TIGER DISCRETIONARY PROGRAM
Project Application

Name of Project: IH 35 W/IH 820 Partial Interchange Configuration

Agency Submitting Project: North Central Texas Council of Governments

Primary Contact:
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Type of Project: Highway

Project Location:
City: Fort Worth
County: Tarrant
State: Texas
Congressional Districts: Kay Granger (District 12)
Rural or Urban Area? Urban Area

TIGER Funds Requested: $ 175,000,000

DUNS Number: 10-246-2256

General Project Information

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

Implementing Agency: Texas Department of Transportation – Fort Worth District

Project Name: IH 35W/IH 820 Partial Interchange Configuration

Project Limits: IH 35W at IH 820 in north Fort Worth

Project Scope or Description:

The proposed interchange includes extending the IH 820 Eastbound (EB) and Westbound (WB) Managed Lanes to the west side of IH 35W, building the Northbound (NB) and Southbound (SB) IH 35W Managed Lanes across IH 820, and building the WB IH 820 to NB and SB IH 35 Managed Lane to Managed Lane Connectors.

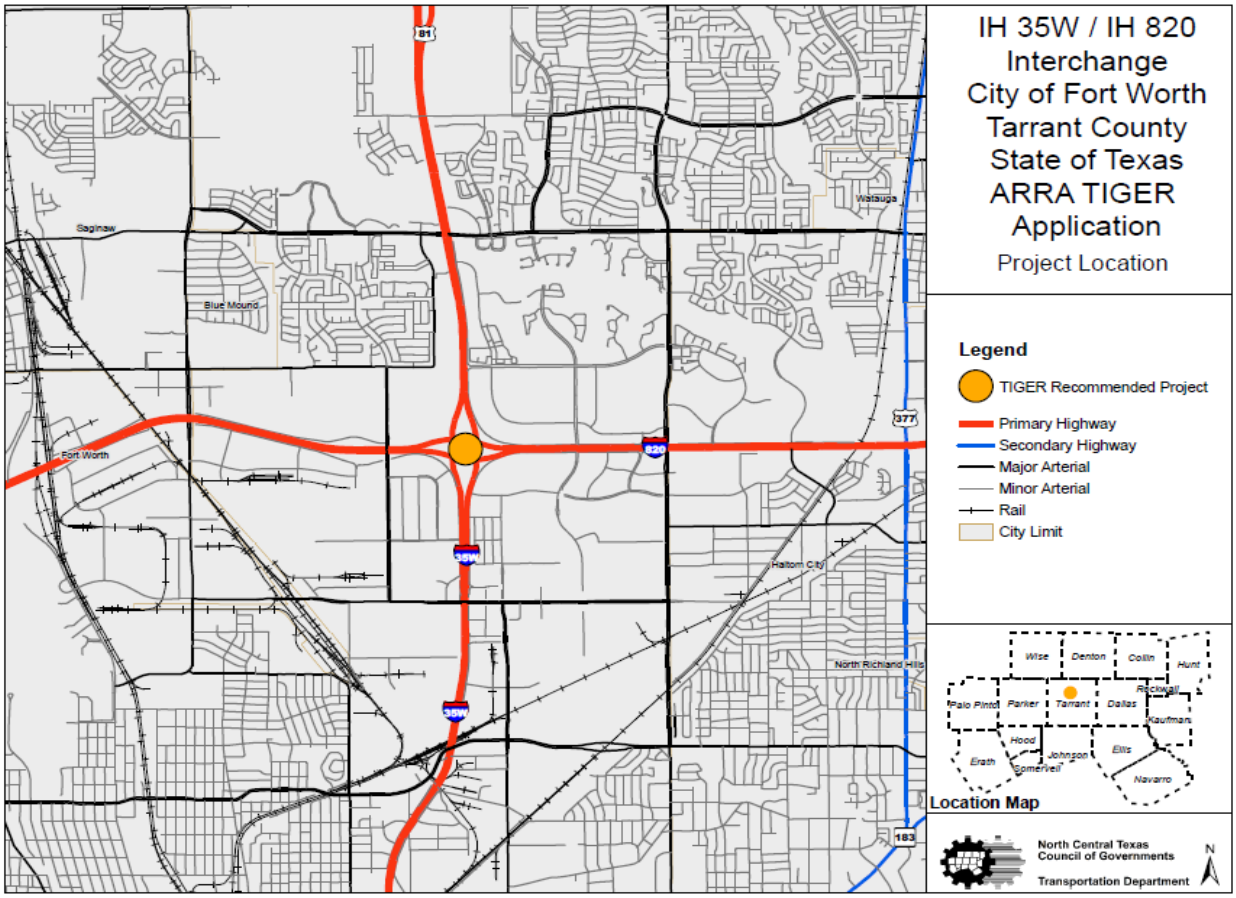
The above mentioned improvements will increase capacity and decrease congestion of the roadway system. The partial configuration is increasing the IH 820 east-west through lane highway capacity across IH 35W by 50 percent (three through lanes per direction vs. current two lanes per direction), and the IH 35W north-south through lane highway capacity across IH 820 by 100 percent (four through lanes per direction vs. current two lanes per direction).

The following is a more detailed scope of work:

- Construct NB and SB IH 35W Managed Lanes.
- Construct EB and WB IH 820 Managed Lanes.
- Construct the IH 820 WB to IH 35 SB Managed Lane to Managed Lane Connector
- Construct the IH 820 WB to IH 35 NB Managed Lane to Managed Lane Connector
- Construct the necessary infrastructure to allow construction of the above mentioned IH 35W Managed Lanes, and geometrically adequate transitions to existing General Purpose Lanes at both ends of the IH 35W Managed Lanes.
- Construct the necessary infrastructure to allow construction of the IH 820 Managed Lanes, and geometrically adequate transitions to existing General Purpose Lanes on the west side of the IH 35W Managed Lanes.
- Construct the necessary infrastructure to allow construction of the WB IH 820 to NB and SB IH 35W Managed Lane to Managed Lane Connectors.

Detailed schematics of the proposed partial interchange are available online at http://www.nctcog.org/trans/tip/private/35_schems.pdf.

Map of Project:



Urban vs. Rural Need:

Transportation improvements are needed at the IH 35W and IH 820 Interchange to address current and projected traffic demands and facility deficiencies. The traffic demand on the current interchange results from many causes including high population growth, proximity to employment centers, lack of sufficient alternative routes, and high use of Single Occupancy Vehicle Users (SOVs). At maximum capacity, the interchange is insufficient to carry the existing and projected traffic demand. The high traffic volumes along both the IH 35W corridor and the IH 820 corridor result in many effects, including slow travel speeds and extended hours of congestion, increased accidents, and increased air pollution.

The purpose of the proposed project is to improve mobility throughout the corridor, to relieve existing traffic congestion, improve local traffic circulation, and accommodate future travel demand. The project is needed for the reasons discussed in the following sections.

Projected Population and Employment Growth

The cities of Haltom City, North Richland Hills, Fort Worth, and other communities in northeastern Tarrant County have experienced steady population and employment growth. This growth is accompanied by increased population density in Tarrant County,

as well as substantial increases in motor vehicle numbers utilizing existing transportation facilities. The proposed project is needed to accommodate this increase and the expected increase in population for northeastern Tarrant County and the Dallas-Fort Worth (DFW) Metropolitan Area.

According to the *Mobility 2030: The Metropolitan Transportation Plan for the Dallas-Fort Worth Area – 2009 Amendment* and the 2000 Census, the year 2000 population for the DFW Metropolitan Area, which includes Collin, Dallas, Denton, Rockwall and Tarrant Counties, and portions of Ellis, Johnson, Kaufman, and Parker Counties, was approximately 4.87 million, an increase of 29 percent since 1990. By 2030, the DFW Metropolitan Area population is expected to be approximately 9.09 million persons, an increase of 187 percent from 2000. On average, the region is anticipated to add population at a rate of approximately 140,000 persons per year. Growth in the region is predicted to continue in a northerly direction with the IH 820 corridor experiencing moderately-high to high population density by 2030. The projected population growth in the project area is shown in Table 1.

TABLE 1. POPULATION GROWTH IN AREA

	Final Census				Forecasted	
	1970	1980	1990	2000	2010	2030
Communities Within the Project Area						
Fort Worth	393,455	385,164	447,619	534,694	624,956	826,665
Haltom City	28,127	29,014	32,856	39,018	43,521	44,941
North Richland Hills	16,514	30,592	45,895	55,635	65,686	73,417
Tarrant County	716,317	860,880	1,170,103	1,446,219	1,746,082	2,291,700
Communities Near Project						
Keller	1,474	4,156	13,683	27,345	38,127	47,310
Southlake	2,031	2,808	7,065	21,519	26,350	31,433
Watauga	3,778	10,284	20,009	21,908	23,868	25,819

Sources:
North Central Texas – Population by Decade, 1960-2000. March 2001, NCTCOG Research and Information Services; *NCTCOG Estimated Populations and Population Projections.* March 2007, NCTCOG Research and Information Services.

Changing Land Use

The proposed project is needed to accommodate changes in land use in the project vicinity. Land use changes along IH 820, though limited, are more pronounced in the western end of the project, in Haltom City and especially Fort Worth, where vacant land abutting the project is being developed with commercial uses such as hotels, office parks, and retail. At the eastern end of the project in North Richland Hills, land use is typical of development along a major urban highway, with a variety of land uses, including commercial, light industrial, residential, and park/open space. On the eastern end, vacant properties are being developed and other properties are being redeveloped. Changes in land use along the project are determined by the existing zoning. It is not anticipated that the project would substantially change the adjacent land usage as it is planned for future development. The project is consistent with local planning efforts.

Traffic Projections

Traffic volumes continue to increase as a result of area growth. Traffic is particularly congested and the capacity of the existing IH 820 facility is exceeded by the current

travel demand. Table 2 lists the projected 2010 average daily traffic (ADT) and projected 2030 ADT for IH 820 main lanes, Managed (toll) Lanes, and frontage roads.

Table 2. AVERAGE DAILY TRAFFIC (ADT) VOLUMES ON IH 820

Segment	2010 ADT	2030 ADT
IH 35W to Beach Street	138,000	213,300
Beach Street to U.S. 377	143,700	213,600
U.S. 377 to Rufe Snow Drive	170,700	255,500
Rufe Snow Drive to SH 26	183,900	275,600
SH 26 to SH 121/SH 183 (Northeast Mall Interchange)	214,300	321,400

Current Condition of Facility

The existing facility was constructed from approximately 1963 through 1967. The facility does not meet current urban freeway design standards as described in the *Texas Department of Transportation Roadway Design Manual* (October 2006) and in *A Policy on Geometric Design of Highways and Streets* (5th Edition, 2004) published by the American Association of State Highway and Transportation Officials.

Targeted Transportation Challenges:

This project addresses a major bottleneck in the regional transportation system. The IH 35W/IH 820 Interchange, in its current condition, cannot adequately accommodate the current demand. As the north Tarrant County area continues to grow, the interchange will continue to cause an even greater bottleneck.

The existing facility IH 820/IH 35W Interchange was constructed between 1963 and 1967. It does not meet the current design and safety standards, for an urban interchange between two Interstate Highways. It does not accommodate the existing and future travel demands, including the proposed General Purpose Lanes and Managed Lanes elements included in both IH 820 and IH 35W Schematics Plans. Major reconstruction and expansion for this interchange is needed as soon as funding is made available.

In addition, IH 35W is a North America Free Trade Agreement (NAFTA) corridor. Trade from the Dallas-Fort Worth Metropolitan Area to Mexico and Canada has almost doubled to $1.46 billion since 1993, the initial year of NAFTA.

The interchange is part of the North Tarrant Express public-private partnership. The North Tarrant Express (NTE) is dedicated to improving mobility along north Interstate 35W, northeast Interstate 820 and SH 121/183 Airport Freeway through a regionally supported managed lane system. The interchange is a vital, but missing piece of this public-private partnership project. Without an improvement to this interchange, the current bottleneck will remain.

Total Project Costs and Available Funding from Other Sources:

Phase	Cost	Available Funding Amount	Funding Source	% Shares by Source	Costs Already Incurred?
Interchange Construction	$175,000,000	$0	TIGER Request	100%	No

Because this project is part of the larger North Tarrant Express public-private partnership, it is important to consider the costs and revenues in the context of both projects. The funding amounts and revenue sources associated with the public-private partnership are outlined below.

Funding Source	Available Funding Amount ($ in Millions)	% Share by Source
NTE Mobility Partners	**1,458.0**	**71.9%**
State/Federal Funds	**395.0**	**19.5%**
TIGER Grant	**175.0**	**8.6%**
Total	**2,028.0**	

If the total project costs of these two project phases are considered, the TIGER request only represents 8.6% of the total cost. The private sector is contributing 72% with the other State and federal sources providing the remaining 19.5%.

Project Schedule:

The project is expected to start by spring 2010 and to be completed and opened to traffic by early 2015.

Legislative Approvals Needed:

No other legislative approvals are needed for this project. Attachment 1 includes letters of support from US Congresswoman Kay Granger, the Texas Department of Transportation, City of Fort Worth, City of North Richland Hills and the IH 35W Coalition.

State and Local Planning:

Local Planning:

This project is the result of a collaborative planning effort of the Texas Department of Transportation – Fort Worth District, NTE Mobility Partners, Tarrant County, the cities of Fort Worth, Haltom City, North Richland Hills and the North Central Texas Council of Governments (NCTCOG). The IH 35W at IH 820 Interchange is included in the City of Fort Worth *Comprehensive Land Use Plan*, adopted February 2009.

TIP/STIP Status:

The IH 35W at IH 820 Interchange is included in FY 2009 (page VII-4) of *2008-2011 Transportation Improvement Program, Amended April 2009.*

Metropolitan Transportation Plan:

The proposed reconstruction of the IH 35W/IH 820 Interchange in northern Tarrant County is consistent with the recommendations found in Mobility 2030: The Metropolitan Transportation Plan for the Dallas-Fort Worth Area, 2009 Amendment. The Metropolitan Transportation Plan includes this project as a reconstructed interchange with reconfigured ramps between freeway main lanes and new direct-connect ramps between HOV/Managed Lanes.

Because Tarrant County is classified as non-attainment for the pollutant ozone, transportation conformity applies. This project is included in a conforming Metropolitan Transportation Plan and the State Transportation Improvement Program.

Statewide Transportation Plan:

IH 35W and IH 820 were both identified in the 2006 Texas Metropolitan Mobility Plan (TMMP) as high priority projects for the Dallas-Fort Worth Region. This interchange was also identified as being in need of rehabilitation.

This corridor was identified in the 2006 TMMP as a high priority project for the Dallas-Fort Worth Region. This project supports the major goals of the TMMP, including congestion relief, improved safety, air quality, and quality of life, enhanced economic opportunities, and streamlined project delivery.

Technical Feasibility:

The proposed interchange includes extending the IH 820 EB and WB Managed Lanes to the west side of IH 35W, building the NB and SB IH 35W Managed Lanes across IH 820, and building the WB IH 820 to NB and SB IH 35 Managed Lane to Managed Lane Connectors. The design adheres to Federal Highway Administration (FHWA) and the Texas Department of Transportation (TxDOT) design standards and is technically feasible.

Financial Feasibility:

As indicated above, this project is part of the larger North Tarrant Express public–private partnership. TxDOT and NCTCOG have confirmed that if an additional $175 million is received, this interchange can be constructed as noted in the project description section. With regard to maintenance and operations, the public-private partnership contract assigns those costs to the private sector partner for 52 years.

Certification of compliance with Subchapter IV of Chapter 31 of Title 40 (federal wage rate requirements) signed by applicant is provided at
http://www.nctcog.org/trans/tip/private/35FedWage.PDF.

Environmental Outcomes

The Federal Highway Administration has determined that this project has no significant impact on the environment.

NEPA Approval Date: 12/2008
The Finding of No Significant Impact (FONSI) is available at the following web address.
http://www.nctcog.org/trans/tip/private/35_fonsi.pdf

Primary Criteria:

1. Long Term Outcomes

a. State of Good Repair:

The existing facility IH 820/IH 35W Interchange was constructed between 1963 and 1967. It does not meet the current design and safety standards, for an urban interchange between two Interstate Highways. It does not accommodate the existing or future travel demands, including the proposed General Purpose Lanes and Managed Lanes elements included in both IH 820 and IH 35W schematics and plans. Major reconstruction and expansion for this interchange is needed as soon as funding is made available. Maintenance and operation responsibilities will be fulfilled by the private sector for 52 years per the public-private partnership agreement.

b. Economic Competitiveness:

The areas within a two-mile radius of the IH 35W/IH 820 Interchange project in Fort Worth are economically distresses areas (by definition in 42 USC3161). According to the 2000 Census, the median income in the two-mile radius of the project area was $22,915, compared to the national average at $41,994, which is about 17% less than the national average. The poverty rate within five-mile radius of the project area was 10.7 percent compared to the regional average at 8.1 percent. Please refer to the median income, poverty rate, unemployment rate, and environmental justice maps available at http://www.nctcog.org/trans/tip/private/35_Maps.pdf.

The IH 35W/IH 820 Interchange project will significantly support the new investment, expansion, and private sector production in Fort Worth. According to NCTCOG's 2030 Forecast, the number of jobs in the five-mile radius of the project area in 2000 was 94,780. The number of jobs is projected to increase to 127,720 in 2015 and 162,600 by 2030 in the five mile-radius of the IH 35W/IH 820 Interchange, which is a 27.3% increase.

The IH 35W/IH 820 Interchange project is centrally located to the north of Downtown Fort Worth and connects to major employment centers (such as Alliance Airport, Alliance Intermodal Center and Texas Motor Speedway) and residential locations. In addition, the strategic location of the project is in the proximity of airports such as Naval Air Station Fort Worth Joint Reserve Base, Fort Worth Meacham International Airport, and Hicks Airfield. The Fort Worth project is also within a five-mile radius of a major freight and goods movement hub, Tower 55. A map showing airport locations and rail lines is provided at http://www.nctcog.org/trans/tip/private/35_Maps.pdf.

According to NCTCOG's 2030 Forecast estimates, the five-mile radius of the project area includes 222,229 population, 75,592 households, and 117,323 jobs in 2010. NCTCOG's projections show that the five-mile radius of the project area includes 270,234 population, 92,226 households, and 162,600 jobs in 2030. Table 3 includes the population, employment, and household estimates for the two and five mile radius.

Table 3. Household Population and Employment Estimates

(2-Mile Radius)

	2000	2010	2015	2030
Population	13,150	20,234	21,295	28,840
Households	5,257	8,220	8,616	11,393
Employment	27,013	32,363	35,339	46,409
Basic	13,909	16,638	18,142	24,610
Retail	5,909	7,024	7,643	9,544
Service	7,195	8,701	9,555	12,255

(5-Mile Radius)

	2000	2010	2015	2030
Population	185,212	222,229	233,092	270,234
Households	62,878	75,592	79,383	92,226
Employment	94,780	117,323	127,720	162,600
Basic	34,266	41,056	44,210	59,156
Retail	26,448	34,621	37,834	45,916
Service	34,066	41,644	45,673	57,527

Source: 2030 Demographic Forecast – North Central Texas Council of Governments

The IH 35W/IH 820 Interchange project is an integral component of the road and rail infrastructure planned within NCTCOG's *Mobility 2030: The Metropolitan Transportation Plan for the Dallas-Fort Worth Area, 2009 Amendment.* For reference, maps showing the road and rail networks within the plan are available at http://www.nctcog.org/trans/tip/private/35_Maps.pdf.

Based off of a cost benefit model developed by NCTCOG staff, the IH 35W/IH 820 Interchange project should have a net positive effect on the economy of $40.2 million annually and create a minimum 437 permanent jobs when completed. These jobs will be created by reducing congestion on two important arteries, including a major north-south corridor of the interstate highway system. During construction there will be a net benefit to the economy of $131 million and 713 jobs over each of the two years of the project. This project will have a long-term return on investment of 285 percent. The 713 jobs created during construction will be primarily construction workers, their vendors, and retail and service jobs supported by their spending. The detailed cost-benefit analysis is available at http://www.nctcog.org/trans/tip/private/35_Econ.pdf

The 437 permanent jobs created by this project will be spread across a wide spectrum of businesses located just to the north of the interchange. There are currently two large industrial districts along IH 35W that will benefit greatly from reduced congestion and a safer interchange. The Alliance Airport and Intermodal Center to the north includes a large cargo airport with scheduled international freight service and an intermodal shipping hub, as well as 28,000 well paying jobs. Adjacent to the interchange are the Mercantile Center Business Park and Meacham International Airport. Increased accessibility and reduced congestion will improve all of these businesses in these economic activity centers and encourage increased investment in the area.

This project will significantly reduce delays along both IH 35W (the NAFTA Superhighway) and IH 820, the most heavily traveled portion of Fort Worth's principal highway loop. The reduced

delays will speed up the movement of goods in and out of two large cargo airports in the immediate vicinity; Meacham Airport (2.5 miles) and Alliance Airport (9 miles), as well as at least three rail yards. The area around the interchange is occupied by a large industrial district with significant amounts of available land available for development. Increased accessibility to the surrounding warehouses, manufacturing facilities, and offices will reduce operating costs, increase efficiencies, and improve profitability, which will in turn encourage businesses to expand and locate to the area.

NCTCOG developed a cost-benefit model to measure economic and job gains realized by this project. The benefits are based on cost savings realized from reduced congestion and cleaner air by both consumers and businesses multiplied by constants set either by academic researchers or FHWA. Costs were calculated by depreciating the project costs over 30 years at a 7 percent interest rate.

c. Livability:

According to NCTCOG's 2030 Forecast estimates, the two-mile radius of the project area includes 20,234 population, 8,220 households, and 32,363 jobs in 2010. NCTCOG's projections show that the five mile radius of the project area includes 222,229 population, 75,592 households, and 117,323 jobs in 2010. The population, employment, and household estimates for the 2 mile and 5 mile radius are provided at http://www.nctcog.org/trans/tip/private/35_Maps.pdf.

The IH 35W/IH 820 project will improve a major transportation interchange near downtown Fort Worth and is an integral component of the transportation network shown in the *Mobility 2030: The Metropolitan Transportation Plan for the Dallas-Fort Worth Area, 2009 Amendment*, and improves transportation connectivity to roadway, transit, and airports.

The IH 35W/IH 820 Interchange will not only be located in one of the City of Fort Worth's disadvantaged areas, but will provide connections to much needed resources such as jobs, food, education, and recreation for the entire region.

Many of the households within five miles of the interchange are disadvantaged. In fact, an average of 10.68 percent of the households in the area fall below the poverty line; 12.78 percent are female headed households. In addition, 30.92 percent of the population is Hispanic. The percentage of disabled person within 5 miles of the project, 8.19 percent is above the regional average percentage of disabled person at 6.84 percent.

There are currently 47 major employers in the project area, including manufacturing plants such as M&M Manufacturing and the North West Pipe Company, and retail companies such as Wal-Mart and Home Depot. In fact, six major employers located within one mile of the interchange, TTI Incorporated, Behr Climate Systems, AUI Contractors, the U.S. Post Office, Leo's Foods, and Haggar Clothing Co., employee over 4,000 people.

The Interchange provides a connection between compatible uses such as residential, retail, and office. Along the IH 35W and IH 820 stretches of the interchange there are a number of residential neighborhoods, such as the Crossing at Fossil Creek, which will have better access to the highway when the interchange is complete. The reconstructed interchange with reconfigured ramps between freeway main lanes will allow faster and more efficient freeway access, thus providing residents a shorter travel time to commercial and retail destinations in the region.

d. Sustainability:

This project will improve energy efficiency, reduce dependence on oil, and reduce greenhouse gas emissions. In the build and no-build analysis for this project, Vehicle Hours of Travel (VHT), average loaded speed, congested delay, and traffic delay were analyzed as a performance measure. Fuel consumption and carbon dioxide (CO2) emissions were estimated from the vehicle hours of travel reduction from the build and no build scenario based upon the following assumptions.

Assumptions:

- Fuel Consumption: 0.685 gallons/hour factor was utilized to calculate the Fuel Consumption from VHT.
- CO2 Emission: 8788grams/gallon of gasoline emission factor was used to calculate the CO2 Emissions from Fuel Consumption.
- Project Life: 40 years is used as project life for all highway projects.
- Global CO2 Emission Benefits: $33/Metric Tons of CO2 emission was used to calculate the Global CO2 Emission Benefits.

Table 4 shows the net reduction and percent change from Build case to No Build case.

Table 4:

Performance Parameter	Build – No Build (Daily)
Vehicle Hours of Travel (hours)	-8,382.82
Speed (mph)	0.08
Congested Delay (hours)	-5,987.33
Traffic delay (hours)	-1,967.28
CO2 Emission (tons/day)	-55.62
Fuel Consumed (gallons/day)	-5742.22

As shown in Table 4, vehicle hours of travel will be decreased by 8,382 hours/day and over 5,700 gallons/day of fuel will be saved. Daily CO2 emissions will decrease by 55 tons.

Over the lifetime of the project, travel time will be reduced by 87 million hours, CO2 emissions will decrease by 0.6 million tons, and fuel usage will decrease by 60 million gallons. The project will create a Global CO2 Benefit of $17 million over the project life. A summary of the benefits are shown in Table 5.

Table 5:

Performance Parameters	Benefits/day	Benefits/Project Life
Vehicle Hours of Travel (hours)	8382.82	87,181,328.00
CO2 Emission (tons)	55.62	578,496.24
Fuel Consumed (gallons)	5742.22	59,719,138.44
Cost Benefit (dollars)	$1664.90	$17,314,970.95

Fuel consumption and travel time reductions suggest that other criteria pollutants, such as Carbon Monoxides (CO), Volatile Organic Compounds (VOC), Nitrogen Oxides (NOx), and Particulate Matter (PM) will also be reduced.

Safety:

For the IH 35W/IH 820 Interchange, there were 367 total crashes from 2003 – 2008 which included 1 fatality. The IH 820 corridor is a designated HazMat route. Fortunately, data gathered from 2003 – 2008 indicates that no hazardous material spills occurred. Reconstructing the interchange will improve safety of the facility, thereby preventing future incidents.

In addition, the direct access to each managed lane provided by this project eliminates traffic weaving, which promotes a safer and more operationally efficient system. According to the "Year 2 Annual Report of Progress: Operating Freeways with Managed Lanes" research report, published by the Texas Transportation Institute, a 26 percent crash rate reduction can be estimated by having a direct connection between Managed Lanes. The safety data indicates that reconstruction of the interchange at IH 35W and IH 820 north of Fort Worth will result in 16 fewer crashes per year and 636 fewer crashes over the 40 year life of the project.

> **Methodology for estimated 26 percent reduction:**
> 367 Total Crashes from 2003-2008
> 61.16 average per year
> 61.16 x 26 percent = 15.90 fewer crashes per year
> **15.90 fewer crashes per year * 40 years = 636 fewer crashes for a project life of 40 years**

The project will remove left hand exits and other older design features, which lead to many of the incidents noted above. Also, by removing a major bottleneck, this project will reduce secondary accidents.

Evaluation of Expected Costs and Benefits:

Quantification of time savings:

Non-recurring congestion – The IH 35W/IH 820 Interchange project area has Intelligent Transportation System (ITS) devices deployed and is a Mobility Assistance Patrol Program route. Based on the current ITS coverage of the project corridor, an improved incident

detection, response and clearance time can be expected. The estimated travel time savings for non-recurring congestion is 199 hours per day.

Quantification of public health effects:

There are currently 11 health facilities within five miles of the interchange. These facilities include medical offices and nursing homes. Providing better access to health facilities via the interchange will reduce the time it takes for single occupancy and emergency vehicles to reach key medical facilities. Highway access is especially important in the area around the IH 35W/IH 820 Interchange, because it is a key route to area hospitals.

The interchange will also provide better access to facilities that encourage better health, such as parks and recreation centers. There are seven recreation centers within five miles of the interchange. These facilities promote greater activity, and thereby, greater health.

Dynamic effects of transportation investment on land use:

There are currently 2,603 acres of vacant land within one mile of the interchange. The interchange will have a dramatic impact on the development of vacant parcels. Rather than traditional single land use developments, much of the future development will be mixed use. In fact, the Fort Worth Future Land Use Map indicates that the area will be both a mixed use and industrial growth center. A map showing the Future land Use around the project is provided online at http://www.nctcog.org/trans/tip/private/35_Maps.pdf.

Greater mixed use development and greater infill development will further increase demand for the efficient highway access that will be provided by this project. Traffic counts indicate that there will be 296,378 daily vehicle trips in the project area by 2030 (IH 35W/IH 820 2030 Forecast PERF Report, 2009 online at http://www.nctcog.org/trans/tip/private/35_Perf.pdf). The interchange will provide more efficient access to the projected land uses and add 437 jobs to the region as previously noted.

2. Job Creation and Economic Stimulus:

This project is expected to create 437 jobs by relieving congestion and increasing the accessibility of areas around the interchange and beyond. Large employment centers near the project will be more accessible. The reduced congestion will also cut costs to freight and industrial uses near the interchange by allowing more efficient movement of goods in and out of areas such as the Alliance Airport and Intermodal Center. The nation as a whole will benefit by removing a bottleneck along the IH 35W NAFTA corridor. Given the amount of available land, additional jobs beyond the estimated 437 are likely to grow in the Alliance and other industrial parks and office building in the vicinity.

Construction will preserve jobs and increase hours worked in construction and related services that have seen a softening in demand since the beginning of the economic recession. The project is predicted to sustain 713 jobs during construction. After construction is complete, lower levels of congestion will improve access to jobs in the rapidly growing areas of northern Tarrant County. The availability of jobs will increase in the area as a result of real benefits to companies' bottom lines from increased delivery speeds and reductions in congestion. These cost savings can be turned into additional jobs in distribution centers, manufacturing, office work, and retail jobs.

The five-mile radius of the project area includes over 14,400 acres of vacant land. Though all of this land is not developable, the availability of large amounts of vacant land and the projections for households and populations shown in the 2030 Demographic Forecast provide an ample of opportunity and demand for new development for residential and employment centers in the area. The improvements to the intersection can significantly improve traffic flow, access, and in turn the development potential and attractiveness of the area and draw new businesses to the area.

Based on NCTCOG's major employer data, there are about 40 major employers (over 100 employees) in the two-mile radius of the project area that employ over 250 employees. The major employers in the two-mile radius employ over 18,500 employees. The five-mile radius of the project area contains over 170 major employees that employ a total of 36,500 workers. According to NCTCOG's 2030 Forecast, the number of jobs in the five-mile radius of the project area in 2000 was 94,780. The number of jobs is projected to increase to 127,720 in 2015 and 162,600 by 2030 in the five mile-radius of the IH 35W/IH 820 Interchange, which is a 27.3% increase. These employers and businesses will benefit by the IH 35W/IH 820 Interchange project due to reduced traffic congestion and improved access to the customer base.

Compliance with Federal Labor Laws:

TxDOT will be the implementing agency for this project. All TxDOT projects that use federal funding must include the following provisions in all construction contracts:

- Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity, Special Provision 000-004. The goals for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade on all construction work in the covered area must be met. The contractor's construction work must be in compliance with Equal Employment Opportunity guidelines as well.
- Disadvantaged Business Enterprise (DBE) in Federal-Aid Construction, Special Provision 000-461.
- FHWA 1273, which contains several federal requirements for predetermined minimum wages, apprentice, and training programs, etc.

Additionally, TxDOT has a DBE program for all construction projects to provide a level playing field for small minority- and women-owned companies wanting to do business with TxDOT. TxDOT also enforces the Historically Underutilized Business (HUB) Program on all construction projects to promote full and equal procurement opportunities for small minority- and women-owned businesses.

TxDOT participates in numerous activities to provide opportunities for small, disadvantaged, veteran owned and disabled businesses, including:

- The TxDOT Business Outreach and Program Services branch conducts briefing conferences around the State for small, minority- and women-owned businesses providing contract opportunities and information on how to do business with TxDOT and the State. The briefings include general industry sessions and specific information on how to do business in the construction, goods and services, information technology and professional engineering service industries.

- Learning, Information, Networking, Collaboration Mentor-Protégé Program: In this program, TxDOT mentors small and minority-owned businesses interested in doing business with TxDOT. The program focuses on construction, goods and services, information technology and professional services. The program goal is increasing business opportunities and the number of small and minority businesses bidding and performing on TxDOT contracts.
- Small Business LINC Mentor-Protégé Application: Technical Assistance Program provides free business development and technical industry training to DBEs in the highway construction industry to enhance the skills necessary to bid and perform on TxDOT contracts.
- One-on-one Business Appointment Program: TxDOT coordinates and arranges appointments between businesses interested in working with TxDOT and the appropriate agency purchasers and/or contract management employees.
- Appointments with TxDOT Purchasers: DBE/HUB/SBE Industry Liaison Meetings provide a vital two-way communication link between the DBE/HUB/SBE community and TxDOT. These quarterly meetings provide an opportunity for the small and minority businesses development community to provide input and recommendations to TxDOT DBE/HUB/SBE Programs.
- Economic Opportunity Forums are held in different cities throughout the State and seek to attract businesses interested in finding contracting and procurement opportunities. Business Outreach and Program Services sponsors and attends many of these functions to provide information on TxDOT contracting and procurement opportunities.
- Texas Business Opportunity Development Program works to increase minority business participation in the highway construction industry.
- TxDOT Specialized Workshops provide an opportunity for small and minority-owned businesses to receive training on various business development and technical industry topics including bonding, construction management, developing a web site and/or a business plan, construction safety training and certification, and business financial management.

TxDOT will construct, operate, and maintain the project. TxDOT has a strong record of labor practice, federal labor compliance, and implementation of best practices with regards to national civil rights and equal opportunity laws. All TxDOT projects that involve federal money must include the previously discussed federal special provisions.

As typical of construction projects, TxDOT utilizes a bidding system through which a contractor is selected. Part of the contractor's responsibility once selected is securing and utilizing specific manufactured goods and supplies per TxDOT specifications. The resulting suppliers selected by the contractor are typically dominated by basic roadway manufacturers and suppliers (i.e., concrete, steel, asphalt). Indirect jobs in these industries can be expected at non-project site locations such as, but not limited to, quarries, concrete plants, lumber yards, service and supply shops and eateries patronized by the workers.

Secondary Criteria:

1. Innovation:

The implementation of this interchange will be part of a Public-Private Partnership between TxDOT and North Tarrant Express Mobility Partners. This partnership involves a concession agreement for the design, construction, maintenance and operations of the interchange and

adjacent facilities included in the concession agreement, for 52 years. The public-private partnership package includes a TIFIA loan, private equity bonds, and other innovative financing techniques. In addition, the project is being delivered under a design/build contract, thereby utilizing an innovative project delivery mechanism. The receipt of TIGER funds, along with innovative public-private partnership financing and project delivery mechanisms will advance construction of this interchange by at least 4-5 years.

The IH 35W/IH 820 Interchange project includes deployment of Intelligent Transportation System (ITS) devices, including traffic monitoring technology, such as closed-circuit television cameras, vehicle detection devices, and dynamic message signs. Traffic monitoring technologies detect incidents in a timely manner to create quicker responses from transportation and enforcement officials. The speed at which an incident is detected affects the amount of time in which it can be cleared and the amount of disruption the incident will cause to the remainder of the traffic queue. In addition, the existing ITS equipment in the corridor will help mitigate traffic while this corridor is under construction and provide information to travelers. As previously noted, the estimated travel time savings for non-recurring congestion is 199 hours per day.

The goal of the region's existing Freeway Incident Management (FIM) training course is to initiate a common, coordinated response to traffic incidents that will build partnerships, enhance safety for emergency personnel, reduce upstream traffic accidents, improve the efficiency of the transportation system, and improve air quality in the Dallas-Fort Worth region. An essential element of the region's FIM program is the Mobility Assistance Patrol (MAP) Program, which provides assistance to motorists by helping them to move disabled vehicles from the main lanes of regional highway/freeways facilities and ultimately get the vehicles operating again or off the facility completely. The assistance is provided free of charge to the motorist and includes services like assisting with flat tires, stalled vehicles, and minor accidents. The IH 35W/IH 820 Interchange project is located in a jurisdiction that actively participates in the Freeway Incident Management (FIM) Training Program, and is part of the MAP coverage area.

Another existing program, the Employer Trip Reduction Program, is designed to plan and implement trip reduction and transportation demand management strategies such as subsidized transit pass programs; walking, bicycling, ridesharing programs; alternative work schedule arrangements; telecommuting programs; parking management; and other transportation incentive programs. The regional Try Parking It website (http://tryparkingit.com) is a commuter tracking application used in the DFW region to connect communities with transportation solutions and to track implementation of alternative commute solutions. The Employee Trip Reduction program is and will continue to be marketed to employers in this corridor.

Special Events

This project is one of the main routes to the Texas Motor Speedway that hosts two large NASCAR races in the March/April and October/November timeframe each year, as well as other smaller events on a periodic basis. Both of the large events attract more than 200,000 attendees. The venue has an extensive traffic management plan to get attendees into and out of the venue in a timely manner, but improvement of the interchange will greatly enhance the ability to transport attendees to and from this event.

2. Partnership

a. Jurisdictional and Stakeholder Collaboration

This project is part of the larger North Tarrant Express project. As such, partners and stakeholders cover a broad spectrum entities and organizations as indicated below.

- Federal Highway Administration
- Texas Department of Transportation
- NCTCOG's Regional Transportation Council
- NTE Mobility Partners
- Tarrant County
- IH 35W Coalition
- Tarrant Regional Transportation Coalition
- City of Bedford
- City of Euless
- City of Fort Worth
- City of Haltom City
- City of Hurst
- City of North Richland Hills
- North Texas Tollway Authority

Performance Monitoring:

Based on the primary criteria presented in this application, Table 5 lists performance measures for evaluating the success of this project.

Table 6. Performance Monitoring

	Short-Term (2 to 5 years) Performance Measure	Long-Term (5 to 40 years) Performance Measure
Long-Term Outcome		
State of Good Repair	• Update obsolete interchange • Lower maintenance costs	• Lower maintenance costs
Economic Competitiveness	• Decrease in unemployment in the region and project area during construction	Within the project area: • Increased median income compared to 2010 census data • Decrease in the poverty rate • Lower unemployment rate compared to 2009
Livability	• Increased access to employment, education, and recreation centers. • Increased accessibility of disabled persons and pedestrians • Decreased congestion	• Increased community retail and commercial development • Increased community cohesion • Increased community pride and character • Decreased congestion
Sustainability	• Decreased VHT, traffic delay, fuel consumption, CO_2 emissions • Increased travel speeds	• Decreased VHT, traffic delay, fuel consumption, CO_2 emissions • Increased travel speeds
Safety	• Decrease in the number and severity of accidents • Decrease in the number of fatalities	• Decrease in the number and severity of accidents • Decrease in the number of fatalities
Job Creation and Economic Stimulus	Decrease in unemployment in the region and project area during construction	• Decrease in unemployment • Creation of retail and commercial employment opportunities within the project area