Dam, USGS Water Gauge	Moderate- High	Adverse	Eligible A, C
Tarrant County Courthouse	107	1895	Community Development	Four story granite Renaissance Revival courthouse	High	No Adverse	NRHP-listed

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FROM : Bill Dean US FOODSERVERVICE

PHONE NO. : 410 461 3791



DEPARTMENT OF THE ARMY OFFICE OF THE ASSISTANT SECRETARY CIVIL WORKS 108 ARMY PENTAGON WASHINGTON DC 20310-0108

MAY 2 1 2008

MEMORANDUM FOR the Deputy Commanding General for Civil Works and Emergency Operations

Subject: Upper Trinity River, Central City, Fort Worth, Texas – Modified Central City Project Report and Supplement No. 1 to the Final Environmental Impact Statement

Public Law 108-447, Section 116 authorized the Secretary of Army to undertake the Central City Project, as generally described in the April 2003 Trinity River Vision Master Plan. The Central City Project requires the joint efforts and funding of several Federal, state, and local agencies for implementation. The U.S. Army Corps of Engineers (Corps) is authorized to participate in the Central City Project at a total cost not to exceed \$220,000,000, with a Federal cost of \$110,000,000 and a non-Federal cost of \$110,000,000, if the Secretary determines the work is technically sound and environmentally acceptable.

My April 7, 2006 response to your memorandum dated. March 16, 2006, concurred with the Corps recommendation for the Community-Based Alternative described in that submittal package. The recommended plan included the creation of an 8,400 foot-long bypass channel for the Clear Fork of the Trinity River, creation of an interior water feature utilizing a portion of the former channel of the Clear Fork, the construction of several dams, flood protection levees, road and bridge improvements, wetland, prairie and bottomland hardwood ecosystem restoration measures, and trail systems and water-based recreation opportunities. Of that recommended plan, the Corps portion of the project identified for implementation in accordance with Section 116 included those portions of the overall project that emphasize the flood control/hydraulic aspects that are fully functional. Specifically, the Corps project included the bypass channel, the isolation gates, the Samuels Avenue Dam, and most real estate, business and property owner relocations and soft costs associated with these features. (Soft costs include activities such as planning, design, survey and testing, legal support, program management, and construction oversight). Also included in the Corps project was all hydraulic (valley storage) and environmental mitigation required for the Central City Project, and all the cultural resources mitigation excepting mitigation of impacts to buried archeological resources that may be discovered in conjunction with project features other than those included in the Corps project. Based on the information provided in the Corps submittal package, I determined that the Community-Based



05/21/2008 08:49 2103626478

FROM : Bill Dean US FOODSERVERVICE

PHDNE NO. : 410 461 3791

May. 20 2008 07:14PM P3

Alternative was technically sound and environmentally acceptable. Additionally, I signed a Record of Decision on April 7, 2006 to complete the National Environmental Policy Act process.

In response to a June 22, 2006 letter from the Fort Worth Parks and Community Services Department (enclosure 1), the Corps evaluated expanding the Central City Project farther to the east into the Riverside Oxbow study area, which is located immediately downstream of the Central City Project, along the Trinity River. In an April 25, 2008 memorandum from the Director of Civil Works, the Corps requested that I approve a modification to my April 7, 2006 determination identified above, in order to accommodate the City of Fort Worth. The revised Central City project is described in the Upper Trinity River, Central City, Fort Worth, Texas Modified Project Report and Supplement No. 1 to the Final Environmental Impact Statement. The Recommended Plan is the Modified Central City Project Alternative.

The Modified Central City Project Alternative would make the following changes to the previously approved plan: 1) move about 40 percent of the estimated 5,000 acrefeet of hydraulic mitigation to the Riverside Oxbow area; 2) relocate, reconfigure, and add a recreational lock and canal to the Samuels Avenue Dam, which now would be constructed by the non-Federal sponsor; 3) include a new Marine Creek low water dam and associated features which would be funded solely by the non-Federal sponsor; 4) construct various ecosystem restoration and recreation features in the Riverside Oxbow area which would also be non-Federally funded. All operations, maintenance, repair, replacement and rehabilitation costs, currently estimated at \$272,000 annually, would remain with the sponsor.

The non-Federal sponsor for this project is the Tarrant Regional Water District. In their letter of May 2, 2008 to the District Engineer, Fort Worth District (enclosure 2), the Tarrant Regional Water District provided their full commitment to fund any cost differential between the \$220,000,000 cost shared project, and the complete Modified Central City alternative, which currently has a total project cost of \$597,000,000 and a fully funded cost of \$673,000,000 (enclosure 3). These figures represent an increase of about \$105 million for the Tarrant Regional Water District to implement the Modified Central City Project.

Based on the information provided in the Corps submittal package, I have determined that the Modified Central City Project is technically sound and environmentally acceptable. However, the project is not compliant with Administration policy. None of the proposed work has been subjected to determine if it would meet the Federal objectives for water resources planning or if the benefits exceed the costs from a Federal perspective. Additionally, many of the project features provide recreational benefits which are not high priority project outputs for Federal investments, or environmental benefits resulting from planting upland prairie areas. Participation by the Corps in upland restoration efforts is not in accordance with policy as the Corps areas of expertise are closely linked with hydraulic and hydrologic modifications. Corps participation would be limited by the provisions of Section 116 and appropriations by Congress for the project. I have signed a Record of Decision for the Modified Central City project (enclosure 4) to complete the National Environmental Policy Act process. Please continue to work with my staff to correct several minor report issues such as project related real estate mapping.

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Woodlay

John Paul Woodley, Jr. Assistant Secretary of the Army (Civil Works)

Enciosures

<u>05/21/2008</u> 08:49 2103626478

FROM : Bill Dean US FOODSERVERVICE

PHONE NO. : 410 461 3791

RECORD OF DECISION

UPPER TRINITY RIVER, CENTRAL CITY, FORT WORTH, TEXAS, MODIFIED PROJECT

A Final Project Report dated March 2006, and Final Environmental Impact Statement (FEIS) dated January 2006, for the Upper Trinity River, Central City, Fort Worth, Texas addressed changes to the existing system of levees and channels to enhance existing levels of flood protection, restore components of the natural riverine system, and provide quality of life enhancements (ecosystem improvements and recreation) in Fort Worth, Texas. The report was prepared in response to Public Law 108-447, Section 116, dated December 8, 2004. Based on these documents, I signed a Record of Decision (ROD) for the Central City Project on April 7, 2006.

Subsequent to that decision, the City of Fort Worth requested that the U.S. Army Corps of Engineers (Corps) conduct an evaluation of merging the authorized Central City Project with the proposed Riverside Oxbow project, located immediately downstream on the Trinity River. This proposal became the Modified Central City Alternative in the subsequent project documentation. A Final Supplement No. 1 to the Final Environmental Impact Statement (FSEIS), dated March 2008, and a Final Modified Project Report, dated April 2008, were completed to document the analysis of technical soundness and environmental acceptability of modifying the Central City Project. Based on the review of the FSEIS and associated documents, as well as the views of interested agencies and the concerned public, I find that both the Modified Central City Alternative recommended by Corps for the overall Central City Project, and the Corps Component of that alternative, to be technically sound and environmentally acceptable.

Current Corps investigations into water resources problems and opportunities in the Upper Trinity River Basin were authorized by the Senate Committee on Environment and Public Works Resolution, dated April 22, 1988. In 2002, the Corps initiated plan formulation for the Central City area, in accordance with the Water Resources Council's <u>Economic and Environmental Principles and Guidelines for Water and Related Land Resources</u> <u>Implementation Studies</u>, and within the Corps current mission areas, which include flood damage reduction, ecosystem restoration, and recreation. The study authority was subsequently modified by Public Law 108-447, Section 116, which authorized the Secretary of the Army to undertake the Central City Project, as generally described in the Trinity River Vision Master Plan, dated April 2003. The Central City Project in the Trinity River Vision Master Plan was developed at a conceptual level by the local community and, in addition to the Corps mission areas, included urban revitalization as a primary goal. This overall Central City

Record of Decision

Modified Central City

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FROM : Bill Dean US FOODSERVERVICE

PHONE NO. : 410 461 3791

Project is envisioned as a multi-agency project, to be implemented through the joint efforts and funding of several Federal, state and local agencies. The project authorization contained in P.L. 108-447, Section 116, authorizes Corps of Engineers participation in the Central City project at a total cost not to exceed \$220,000,000, and specifies that the Corps and the non-Federal share will each be \$110,000,000. Corps participation is authorized if the Secretary "determines the work is technically sound and environmentally acceptable."

As interdependent parts of the larger Central City Project, the Corps. participation features and the other agency participation features are connected actions. All the actions comprising the overall Central City Project and the Modified Central City Alternative have therefore been included in the scope of analysis of the FEIS and FSEIS. The FSEIS ultimately considered two alternatives: the Modified Central City Alternative and the "No Action" Alternative. The "No Action" Alternative assumed that the two projects, the Central City Project discussed in the FEIS and the Riverside Oxbow project would continue on as separate projects. This "No Action" Alternative was proper because, without a decision to modify the project, the two projects would have gone forward as described in their respective National Environmental Policy Act documents. The Modified Central City Alternative assumed that certain changes discussed below were made to the plan. The descriptions and discussion of these alternatives in the FSEIS are incorporated by reference. The Modified Central City Alternative best meets all the project goals without unacceptable adverse environmental and social impacts, is the least environmentally damaging practicable alternative, and is therefore the Corps' recommended plan.

Within the fiscal, technical and environmental constraints of the section 116 authorization, Corps participation in the recommended plan, the Modified Central City Alternative, is comprised of flood control/hydraulic features and required hydraulic, environmental and cultural mitigation. While the specific features contained within the Corps Component of the Modified Central City Alternative are identified later in this ROD, all of the features of the Modified Central City Alternative are listed below:

- Bypass channel, approximately 8,400 feet in length and 300-400 feet wide between the top of levees to carry the flood flows around the Central City area;
- Samuels Avenue Dam and recreational lock designed to create a normal water surface elevation of approximately 525 feet to allow boating within the upstream area;
- Marine Creek Low Water Dam to create a normal water surface elevation of 516.5 feet to allow boating on Marine Creek up to the Stockyards;
- Three isolation gates designed to restrict flood flows to the new bypass channel and to isolate the interior area from flood flows. A

Record of Decision

2 of 6

Modified Central City

05/21/2008 08:49 2103626478

FROM : Bill Dean US FOODSERVERVICE

PHONE NO. : 410 461 3791

May. 20 2008 07:19PM P10

stormwater pump station would operate with the isolation gates to reduce flooding in two interior drainage areas;

- Valley storage mitigation sites upstream and downstream of the Samuels Avenue Dam;
- Street and highway improvements for Henderson Street, White Settlement Road Bridges, North Main Street Bridge, Beach Street Bridge, and University Drive; pavement and traffic engineering improvements to improve capacity, movement, and provision for automobiles and public transit;
- Utility relocations, including water, sanitary and storm sewer, electric, gas, and telecommunications;
- Interior water feature;
- Ecosystem Restoration of two Trinity River oxbows and the Riverside Oxbow and Gateway Park area;
- Recreational enhancements in Riverside Oxbow, Gateway Park, and Riverside Park including roadways, parking, pedestrian bridges, soccer fields, baseball field, basketball courts, splash park, and trail heads;
- Trail network of approximately 12 miles of waterfront trails, approximately 3.5 mile boating loop, and 9 miles of soft park and equestrian trails;
- Wetland, riparian, and terrestrial improvement in the Riverside Oxbow/ Gateway Park areas, Rockwood area, and aquatic habitat mitigation in Ham Branch;
- Cultural resource mitigation.

The recommended plan, the Modified Central City Alternative, accomplishes all four dimensions of the Central City project purpose, i.e. Flood Damage Reduction, Ecosystem Restoration, Urban Revitalization, and Recreation. The recommended plan provides protection for the Standard Project Flood with 4 feet of freeboard and improves the performance of the interior drainage components. Additionally, the recommended plan will facilitate revitalization of the Central City area by establishing the conditions for levee removal along the river, which will promote better connection and access to the Trinity River. The plan also provides ecosystem restoration and recreation opportunities. Although the plan has some adverse effects to fish and wildlife habitat, these effects are significantly reduced from the original Central City project, and will be mitigated with no unacceptable adverse effects remaining. The plan is strongly supported by local governments, as evidenced by their development of a Tax Increment Financing District and substantial pond revenue that will be used for the local cost share. FROM : Bill Dean US FOODSERVERVICE

PHONE NO. : 410 461 3791

Hydraulic mitigation will occur mostly downstream of the Samuels Avenue Dam, with the primary site being the Riverside Oxbow/Gateway Park area. It also includes five contingency valley storage sites that could be used if analyses during the detailed design phase Indicate the primary storage sites are not sufficient to achieve the required valley storage, or if other factors preclude their use. One or more of the contingency sites could be used to replace any of the primary sites depending on the total amount of valley storage necessary. The evaluation of valley storage sites included avoiding, to the extent feasible, important habitats and subsequently developing habitat within these sites following excavation.

The Modified Central City Alternative would avoid much of the initial impact to riparian woodland areas that would occur with the original Central City project in the Riverbend area as proposed in the FEIS. Upon completion of habitat development, which would compensate for impacts, the Modified Central City Alternative would result in more riparian woodland outputs but less wetland outputs relative to the No Action alternative. The Modified Central City Alternative would have similar upland woodland impacts and outputs as the No Action alternative, but would impact a greater amount of grassland habitat than the No Action alternative. Most of the grassland impacts will occur to areas dominated by non-native species and therefore no mitigation is deemed necessary. These changes in habitat outputs are primarily due to relocating the valley storage sites from the Riverbend area to the Riverside Oxbow area, and replacing grassland habitat at these sites with riparian woodland.

Relocation of Samuels Avenue Dam upstream of the Marine Creek and Trinity River confluence would avoid some adverse effects to riparian and aquatic habitat along lower Marine Creek and all impacts to Lebow Creek. However, construction of a low water dam on Marine Creek and a lock and boat channel from the Trinity River impoundment to Marine Creek would still result in inundation (albeit to a lesser extent) of riparian and aquatic habitat in Marine Creek, which would require mitigation. This aquatic habitat mitigation will occur in the Ham Branch tributary and in the remnant Sycamore Creek through physical habitat modification, including establishment of riffle and pool complexes. This plan has been coordinated with the U.S. Fish and Wildlife Service and State of Texas resource agencies, and all practicable means to avoid and minimize environmental impacts have been adopted. A monitoring plan will be implemented to evaluate the compensatory mitigation.

Implementation of the recommended plan will potentially have adverse effects on eleven historic architectural properties eligible for the National Register of Historic Places. A plan to mitigate the impacts of the Community Based Alternative on historic architectural resources has been developed and adopted in consultation with the Texas Historical Commission as well as numerous stakeholder groups. Specific components of the mitigation plan are contained in

Record of Decision

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Modified Central City

FROM : Bill Dean US FOODSERVERVICE

PHONE NO, : 410 461 3791

the executed Programmatic Agreement among the Corps, the Texas Historical Commission and the City of Fort Worth.

Those features identified for Corps of Engineers participation (Corps Component) in accordance with the cost limitations contained in P.L. 108-447, Section 116, emphasize the flood control/hydraulic aspects of the Central City Project and develop a fully-functioning hydraulic (flood control) system. Specifically, the Corps Component of the Modified Central City Alternative consists of a bypass channel, two isolation gates, associated real estate and property owner relocations, all valley storage and habitat mitigation, and soft costs associated with these features. ("Soft costs" include activities such as planning, design, survey and testing, legal support, program management and construction oversight). Also included is all cultural resources mitigation, except mitigation of impacts to buried archeological resources that may be discovered in conjunction with project features other than those included in the Corps Project. Lands required for the Corps Component that are already owned by the Sponsor, the City of Fort Worth, or Tarrant County will be provided to the project.

In order to ensure that the Corps Component is fully functional when complete, the Project Partnership Agreement (PPA) between the Corps and the non-Federal sponsor will be conditioned to require certain base conditions. Specifically, utility relocations, demolition, and the cleanup of substances regulated by the Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation, and Liability Act will be performed by the sponsor as a non-project cost prior to a construction start for appropriate elements of the Corps Component. Additionally, new bridges, to be constructed by the Texas Department of Transportation at the North Main Street and Henderson Street intersections with the bypass channel, the Samuels Avenue Dam, and the Trinity Point isolation gate will be base conditions of the PPA.

The project has been extensively coordinated with the public and with resource agencies. The project is in compliance with all environmental requirements, including the Endangered Species Act, the National Historic Preservation Act, the Clean Air Act, and the Clean Water Act. This finding terminates further consideration by the Department of the Army of the separate proposal for the Riverside Oxbow, Upper Trinity River, Fort Worth, Texas ecosystem restoration project. This ROD supersedes the ROD signed on April 7, 2006, with respect to the originally proposed Central City Project and the Finding of No Significant Impaot signed by the Acting District Engineer, Fort Worth District, on May 22, 2003, with respect to the proposed Riverside Oxbow project.

Record of Decision

5 of 6

Modified Central City

All applicable laws, executive orders, regulations, and local plans were considered in evaluating alternatives. The recommended plan is the least environmentally damaging practicable alternative and incorporates features to avoid, minimize, or mitigate adverse environmental and social impacts. Based upon the review of FSEIS and comments received from other agencies and the public, I find that the project benefits gained by construction of the recommended plan outweigh the adverse effects. Therefore, I have determined that the Modified Central City Alternative and the Corps Component of that plan are in the public interest. This Record of Decision completes the National Environmental Policy Act process.

PHONE NO. : 410 461 3791

May 21, 2008

John Paul Woodley, Jr. Assistant Secretary of the Army (Civil Works)

TIGER V

Trinity River Vision Bridges

APPENDIX D FEDERAL WAGE RATE CERTIFICATION STATEMENT



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Co-applicant:





Federal Wage Rate Requirement

The North Central Texas Council of Governments (NCTCOG), as an applicant for Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant funds, certifies that for TIGER funds awarded to NCTCOG it will comply with the requirements of Subchapter IV of Chapter 31 of Title 40 (40 U.S.C. 3141, *et. seq.*) (federal wage rate requirements) as required by the Full-Year Continuing Appropriations Act, 2013.

Furthermore, NCTCOG annually certifies compliance with the Davis-Bacon Act as amended, 40 U.S.C. 3141 *et. seq.*, the Copeland "Anti-Kickback" Act, as amended, 18 U.S.C. 874, and the Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. 3701 *et seq.*, regarding labor standards for federally assisted projects. NCTCOG certifies to this provision within its annual Certifications and Assurances to the Federal Transit Administration.

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Monte Mercer, CPA Deputy Executive Director North Central Texas Council of Governments

5/29/13

Date
TIGER V

Trinity River Vision Bridges

APPENDIX E PROJECTS MAPS



North Central Texas Council Of Governments



616 Six Flags Drive Arlington, TX 76005

Co-applicant:









WHITE SETTLEMENT ROAD BRIDGE SCHEMATIC LAYOUT

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- TYPICAL SECTION LEGEND
- (1) 7" CRUSHED STONE TY A GR 1
- (2) 4" HMAC TY B PG 70-22
- 3 12" CONCRETE PAVEMEN
- 4 TYPICAL CONCRETE SIDE
- (5) O' CURB OFFSET
- (7) 6" CRCP
- (8) 6" LIME TREATED SUBGRAD (9) 3' LOW PI SELECT FILL
- (1) PRIME COAT MC-30 OR AE-P



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TYPICAL SECTION LEGEND

- (1) 8" LIME TREATED SUBGRADE
- 2 4" HMAC
- 3 9" CRCP
- (4) 4" CONCRETE SIDEWALK
- 5 0' CURB OFFSET

EGST PROP. R.O.W.





A S 02 21, 2012