

**TIGER DISCRETIONARY PROGRAM
Project Application**

Name of Project: US 67 Cleburne Bypass

Agency Submitting Project: North Central Texas Council of Governments

Primary Contact:

Name: Michael Morris
Phone Number: 817.695.9241
Email Address: mmorris@nctcog.org

Type of Project: Highway

Project Location:

City: Cleburne
County: Johnson
State: Texas
Congressional Districts: Chet Edwards (District 17)
Rural or Urban Area? Rural

TIGER Funds Requested: \$ 50,000,000

DUNS Number: 10-246-2256

General Project Information - for a Summation of this project's general benefits see page 24.
A Cost/Benefit Analysis is provided on page 25.

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

Implementing Agency: Texas Department of Transportation (TxDOT)

Project Name: US 67 Cleburne Bypass

Project Limits: From US 67 West of Cleburne to Spur 102, east of Cleburne

Project Scope or Description: The existing facility is located on the north side of the City of Cleburne and is currently a two-lane roadway with grade separations at major intersecting roadways, see Exhibit 1. The proposed project is an ultimate four-lane facility, for which all right-of-way has been acquired. To facilitate the anticipated economic development, a frontage road section was completed between US 67 at County Road 1216 (Nolan River Road) to SH 171. Initially, construction of the bypass provided improved local and regional mobility; however, the quality of this access has deteriorated since the bypass was completed in 1998, due to traffic growth and the increasing high percentage of trucks. The completed four-lane divided bypass will improve accessibility to public facilities and private property in the northwest and northeast quadrants of the city, with implicit benefits to those in downtown Cleburne, as this facility routes through traffic away from the central business district. To meet long-range system planning needs, the facility has been designed to allow an extension should construction of a highway for the southeast quadrant become warranted.

Exhibit 1 – Project Location Map

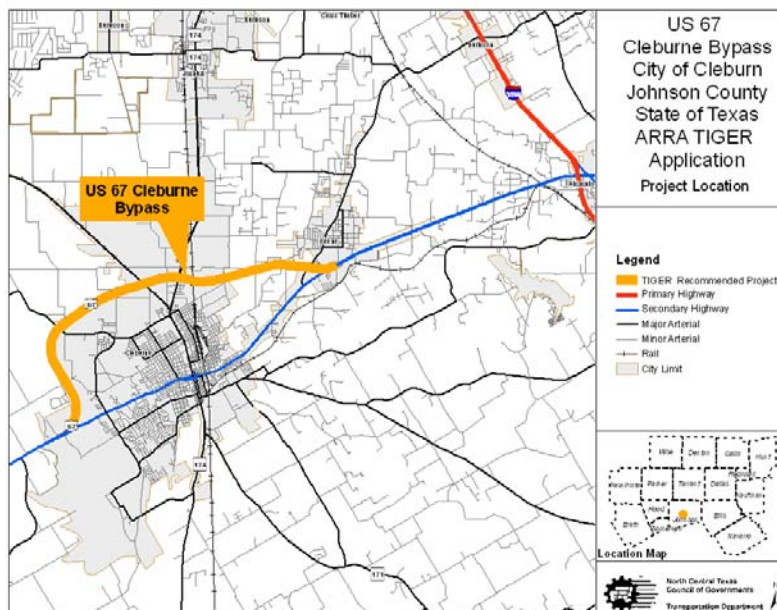


Table 1 compares the ADT for the Northeast and Northwest quadrants of the bypass, respectively east and west of SH 174, as estimated in the 1989 FEIS and based on 2008 traffic count data. Currently, level of service varies along the bypass from “D” to “E.”

Table 1 – Comparison of Estimated 2011 Year Traffic with 2008 Traffic Count Data

	Northeast Quadrant	Northwest Quadrant
1989 FEIS	13,100	11,100
2011 Average Daily Traffic Projection (ADT)		
2008 Traffic Count ADT	15,100	11,000
2008 % Trucks	>20% ⁽¹⁾	15% to 20%
Level of Service	D, E	D, E

Notes: (1) Typically, truck percentage of the ADT ranges between 8% to 12%

Urban vs. Rural Need: This TIGER grant is sought to fund the final construction phase of the US 67 Cleburne Bypass by the construction of two additional main lanes. The City of Cleburne may be characterized as a rural community; it is the county seat of Johnson County. The bypass’ original intent was to address the City of Cleburne’s increasing traffic congestion due to the city’s steady growth and regional through traffic. The current bypass partially achieves this intent of reducing city congestion by shifting auto and heavy truck traffic from the central business district’s main thoroughfares onto the two-lane bypass. Limestone and aggregate quarries located southwest of Cleburne, and more significantly, the recent advent of natural gas well drilling throughout Johnson County exacerbate the bypass’ congested condition through the addition of more haul trucks to the traffic mix using the US 67 bypass. The proposed project completes the ultimate four-lane facility envisioned more than 30 years ago, which was initially environmentally cleared 20 years ago, for which the needed right-of-way has been acquired, design is at 95% complete and for which the first phase of construction (the two-lane bypass) ended ten years ago.

Targeted Transportation Challenges: The existing two-lane roadway features grade separations at various major intersecting roadways however, additional grade separations must be constructed for the other half of the four-lane divided roadway. All necessary right-of-way is in hand. Table 2 summarizes the US 67 Bypass’ phases, funding source, cost shares and expenditure status.

The completed bypass will improve accessibility to a variety of public and privately owned facilities; beginning near the western terminus of the existing bypass and moving in a clockwise direction these public and private facilities include: the Harris Methodist Walls Regional Hospital, a Wal-Mart Distribution Center, the Cleburne Municipal Airport, Cleburne High School, George Marti Lake, Lake Pat Cleburne, and Hill College’s Johnson County Campus. Access to various residential subdivisions in the northwest and northeast quadrants of the city will also be improved by this project.

Table 2 – Phases, Funding Source, Cost Shares and Costs Status

Phase	Funding Source	% Shares by Source	Costs Already Incurred?
Engineering	TxDOT – State Funds	100%	Yes
Environmental Review	TxDOT – State Funds	100%	Yes
Right-of-Way	TxDOT – Local Funds	90% state 10% local	Yes
Utility Relocation	TxDOT – Local Funds	90% state 10% local	Yes
Construction	TIGER Request		No

Project Schedule: The project's design plans for the two-lane capacity improvement are 95% complete. All necessary right-of-way (ROW) has been acquired; as the two lanes will be constructed within existing TxDOT ROW only the relocation of utility poles are needed.

If TIGER funds are awarded, this project would let in August 2010 and completion is estimated to occur in December 2012. Table 3 and 3A summarize the completed and pending phases of the US 67 Bypass. Please note the section represented in Table 3A has been submitted for ARRA funding; while this section is not a part of this project, it is being reported so that the bypass' entire proposed funding profile is known.

Table 3 - US 67 Cleburne Bypass Project Phases

Phase	Estimated/ Actual Start Date	Estimated/Actual Completion Date
Roadway Segments		
– from US 67 west of Cleburne to SH 121 Southwest Parkway – from SH 174 to Spur 102		
Environmental Clearance		Record of Decision (ROD) Issued: August 7, 1989 Re-Evaluation Approval: May 14, 2003 Continuous Activity pending 2009 MTP update
Design	Design began around 2001	95% complete. Minor revisions required to extract a portion of existing plan set for SH 121/US 67 ARRA project.
Right-of-Way	ROW for the four-lane ultimate section acquired.	10.603 acres of additional ROW acquired due to design changes to accommodate SH 121/US 67 interchange.
Utility Relocation	Completed during Phase 1 construction	95% complete, minor adjustment of utility poles pending.
Construction Phase 1: 2- lane bypass	July 1998	100% complete
Phase 2: 4-lane divided bypass	December 2012	Contingent on receipt of TIGER funds.

Table 3A - US 67 Cleburne Bypass Project Phases

Phase	Estimated/Actual Start Date	Estimated/Actual Completion Date
Roadway Segment – from SH 121 Southwest Parkway to SH 174 – NOTE: This project is a candidate for \$10 million in ARRA funds and is included to account for all proposed improvements for the Bypass.		
Environmental Clearance		Pending update of 2009 MTP to separate out from US 67 Bypass project. Anticipate approval in October 2009.
Design	2001	100% complete
Right-of-Way	ROW for the four-lane ultimate section acquired	100% complete
Utility Relocation	Completed during Phase 1 construction	100% complete
Construction	Begin construction November 2009	March 2011

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

Letters of Support: Letters from the Texas Department of Transportation and the City of Cleburne, supporting for the US 67 Bypass project may be retrieved by utilizing the following link: <http://www.nctcog.org/trans/tip/private/67Letters.pdf>

State, Regional and Local Planning:

State Planning: This project is an integral part of TxDOT's highway system improvements envisioned for the US 67 corridor, involving railroad grade separations, bridge replacements and the widening of US 67 from two- to four-lanes. These improvements have spanned 15 years (counted from the first construction contract only) and represent a transportation construction investment totaling almost \$71 million. Exhibit 2 depicts the spatial relationship of these improvements to each other; while Table 4 summarizes each improvement's location, scope, completion date and cost.

Exhibit 2 - US 67 Corridor Transportation Improvements

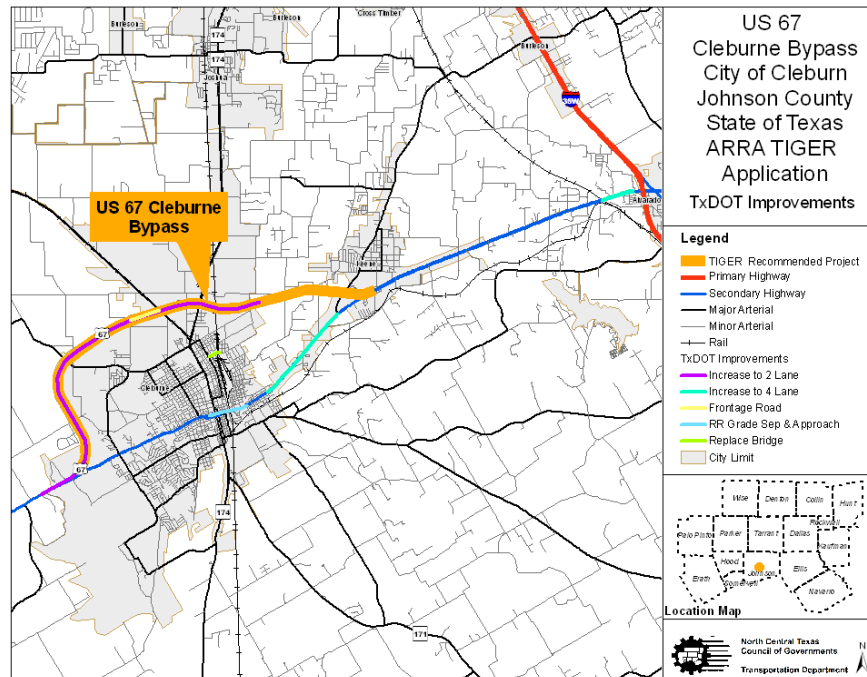


Table 4 - US 67 Corridor Transportation Improvements

CSJ	Roadway	From	To	Description	Letting	Completion	Cost
0259-05-036	BU 67M	Boyd St.; east side of Cleburne	E of FM 2280	Widen 2 to 4	2/91	3/93	\$ 5,831,181
0259-05-037	US 67	Spur 102	West of Chambers Creek Bridge	Construct 4 Lane Divided Rural	8/00	1/04	\$13,696,516
0259-05-038	US 67	0.154 Mi. East of SH 174	Kouns St. in Cleburne	Construct RR Grade Separation & Approaches	4/93	7/95	\$ 4,443,958
0259-05-041	US 67	SH 174 N. of Cleburne	Existing US 67 East of Cleburne	Construct 2 Lanes (Ultimate 4 Lanes, w/ Grade Separations)	12/94	3/97	\$13,464,083
0259-05-062	US 67	Chambers Creek Bridge	UPRR	Widen 2 to 4 Lane Divided	11/01	12/03	\$ 2,014,952

Table 4 - US 67 Corridor Transportation Improvements (cont.)

CSJ	Roadway	From	To	Description	Letting	Completion	Cost
0422-03-039	US 67	US 67 W. of Cleburne	SH 174 North of Cleburne	Construct 2 Lanes (Ultimate 4 Lanes w/ Grade Separations)	8/92	7/95	\$12,160,498
0422-03-056	US 67	1.193 KM West of SH 171	SH 171	Construct Frontage Rd. Connection	6/97	8/98	\$ 470,274
0260-01-034	US 67	SP 379 E.	Ellis C/L	Construct 4 Lane Divided	8/99	1/03	\$15,035,646
0260-01-035	US 67	W. End Chambers Creek Bridge	West of IH 35W	Widen to 4 Lane Divided	8/00	1/04	\$ 1,009,547
0260-01-048	US 67	Chambers Creek	West of IH 35W	Widen 2 to 4 Lanes Divided	11/01	12/03	\$ 1,034,865
0902-50-073	Boone St.	Boone St. Bridge Over BNSF RR	In Cleburne	Replace Bridge & Approaches	7/04	1/06	\$ 1,740,103

Related to the US 67 Bypass improvements is the construction of the proposed Southwest Parkway/Chisholm Trail (SH 121) from Fort Worth to Cleburne. The US 67 bypass is the southern terminus of Southwest Parkway. Construction of the Southwest Parkway is expected to begin in November 2009. As stated in Table 3A, the portion of the US 67 Bypass between Southwest Parkway (SH 121) and SH 174 is a candidate for \$10 million in ARRA funding.

Regional Planning: With respect to long-term regional system planning efforts, the US 67 Bypass is an integral part of the current Metropolitan Transportation Plan, Mobility 2030, Amendment 2009. The North Central Texas Council of Governments is also testing the feasibility of a Regional Outer Loop or loop segments in response to the urbanization which continues outward from the urban core. Given the current constraints on toll financing and comprehensive development agreements imposed by the Texas Legislature, coupled with increasing costs of materials, labor and right-of-way certain loop segments are being considered as multiplexed facilities; i.e. improvements which would lie within existing roadway corridors. In this case, one of the corridors being considered in the southwest region of the Dallas-Fort Worth Metroplex lies along a significant portion of the US 67 Bypass. There are several reasons to consider multiplexing – it is an optimal use of existing right-of-way, it minimizes impacts to the community and natural environments, it reduces sprawl and focuses future growth within an existing corridor. Implementation of the outer loop is twenty years or more in the future; the goal of the current study is to identify possible corridors so counties and cities may identify a corridor on their regional thoroughfare plans and/or begin right-of-way acquisition.

Local Planning: Locals from the City of Cleburne and Johnson County have a long-standing tradition of championing the Cleburne Bypass to ensure a well developed local and regional transportation network. In November 1973, a delegation from Cleburne took the initiative and requested that the Texas Transportation Commission authorize a Cleburne bypass. Project milestones illustrating how and when locals participated and influenced the project's local planning process are fully detailed in the **Livability** section. In brief, some of these early major milestones include:

- November 1973 – Delegation from Cleburne requested Texas Transportation Commission to authorize the SH 174 Cleburne Bypass. (The project was originally visualized as a north-south bypass for SH 174.)
- October 1974 – A public meeting was held to gather citizen input related to the proposed SH 174 Bypass. The general area of the bypass was discussed. All persons making statements expressed support for the bypass project.
- November 1974 – A delegation of local government and business leaders appeared before the Commission in support of the SH 174 Bypass.
- June 1982 – A delegation of local government and business leaders appeared before the Commission in support of the US 67 Bypass. The delegation requested that the northeast quadrant in addition to the northwest quadrant be included to help relieve congestion on US 67 as well as SH 174.
- June 1982 – A Commission Minute Order was passed supporting the US 67 Bypass, placing the northwest quadrant in the four-year letting schedule, the northeast quadrant in the five-year letting schedule, and the southwest quadrant in the twenty-year plan.

Johnson County's active support of the US 67 Bypass is evidenced through its current Johnson County Thoroughfare Plan dated 2001. This plan is consistent with the regional transportation planning process as developed by North Central Texas Council of Governments, the Metropolitan Planning Organization for the Dallas-Fort Worth (DFW) Metropolitan Area.

The County's Thoroughfare Plan's primary goal is "...to allow the orderly and efficient expansion and improvement of the thoroughfare system to serve existing and future transportation needs." Articulating this primary goal is a set of secondary goals, a subset of which provides for:

- "encouraging public participation in the development of a balanced transportation system capable of moving both people and goods in a safe, expeditious, economical and environmentally sensitive manner."
- "promoting neighborhood integrity and safety by diminishing cut-through and truck traffic."
- "recognizing the impact of the regional thoroughfare system on the community, and maintain improved coordination with the various elements of the system."

Two of the six specific recommendations of the thoroughfare plan include the construction of the SH 121/US 67 Bypass interchange (the ARRA candidate project previously alluded to) and the improvements proposed for the US 67 Bypass.

TIP/STIP Status: This project is in the current Metropolitan Transportation Plan, Mobility 2030, Amendment 2009, but it is not in the current Transportation Improvement Program. If TIGER funds are awarded to this project, the North Central Texas Council of Governments certifies it will be amended into the plan in advance of construction.

Metropolitan Transportation Plan: The proposed US 67 Cleburne bypass project 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 four-lane freeway with grade-separated crossings and in an interchange with the Chisholm Trail Parkway (SH 121).

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

Statewide Transportation Plan: While the US 67 Bypass is in Johnson County, it was not explicitly identified in the 2006 TMMP. However, the improvements proposed by this project support the major goals of the 2006 TMMP; namely to relieve congestion, improve safety, improve air quality, improve quality of life, improve opportunities of enhanced economic development, increase value of transportation assets and streamline project delivery.

Technical Feasibility: Technical feasibility is typically a function of a project's engineering components/phases relating to environmental clearance, design, final environmental permitting based on final design, right-of-way acquisition, utility adjustments, relocation of residential and commercial land-owners and/or constructability issues. Parcel acquisition for the Cleburne Bypass is complete, while design work and utility adjustments are 95% complete. Minimal constructability issues are anticipated for the following reasons: 1) the lion-share of construction will occur within existing right-of way, 2) grade separations were constructed 10 years ago (Phase 1 construction) to accommodate one-half of the ultimate four-lane roadway, so connectivity at these grade separations may be maintained during construction, 3) disruptions to local businesses are anticipated to be minimal to nil, as locally requested access roads were likewise constructed 10 years ago to facilitate and maintain local access during final construction.

Financial Feasibility: Table 2 on page three, depicts the project's funding breakdown. Except for the TIGER funding request for construction funding, the capital costs for design, right-of-way acquisition and utility adjustments have essentially been incurred by various federal, state, county and municipal agencies. As summarized in Table 4 and illustrated in Exhibit 2, transportation system improvements in this corridor began in 1991 and expenditures currently amount to approximately \$71 million. TIGER funding for the US 67 Bypass (in conjunction with, and assuming receipt of the \$10 million ARRA funds for the segment between SH 121 and SH 174) is the sole source of construction funding for this project. The full award of these funds will allow finalization of highway system improvements envisioned more than 30 years ago.

Current Financial Constraints: As in other parts of the country, the Dallas-Fort Worth region is facing serious funding shortfalls relative to implementing needed transportation infrastructure improvements. For the DFW region, and through the year 2030, \$71 billion in funded transportation need has been identified; \$59 billion in unfunded need has also been identified. In recognition that local governments must be more self-reliant and find innovative financial means to build and maintain their transportation systems, during the past three Texas legislative sessions, NCTCOG, the Metropolitan Planning Organization, in concert with other Texas governmental entities, have attempted to have the Texas legislature pass various tax increases to fund transportation improvements. This past legislative session, the region unsuccessfully championed the Texas Local Option Transportation Act (TLOTA), which would have allowed counties and municipal governments to assess fees for vehicle registration, driver's license,

parking, etc. as a revenue stream to fund needed transportation improvements. While attempts at finding alternative revenue streams will not cease, funding for this project is needed now.

The Dallas-Fort Worth region is unique in that we have a Regional Toll Revenue (RTR) program through which excess toll revenues are proportioned to participating counties to apply to multimodal improvements. Johnson County is a recipient to receive RTR funds however, current funding in its account is insufficient to solely fund major improvements.

Grant Managerial Experience: NCTCOG currently manages federal as well as state administered grants, which are in various stages of development, implementation and close-out. In fiscal year 2008, NCTCOG facilitated expenditures of \$4.8 million from various multi-year grants including awards from the Department of Energy, Environmental Protection Agency, Federal Transit Administration, Federal Aviation Administration, US Department of Housing and Urban Development, Department of Labor, and the Department of Defense. Also in fiscal year 2008, NCTCOG facilitated expenditures of \$113.7 million from various state administered grants including awards from the Texas Commission on Environmental Quality, Texas Department of Health, Texas State Energy Conservation Office, and TxDOT. The Transportation Department employs 18 fiscal and grant professionals who provide financial, legal and compliance support for projects funded from various grants

No adverse audit findings from standards used by States, local governments and non-profit organizations expending Federal awards (Circular A-133) have been found at this time. NCTCOG has not been required to comply with special "high risk" terms and conditions under agency regulations in the implementation of consistency and uniformity in the management of grants and cooperative agreements with State, local, and federally recognized Indian tribal governments (OMB Circular A-102).

Certification of compliance with Subchapter IV of Chapter 31 of Title 40 (federal wage rate requirements) may be accessed through the following link:

<http://www.nctcog.org/trans/tip/private/67FedWage.pdf>

1511 Certification – Please utilize this link to verify 1511 Compliance:

ftp://ftp.dot.state.tx.us/pub/txdot-info/stimulus/1511_certification_letter.pdf

Environmental Outcomes

NEPA Approval Dates: Record of Decision: August 7, 1989

Re-Evaluation Approval: May 12, 2003

Relative to the project's impacting natural, social or economic environment, the following Conclusion Section is excerpted from the May 2003 Environmental Re-Evaluation: "The environmental documentation for this project has been reviewed, and it has been determined that there have been no significant changes to the assessed areas. Significant environmental effects are not expected to occur as a result of changes to the location of the US 67/CR 1216 (Nolan River Road) interchange. The project effects as described in the US 67 EIS remain valid. No additional public involvement is required, and no new comprehensive analysis of the entire project is warranted."

Quantification of Water Quality Impacts – as excerpted from the 2003 FEIS Re-Evaluation for the US 67 Bypass, "... the project is located more than five miles upstream from the segment (the Nolan River, which is designated as segment 1227 in the 2002 Clean Water Act Section 303(d) list, as impaired for bacteria and sulfate levels). Therefore, coordination with TCEQ is not required for total daily maximum loads. The water quality of waters in the State shall be maintained in accordance with all applicable provisions of the Texas Surface Water Quality Standards including the General, Narrative and Numerical Criteria."

There are a variety of environmental permits that will be required, however, these permits are standard practice and no problems are foreseen in securing them. As required by the approved FEIS Re-Evaluation, the project will require a USACE Nationwide Permit 14 (linear transportation project) and typical construction permits relating to storm-water pollution controls that will be obtained. The design change which mandated the FEIS Re-Evaluation required an additional 10.6 acres; this property has also been acquired and meeting(s) with affected property owners (MAPO) took place in 2003.

Web link to environmental documents -

Final Environmental Impact Statement: <http://www.nctcog.org/trans/tip/private/67FinalEIS.pdf>

FEIS Re-Evaluation Approval: <http://www.nctcog.org/trans/tip/private/67FEISApprv.pdf>

Description of Needed Federal Actions: For this project, permanent losses to Waters of the U.S. will be below 0.10 acre per location. A US Army Corps of Engineers Nationwide Permit #14 (Linear Transportation Projects) will be assumed, as will a Section 401 from TCEQ. Because there are no navigable waters associated with this project, neither a US Coast Guard Section 9 Permit nor a USACE Section 10 Permit will be required. As these permits and certifications are typically required for many highway projects, and as TxDOT is experienced in securing them, no difficulties are foreseen in obtaining them.

Long Term Outcomes

State of Good Repair: The Texas Department of Transportation (TxDOT) has a fully implemented asset management plan for existing roads and bridges on the state system, which will include this project's capacity improvements upon completion. As part of its asset management effort, TxDOT conducts an annual assessment and inspection program of its major assets, summarizes the findings and makes recommendations for maintenance efforts. TxDOT uses an inventory and condition assessment process to report condition ratings and replacement costs associated with its major assets. This assessment provides a basis for the prediction of costs needed to maintain assets and manage funding needs. Typical activities will include striping, pavement maintenance, pavement rehabilitation, landscaping rehabilitation, coated surface remediation and bridge related maintenance activities such as bearing replacement, decking repairs and skid resistance texturing, and seal integrity. TxDOT's assets are maintained with a view of the "total" cost or "life" cost of the assets. Maintenance and rehabilitation is planned to prevent significant deterioration. This approach saves money over the life of the assets and provides the best experience for the roadway user. Industry practices are followed to assess the condition of the assets in order to plan and manage the maintenance activities.

The existing two-lane section of the US 67 bypass pavement structure is continuously reinforced concrete pavement (CRCP). Construction began in October 1992 and lasted until July 1998. Current truck traffic on US 67 is significantly higher than most rural highways (typical percent trucks vary between 8% to 12%) with more than 20% trucks east of SH 174, and between 15% to 20% west of SH 174. As only discontinuous frontage roads are provided, they provide no “relief” to the axial loadings experienced by the existing main lanes. The proposed widening to four-lanes will help diffuse this loading and lessen any impairment to economic stability and growth attributable to the highway infrastructure by extending the CRCP pavement life another 30 years.

Status of US 67 pavement condition, per TxDOT Pavement Management Information System:

- FY 2007 – all pavement was rated in “very good” condition
- FY 2008 – a single section east of SH 174 slipped to “good”
- FY 2009 – ratings have declined significantly, with sections now in every category (very poor, poor, fair, good and very good) Each of these categories is associated with a range of pavement scores.
- NOTE: between FY 2008 and FY 2009 TxDOT maintenance inspectors noted that bypass’ pavement condition as ‘high levels of distress.’ The bypass’ pavement, continuously reinforced concrete pavement (CRCP), is normally expected to perform longer before experiencing this level of distress. However, the high percentage of truck traffic is reducing the useful life of the pavement. The increase in truck traffic is attributed to significant increases in natural gas drilling and related activities throughout Johnson County. Most trucks traveling east and west use US 67 bypass to avoid driving through Cleburne’s central business district. Other generators of truck traffic; aggregate quarries and the Wal-Mart Distribution Center are also located in the area.

Economic Competitiveness: The US 67 Bypass’ economic competitiveness will be presented first by describing the cost benefit of the project and then examining these benefits as impacting economically distressed areas based upon a two and five mile radius around the US 67 Bypass corridor. The US 67 Bypass Economic Impact Analysis is available through this link: <http://www.nctcog.org/trans/tip/private/67EcolImpact.pdf>

Long-term Benefits: Based off of a cost benefit model developed by NCTCOG staff, the US 67 Bypass project should have a net positive effect on the economy of \$22.4 million annually and create 244 permanent jobs when completed. This project will have a long-term return on investment of 557% and generate 139% in taxes as the project cost (assuming a 25% capture rate).

The 244 permanent jobs created by this project will be spread across a wide spectrum of businesses. Cleburne is part of the booming Barnett Shale natural gas field and has seen increased traffic as a result. This has added to already high truck traffic from rock quarries in the area. The road is also likely to be a primary route for materials during the proposed expansion of Comanche Peak. Improved roads will allow these businesses to operate more efficiently and for other business to move to an area they would have otherwise avoided. Increased accessibility and reduced congestion will improve all of these businesses and encourage increased investment in the area.

Construction Benefits: During construction 204 jobs will be generated over the two year construction period. The 204 jobs created during construction will be primarily construction workers, their vendors and retail and service jobs supported by their spending.

Cost Benefit as Applied at the Geographic Level: The areas within two-mile radius of the US 67 Bypass project are economically distressed (by definition in 42 USC3161). According to the 2000 Census, the median income in the two-mile radius of the project area was \$36,848, compared to the national average at \$41,994. The poverty rate within a five-mile radius of the project area was 13.4% compared to the regional average at 8.1 %. Maps depicting the median income, poverty rate,, and environmental justice populations (i.e., minority and low income) in the two- and five-mile areas of interests, are provided in Exhibits 3 through 5. According to the NCTCOG's 2030 Forecast, the number of jobs in the five-mile radius of the project area in 2000 was 26,426. The number of jobs is projected to increase to 31,958 in 2015 and 63,696 by 2030.

The long-term efficiency, reliability and cost-competitiveness of this project in the movement of workers and goods, results in direct benefits & savings to the unemployed and environmental justice (EJ) populations depicted in the exhibits referenced above, as follows:

Construction Cost Total	TIGER Request	Annual Net Benefit of Hours Saved (Congestion Delay Savings)	Annual Net Benefit of Pollution Reduction	Annual Net Benefit of Fuel Saved	Annual Net Benefit of Lives Saved.
\$50,000,000	\$50,000,000	\$23,592,757	\$259,945	\$1,108,275	\$1,599,638

Exhibit 3 - Median Income

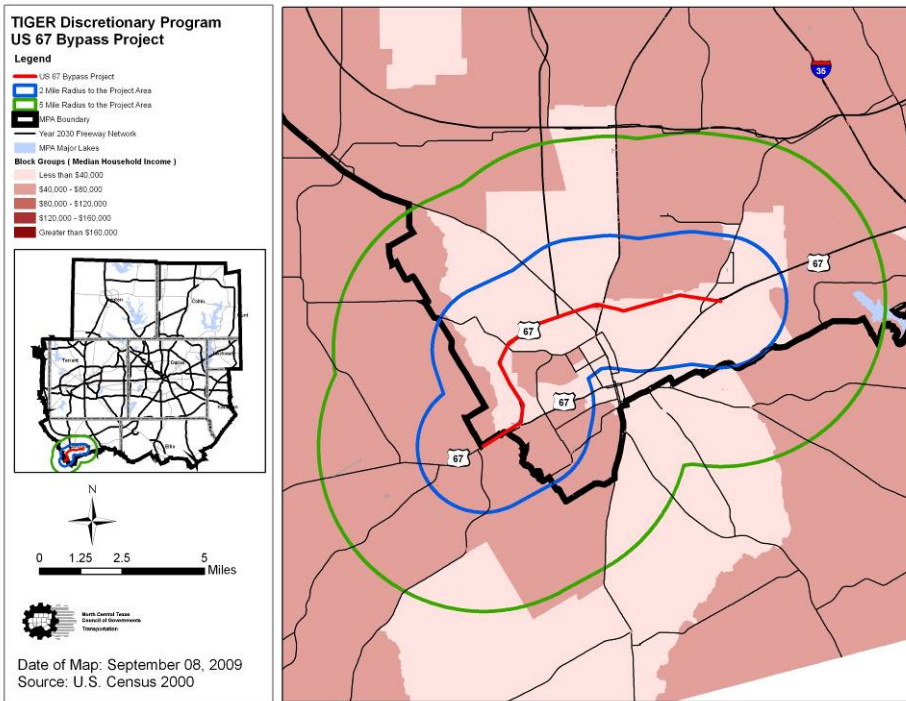


Exhibit 4 - Poverty Rate

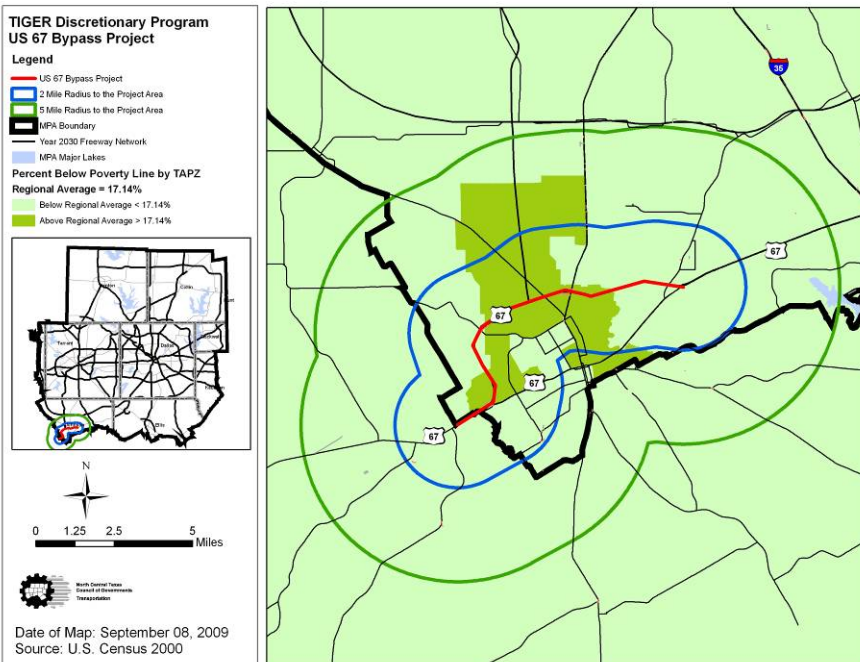
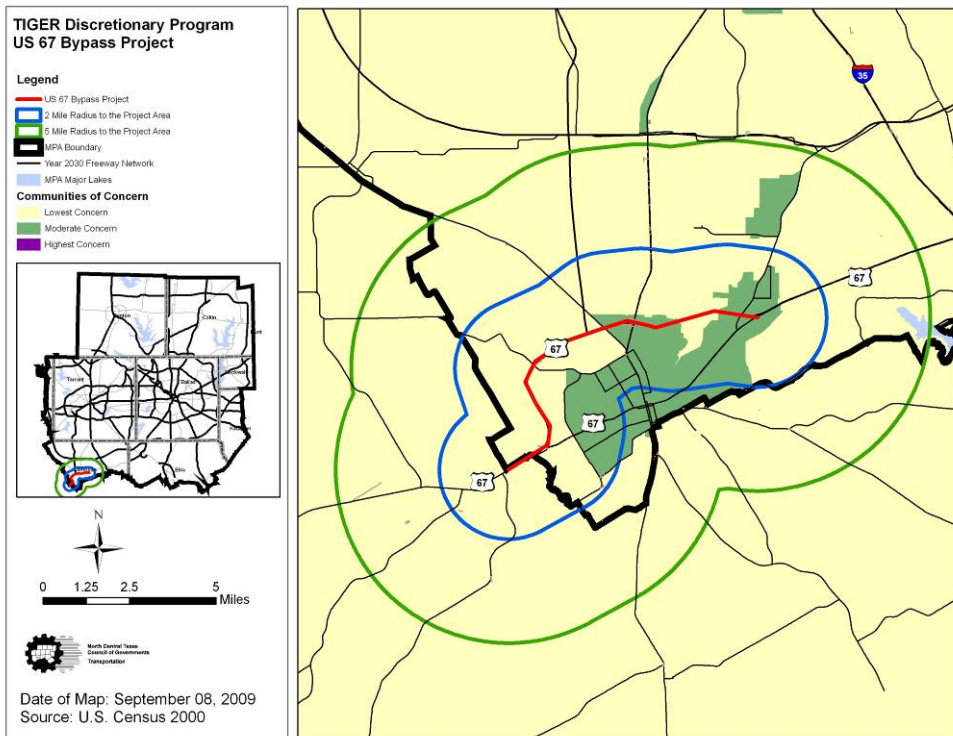


Exhibit 5 - Environmental Justice Areas



The industry profiles of City of Cleburne and Johnson County mirror each other and imply a diverse economic base; it is anticipated that this diverse economic base will enable a moderately fast economic recovery. See Table 6. Within the two- and five-miles of the study corridor are City of Cleburne employers with 100 or more employees; Exhibit 6 depicts these employers - please note that a large clustering of these employers are located within two miles of the bypass. As the economy stabilizes, it is anticipated that improvement of the bypass will ensure and foster enhanced access to these employment centers, as well as throughout Johnson County. Currently, the unemployment rates have doubled in Cleburne and Johnson County. The Texas Workforce Commission's latest unemployment rates for Cleburne for July of 2007, 2008 and 2009 yields respective rates of 4.4%, 4.7% and 9.5%. For the same month and years, the Texas Workforce Commission rates for Johnson County are respectively, 4.6%, 4.9% and 9.2%.

Table 6 - Industry Profile Cleburne / Johnson County

Industry Profile	City of Cleburne - Source: Census 2000 (Percent)	Johnson County – Source 2000 Census (Percent)
Agriculture, forestry, fishing, hunting and mining	0.8	1.4
Construction	10.0	10.5
Manufacturing	19.7	19.2
Wholesale trade	3.7	4.1
Retail trade	14.6	12.9
Transportation/warehousing, and utilities	6.5	6.2

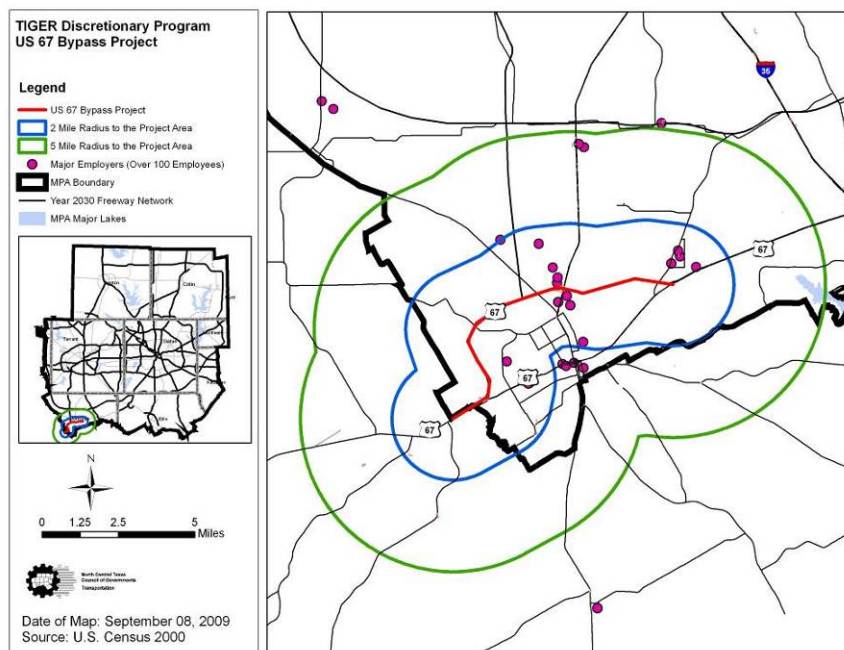
Table 6 - Industry Profile Cleburne/Johnson County (cont.)

Industry Profile	City of Cleburne - Source: Census 2000 (Percent)	Johnson County – Source 2000 Census (Percent)
Information	1.2	2.1
Finance, insurance, real estate, leasing	4.3	5.2
Professional, scientific, management, and waste management services	5.7	6.2
Education, health and social services	20.2	17.9
Entertainment, recreation, hotel, food services	4.4	5.2
Other services (except public administration)	5.0	5.1
Public administration	3.9	4.0

Relative to the introduction of new industries since the last decennial census, the natural-gas boom has had a significant effect on Cleburne. More than 200 wells have been drilled within Cleburne’s 30-square mile border in recent years, and hundreds more have been drilled in surrounding Johnson County. As previously discussed, the movement of this industry’s rigs and equipment through the area are adversely impacting the US 67 Bypass pavement.

Based on the NCTCOG’s major employer data, there are 16 major employers (over 100 employees) in the two-mile radius of the project area, as shown in Exhibit 6. The major employers in two-mile radius employ about 3,010 employees. The five-mile radius of the project area contains 23 major employers that employ a total of 4,414 workers. According to NCTCOG’s 2030 Forecast, the number of jobs in the five-mile radius of the project area in 2000 was 26,426. The number of jobs is projected to increase to 31,958 in 2015 and 63,696 by 2030 in the five mile-radius of the project area. These employers and businesses will significantly benefit by the US 67 Bypass project due to reduced traffic congestion, improved access of the customer base and better flow of traffic for goods movement.

Exhibit 6 – Major Employers (over 100 employees)



Livability: Cleburne is the county seat of Johnson County; it is the County's second most populous city with growth being primarily attributed to suburbanization. This section's discussion will cover demographic data, transportation infrastructure, and public involvement history. Demographic data for the city is presented in Table 7.

Table 7 - City of Cleburne Demographic Data

General Characteristics	Source: Census 2000 Demographic Profile		
	Number	Percent	U.S.
Population	26,005		
Median Age (years)	33.2	(x)	35.3
65 years and older		13.8	12.4
Ethnicity⁽¹⁾			
White		86.3	75.1
African American		4.4	12.3
Asian		0.4	3.6
Hispanic or Latino (of any race)		19.9	12.5
Other (Pacific Islander, Native American, etc.)			
Social Characteristics			
Disability Status (population 5 years and older)		25.6	19.3
Speak a language other than English at home (population 5 years and older)		17.4	17.9
Economic Characteristics			
In Labor Force		61.7	63.9
Mean Travel time to work in minutes (workers 16 years and older)	25.2		25.5
Median Household Income in 1999 (dollars)	35,481		41,994
Families below poverty level		10.0	9.2
Individuals below poverty level		13.5	12.4

⁽¹⁾Ethnicity percentages will not total to 100, as "Hispanic" may be counted under other groups.

For consistency in methodology, the same two- and five-mile envelopes, or areas of interests, that were used to establish economic competitiveness will be used in examining and characterizing the impact of this facility on Cleburne's population.

According to the NCTCOG's 2030 Forecast estimates, the two-mile radius of the project area includes 33,750 population, 12,530 households, and 18,641 jobs in 2010. The NCTCOG's projections show that the five-mile radius of the project area includes 56,029 population, 20,625 households, and 30,419 jobs in 2010. The population, employment, and household estimates for the 2- mile and 5-mile radius are presented, respectively, in Tables 8 and 9. The households and businesses captured within these two and five mile areas will be direct beneficiaries of the bypass' anticipated improved level of service.

Table 8 - Household Population and Employment Estimates (2-Mile Radius)

	2000	2010	2015	2030
Population	26,447	33,750	42,850	73,320
Households	9,624	12,530	16,176	28,428
Employment	16,154	18,641	19,581	42,031
Basic	4,634	5,271	5,488	12,300
Retail	3,817	4,441	4,702	9,574
Service	7,703	8,929	9,392	20,160

Table 9 - Household Population and Employment Estimates (5-Mile Radius)

	2000	2010	2015	2030
Population	43,995	56,029	70,409	124,706
Households	15,933	20,625	26,210	47,514
Employment	26,426	30,419	31,958	63,696
Basic	7,226	8,298	8,689	18,266
Retail	6,637	7,663	8,082	15,566
Service	12,563	14,457	15,186	29,865

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

Transportation Infrastructure: Regional considerations - For the City of Cleburne and Johnson County, of equal regional importance to the US 67 Bypass is the implementation of the long-anticipated Southwest Parkway (SH 121). This facility will provide Johnson County residents with a long needed conduit into the City of Fort Worth to Cleburne. Located in the lower left-hand corner of Exhibit 7, the location of SH 121 (shown in green, the North-South radial facility originating in Fort Worth) and the US 67 Bypass (shown in red) illustrates how these facilities interact with other planned Mobility Plan improvements.

The possibility of multi-modal connections benefiting Johnson County communities is best illustrated through Exhibit 8 – Rail Recommendations. Comparing the location of a proposed regional commuter rail line, from Fort Worth to Cleburne, to the Roadway Recommendation in Exhibit 7 demonstrates that a multi-modal regional transportation solution is being pursued in this area of the metroplex.

Local Considerations - The impact of this facility will be profound for Cleburne as well as Johnson County. Even though the US 67 Bypass lies on the northern perimeter of Cleburne, it connects major employment centers and residential locations along the city’s east-west axis.

Given the employment and residential centers connected by the Bypass, it is not surprising that use of the Bypass is not confined to automobiles and truckers. The County’s transit agency, CleTran, also utilizes the US 67 Bypass to provide city and county demand response service and commuter bus service into Fort Worth. The CleTran Transit Manager characterizes the US 67 Bypass as one of CleTrans’ primary routes, for which the majority of riders are the elderly and low-income. The Transit Manager also stated that the poor condition of the pavement, along the 67 Bypass and elsewhere in Johnson County is of concern, as it impacts their fleet maintenance costs. The Transit Manager was unable to provide data regarding ridership or maintenance costs.

In addition, the project is in close proximity to the Cleburne Municipal Airport and Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) rail lines, which provides the potential for enhanced inter-modal connections. Cleburne is fortunate to boast that it has a municipal airport, three rail service providers, 25 motor freight carriers, three parcel-service providers, and two piggyback service and switching providers. For a rural community, Cleburne offers its residents and businesses an array of shipping options. Its airport and rail freight connections, relative to the US 67 Bypass, are shown in Exhibit 9.

Exhibit 7 - Mobility Plan 2030 - 2009 Amendment – Roadway Recommendations

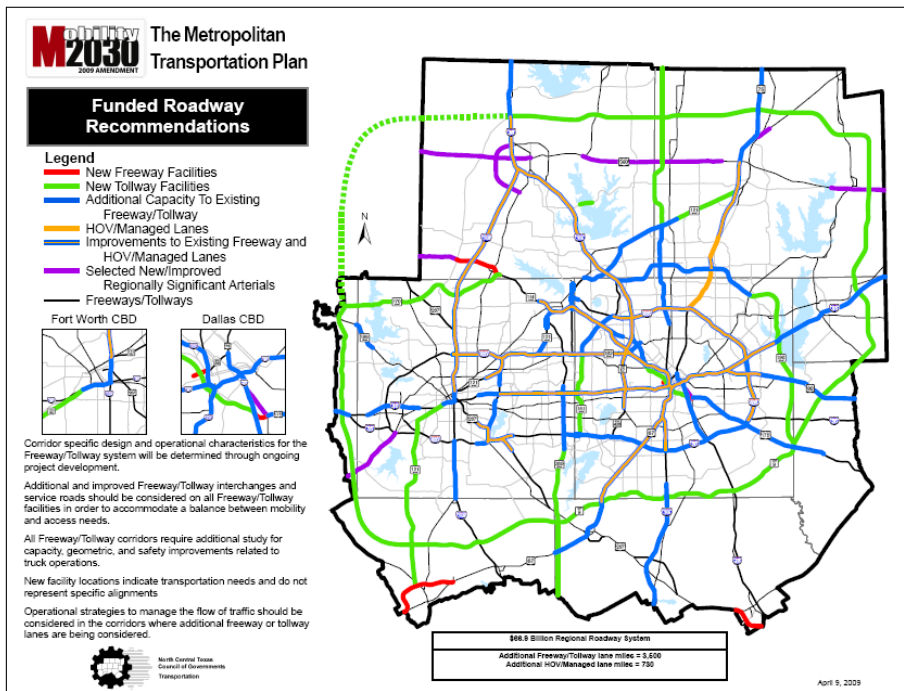


Exhibit 8 - Mobility Plan 2030 - 2009 Amendment – Rail Recommendations

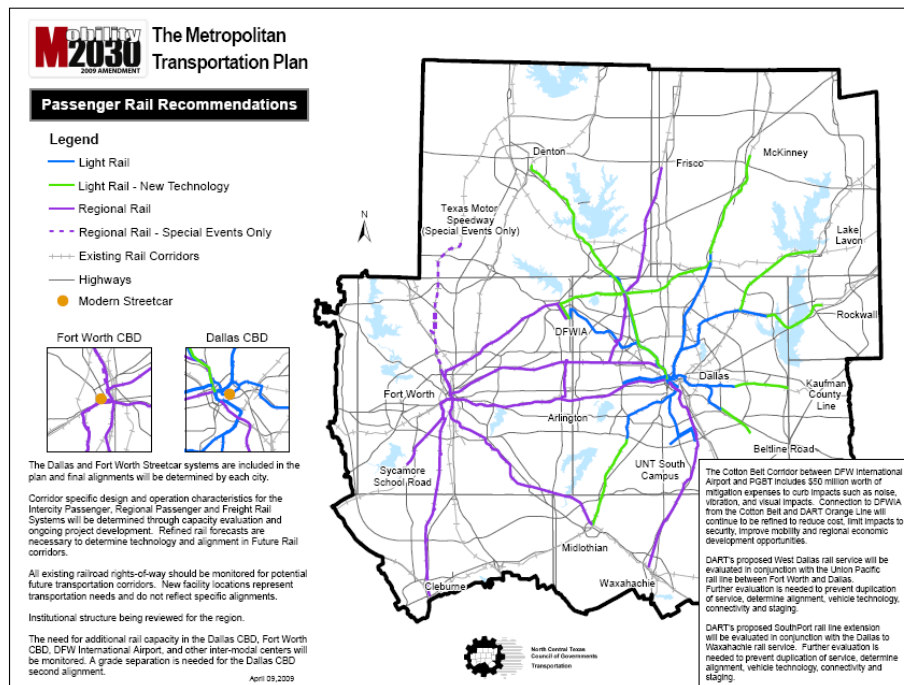
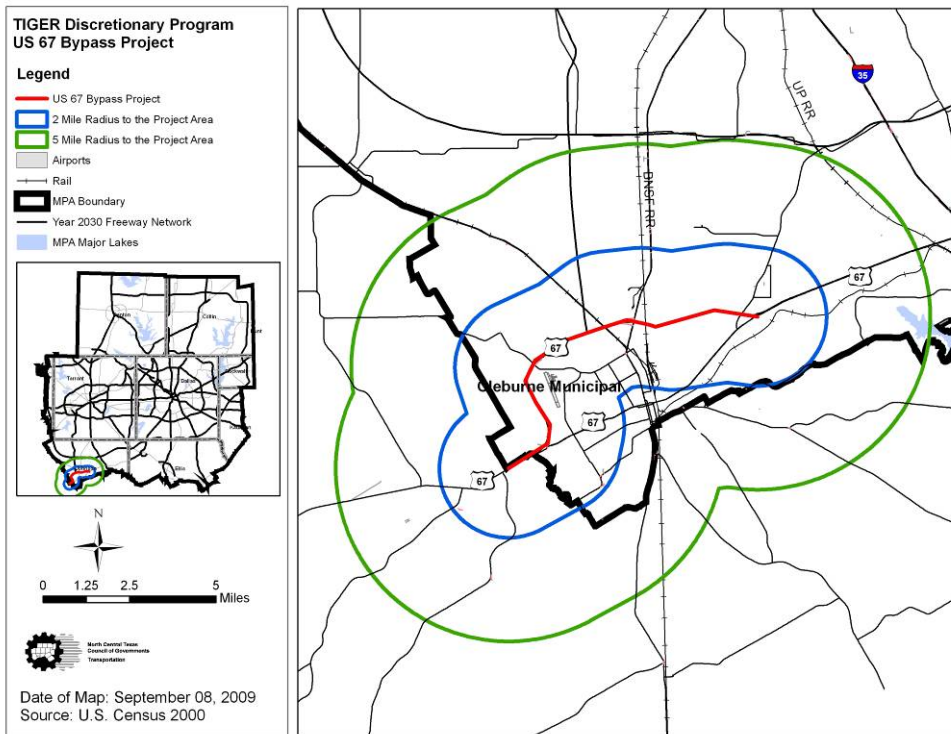


Exhibit 9 - Airports and Rail



Public Involvement: Please refer to the maps on median income, poverty rate, and environmental justice maps, respectively Exhibits 3, 4, and 5. As these exhibits illustrate, within the bypass' two- and five-mile envelopes, there are environmental justice populations. There has been a long standing effort to involve not only these populations, but the community at large in the planning process.

An overview of various types of public involvement activities for the US 67 Bypass follow:

- November 1973 – Delegation from Cleburne requested Texas Transportation Commission to authorize the SH 174 Cleburne Bypass. (The project was originally visualized as a north-south bypass for SH 174.)
- October 1974 – A public meeting was held to gather citizen input related to the proposed SH 174 Bypass. The general area of the bypass was discussed. All persons making statements expressed support for the bypass project.
- November 1974 – A delegation of local government and business leaders appeared before the Commission in support of the SH 174 Bypass.
- June 1975 – The District Design Engineer conducted preliminary discussions with city and county representatives to receive input on the bypass route possibilities.
- July 1975 – Project Concept Conference held with county and city officials on the SH 174 Bypass. The project, reasonable alternatives and public involvement plans were described. A discussion of potential impacts revealed that businesses did not depend on the highway for economic survival, and that existing congestion was a detriment to downtown businesses. It was pointed out that a large percentage of Cleburne residents work in the Dallas-Fort Worth Metropolitan Area; the project would provide safer and easier access to their work. Since the bypass would run through a rural area, wildlife

impacts were expected, and community cohesion impacts were considered unnecessary.

- June 1982 – A delegation of local government and business leaders appeared before the Commission in support of the US 67 bypass. The delegation requested that the northeast quadrant in addition to the northwest quadrant be included to help relieve congestion on US 67 as well as SH 174.
- September 13, 1984 and November 20, 1984 – Project Concept Conferences.
- November 1984 – US 67 Bypass placed in TxDOT's (formerly the State Department of Highways and Public Transportation –SDHPT) Ten-Year Project Development Plan.
- June 1982 – A Commission Minute Order was passed supporting the US 67 Bypass, placing the northwest quadrant in the four-year construction schedule, the northeast quadrant in the five-year construction schedule, and the southwest quadrant in the twenty-year plan.
- February 1985 – public meeting
- July 1986 – A draft environmental assessment was submitted to the Environmental Affairs Division (ENV) of TxDOT.
- December 1988 – Draft Final EIS submitted to the Federal Highway Administration (FHWA).
- August 1989 – Record of Decision issued by FHWA.
- 2003 Meeting(s) with Affected Property Owners, affected by the design change and the acquisition of an additional 10.6 acres.
- May 2003 Re-Evaluation approved

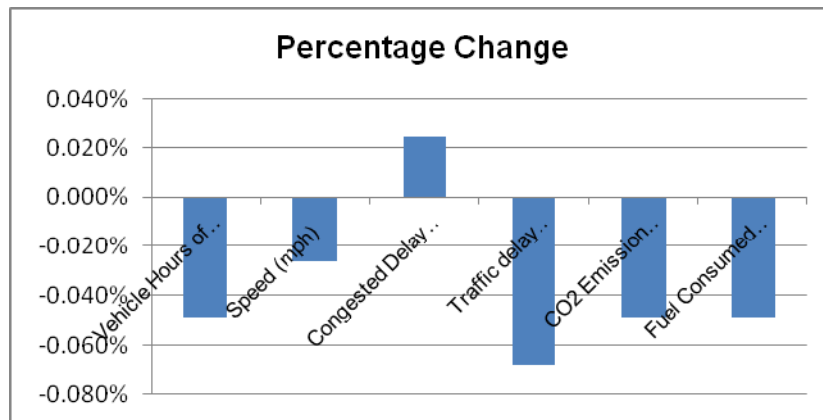
Sustainability: An anticipated improvement in energy efficiency, a reduction in oil dependency and lower greenhouse gas emissions have been quantified for this project and are presented in Table 10 and Exhibit 10. The performance measures used to quantify these improvements were vehicle of hours travel (VHT), average loaded speed, congestion delay and traffic delay. Fuel consumption and carbon dioxide (CO₂) emissions were estimated from the reduction in VHT for the build and no build scenarios, based on the following assumptions:

- Fuel Consumption: 0.685 gallons/hour factor was utilized to calculate the Fuel Consumption from Vehicle Hours of Travel.¹
- CO₂ Emission: 8788grams/gallon of gasoline emission factor was used to calculate the CO₂ Emissions from Fuel Consumption.²
- 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.³

Table 10 - Net Reduction and Percent Change between Build and No Build case in 2030

Parameter	Build - No Build	Percentage Change
Vehicle Hours of Travel (hours)	-3,081.25	-0.049%
Speed (mph)	-0.01	-0.026%
Congested Delay (hours)	263.58	0.025%
Traffic delay (hours)	-407.08	-0.068%
CO ₂ Emission (tons/day)	-20.45	-0.049%
Fuel Consumed (gallons/day)	-2110.65	-0.049%

Exhibit 10 - Percent Change between Build and No Build case in 2030



It is anticipated that these reductions in travel time and pollutant levels will result in the reductions of other criteria pollutants, such as carbon monoxides (CO), volatile organic compounds, nitrogen oxides (NO_x), and particulate matters (PM).

Safety: For the US 67 Bypass, there were 221 total crashes from 2003 – 2008 which includes four fatalities. This roadway segment is not designated as a Hazardous Materials route and data gathered between 2003 and 2008 indicates that no hazardous material spills occurred. An analysis from the Federal Highway Administration summary report "Safety Effects of the Conversion of Rural Two-Lane Roadways to Four Lane Roadways," indicates that conversion to a four-lane divided roadway appears to result in a crash reduction of 40%. As calculated below, the safety data indicates that construction of the US 67 Cleburne Bypass project will result in 15 fewer crashes per year and 590 fewer crashes over the 40 year life of the project.

Estimated 40% reduction
221 total crashes from 2003 – 2008
36.83 average per year
 $36.83 \times 40\% = 14.73$
14.73 less crashes per year * 40 years (project life) = 589.2 less crashes from a project life of 40 years.

Designated Evacuation Route: Bypass US 67 is one of the designated evacuation routes for the Comanche Peak Nuclear Power Plant, which is located in Somervell County, southwest of Cleburne.

Evaluation of Expected Benefits: See summation on page 24 and Cost/Benefit Analysis on page 25.

Job Creation and Economic Stimulus: How the US 67 bypass project accomplishes job creation and stimulates the economic is qualitatively and quantitatively described in the economic competitiveness section. A summation of these benefits is provided on page 24.

Secondary Criteria:

1. **Innovation:** No innovative features or elements are a part of this project.

2. **Partnership, Jurisdictional and Stakeholder Collaboration:** This project exemplifies a broad range of collaborative working relationships and/or partnerships between federal agencies (USACE, USDOJ, EPA, USFWS), state agencies (Texas Department of Transportation, Texas Air Control Board, Texas Parks and Wildlife Department, Texas Department of Agriculture, Texas Water Commission, Texas General Land Office, Texas Historical Commission, Texas Railroad Commission), regional entities (the North Central Texas Council of Governments, Johnson County), municipal entities/affiliates (City of Cleburne, Cleburne Municipal Airport, Cleburne Independent School District), and local/regional employers (Harris Methodist Walls Regional Hospital, Wal-Mart Superstore, Wal-Mart Distribution Center). These all participated during and after the bypass' environmental clearance. FEIS route determination for minimizing future constraints to the northern expansion of the municipal airport, access to the regional hospital, or adverse impacts to the West Buffalo Creek flood detention reservoir, accommodating the possible construction of a southeast bypass, were examples of community needs taken into account in the location and design of the US 67 bypass.

Performance Monitoring:

Provide a plan for evaluating success of project that measures both short and long-term performance of the primary and secondary criteria.

While NCTCOG is charged with preparing the TIGER application for the Texas Department of Transportation (TxDOT), it is not appropriate for NCTCOG to bind TxDOT to any performance monitoring plan outlined in this application; performance standards may change and/or more innovative measures may come on line by the time this project's construction begins. Therefore, what is offered is a menu of performance measures which may be adopted by the Fort Worth District of TxDOT.

Performance Measure Options

	Short Term Performance Measures	Long-Term Performance Measures
State of Good Repair	Construction Contracts – performance based construction contracts with incentives and penalties for timely completion of work, warranties and other performance-based specifications.	Reduction in number and square footage of deficient bridge decks Reduction in lane miles rated as poor or fair Pavement evaluation scores
Economic Competitiveness	Measure enhanced economic opportunity by monitoring rate at which developable land with new or improved access is developed.	Measure enhanced economic opportunity by monitoring rate at which developable land with new or improved access is developed.
Livability	Monitor air quality for number and frequency of pollutant thresholds exceeded.	Monitor air quality for number and frequency of pollutant thresholds exceeded.
Sustainability	Monitor congestion levels, length of peak periods	Monitor annual hours of delay.
Safety	Monitor crash, incident and fatality rates to ascertain contributing factors to mitigate/ resolve.	Monitor crash, incident and fatality rates to ascertain contributing factors to mitigate / resolve.

US 67 Bypass Project - Summation of Expected Benefits

Long-term Outcomes: Quantification of:	State of Good Repair	Economic Competitiveness	Livability	Sustainability	Safety
Fuel Savings		CleTrans, county/city transit provider, anticipated fleet fuel consumption reduced.		-Daily Savings = 2,111 gals -Benefits over the project life = 21,950,750 gals	
Time Savings		Anticipate increase of CleTrans' current time savings (10 minutes) to the City of Keene	-3,081 hours per day -Benefits over project 40 yr life - 32,045,000 hrs	-3,081 hours per day -Benefits over project 40 yr life - 32,045,000hrs	
Greenhouse Gas Emissions				-CO ₂ Emissions reduced – 20.45 tons / day -Benefits over 40 Yr project Life - 212,635 tons	
Quantification of Public Health Benefits			CO ₂ Emissions reduced – 20.45 tons / day		An analysis of the “before & after” intersection serving Wall Regional Hospital was not possible, but emergency access is assumed to be improved.
Other Benefits	- Extends pavement life by 40 years. - Better accommodates the 15% to 20% of trucks utilizing the Bypass.	- Net annual economic impact of \$22.4 million / yr - Long-term return on investment of 557% - Generate \$139% in taxes	-The creation of 244 permanent and 204 construction jobs in an economically distressed area.		US 67 Bypass is an evacuation route for the Comanche Peak Nuclear Plant.
Social Benefits of Reducing Crash Costs, Pollutant Emissions and Other Externalities					- 40% reduction in crashes - 15 less crashes per year - 590 less crashes during project's 40 year life. - \$1.6 million in lives saved per year.

**US 67 Cleburne Bypass Project
Cost / Benefit Analysis**

Benefits	Unit	Daily Benefit	Annual Benefit¹	Annualized Project Costs²	Annualized Cost / Benefit Calculation^{2,3}	Annualized Cost/Benefit Outcome^{2,3}
Vehicle Hours of Travel Saved	Hours	480	124,800	2,565,000	20.55	\$317.76/hr
Reduced Vehicle Miles of Travel ^{3a}	Miles	0	0	2,565,000	NA	\$8.27/mile
CO ₂ Emissions Reduced	Tons	20.45	5,317.00	2,565,000	482.41	\$18,486/ton
Fuel Saved	Gallons	2,111	548,860	2,565,000	4.67	\$265/gal
Jobs Created by Construction	Jobs	204	921	2,565,000	2,785.02	\$14,090/job
Long-term Jobs Created	Jobs	244	12,000	2,565,000	213.75	\$1,081/job

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

Costs	Cost in 2009 Dollars	Annualized Project Costs^{4,5}
Construction	\$50,000,000	\$2,565,000
Total	\$50,000,000	\$2,565,000

4. Based on a discount rate of 3% over 30 years, costs shown in 2009 dollars.
5. Calculated by multiplying construction costs by .0513 as supported in Principles of Engineering Economic Analysis by John White, Marvin Agee & Kenneth Case, Appendix B, Table B.6.

The link to the Cost/Benefit is available at <http://www.nctcog.org/trans/tip/private/67CBAAnal.pdf>.