C O L L I N
C O O K E
D A L L A S
D E N T O N
GRAYSON HUNT
K A U F M A N
R O C K W A L L
T A R R A N T
WISE PARKER

## I-35 CORRIDOR

D A L L A S
D E N T O N
FORT WORTH
GAINESVILLE
M C K I N N E Y
R O C K W A L L
WEATHERFORD

# SEGMENT 1 RECOMMENDATIONS

NORTH TEXAS
COUNCIL OF
GOVERNMENTS
SHERMAN/
DENISON MPO
NORTH TEXAS
COMMISSION
TEXAS FARM
BUREAU



## INTRODUCTION

In 2007, the Texas Department of Transportation (TxDOT) recognized the need for the regular and systematic input of citizen planners to help determine the future of the I-35 corridor. In response, the I-35 Corridor Advisory Committee was created by the Texas Transportation Commission, bringing together a group of independent Texas citizens interested in the future of the corridor. These individuals, representing their regions, provide TxDOT with a citizen's view of how the corridor should be developed.

After a period of intense collaboration, the I-35 Corridor Advisory Committee issued the *Citizens' Report on the Current and Future Needs of the I-35 Corridor* in November 2008. Their report concluded that the existing capacity on I-35 was insufficient to meet future mobility demands, that additional capacity would be needed within the corridor, and that more community involvement was needed in planning the I-35 corridor. The Texas Transportation Commission agreed it was time for even more public input into the planning process, and called for a citizen-

directed effort starting at the local level.

In March 2009, the Texas Transportation Commission established four I-35 Corridor Segment Committees to assist the Corridor Advisory Committee. The Corridor Segment Committees' role is to bring forth community needs and transportation priorities for discussion, to develop potential solutions and seek public input, and to develop regional recommendations for I-35. The four I-35 Corridor Segment Committees represent four geographic regions along the I-35 corridor, roughly defined as North Texas, Central Texas, Austin-San Antonio, and South Texas.

The Corridor Advisory Committee, along with a representative from each Corridor Segment Committee, will use the four Segments' recommendations to create the MY 35 Plan for the I-35 corridor. Multi-modal and comprehensive, the plan will be based on community needs and shaped by Texas citizens.



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#### VISION STATEMENT

The I-35 Corridor Advisory Committee developed an overarching vision statement for the I-35 corridor based on the guiding principles in their November 2008 Citizens' Report. The vision statement reads:

The I-35 corridor will be an adequately funded, comprehensive multi-modal transportation system in Texas that is shaped by input from stakeholders and addresses mobility needs over time, preserves and promotes economic vitality, is environmentally sensitive, safe, and supports quality of life for the citizens of Texas.

## SEGMENT 1



I-35 Corridor Segment 1 boundary includes the region from the Oklahoma/Texas border to Interstate 20 (I-20) in Dallas/Ft. Worth.

I-35 Corridor Segment Committee members include representatives from counties, metropolitan planning organizations (MPOs), cities, chambers of commerce, economic development corporations and the Texas Farm Bureau. The Segment 1 Committee members are listed below:







Collin County - Keith Self

Cooke County - Gary Hollowell

Dallas County - Greg Hirsch

**Denton County - John Polster** 

Grayson County - Invited but did not participate

**Hunt County - John Horn** 

Kaufman County - Wayne Gent

Parker County - Mark Riley

Rockwall County - Bruce Beaty

Tarrant County - Kenneth Barr

Wise County - Chad Davis

North Central Texas Council of Governments - Jeffrey C. Neal

Sherman-Denison MPO1 - Robert Wood

City of Dallas - John Brunk

City of Denton - Mark Burroughs

City of Fort Worth - Brian Beck

City of Gainesville - Barry L. Sullivan

City of McKinney - Bill Whitfield

City of Rockwall - Invited but did not participate

City of Weatherford - Robert Hanna

North Texas Commission - William L. Conley, Jr.

Texas Farm Bureau - Kenneth Sicking

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#### RECOMMENDATIONS

The Segment 1 Committee recommendations are not financially constrained. They are recommendations developed by the Segment Committee that identify the regional transportation needs along the I-35 corridor and recommend solutions to meet those needs. The Segment 1 Committee has not studied the feasibility, right-of-way requirements or environmental constraints related to any of the proposed corridor solutions in their recommendations.

#### GOALS

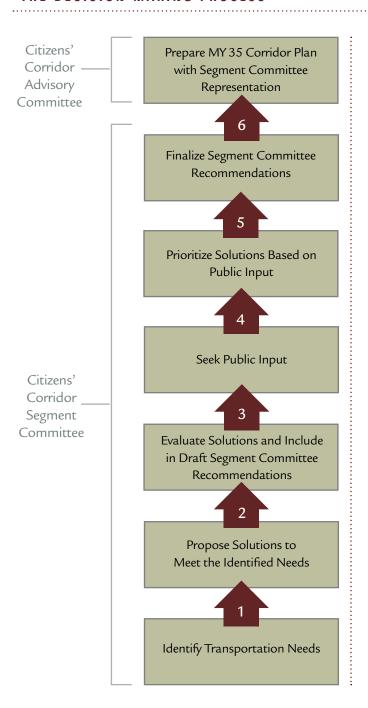
The Segment 1 Committee identified needs in their region and developed the following three goals for the Segment 1 recommendations to help meet those needs:

Improve mobility and access within the I-35 corridor

Improve safety within the I-35 corridor

Promote economic development in the I-35 corridor

## THE DECISION-MAKING PROCESS



While the Segment 1 Committee held organizational meetings in 2009, their work on their Segment recommendations for MY 35 began in January 2010. Since then, the Committee has held monthly meetings to identify I-35 corridor needs in their region and to present and discuss potential solutions (Steps 1-3). In September 2010, the I-35 Corridor Segment 1 Committee held planning workshops to gather public input on their proposed solutions (Step 4). The Segment 1 Committee considered this input when making their final recommendations to the I-35 Corridor Advisory Committee for the corridor-wide MY 35 Plan (Steps 5 & 6). The MY 35 Planning Process is shown in the diagram. All Segment Committee meetings were open to the public.

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The first step that the Segment 1 Committee engaged in during their planning process was to determine the needs within their segment of the I-35 corridor. In January 2010, the Committee reviewed planning data such as MPO long-range plans, regional population and demographics projections, and current and projected traffic data to determine the transportation needs along the I-35 corridor in Segment 1. The Committee also reviewed an inventory of the existing roadway and rail networks, as well as airport and intermodal facilities to determine the potential to expand existing I-35 or use other existing facilities to meet the needs of the I-35 corridor. From this review of current and projected needs as well as existing resources, the Segment 1 Committee identified the following transportation issues in their segment of the I-35 corridor:

Increased urbanization between I-35 and US 75

Lack of east-west connectors

Lack of north-south connectors

**Bottlenecks on I-35** 

Need to expand passenger rail service in the Metroplex

Need to better distribute the traffic north and south through Dallas and Fort Worth

#### DEVELOPING SOLUTIONS

In February 2010, the Segment 1 Committee held a brainstorming session in which they developed preliminary roadway and rail solutions to meet the needs and growing demand in the I-35 corridor in Segment 1. For this brainstorming exercise, the Committee was instructed to not limit their solutions based on funding or potential cost. The preliminary roadway and rail solutions the Committee developed were based on the review of the planning data they had completed at their January meeting and on the committee members' knowledge of specific problem areas in the I-35 corridor.

At their March 2010 meeting, the Segment 1 Committee heard a presentation from the TxDOT Rail Division on the status of state rail planning and from the

North Central Texas Council of Governments (NCTCOG) regarding regional rail efforts. Based on this additional information, they continued to refine their proposed list of roadway and rail solutions and selected projects for further analysis and evaluation. Some of the solutions the Committee proposed for further evaluation were already identified on MPO and state transportation plans, while others were new ideas the Committee developed.

#### EVALUATING PROPOSED SOLUTIONS

Once the Segment 1 Committee selected preliminary roadway solutions for further consideration, they evaluated those solutions using the I-35 Corridor Traffic Model. The I-35 Corridor Traffic Model, which is a travel demand model, helps planners identify future problem areas on the roadway network. Based on the results of the modeling effort, the Segment 1 Committee continued to refine their list of proposed roadway and rail solutions.

Because of the overlap in geographic area between Corridor Segments 1 and 2 in the Dallas-Fort Worth Metroplex, and the complexities of traffic issues in this area, the Segment 1 and 2 Committees held a joint meeting in May 2010. The joint meeting focused on evaluating possible solutions to resolve the future mobility issues in the Dallas-Fort Worth Metroplex. At this joint meeting, the two Committees decided to recommend adoption of those projects included in the *NCTCOG 2030 Plan - 2009 Amendment* in their Segment recommendations in the Dallas-Fort Worth Metroplex and to add passenger rail solutions that would connect cities in north Texas to the Dallas-Fort Worth Metroplex.

The Segment 1 Committee continued to refine their solutions in June 2010, and started preparing for the public involvement component of the MY 35 planning effort in July and August 2010.

#### PUBLIC INVOLVEMENT

In September 2010, the Segment 1 Committee held five public planning workshops to get input from the general public on the Committee's proposed roadway and rail solutions for their segment of the I-35 corridor. Two of these workshops were joint meetings with the Segment 2 Committee where projects proposed by both Committees were presented to the public.

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I-35 Corridor Segment 1 Planning Workshop Summary

Workshop Date	City	Location	Public Attendance
September 9, 2010	Addison, TX	Addison Conference Center	3
September 13, 2010	Denton, TX	University of North Texas	8
September 14, 2010	Gainesville, TX	Gainesville Civic Center	33
September 15, 2010	Dallas, TX*	Hilton Garden Inn Dallas Market Center	13
September 20, 2010	Fort Worth, TX*	Education Service Center Region XI	10

<sup>\*</sup>These workshops were joint-workshops of Segment Committees 1 and 2







The planning workshops were advertised at www.MY35.org, via social media sites (Facebook, Twitter), through newspaper legal notifications, press releases, flyers, and in announcements on the radio in the Segment 1 planning area. The workshops provided an opportunity for the public to review the Committee's proposed solutions, ask questions of committee members, and learn more about the MY 35 planning process in an open house format. The public was invited to complete a questionnaire to give feedback on the Segment 1 Committee's proposed roadway and rail solutions. The questionnaire and all workshop materials were also available at www.MY35.org beginning on September 7, 2010. The questionnaire and other comments on the Segment Committee's recommendations could be submitted online or through the mail until October 6, 2010. The Segment 1 Committee received a total of 79 completed questionnaires during the public workshop comment period.

In addition, at the request of the Segment 1 Committee, NCT-COG presented the projects proposed by the Segment 1 and 2 Committees in the Dallas-Fort Worth Metroplex at regional meetings they held on September 14 and 15, 2010 in Cedar Hill, Lewisville, and Keller.

## RECOMMENDATIONS

Following the completion of their public workshops, the Segment 1 Committee met in October 2010 to finalize their solutions. At this meeting, the Segment 1 Committee developed general recommendations, suggested operational improvements, recommended a high priority study of US 75, and identified a list of priority roadway and rail projects.

The majority of the Segment 1 area is urbanized and the Segment 1 Committee quickly determined that they needed to not only focus on I-35 but also on other regional corridors and projects that could help manage congestion on I-35. The Segment 1 Committee also relied upon the NCTCOG Metropolitan Transportation Plan as a basis for their recommendations since so much coordination and local planning had gone into developing the Metropolitan Transportation Plan. Additionally, the Segment 1 Committee was quick to recognize that highway-only solutions would not address the anticipated congestion in the DFW Metroplex in the future, and as a result, the Committee decided to consider rail solutions.

The Segment 1 Committee prioritized their roadway and rail solutions into near-term (5-10 years), mid-term (10-20 years), or long-term (20 + years) projects. The Committee considered the following in prioritizing their solutions:

Ability of the solution to improve traffic conditions on I-35

Current status of the project (already planned and funded or not yet developed)

**Public input** 

#### GENERAL RECOMMENDATIONS

The Segment 1 Committee also developed the following two general recommendations for the I-35 Corridor Advisory Committee to consider in the MY 35 Plan:

Construct continuous frontage roads on I-35 in the urban areas where gaps currently exist

Implement one-way frontage road design

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#### OPERATIONAL IMPROVEMENT RECOMMENDATIONS

The Segment 1 Committee also developed the following three operational improvement recommendations for the I-35 Corridor Advisory Committee to consider in the MY 35 Plan:

Improve incident management and related agency coordination so that accidents and disabled vehicles can be cleared more quickly and delays can be minimized

Use and improve upon technology, such as electronic signs, to provide updated traffic information, alternative routes, and other traffic management solutions to travelers on I-35

Reduce tolls on alternative routes to I-35 during times when I-35 is the most congested and consider congestion pricing as an option to manage congestion

#### HIGH PRIORITY STUDY

#### RECOMMENDATION:

Form a US 75 Committee and conduct a separate study of US 75.

See appendix pages B and C for additional infomation.

Through the course of their deliberations, the Segment 1 Committee identified the US 75 Corridor as a priority corridor for future improvements. The Committee recommended that a study be initiated immediately to determine future mobility needs in this corridor and that a separate committee be formed to lead this planning effort.

The final list of prioritized multi-modal solutions that the Segment 1 Committee recommends to the I-35 Corridor Advisory Committee for inclusion in the MY 35 Plan are listed below as near-term, mid-term, and long-term solutions. Project information sheets and maps showing conceptual project locations for the projects listed below are included in the appendix.

## NEAR-TERM PROJECTS (5 TO 10 YEARS)

The Segment 1 Committee recommended that near-term transportation improvements in the I-35 West and I-35 East corridors be developed in phases. The order of phased development for these projects is indicated in the parentheses following the I-35W and I-35E near-term projects.

I-35 Frontage Roads in Cooke County

I-35 West:

I-35W - North Tarrant Express (1A)

I-35W from I-30 to SH 170 (1B)

I-35 East:

I-35E from I-635 to Loop 12 (1)

I-35E from US 380 to I-635 (2)

I-35E - Trinity Parkway (3A)

I-35E - Project Pegasus (3B)

I-35E from Loop 12 to SH 183 (4)

Northern Section of the Outer Loop from I-35 to SH 121

#### Rail:

**Tower 55 Improvements** 

Cotton Belt Rail Line

**High-Speed and Commuter Rail Ridership and Revenue Study** (The Committee did not visually conceptualize this project, therefore information on this project is not included in the appendix.)

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#### MID-TERM PROJECTS (10 TO 20 YEARS)

I-35W from I-35/I-35E to SH 170

Outer Loop East from I-20 to SH 121

Outer Loop West from I-35 to I-20

I-35 from Denton to the Cooke County Line

LONG-TERM PROJECTS (20 + YEARS)

I-35 in Cooke County

## CONCLUSION

Taken together as a group, recommendations from the Committees for Corridor Segments 1, 2, 3 and 4 provide a citizens' perspective on transportation needs along the I-35 corridor. Synthesizing these four sets of project and policy recommendations, the I-35 Corridor Advisory Committee will work to create the MY 35 Plan, a comprehensive, statewide vision for the I-35 corridor.

# APPENDIX

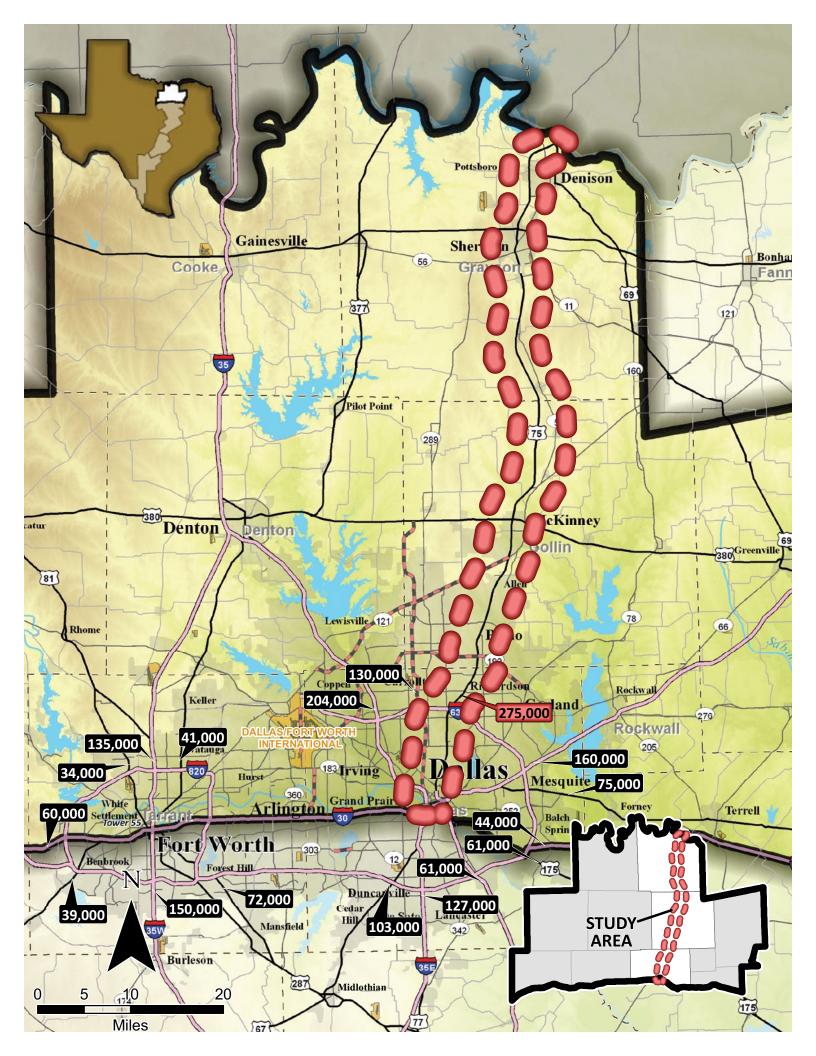
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## US 75 CORRIDOR

Initially, the Segment 1 Committee wanted to determine if improving U.S. Highway (US) 75 would reduce congestion on Interstate 35 (I-35). The Segment 1 Committee examined travel demand modeling for both I-35 and US 75 to evaluate whether improvements to US 75 would alleviate congestion on I-35. The results of this modeling indicated that improvements to US 75 did NOT reduce congestion on I-35. The Segment 1 Committee determined that each facility serves a different travel market which means that proposed improvements on one facility (e.g., I-35) did not improve congestion on the other and vice versa.

However, based on the results of this modeling effort, the Segment 1 Committee recognized that US 75 is an extremely important regional facility in North Central Texas, and that although improvements to this facility would not necessarily benefit I-35 per se, improvements on US 75 would contribute to improving mobility in the Dallas-Fort Worth (DFW) Metroplex.

As noted in the Figure on the right, **current traffic counts on US 75 are 35% higher than the next largest radiating highway in the Metroplex**. As a result, the Segment 1 Committee recommends that a separate committee consisting of local and regional representatives be formed to focus on the US 75 corridor in North Central Texas. This separate committee could evaluate options for US 75 such as upgrading US 75 to an Interstate Highway facility (e.g., as the extension of Interstate 45) and exploring commuter rail between Sherman/Denison and the DFW Metroplex.



## I-35 FRONTAGE ROADS IN COOKE COUNTY

#### PROJECT PURPOSE

The purpose of the proposed project is to improve safety and overall mobility on Interstate 35 (I-35) by providing continuous frontage roads and improving connectivity with the I-35 corridor by upgrading the interchange at U.S. Highway (US) 82.

#### EXISTING FACILITY

The existing I-35 frontage roads in Cooke County are discontinuous and include several gaps, specifically at the Trinity River Elm Fork Crossing. Additionally, the interchange at I-35 and US 82 is not a fully directional interchange.

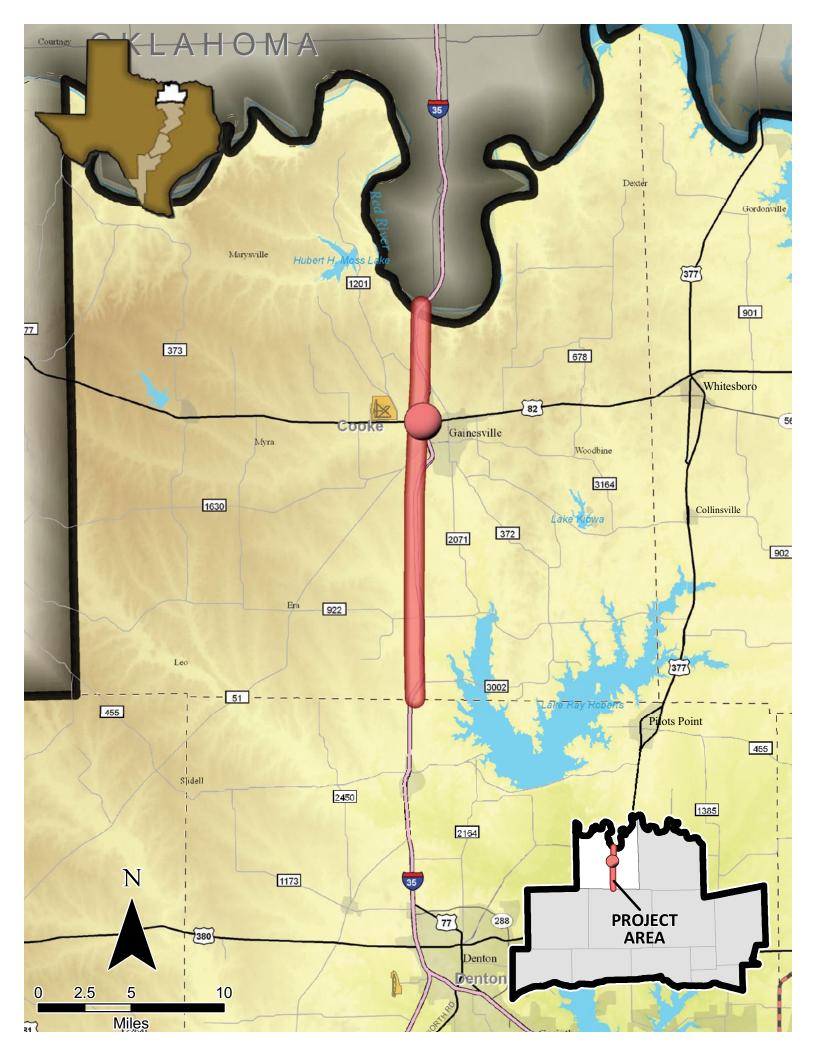
#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

The Segment 1 Committee recommends constructing continuous frontage roads along I-35 in Cooke County, filling-in the gaps where they currently exist (estimated at 1.2 miles) and upgrading the interchange at I-35 and US 82 as a near-term project.

#### CONCEPTUAL PROJECT COST ESTIMATE

The estimated cost for the conceptual frontage road improvements is between \$10 million and \$20 million, including design and construction. This cost, in 2010 dollars, does not include the purchase of right-of-way. The estimated project costs could increase due to right-of-way purchases and potential impacts to properties

The estimated cost for the interchange improvement at I-35 and US 82 is \$14.3 million. This project recently received \$11.3 million in funding from the American Recovery and Reinvestment Act (ARRA); the remaining \$3 million for this project will come from the TxDOT Wichita Falls District. Construction is scheduled to begin in early 2011 and last approximately two years.



## I-35W - NORTH TARRANT EXPRESS

#### PROJECT PURPOSE

The purpose of the North Tarrant Express (NTE) project is to increase capacity and to improve system linkages, mobility on Interstate 35 West (I-35W) and overall regional mobility in the Dallas-Fort Worth (DFW) Metroplex.

#### **EXISTING FACILITIES**

The existing I-35W facility is four lanes from State Highway (SH) 170 to U.S. Highway (US) 81/US 287, six lanes from US 81/US 287 to Basswood Boulevard, four lanes from Basswood Boulevard to SH 183, six lanes from SH 183 to SH 121, and eight lanes from SH 121 to I-30. The existing I-820 facility is four lanes from I-35W to SH 121/SH 183/SH 26, eight lanes from SH 121/SH 183 to SH 121/SH 10, and four lanes from SH 121/SH 10 to Randol Mill Road. The existing SH 121 facility is six lanes from I-820 to Minnis Road, six lanes from I-820 to SH 183, and four lanes from SH 183 to Farm to Market Road (FM) 157/Mid-Cities Boulevard. The existing SH 183 facility is six lanes from SH 121 to SH 161.

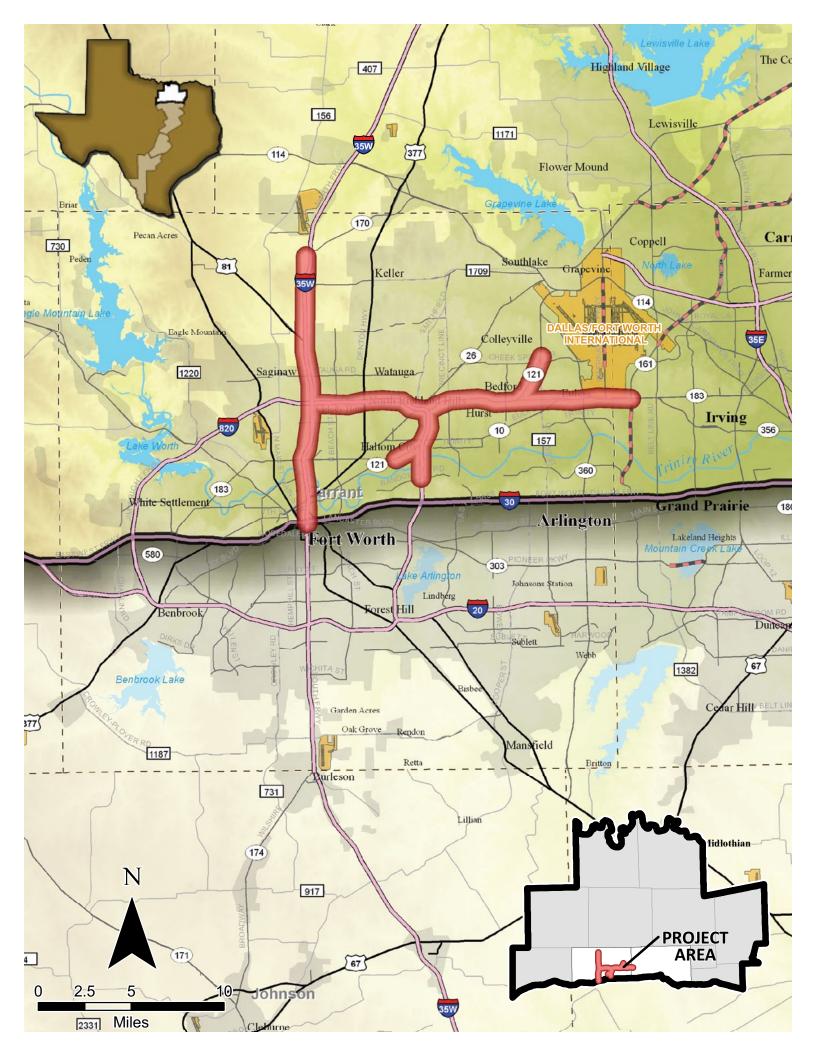
#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

The Segment 1 Committee recommends the NTE project as a near-term project. NTE, as described in the North Central Texas Council of Governments (NCTCOG) *Mobility 2030 Plan – 2009 Amendment*, includes improvements to the sections of existing I-35W, I-820, SH 121, and SH 183 noted above\* (individual segments of large projects such as NTE are typically implemented in phases based on need and priority).

#### CONCEPTUAL PROJECT COST ESTIMATE

According to the NCTCOG *Mobility 2030 Plan – 2009 Amendment*, the project is estimated to cost approximately \$3.5 billion including right of way in year of expenditure dollars. On June 23, 2009, TxDOT awarded two comprehensive development agreements (CDAs) for the NTE project to NTE Mobility Partners.

<sup>\*</sup>See NCTCOG Mobility 2030 Plan – 2009 Amendment for full NTE project description and detailed limits of proposed improvements.



## I-35W FROM I-30 TO SH 170

#### PROJECT PURPOSE

The purpose of the proposed project is to increase capacity and improve mobility on Interstate 35 West (I-35W). These improvements are part of the North Tarrant Express (NTE) project.

#### EXISTING FACILITY

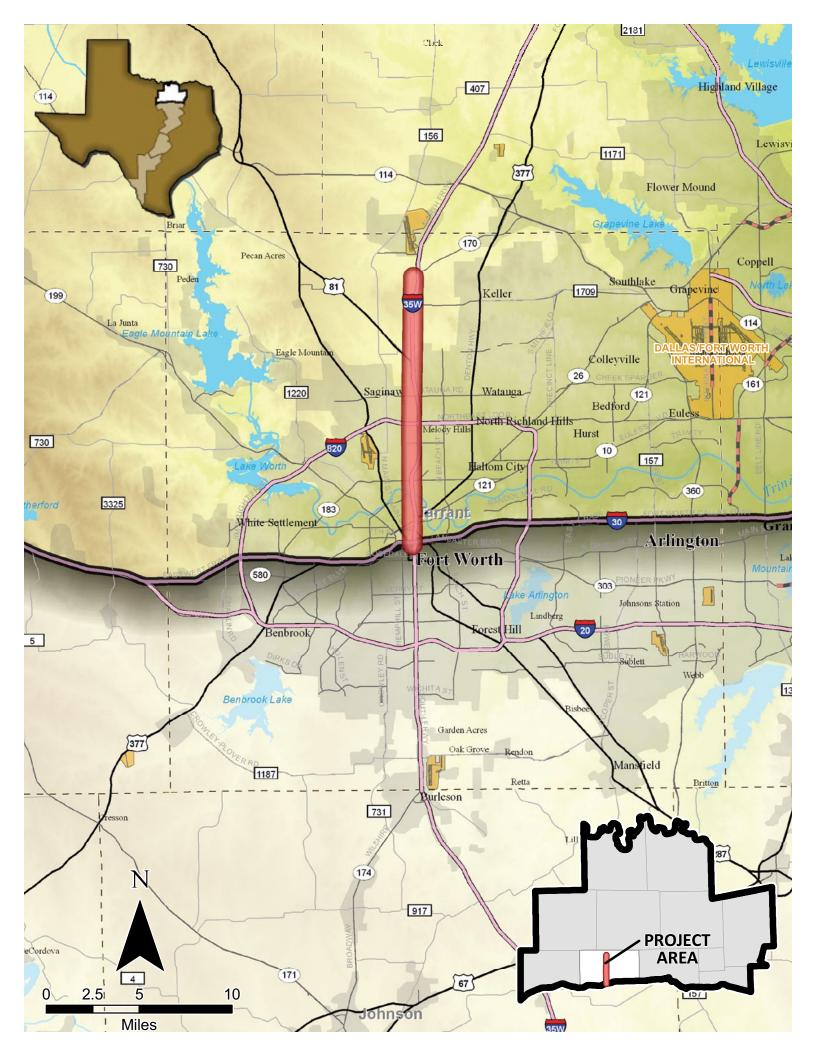
The existing I-35W facility is eight lanes from I-30 to State Highway (SH) 121, six lanes from SH 121 to SH 183, four lanes from SH 183 to Basswood Boulevard, six lanes from Basswood Boulevard to U.S. Highway (US) 81/US 287, and four lanes from US 81/US 287 to SH 170.

#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

The Segment 1 Committee recommends improvements to I-35W from I-30 to SH 170 as a near-term project. I-35W from I-30 to SH 170, as described in the North Central Texas Council of Governments (NCTCOG) *Mobility 2030 Plan – 2009 Amendment*, includes widening I-35W from I-30 to SH 121 to eight general lanes plus four/eight collector-distributor lanes; widening I-35W from SH 121 to I-820 to eight general lanes plus four concurrent managed lanes; widening I-35W from I-820 to Basswood Boulevard to eight general lanes plus six concurrent managed lanes; widening I-35W from Basswood Boulevard to US 81/US 287 to eight general lanes plus four concurrent managed lanes; and, widening I-35W from US 81/US 287 to SH 170 to six general purpose lanes plus four concurrent managed lanes. The total project length is approximately 14 miles (individual segments of large projects such as I-35W are typically implemented in phases based on need and priority).

#### CONCEPTUAL PROJECT COST ESTIMATE

According to the NCTCOG *Mobility 2030 Plan – 2009 Amendment*, the project is estimated to cost approximately \$1.06 billion including right of way in year of expenditure dollars. On June 23, 2009, TxDOT awarded two comprehensive development agreements (CDAs) for the NTE project to NTE Mobility Partners.



## I-35E FROM I-635 TO LOOP 12

#### PROJECT PURPOSE

The purpose of the proposed project is to increase capacity and improve mobility on Interstate 35 East (I-35E) from I-635 to State Highway Loop 12 (Loop 12).

#### EXISTING FACILITY

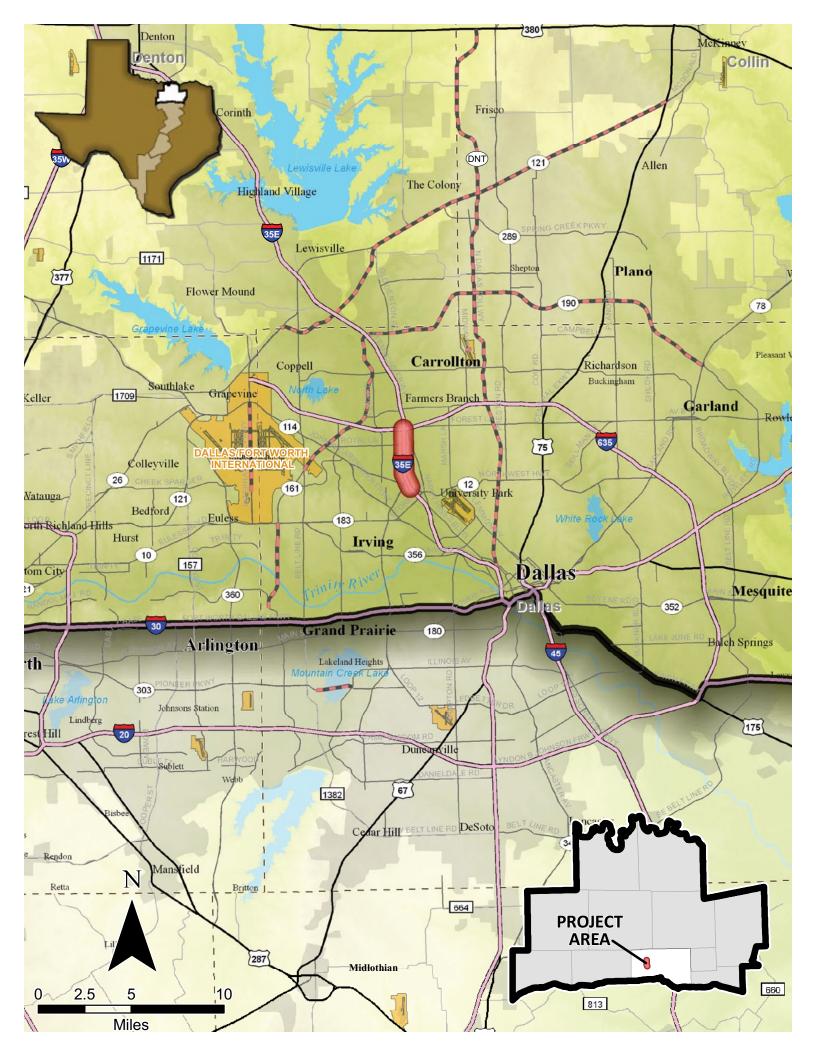
The existing I-35E facility is ten lanes from I-635 to Loop 12.

#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

The Segment 1 Committee recommends improvements to I-35E from I-635 to Loop 12 as a near-term project. I-35E from I-635 to Loop 12, as described in the North Central Texas Council of Governments (NCTCOG) *Mobility 2030 Plan – 2009 Amendment*, consists of widening this section of I-35E to ten general purpose lanes with six concurrent managed lanes. The project length is approximately three miles.

#### CONCEPTUAL PROJECT COST ESTIMATE

According to the NCTCOG *Mobility 2030 Plan – 2009 Amendment*, the project is estimated to cost approximately \$169.3 million including right of way in year of expenditure dollars. On September 4, 2009, TxDOT officials executed a comprehensive development agreement (CDA) with the LBJ Infrastructure Group to design, construct, finance, operate and maintain the 13-mile LBJ-635 corridor in Dallas County.



## I-35E FROM US 380 TO I-635

#### PROJECT PURPOSE

The purpose of the proposed project is to increase capacity and improve mobility on Interstate 35 East (I-35E) from U.S. Highway (US) 380 to I-635.

#### EXISTING FACILITY

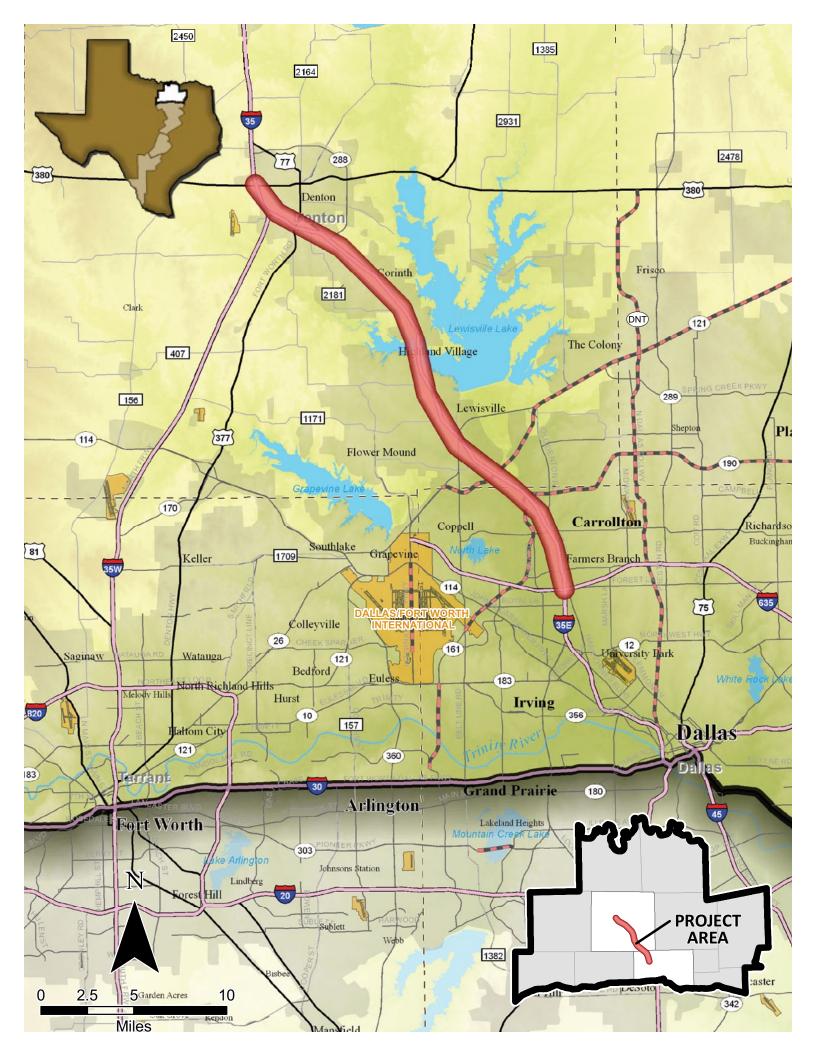
The existing I-35E facility is four lanes from US 380 to US 77 South, six lanes from US 77 South to State Highway (SH) 121, and six lanes with two high occupancy vehicle (HOV) lanes from SH 121 to I-635.

#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

The Segment 1 Committee recommends improvements to I-35E from US 380 to I-635 as a near-term project. I-35E from US 380 to I-635, as described in the North Central Texas Council of Governments (NCTCOG) *Mobility 2030 Plan – 2009 Amendment*, includes widening I-35E from US 380 to I-35E/I-35W to ten general purpose lanes with four concurrent managed lanes; widening I-35E from I-35/I-35W to US 377 to six general purpose lanes with two concurrent managed lanes; widening I-35E from US 377 to US 77 South to eight general purpose lanes with two concurrent managed lanes; widening I-35E from US 77 South to SH 121 to eight general purpose lanes with four concurrent managed lanes; widening I-35E from SH 121 to the President George Bush Turnpike (PGBT) to six general purpose lanes with six/eight managed collector distributor lanes and four concurrent managed lanes; and, widening I-35E from the PGBT to I-635 to eight general purpose lanes with four concurrent managed lanes. The total project length is approximately 29 miles (individual segments of large projects such as I-35E are typically implemented in phases based on need and priority).

#### CONCEPTUAL PROJECT COST ESTIMATE

According to the NCTCOG *Mobility 2030 Plan – 2009 Amendment*, the project is estimated to cost approximately \$3.8 billion including right of way in year of expenditure dollars.



## I-35E - TRINITY PARKWAY

#### PROJECT PURPOSE

The purpose of the Trinity Parkway project is to improve regional mobility.

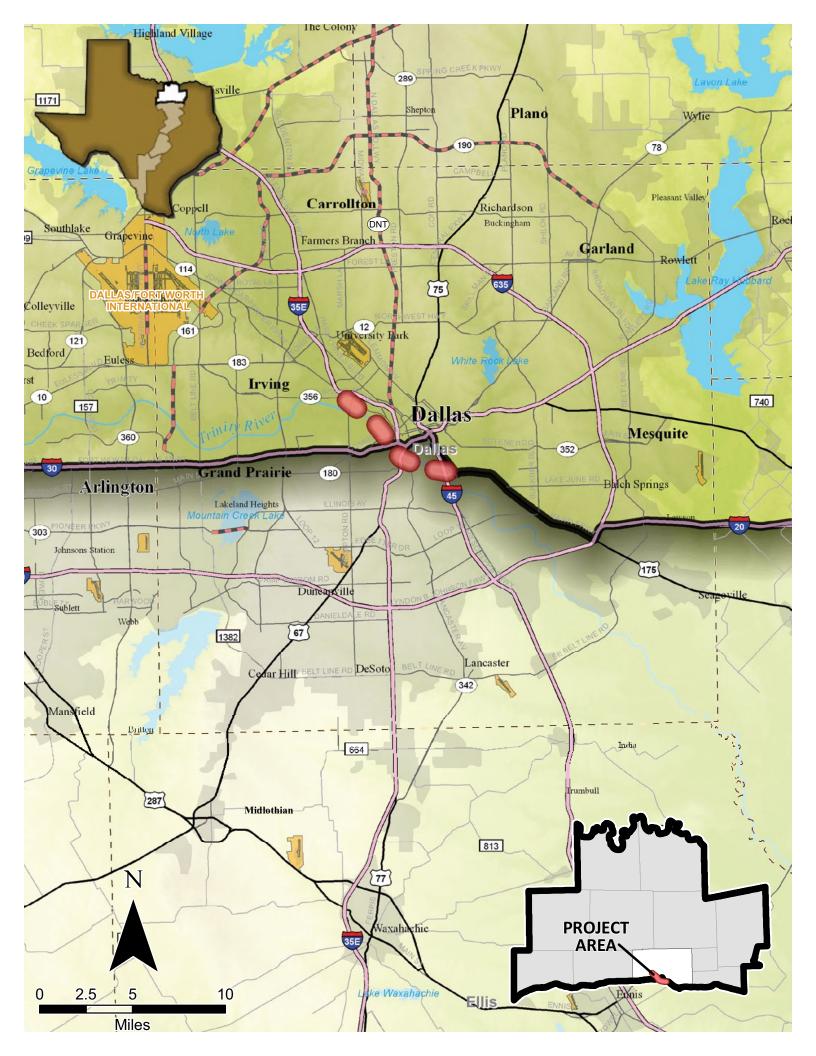
#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

The Trinity Parkway is a proposed six-lane controlled-access toll road corridor to be constructed inside the east levee of the Trinity River between State Highway (SH) 183/Interstate 35 East (I-35E) interchange and I-45.

The Segment 1 Committee recommends the Trinity Parkway Project as a near-term project. Trinity Parkway, as described in the North Central Texas Council of Governments (NCT-COG) *Mobility 2030 Plan – 2009 Amendment*, includes constructing the Trinity Parkway from I-35E to I-45/U.S. Highway (US) 175 as six toll lanes, including a new interchange at SH 183/I-35E; and constructing the Trinity Parkway from I-45/US 175 to US 175/SH 310 to six lanes (non-tolled), including a new interchange at US 175 near I-45. The Trinity Parkway Project is approximately 9 miles in length.

#### CONCEPTUAL PROJECT COST ESTIMATE

According to the NCTCOG *Mobility 2030 Plan – 2009 Amendment*, the project is estimated to cost approximately \$1.49 billion including right of way in year of expenditure dollars.



## I-35E - PROJECT PEGASUS

#### PROJECT PURPOSE

The purpose of Project Pegasus is to increase capacity and improve mobility on Interstate 35 East (I-35E) and I-30.

#### EXISTING FACILITY

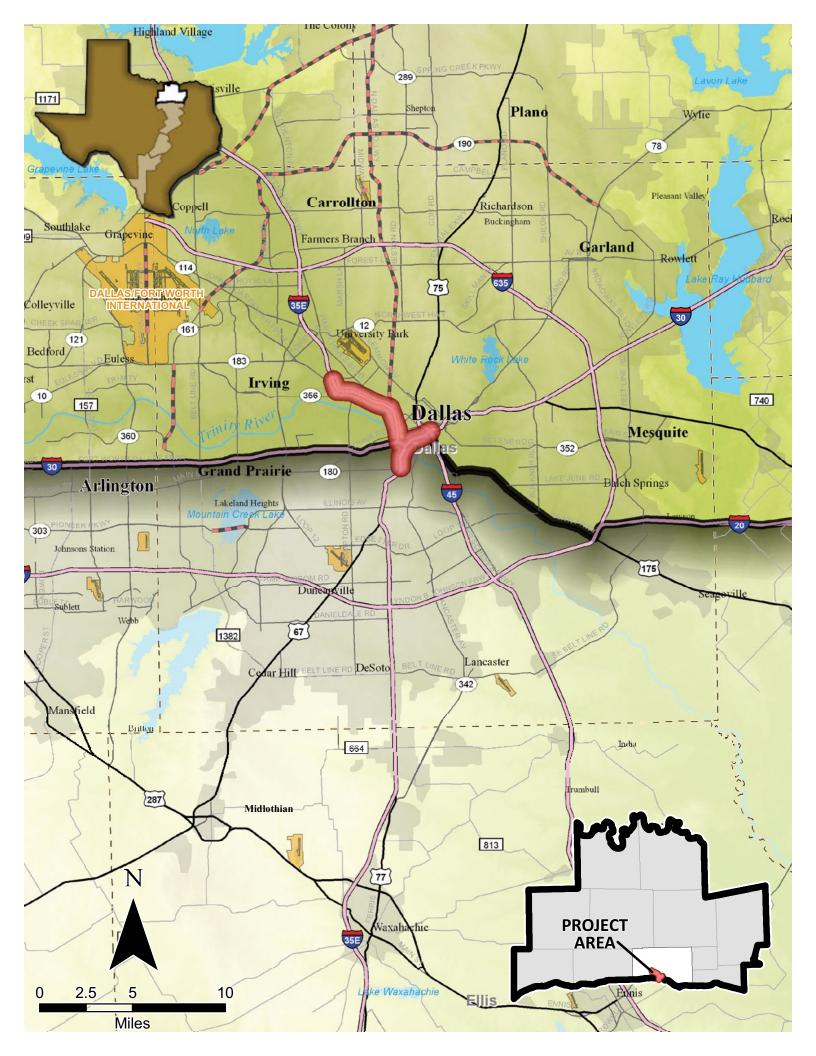
The existing I-30 facility is six lanes with four collector-distributor lanes from I-35E to I-45. The existing I-35E facility is ten lanes from State Highway (SH) 183 to I-30, and eight lanes from I-30 to 8<sup>th</sup> Street.

#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

The Segment 1 Committee recommends Project Pegasus (I-30/I-35E) as a near-term project. Project Pegasus, as described in the North Central Texas Council of Governments (NCT-COG) Mobility 2030 Plan - 2009 Amendment, includes widening I-30 from I-35E to Central Expressway to twelve general purpose lanes plus one reversible managed lane; widening I-30 from Central Expressway to I-45 to twelve general purpose lanes plus four concurrent managed lanes; widening I-35E from SH 183 to Motor Street to ten general purpose lanes plus two reversible managed lanes; widening I-35E from Motor Street to Wycliff Avenue to ten general purpose lanes; widening I-35E from Wycliff Avenue to Dallas North Tollway to ten general purpose lanes plus two reversible managed lanes; widening I-35E from Dallas North Tollway to Woodall Rodgers Freeway to ten general purpose lanes plus two reversible managed lanes and six/eight collector-distributor lanes; widening I-35E from Woodall Rodgers Freeway to I-30 to ten general purpose lanes plus two reversible managed lanes and four/ six collector-distributor lanes; widening I-35E from I-30 to Colorado Boulevard to six/ten general purpose lanes plus two reversible managed lanes and ten collector-distributor lanes; and, widening I-35E from Colorado Boulevard to 8th Street to ten general purpose lanes plus two reversible managed lanes. The I-30 improvements are approximately two miles in length, and the I-35E improvements are approximately seven miles in length (individual segments of large projects such as Project Pegasus are typically implemented in phases based on need and priority).

#### CONCEPTUAL PROJECT COST ESTIMATE

According to the NCTCOG *Mobility 2030 Plan – 2009 Amendment*, the project is estimated to cost approximately \$1.46 billion including right of way in year of expenditure dollars.



## I-35E FROM LOOP 12 TO SH 183

#### PROJECT PURPOSE

The purpose of the proposed project is to increase capacity and improve mobility on Interstate 35 East (I-35E) from State Highway Loop 12 (Loop 12) to State Highway (SH) 183.

#### EXISTING FACILITY

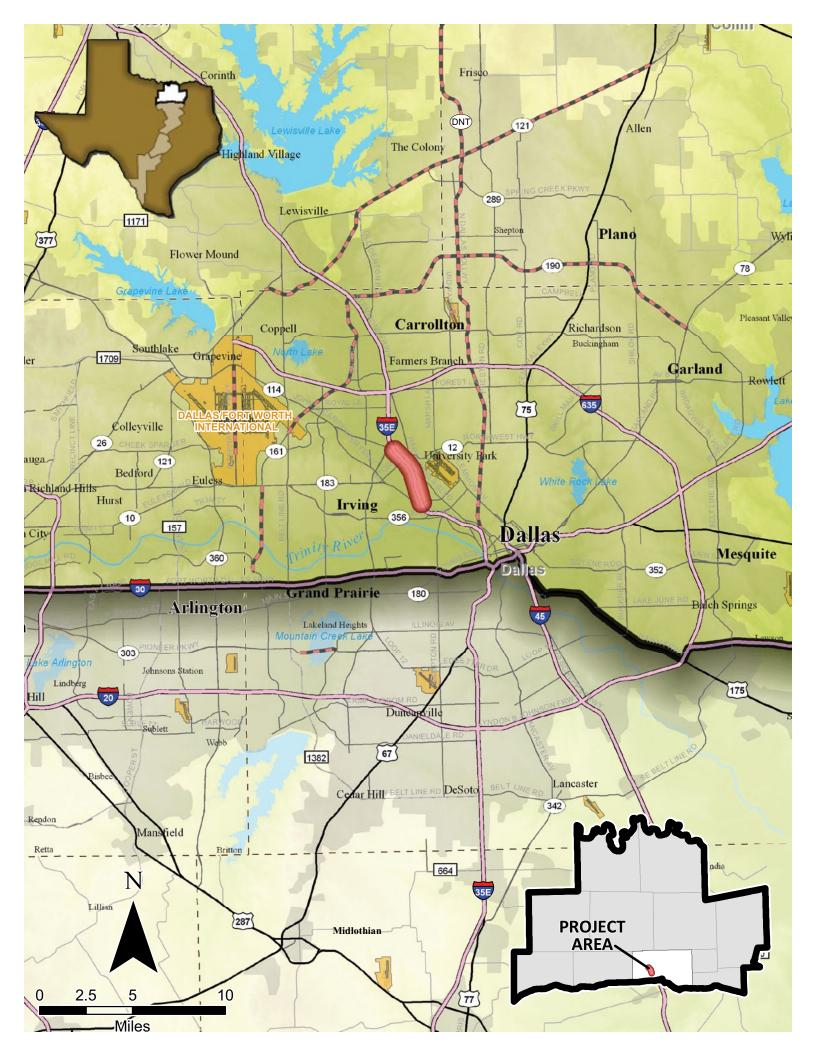
The existing I-35E facility is six lanes from Loop 12 to SH 183.

#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

The Segment 1 Committee recommends improvements to I-35E from Loop 12 to SH 183 as a near-term project. I-35E from Loop 12 to SH 183, as described in the North Central Texas Council of Governments (NCTCOG) *Mobility 2030 Plan – 2009 Amendment*, includes widening I-35E from Loop 12 to Regal Row to eight lanes, and widening I-35E from Regal Row to SH 183 to ten lanes. The project length is approximately three miles.

#### CONCEPTUAL PROJECT COST ESTIMATE

According to the NCTCOG *Mobility 2030 Plan – 2009 Amendment*, the project is estimated to cost approximately \$455.6 million including right of way in year of expenditure dollars.



## OUTER LOOP - I-35 TO SH 121

#### PROJECT PURPOSE

The purpose of the Dallas-Fort Worth (DFW) Regional Outer Loop project is to improve regional mobility and system connectivity with the Interstate 35 (I-35) corridor. As currently envisioned, the Regional Outer Loop would provide a bypass route of the DFW Metroplex urban core.

#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

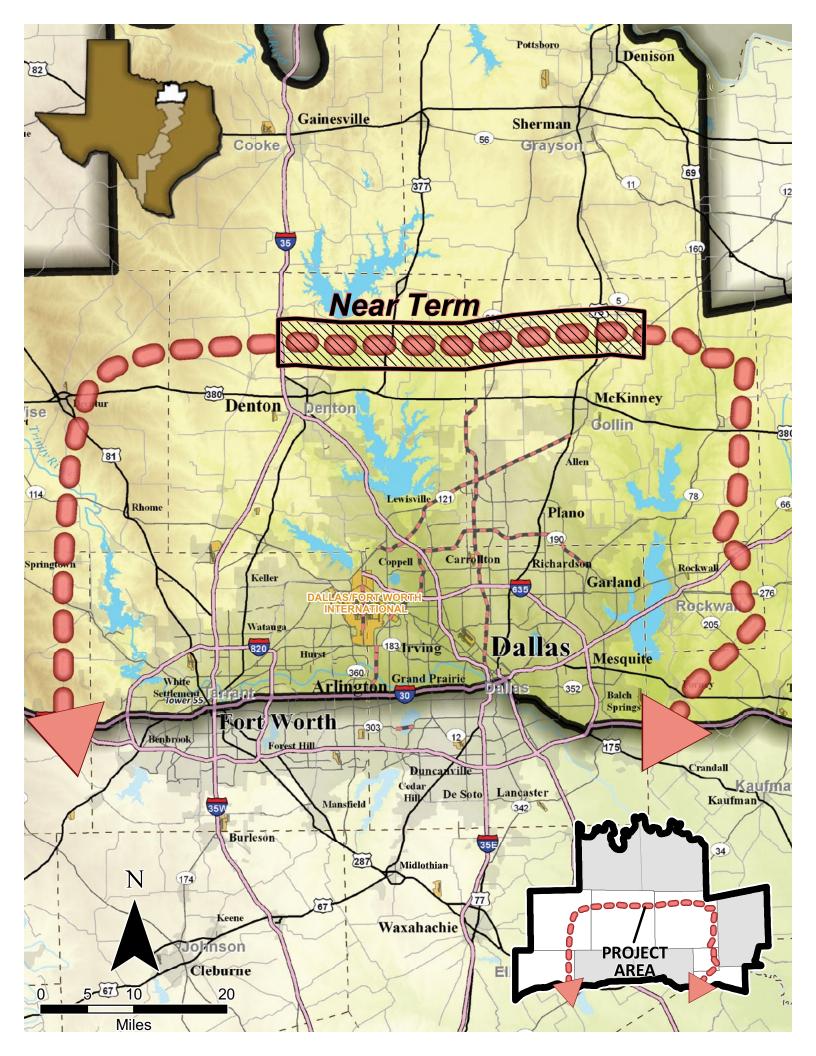
The Segment 1 Committee recommends the DFW Regional Outer Loop section between I-35 and State Highway (SH) 121 as a near-term project. The DFW Regional Outer Loop system, as generally described in the North Central Texas Council of Governments (NCTCOG) *Mobility 2030 Plan – 2009 Amendment*, includes improvements to existing I-35, I-35W, SH 170, SH 360 and new location roadways in the eastern and western portions of the proposed projects, including the proposed State Highway Loop 9 (Loop 9) project\*. The committee selected all of these improvements as listed in the NCTCOG *Mobility 2030 Plan – 2009 Amendment*, with the exception of incorporating a section of existing U.S. Highway (US) 67 for the southwest portion of the DFW Regional Outer Loop.

#### CONCEPTUAL PROJECT COST ESTIMATE

According to the NCTCOG *Mobility 2030 Plan – 2009 Amendment*, the entire Outer Loop system is estimated to cost approximately \$21.9 billion including right of way in year of expenditure dollars. The section from I-35 to US 75 is estimated to cost approximately \$2.17 billion.

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<sup>\*</sup>See NCTCOG Mobility 2030 Plan – 2009 Amendment for full Outer Loop system description and detailed limits of proposed improvements.



## TOWER 55 IMPROVEMENTS

#### PROJECT PURPOSE

The purpose of the Tower 55 Project is to reduce regional rail congestion caused by the convergence of multiple major freight and passenger rail movements at the existing intersection. Added capacity for Tower 55 will enable more train movements per day and significantly less queuing at the intersection, resulting in enhanced safety and local access for vehicles and pedestrians at crossings surrounding downtown Fort Worth, improved regional air quality, and an increased ability to expand commuter rail service throughout the Dallas-Fort Worth (DFW) region.

#### EXISTING FACILITY

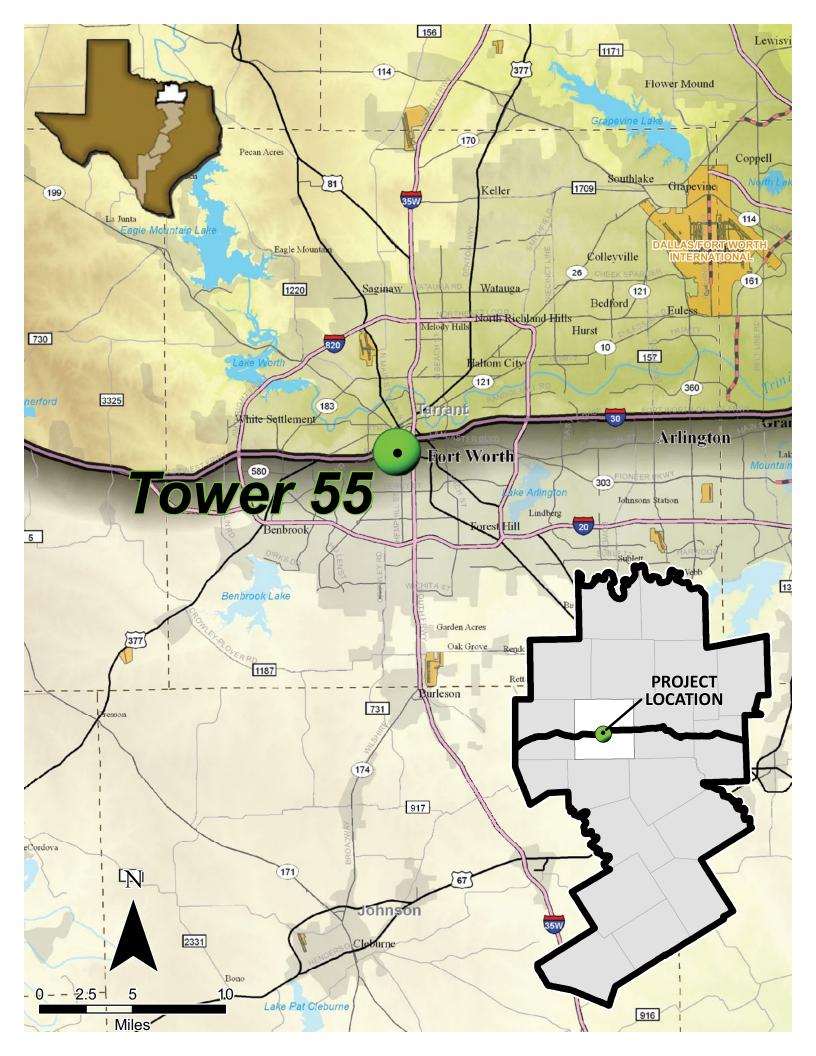
The existing Tower 55 is located beneath the interchange of Interstate 35 West (I-35W) and I-30. It is currently one of the busiest at-grade rail intersections in the United States, with movements in excess of 100 trains per day. The rail congestion at Tower 55 adversely impacts freight and passenger rail movements throughout the state, with delays stretching up to several hundred miles away from the intersection.

#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

The Segment 1 Committee recommends improvements to Tower 55 intersection as a near-term project. Tower 55, as described in the *Tower 55 Rail Reliever Study and Environmental Assessment (EA)* being prepared by the North Central Texas Council of Governments (NCTCOG), includes near-term and long-term improvements. The implementation plan in the document identifies the following system of improvements at Tower 55: (1) Near-Term Improvements – Burlington Northern Santa Fe (BNSF) Railway, Union Pacific (UP) Railroad, and the City of Fort Worth have recently agreed upon a collection of improvements which will provide sufficient capacity at Tower 55 for the next 15-20 years; (2) Long-Term Improvements – After 15-20 years, projected increases in train volumes will require construction of a railroad grade separation at Tower 55, via a North-South or East-West Trench. The feasibility of these alternatives continues to be analyzed by the project partners, and selection of a locally preferred alternative will likely occur by Spring 2011. The state received \$34 million in TIGER II grant funding in October 2010 for improvements at Tower 55.

#### CONCEPTUAL PROJECT COST ESTIMATE

The package of short-term improvements identified by BNSF Railway, UP Railroad, and the City of Fort Worth has an estimated cost of \$94 million. The two remaining long-term improvement alternatives each have an estimated cost of \$800 million.



## COTTON BELT RAIL LINE

#### PROJECT PURPOSE

The purpose of the Cotton Belt Rail Line project is to provide regional rail connectivity for communities along the project corridor to Fort Worth, Dallas-Fort Worth (DFW) Airport, the Dallas Area Rapid Transit (DART) network and major activity centers along the corridor.

#### EXISTING FACILITY

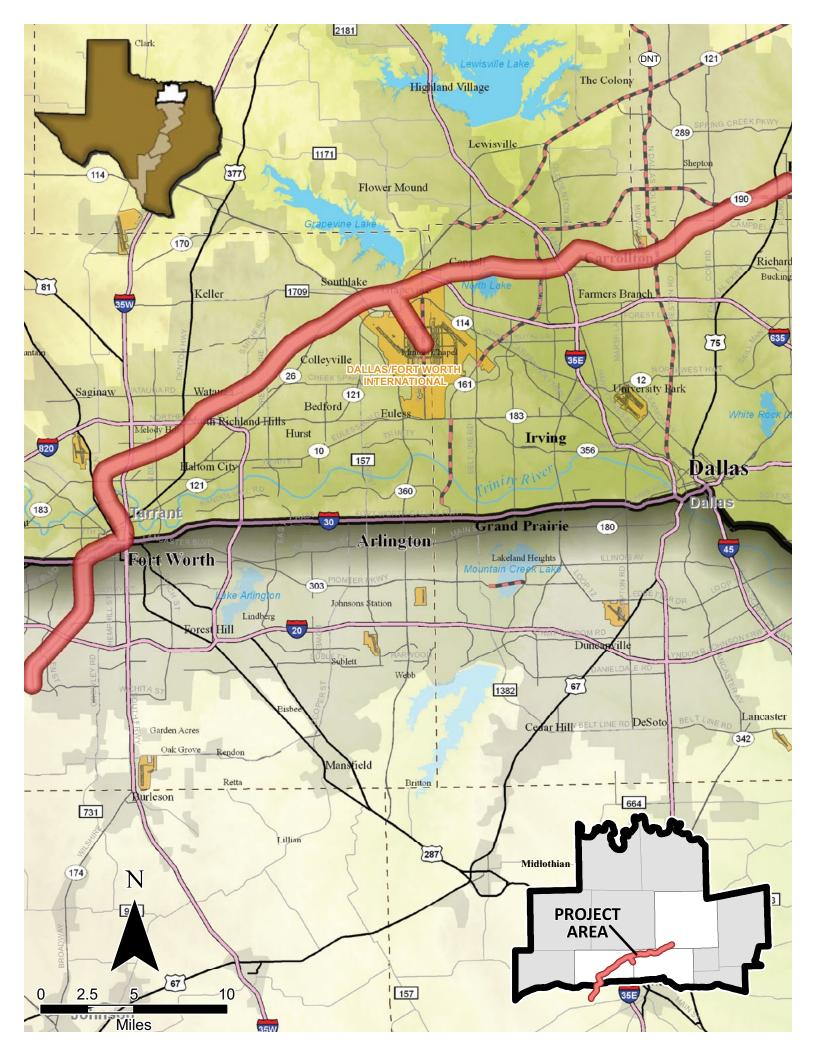
The Cotton Belt Corridor is a proposed east-west rail corridor passing through portions of Collin, Dallas, and Tarrant Counties in North Central Texas. DART acquired 52 miles of this corridor in 1990 for the purpose of right-of-way preservation for future transportation use.

#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

The Segment 1 Committee recommends the Cotton Belt Rail Project as a near-term project. The Cotton Belt Rail Project, as described in the NCTCOG *Mobility 2030 Plan – 2009 Amendment*, includes construction of the North Crosstown route from DFW Airport A/B Terminal (western terminus) to the President George Bush Turnpike (eastern terminus) and the Southwest-to-Northeast route from DFW Airport (eastern terminus) to Sycamore School Road in southwest Fort Worth (western terminus).

#### CONCEPTUAL PROJECT COST ESTIMATE

According to the NCTCOG *Cotton Belt Corridor Conceptual Engineering and Funding Study*, the project is estimated to cost approximately \$1.7 billion.



# I-35W FROM I-35/I-35E TO SH 170

#### PROJECT PURPOSE

The purpose of the proposed project is to increase capacity and improve mobility on Interstate 35 West (I-35W) from I-35/I-35E to State Highway (SH) 170.

## **EXISTING FACILITY**

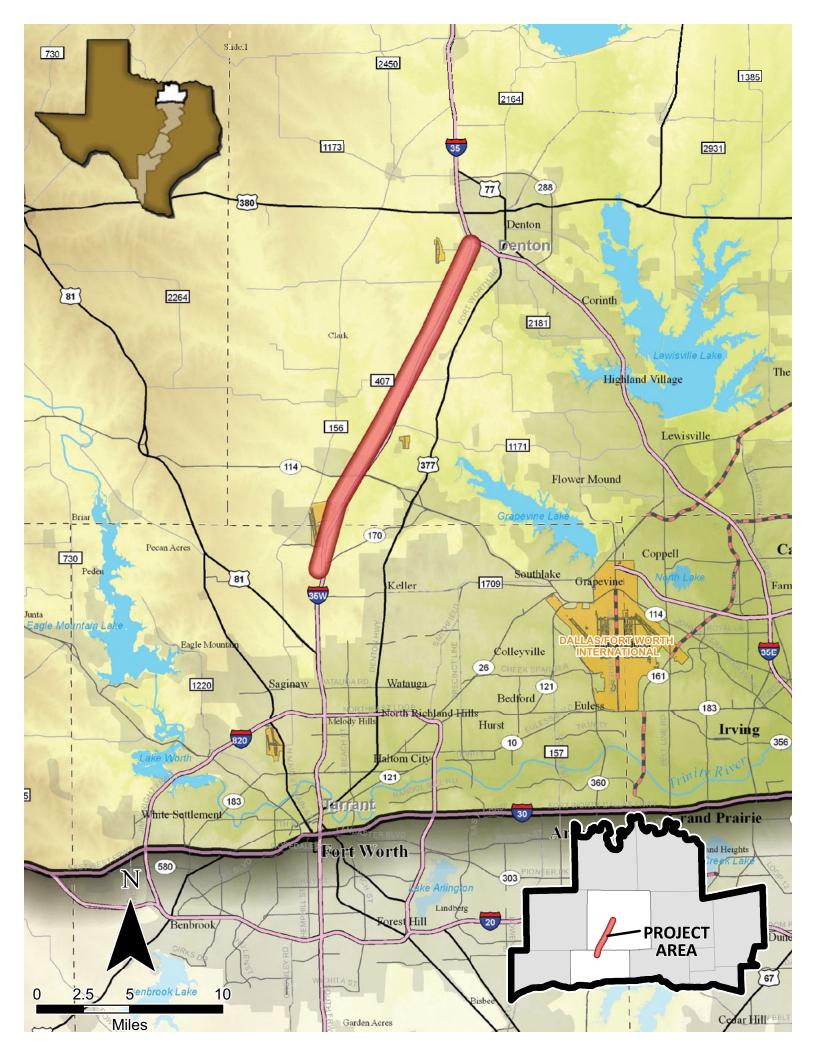
The existing I-35W facility is four lanes from the I-35/I-35E split to SH 170.

#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

The Segment 1 Committee recommends improvements to I-35W from I-35/I-35E to SH 170 as a mid-term project. I-35W from I-35/I-35E to SH 170, as described in the North Central Texas Council of Governments (NCTCOG) *Mobility 2030 Plan – 2009 Amendment*, includes widening I-35W from I-35/I-35E to State Highway Loop 288 (Loop 288) to six general purpose lanes plus two concurrent managed lanes; and widening I-35W from Loop 288 to SH 170 to six general purpose lanes plus four concurrent managed lanes. The total project length is approximately 19 miles (individual segments of large projects, such as I-35W from I-35/I-35E to SH 170, are typically implemented in phases based on need and priority).

#### CONCEPTUAL PROJECT COST ESTIMATE

According to the NCTCOG *Mobility 2030 Plan – 2009 Amendment*, the project cost is estimated at approximately \$1.23 billion including right of way in year of expenditure dollars.



### OUTER LOOP EAST SH 121 TO 1-20

## OUTER LOOP WEST 1-35 TO 1-20

#### PROJECT PURPOSE

The purpose of the Dallas-Fort Worth (DFW) Regional Outer Loop project is to improve regional mobility and system connectivity with the Interstate 35 (I-35) corridor. As currently envisioned, the Regional Outer Loop would provide a bypass route of the DFW Metroplex urban core.

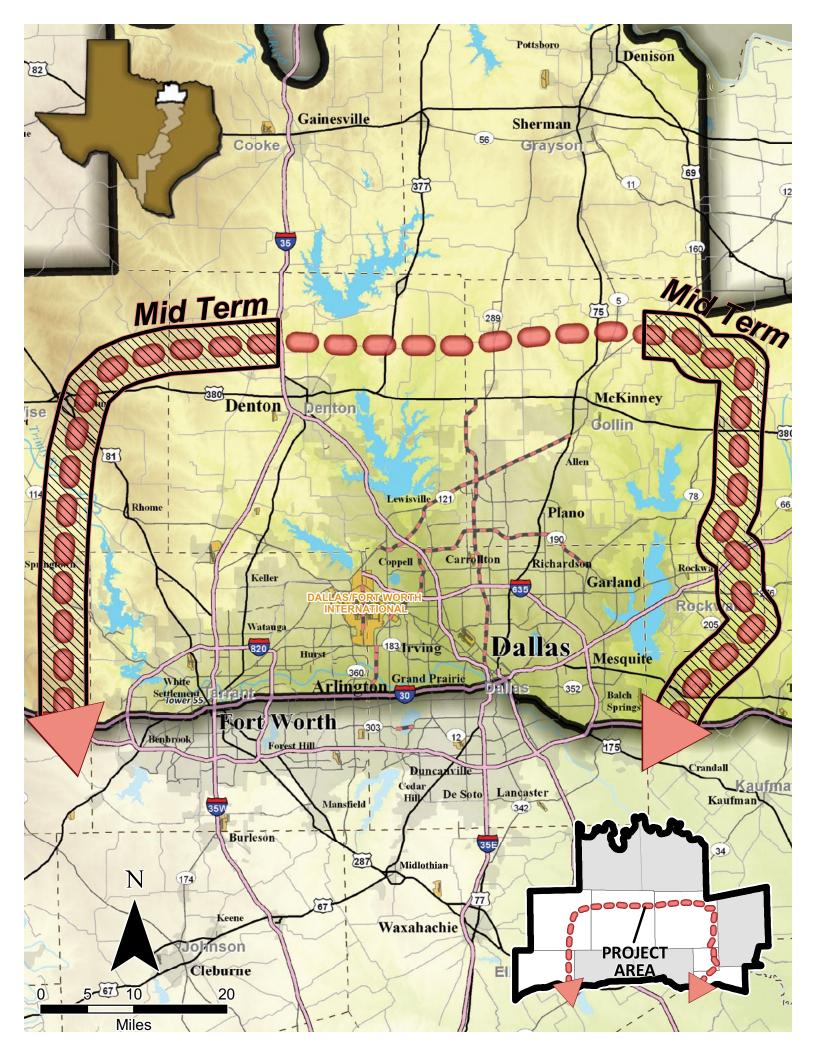
#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

The Segment 1 Committee recommends the Outer Loop East from State Highway (SH) 121 to I-20 and the Outer Loop West from I-35 to I-20 as mid-term projects. The DFW Regional Outer Loop system, as generally described in the North Central Texas Council of Governments (NCTCOG) *Mobility 2030 Plan – 2009 Amendment*, includes improvements to existing I-35, I-35W, SH 170, SH 360 and new location roadways in the eastern and western portions of the proposed projects, including the proposed State Highway Loop 9 (Loop 9) project\*. The Committee selected all of these improvements as listed in the NCTCOG *Mobility 2030 Plan – 2009 Amendment*, with the exception of incorporating a section of existing U.S. Highway (US) 67 for the southwest portion of the DFW Regional Outer Loop.

#### CONCEPTUAL PROJECT COST ESTIMATE

According to the NCTCOG *Mobility 2030 Plan – 2009 Amendment*, the entire Outer Loop system is estimated to cost approximately \$21.9 billion including right of way in year of expenditure dollars.

<sup>\*</sup>See NCTCOG Mobility 2030 Plan - 2009 Amendment for full Outer Loop system description and detailed limits of proposed improvements.



## I-35 FROM DENTON TO THE COOKE COUNTY LINE

#### PROJECT PURPOSE

The purpose of the proposed project is to increase capacity and improve mobility on Interstate 35 (I-35) from Denton to the Cooke County line.

#### EXISTING FACILITY

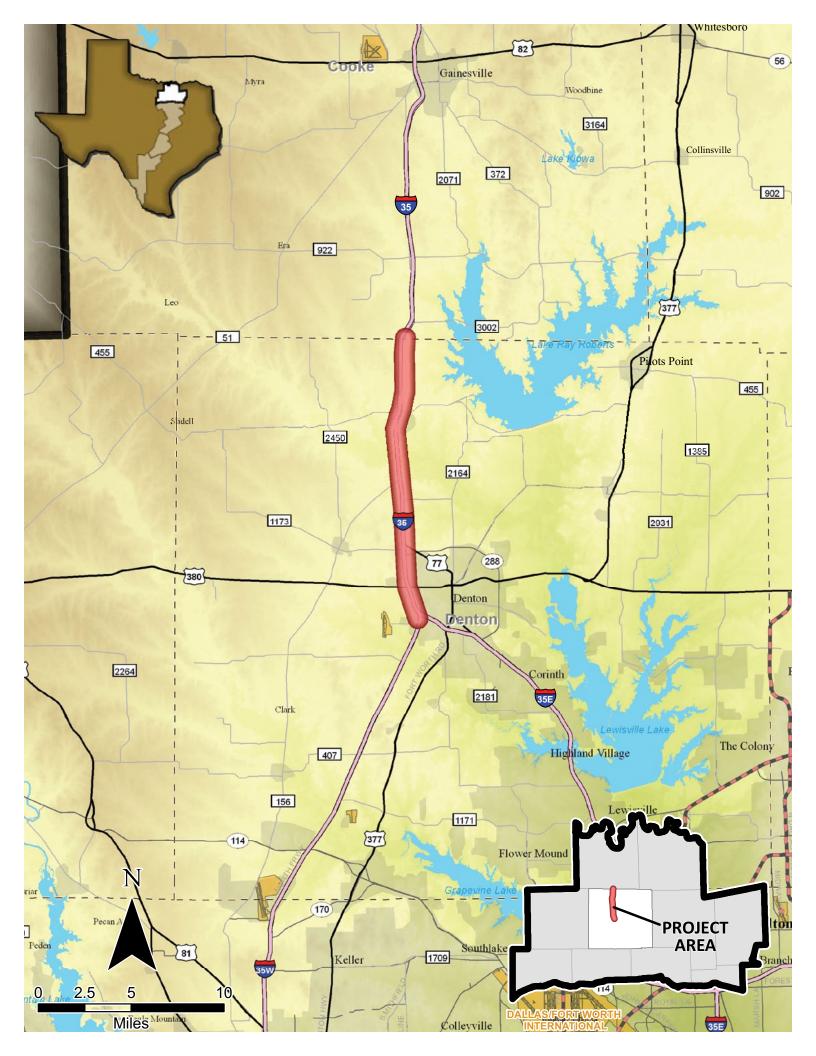
The existing I-35 facility is four lanes from I-35E/I-35W to Farm to Market Road (FM) 3002.

#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

The Segment 1 Committee recommends improvements to I-35 from I-35E/I-35W to FM 3002 as a mid-term project. I-35 from I-35E/I-35W to FM 3002, as described in the NCT-COG *Mobility 2030 Plan – 2009 Amendment*, includes widening I-35 from the I-35E/I-35W split to State Highway Loop 288 (Loop 288) to ten general lanes plus four concurrent managed lanes; widening I-35 from Loop 288 to FM 156 to eight general purpose lanes plus four concurrent managed lanes; and widening I-35 from FM 156 to FM 3002 to eight general purpose lanes. These improvements are part of the proposed Dallas-Fort Worth (DFW) Regional Outer Loop System. The total project length is approximately 15 miles (individual segments of large projects such as I-35 from I-35E/I-35W to FM 3002 are typically implemented in phases based on need and priority).

#### CONCEPTUAL PROJECT COST ESTIMATE

According to the NCTCOG *Mobility 2030 Plan – 2009 Amendment*, the project is estimated to cost approximately \$1.05 billion including right of way in year of expenditure dollars.



## I-35 IN COOKE COUNTY

#### PROJECT PURPOSE

The purpose of the proposed project is to increase capacity and improve mobility on Interstate 35 (I-35) in Cooke County.

#### EXISTING FACILITY

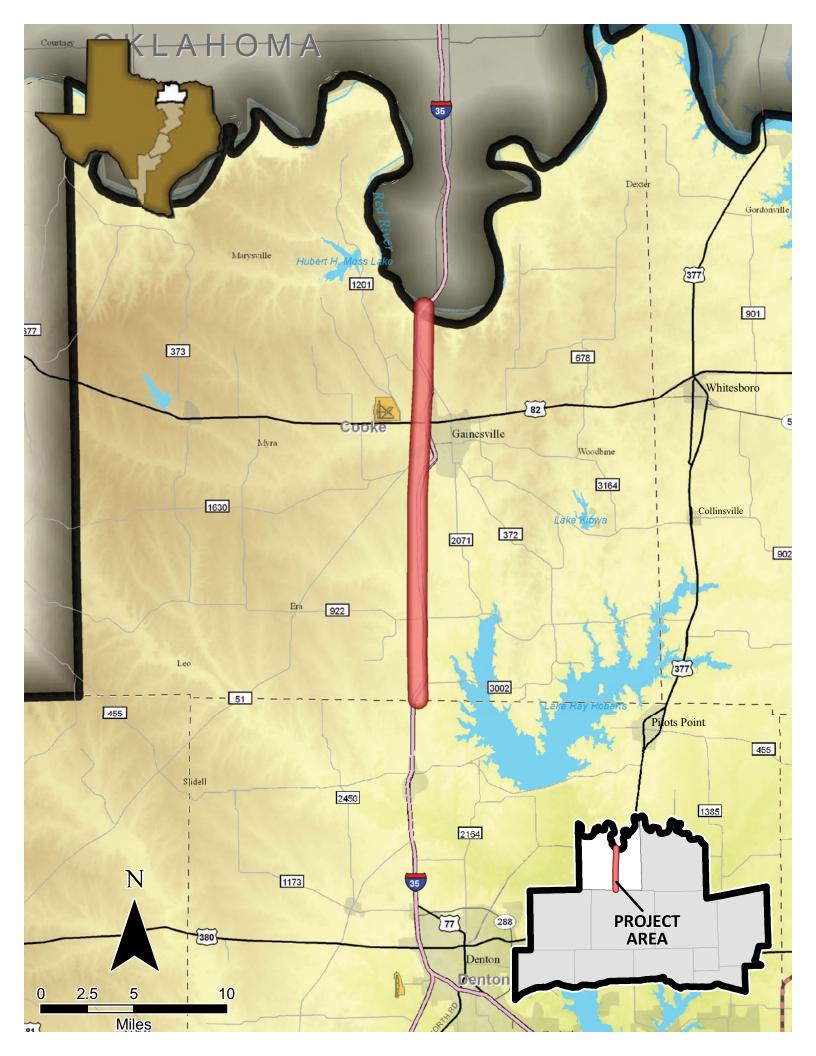
The existing I-35 facility in Cooke County is four lanes.

#### PROJECT PROPOSED BY THE SEGMENT 1 COMMITTEE

The Segment 1 Committee recommends improvements to I-35 in Cooke County as a long-term project. Improvements to I-35 in Cooke County would involve widening I-35 from the Denton/Cooke County line to the Red River at the Texas/Oklahoma state line to eight lanes, a length of approximately 21 miles (individual segments of large projects such as I-35 in Cooke County are typically implemented in phases based on need and priority).

#### CONCEPTUAL PROJECT COST ESTIMATE

The estimated cost for the conceptual project is between \$450 million and \$600 million. This cost, in 2010 dollars, does not include the purchase of right-of-way. The estimated project costs could increase due to right-of-way purchases and potential impacts to properties.



# GLOSSARY

**Access ramps** – A short section of road which allows vehicles to enter or exit a freeway or expressway.

**At-grade intersection** – A junction at which two or more transportation axes cross at the same level, or grade. Typically, this term refers to areas where roadways and railroads join or cross at the same level.

**Auxiliary lanes** – An additional lane on a freeway or expressway to connect an on-ramp and an off-ramp.

**Bypass route** – A road or highway that avoids or "bypasses" a built-up area, town, or village, to let through traffic flow without interference from local traffic, to reduce congestion in the built-up area, and to improve road safety.

**Collector-distributor lanes** – A one-way road next to a freeway that is used for some or all of the ramps that would otherwise merge into or split from the main lanes of the freeway. It is similar to a frontage road, and related to the more complex express-collector systems used in many large cities, but is built to freeway standards. Collector-distributor lanes are used to eliminate or move weaving from the main lanes of a freeway, particularly at cloverleaf interchanges.

Comprehensive development agreement (CDA) - A comprehensive development agreement is the tool the Texas Legislature authorized to enable private participation in development by sharing the risks and responsibilities of design and construction. In some cases, financing and private investment in the transportation system can be included in the process. It provides a competitive selection process for developing regional projects or much larger undertakings. In addition, this contracting tool can streamline the time needed to deliver the project because multiple tasks can be under way simultaneously.

**Commuter rail** – Commuter rail, also called suburban rail, is a passenger rail transport service between a city center, and outer suburbs and commuter towns or other locations that draw large numbers of commuters.

**Concurrent managed lanes** – Concurrent-flow lanes operate in the same direction of travel as the adjacent lanes, and typically, one lane is provided in each direction. Where possible, full inside median shoulders and a buffer separation with the general purpose lanes is included. These lanes may be physically separated from adjacent lanes, or not separated.

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**Connecting facility** – A transportation facility designed to provide service from population centers to a primary roadway facility.

**Continuous frontage roads** – Parallel roadway providing access both between and through freeway interchanges. For freeways, continuous frontage roads provide the operational flexibility required to manage freeway saturation and improve incident management.

**Controlled access facility** – A type of roadway whereby traffic can only enter and exit at specific designated locations (typically entrance and exit ramps). Controlled access roads are generally referred to as freeways or expressways.

**Corridor** – A combination of discrete, adjacent surface transportation networks (e.g., freeway, arterial roads, rail networks) that link the same major origins and destinations.

**Discontinuous frontage roads** – Parallel roadway to a freeway lacking complete access between a set of interchanges.

**Dynamically priced managed lane** – A pricing strategy for operating managed toll lanes. The tolls vary dynamically in response to real-time traffic conditions in order to provide a superior free-flow travel service to the users of the toll lanes while maximizing the freeway's throughput.

Fully directional interchanges/direct connectors – Interchanges that use direct or semi-direct connections for one or more left-turn movements are called "directional" interchanges. When all turning movements travel on direct or semi-direct ramps or direct connections, the interchange is referred to as "fully directional". These connections are used for important turning movements instead of loops to reduce travel distance, increase speed and capacity, reduce weaving and avoid loss of direction in traversing a loop. "Fully directional" interchanges are usually justified at the intersection of two freeways.

**General purpose lanes** – Lanes on a freeway or expressway that are open to all motor vehicles.

**Grade separation** – The process of aligning a junction of two or more transportation axes at different heights (grades) so that they will not disrupt the traffic flow on other transportation routes when they cross each other.

**High occupancy vehicle (HOV) lanes** – A system of exclusive lanes signed and striped for use by vehicles with multiple occupants (two or more or three or more persons).

**High occupancy toll (HOT) lanes** – A road pricing scheme that gives motorists in single-occupant vehicles access to high-occupancy vehicle (HOV) lanes.

**High-speed rail** – A type of passenger rail transport that operates significantly faster than the normal speed of rail traffic. In the United States, high-speed rail is defined as having a speed above 110 mph by the United States Federal Railroad Administration.

**Intermodal** – The use of two or more modes of transportation to complete the movement of a shipment of freight or a passenger trip from origin to destination.

**Level of service (LOS)** – A qualitative rating of the performance of a segment of highway. The performance is based on a target flow speed and vehicle flow rate. LOS is a "grade" of how well the highway segment achieved the target flow speed and flow rate. LOS measures typically range from "A", representing optimal free-flow operating conditions, through "F", representing breakdown in vehicle flow and volatile operating conditions.

**Managed lanes** – Highway facilities or a set of lanes where operational strategies are proactively implemented and managed in response to changing conditions.

**Metropolitan planning organization (MPO)** – A federally-mandated and federally-funded transportation policy-making organization in the United States that is made up of representatives from local government and governmental transportation authorities. Federal legislation required the formation of an MPO for any urbanized area with a population greater than 50,000. Federal funding for transportation projects and programs are channeled through this planning process.

**Multi-modal** – Multiple modes and/or providers of transportation within a select corridor or location.

**New location facilities** – The construction of new transportation infrastructure requiring the acquisition of new rights of way.

**Parallel facility** – A facility which may serve as an alternate route to a primary facility serving similar origins and destinations.

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**Passenger rail** – A means of conveyance of passengers by way of wheeled vehicles running on rail tracks. In contrast to road transport, where vehicles merely run on a prepared surface, rail vehicles are also directionally guided by the tracks they run on.

**Peak period** – The observed duration of time during a typical day when traffic demand is at its highest. This typically coincides with a.m. and p.m. commute times and may vary based on geographical location.

**Planned projects** – Projects contained in the fiscally-constrained portions of current long-range transportation plans (e.g., MPO Metropolitan Transportation Plans [MTP's], Texas Statewide Transportation Improvement Program [STIP], Texas Unified Transportation Program [UTP]).

**Proposed alignment** – The design of a highway consists of a horizontal alignment, vertical alignment and cross-sectional elements. The horizontal alignment of a highway defines its location and orientation in plan view. The vertical alignment of a highway deals with its shape in profile. The cross-sectional elements include number of lanes and widths of lanes, shoulders, and medians and their spacing.

**Public-private partnerships** – Agreement between government and the private sector regarding the provision of public services or infrastructure.

**Reversible managed lanes** – Highway facilities or a set of lanes where operational strategies are proactively implemented and managed in response to changing conditions. In addition, the directional flow of traffic changes by time of day based on peak demand.

**Right of way (ROW)** – A strip of land that is granted, through an easement or other mechanism, for transportation purposes, such as for a trail, driveway, rail line, or highway. A right of way is reserved for the purposes of maintenance or expansion of existing services with the right of way.

**Roadway upgrades** – Improving the access-control or functional classification of a transportation facility.

**Roadway widening** – Increasing the capacity of a transportation facility, typically by adding additional travel lanes.

**Segment study area** – The respective segment boundaries for the four I-35 Corridor Segment Committees. The Segment 1 study area extends from the Texas/Oklahoma border to Interstate 20 in the Dallas-Fort Worth Metroplex; Segment 2 extends from Interstate 20 to the Williamson/Bell County line; Segment 3 extends from the Williamson/Bell County line to Interstate 10 in San Antonio; Segment 4 extends from Interstate 10 to the Texas/Mexico border.

**System connectivity** – Connectivity refers to the density of connections in a path or road network and the directness of links. A well-connected road or path network has many short links, numerous intersections, and minimal dead-ends (cul-de-sacs). As connectivity increases, travel distances decrease and route options increase, allowing more direct travel between destinations, creating a more accessible and resilient system. Connectivity can apply both internally (streets within that area) and externally (connections with arterials and other neighborhoods).

**Target flow rate** – Target flow rate is one of two quantitative factors that are used to assign a Level of Service (LOS) category to a section of highway facility. Each level of service category is defined by a flow rate (number of vehicles per hour per lane), and a flow speed (the speed at which vehicles travel). Target flow rate is the upper limit of the desired LOS category under a given target flow speed.

**Target flow speed** – Target flow speed is one of two quantitative factors that are used to assign a Level of Service (LOS) category to a section of highway facility. Each level of service category is defined by a flow speed (average speed of vehicles traveling through a given point), and a flow rate (the number of vehicles per hour per lane). Target flow speed is the upper limit of the desired LOS category under a given target flow rate.

**Transportation facility** – Something that is built, installed, or established to serve a particular transportation purpose. A transportation facility is typically a sub-component of a larger transportation system, i.e. a bus stop along a transit route, a new roadway within a roadway network.

**Travel demand modeling** – Travel demand modeling includes elements such as roadway and transit networks, and population and employment data to calculate the expected demand for transportation facilities. Within the model, mathematical equations are used to represent each individual's decision making process of: "Why", "When", "Where", and "How" to make the trip, and "What" route to follow to complete the trip. The model results for these individual choices are combined so that the aggregate impacts of roadway vehicle volumes and transit route ridership.

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**Vehicle miles traveled (VMT)** – The sum of the total miles traveled by each individual vehicle traveling over a specified length of a facility or group of facilities, e.g., 10 cars traveling 10 miles = 100 Vehicle Miles of Travel (10 vehicles x 10 miles).

**Year of expenditure dollars** – Today's construction dollar amount escalated per year to the year of anticipation of spending. The escalation rate can be based on an assumed inflation rate.

