

I-35 Statewide Corridor Plan: A Path to 2040

Transportation Planning & Programming Division

October 2016

Table of Contents

Exec	utive S	Summary	. V					
1.0	Introc	Introduction1						
2.0	Need	Need for Improvements						
	2.1 2.2 2.3 2.4	Population and Employment Growth Increases in Traffic and Congestion Safety Issues Purpose and Need for I-35 Improvements	4.4.5					
3.0	Techr		6					
	3.1 3.2 3.3	Windshield Survey Right-of-Way Assessment Bridges	.6 .7 .7					
	3.4 3.5	Crash Analysis Traffic Analysis1 3.5.1 Future Options1	.7 .0 .4					
4.0	Path t	to Implementation1	.8					
	4.1 4.2 4.3 4.4	Recommended Projects	.8 .8 25 28					

Tables

Table 1: I-35 Project Development Funding by District	vi
Table 2: Bridge Clearances along I-35	7
Table 3: Crash Rates per 100 Million VMT	8
Table 4: I-35 Vehicle Miles of Travel Summary	10
Table 5: I-35 Vehicle Miles of Travel Summary by TxDOT District	11
Table 6: TDM Strategies	17
Table 7: I-35 Project Development Strategy Funding by District	26

Figures

Figure 1: I-35 Percentage of Project Development Funding by District	vi
Figure 2: Near- and Long-Term Funding Needed for I-35	vii
Figure 3: I-35 Project Development Strategy	ix
Figure 4: 2014 VMT by Interstate	2
Figure 5: I-35 SCP Project Location Map	3
Figure 6: Crash Rate per Mile on I-35	9
Figure 7: 2040 VMT by Interstate	10
Figure 8: Level of Service in 2015 and 2040	12
Figure 9: Additional Lane Needs along the I-35 Corridor in 2040	13
Figure 10: Ramp Reversals	15
Figure 11: Auxiliary Lanes	15
Figure 18: I-35 Project Development Strategy Funding by District	26
Figure 19: Near- and Long-Term Funding Needed for I-35	26
Figure 20: Near- and Long-Term Funding Needed for I-35 by District	27

Appendix

Appendix A: I-35 Statewide Corridor Plan Recommended Projects Matrix

EXECUTIVE SUMMARY

The Interstate 35 (I-35) Statewide Corridor Plan (SCP) identifies future needs and recommended projects on I-35 between the international border with Mexico and the Oklahoma state line through the year 2040 beyond those that are currently and programmed. The Texas fully funded Department of Transportation (TxDOT) Transportation Planning & Programming Division (TPP) developed the I-35 SCP through coordination with other TxDOT Divisions, TxDOT Administration, and the seven TxDOT Districts along I-35.

The 42 projects recommended in the I-35 SCP provide a path to congestion relief for the I-35 corridor over the next 24 years.

I-35 has state, national, and international significance as a key transportation corridor for passengers and goods, acting as one of the state's most critical links both socially and economically. In 2014, the 21 counties along I-35 encompassed almost 40 percent of the Texas population and over 40 percent of Texas jobs. Population and employment along the I-35 corridor are projected to increase by 82 percent and 77 percent, respectively, by 2040. Traffic along the I-35 corridor is also projected to increase over the next 25 years. Between 2015 and 2040, vehicle miles of travel (VMT) during the morning peak period (6:30 to 8:30 am) is forecasted to increase by 58 percent and commercial vehicle VMT is forecasted to increase by 46 percent. I-35 contains approximately 18 percent of the total lane miles of the Texas interstate system but will account for over 30 percent of total VMT on the Texas interstate system in 2040.

One of the primary goals listed in the TxDOT 2015-2019 Strategic Plan is to maintain a safe system. The 5-year average crash rate per 100 million VMT for the I-35 corridor was higher than the Texas statewide interstate traffic crash rates for both rural and urban areas. Counties along I-35 that experienced the highest five-year crash rate per mile between 2009 and 2013 were Travis County (71.8 crashes per mile), Dallas County (69.9 crashes per mile), and Bexar County (59.3 crashes per mile), respectively.

Improvements are needed in the I-35 corridor between now and the year 2040 due to growing levels of congestion, related to both passenger and freight traffic, and safety issues in the corridor that have resulted in several locations with disproportionately high crash rates. These issues lead to increased vehicle delay, decreased safety, and have negative economic and environmental consequences to area residents, commuters, businesses, and freight movements.

v

Overall, the purpose of improvements to the I-35 corridor is to:

- Improve mobility;
- Improve safety; and
- Manage congestion.

Forty-two (42) added-capacity projects on I-35 are recommended to address the mobility and safety needs along the corridor. The 42 recommended I-35 SCP projects represent a \$25.6 billion funding gap for needed projects in the I-35 corridor. The I-35 SCP near-term projects, with anticipated completion by 2025, total \$16.7 billion and account for approximately 65 percent of the total needed funding for I-35. Implementation of the recommended projects will help meet the projected 2040 transportation needs along the I-35 corridor.

The recommended I-35 SCP projects represent a \$25.6 billion funding gap for needed projects in the I-35 corridor.

Figure 1 and Table 1 show the needed funding for I-35 SCP projects by District.

Table 1: I-35 Project Development Funding by District

District	I-35 SCP Projects
Wichita Falls	\$645,000,000
Dallas	\$7,547,780,195
Fort Worth	\$2,717,000,000
Waco	\$1,993,795,881
Austin	\$3,991,000,000
San Antonio	\$5,327,691,332
Laredo	\$3,343,000,000
Total	\$25,565,267,408





Figure 2 shows the funding break out between near-term and long-term projects recommended in the I-35 project development strategy which lays out a path to congestion relief on I-35.

vi

Figure 2: Near- and Long-Term Funding Needed for I-35



Figure 3 depicts the project development strategy that was produced in coordination with the seven TxDOT Districts along I-35. The project development strategy provides anticipated timelines for all of the recommended I-35 SCP projects based on when the improvement is needed, the current status of each project, the project development process, and input from the local District staff. The entire I-35 corridor would have 6 or more lanes by 2040 if the project development strategy were fully implemented. In order to move these projects forward, TxDOT will need to identify additional funding for I-35 as these projects are either partially funded or not funded at all.

Figure 3: I-35 Project Development Strategy



1.0 INTRODUCTION

Interstate 35 (I-35) extends 1,568 miles from the Texas/Mexico international border in Laredo to Duluth, Minnesota. The Texas portion of I-35 covers a distance of approximately 588 miles, including I-35 East and West in the Dallas-Fort Worth region, running between the international border with Mexico and the Oklahoma state line. I-35 is the key north-south artery of Texas, serving varied users daily such as commuters, freight trucks, and business travelers. As the only Interstate Highway connecting Mexico and Canada through the U.S. heartland, the I-35 corridor provides a critical link for Texans and the Texas economy to destinations throughout North America. In 2015, more truck traffic passed through the Port of Laredo where I-35 meets the Mexican border than any other border crossing in the United States. Over 2 million trucks entered the United States at Laredo in 2015, which was more than three times more trucks entering than at any other port in Texas that year.

Over 10 million Texans reside in the 21 counties along the I-35 corridor¹, accounting for almost 40 percent of the statewide population. As a measure of Texans' use of I-35, 13 out of the 100 Most Congested Roadway segments in Texas in 2015 were sections of I-35. Population in the counties along the I-35 corridor is projected to grow at a faster rate than the Texas statewide population through 2040. With the population in counties along I-35 projected to grow over 80 percent by 2040, congested conditions are expected to continue.

The I-35 corridor is vital to the Texas economy and plays a critical role in serving business productivity in the state. In 2014, over 40 percent of all Texas jobs were located in the 21 counties along I-35.² The diverse users of I-35 create substantial demand, with some sections of I-35 seeing over 200,000 vehicles a day.³ I-35 has 2,931 lane miles or 18 percent of total Texas interstate lane miles. Approximately 24 percent of all vehicle miles of travel (VMT) in 2014 on Texas interstates were on I-35, more than any other interstate in Texas, indicating more intensive usage.⁴ Figure 4 compares 2014 total VMT and truck VMT on five comparable interstate corridors in Texas.

I-35 accounts for 18 percent of the total lane miles and 24 percent of all vehicle miles traveled on the Texas interstate system.

¹ Texas State Data Center (TSDC) (2015). *Population Estimates Program July 1, 2013 and January 1, 2014 Estimates*. Retrieved August 2015 from

http://txsdc.utsa.edu/Resources/TPEPP/Estimates/2013/2013 txpopest county.pdf.

² United States Bureau of Labor Statistics. *Quarterly Census of Employment and Wages, 2013*

³ TxDOT Statewide Analysis Model – Version 3 (2013).

⁴ TxDOT Roadway Inventory (2014)



I-35 is also a critical component of the United States' national and international transportation system. I-35 is a vital route for freight traveling from Ports of Entry in South Texas to destinations beyond the Texas/Oklahoma border. In 2014, trucks accounted for approximately 17 percent of average daily traffic (ADT) on I-35.⁵ According to the American Transportation Research Institute, two of the 100 most congested freight locations in the United States in 2014 were within the Texas portion of I-35, with I-35 through downtown Austin listed as the 16th most congested location for freight in the country.

The North American Free Trade Agreement (NAFTA), signed in 1993, sought to eliminate barriers to trade and investment between the U.S., Canada, and Mexico. U.S. goods and

The number of trucks crossing the international border into Laredo via I-35 has increased 170 percent in the last 20 years. services trade through NAFTA totaled approximately \$1.2 trillion in 2014.⁶ The majority of trade between Mexico and the U.S. through Texas is transported by truck, primarily through Laredo, which conveyed approximately 53 percent of the daily truck volume between Texas and Mexico in 2015.⁷

This I-35 Statewide Corridor Plan (SCP) has been prepared to identify future needs and potential projects on I-35 through the year 2040 beyond those that are currently fully funded and programmed. **Section 4** describes a path towards implementing these recommended projects and provides a project development strategy for the I-35 corridor. **Figure 5** displays the I-35 SCP study area.

⁵ TxDOT Road Highway Inventory Network (2014).

⁶ United States International Trade Commission's Interactive Tariff and

Trade Data Web. Retrieved August 2015 from: http://dataweb.usitc.gov.

⁷ United States Department of Transportation Bureau of Transportation Statistics (2015).

Figure 5: I-35 SCP Project Location Map



2.0 NEED FOR IMPROVEMENTS

2.1 Population and Employment Growth

In 2014, almost 40 percent of Texans and over 40 percent of Texas jobs were located in the 21 counties along I-35. The population in the counties along the I-35 corridor is expected to increase from 9.7 million in 2010 to 17.7 million by 2040, an increase of approximately 82 percent.⁸ According to the U.S. Bureau of Labor Statistics, employment in the corridor has grown by approximately 17 percent over the last decade, from 4,071,102 jobs in 2005 to 4,749,402 jobs in 2014.⁹ Employment in the corridor is projected to grow by approximately 77 percent to 8,117,273 jobs by 2040.¹⁰

2.2 Increases in Traffic and Congestion

I-35 has state, national, and international significance as a key transportation corridor for passengers and goods, acting as one of the state's most critical links both socially and economically. Considerable growth in traffic volumes along the I-35 corridor in Texas is projected over the next 25 years.¹¹ Between 2015 and 2040, VMT during the morning peak period (6:30 to 8:30 am) is projected to increase by 58 percent over the entire corridor with a 55 percent increase along the urban sections and a 65 percent increase along the rural sections of I-35. I-35 serves as a key freight corridor linking the central United States to Mexico. The percentage of the total VMT that consists of truck traffic was higher for I-35 (30 percent) than for any other interstate in Texas during 2014. An increase in freight activity is anticipated to serve the increasing population along the I-35 corridor. Commercial truck vehicle VMT is forecasted to increase by 46 percent by 2040, a growth rate of approximately 1.5 percent annually. Increasing overall and freight traffic volumes in the I-35 corridor are expected to result in rising levels of congestion.

2.3 Safety Issues

The urban crash rate on I-35 in 2013 was 130.98 crashes per 100 million VMT, approximately 8.4 percent higher than the statewide urban crash rate for interstate facilities.¹² The rural crash rate on I-35 of 61.32 crashes per 100 million VMT was also slightly higher than the statewide rural interstate crash rate of 58.28 crashes per 100 million VMT. Several locations along the corridor emerged as crash hot spots or areas with five-year average crash rates more than 1.5 times the state average for Texas interstate highways. Safety issues are discussed further in **Section 3.4**.

11 Ibid.

4

⁸ Texas State Data Center (TSDC) (2016). Texas Population Projections Program 2014 Population Projections. Retrieved August 2016 from <u>http://txsdc.utsa.edu/Data/TPEPP/Projections/Index.aspx</u>.

⁹ United States Department of Labor Bureau of Labor Statistics. Quarterly Census of Employment and Wages. Retrieved June 2016 from http://www.bls.gov/

¹⁰ I-35 SCP Travel Demand Model developed using TxDOT Statewide Analysis Model Version 3 (SAM V-3).

¹² TxDOT Crash Records Information System (CRIS) data, 2009-2013

2.4 Purpose and Need for I-35 Improvements

Improvements are needed in the I-35 corridor between now and the year 2040 due to growing levels of congestion, related to both passenger and freight traffic, and safety issues in the corridor that have resulted in several locations with disproportionately high crash rates. These issues lead to increased vehicle delay, decreased safety, and have negative economic and environmental consequences to area residents, commuters, businesses, and freight movements.

Overall, the purpose of improvements to the I-35 corridor is to:

- Improve mobility;
- Improve safety; and
- Manage congestion.

3.0 TECHNICAL ANALYSIS

The I-35 SCP was developed based on technical analysis that included reviewing existing transportation plans and reviewing and analyzing I-35 facility and transportation data. The I-35 SCP project team (project team), which was comprised of TxDOT staff and their consultants, reviewed existing planning studies conducted by TxDOT, Metropolitan Planning Organizations (MPOs) along the I-35 corridor, Rural Planning Organizations, and other entities such as the I-35 Corridor Advisory Committee to determine the planning and programming status of currently proposed improvements on I-35. The following plans, programs, and studies were reviewed:

- State Transportation Improvement Program
- Unified Transportation Program
- Metropolitan Transportation Plans for North Central Texas Council of Governments (Dallas-Fort Worth), Waco MPO, Killeen-Temple MPO, Capital Area MPO (Austin), Alamo Area MPO (San Antonio) and Laredo MPO
- I-35 Corridor Advisory Committee Plan (My35 Plan)
- Draft Texas Freight Mobility Plan
- Texas Oklahoma Passenger Rail Study
- Dallas to Fort Worth High Speed Rail
- LoneStar Rail
- Texas Rail Plan

Next, the project team collected and reviewed facility and transportation data to determine existing and future forecasted conditions on I-35 and to identify proposed improvements within the I-35 corridor. This existing data was collected to determine where physical constraints or other conditions could restrict the expansion of I-35 to accommodate the additional roadway capacity required to meet the projected travel demand in the future. The following sections describe the components of the I-35 SCP technical analysis.

3.1 Windshield Survey

The project team conducted a windshield survey of the entire I-35 corridor from the Texas/Oklahoma state line to the Texas/Mexico border in September 2014. The survey was conducted by driving the northbound and southbound mainlanes and included a video corresponding to each mile marker along the corridor. The windshield survey was used to verify existing conditions on the I-35 corridor.

3.2 Right-of-Way Assessment

The project team met with each of the seven TxDOT Districts along the I-35 corridor to confirm existing I-35 right-of-way (ROW) boundaries and request updates on any new ROW TxDOT had acquired since a previous 2011 ROW data collection effort on I-35. Each of the TxDOT Districts confirmed that minimal ROW had been purchased along the corridor since TxDOT's 2011 ROW data collection effort.

3.3 Bridges

The project team identified locations within the I-35 corridor where existing bridge infrastructure could present a height challenge to freight mobility. The 2012 TxDOT Bridge Project Development Manual requires a 16-foot, 6-inch minimum vertical clearance over the roadway on all new interstate overpasses. Further, a 18-foot, 6-inch minimum for interstate overpasses is recommended in the Texas Freight Mobility Plan.¹³ Bridges with less than the recommended and minimum vertical clearances were highlighted as an opportunity for long-term transportation improvements related to freight mobility when other capacity-related improvements are made to I-35 in the future. Currently, approximately 40 percent of bridges along I-35 do not meet the 16-foot, 6-inch minimum vertical clearance standard and just over 15 percent of I-35 bridges meet the 18-foot, 6-inch minimum clearance recommended in the Texas Freight Mobility Plan. Table 2 provides information about the bridge clearances along I-35 based on Light Detection and Ranging (LIDAR) Survey Data that was collected in 2012 for TxDOT's Rail Division.

	Less than 16'6" 16'6" and less than 18'6"		18'6" and Greater	Total
Number of Bridges	128	137	49	314
Percent of Total	40.8%	43.6%	15.6%	100%

Table 2: Bridge Clearances along I-35

3.4 Crash Analysis

One of TxDOT's primary goals is to reduce traffic-related crash rates and fatalities.¹⁴ Therefore, safety was an important consideration in the I-35 SCP process. The project team conducted a crash analysis for the I-35 corridor that compared crash rates on I-35 to statewide averages for all Texas interstates. The crash analysis was conducted using TxDOT crash data collected between 2009 and 2013, which was the most readily available crash

¹³ TxDOT (2016). Texas Freight Mobility Plan.

¹⁴ TxDOT. Educational Series: Road and Bridge Safety (2015). Government Affairs Office. Retrieved on January 8, 2015 from http://ftp.dot.state.tx.us/pub/txdot-info/sla/education_series/safety.pdf.

data at the time the analysis was conducted. The TxDOT crash data represents reportable data collected from the Texas Peace Officer's Crash Reports.

A total of 70,492 crashes were reported along the Texas portion of I-35 between 2009 and 2013, 63,457 (90 percent) of which occurred in urban areas. The 5-year average crash rate per 100 million VMT for the I-35 corridor was higher than the Texas statewide interstate traffic crash rates for both rural and urban areas. **Table 3** compares the urban and rural crash rate on I-35 to that of the Texas interstate system.

	Rural	Urban
I-35	61.32	130.98
Texas Interstates	58.28	120.84

Table 3: Crash Rates per 100 Million VMT

Source: TxDOT Crash Data, 2009 - 2013 and TxDOT Roadway Inventory, 2013

The project team also calculated crash rates per mile in order to evaluate crash distribution among the I-35 counties. Counties experiencing the highest five-year crash rate per mile were Travis County (71.8 crashes per mile), Dallas County (69.9 crashes per mile), and Bexar County (59.3 crashes per mile), respectively. **Figure 6** illustrates the crash rate per mile values along I-35. Red roadway segments have the highest crash rates per mile and dark green roadway segments have the lowest crash rates per mile.

Figure 6: Crash Rate per Mile on I-35



3.5 Traffic Analysis

The project team developed travel demand forecasts for the I-35 corridor using TxDOT's Statewide Analysis Model Version 3 (SAM V-3). The 2040 scenario included all capacity-expansion projects that are funded or programmed to occur by 2040 (e.g. contained in a financially-constrained transportation plan).

VMT measures travel activity along the corridor and is a function of traffic volume times the length of the highway segment that the volume moves. **Table 4** provides VMT for 2015 and 2040 for both passenger automobiles and commercial trucks. In addition, the average annual growth rate (AAGR) and project percentage change between 2015 and 2040 are provided. As shown in **Table 4**, total VMT is projected to increase by 63 percent by 2040.

I-35 Traffic Composition							
Daily VMT	2015	2040	AAGR	Percent Change			
Passenger Auto VMT	42,443,503	70,464,632	2.0%	66%			
Commercial Truck VMT	8,412,102	12,286,145	1.5%	46%			
Total VMT	50,855,605	82,750,777	2.0%	63%			
Percentage Truck VMT	16.5%	14.8%	r	n/a			
Source: TxDOT SAM V-3							

Table 4: I-35 Vehicle Miles of Travel Summary

According to TxDOT's SAM V-3, travel on I-35 will continue to account for over 30 percent of total VMT and truck VMT on Texas interstate facilities in 2040. **Figure 7** shows projected 2040 total VMT and truck VMT on five comparable interstate corridors in Texas.



Figure 7: 2040 VMT by Comparable Interstate

VMT by TxDOT District is provided in **Table 5.** As shown in **Table 5**, the projected average annual growth rate in I-35 VMT between 2015 and 2040 ranges from 1.6 to 2.8 percent within the TxDOT Districts along the I-35 corridor.

Estimated 2015 and 2040 Vehicle Miles of Travel and Average Annual Growth Rates by District									
District	District 2015 VMT 2040 VMT AAGR								
Wichita Falls	910,505	1,807,435	2.8%						
Dallas	13,830,016	22,210,901	1.9%						
Ft. Worth	5,370,282	8,245,934	1.7%						
Waco	7,315,924	13,426,150	2.5%						
Austin	10,601,043	15,702,749	1.6%						
San Antonio	9,663,034	15,142,537	1.8%						
Laredo	3,164,799	6,215,068	2.7%						
Total	50,855,603	82,750,774	2.1%						

Table 5: I-35 Vehicle Miles of Travel Summary by TxDOT District

Level of service (LOS) is a qualitative measure that describes operational conditions along a roadway section. LOS is designated on a scale of A through F, with LOS A indicating free-flow travel conditions and LOS F indicating very congested travel conditions with considerable delays. The LOS for the I-35 corridor in 2015 and 2040 are depicted in **Figure 8**. This figure shows that several sections of I-35 that experience LOS A through C in 2015 are anticipated to experience an increase in volume, going to LOS D through F, by 2040. This increase in congestion is anticipated even when currently planned future projects are implemented.

The TxDOT Roadway Design manual states that to achieve acceptable degrees of congestion, urban freeways and their auxiliary facilities should generally be designed for LOS C in the design year. In heavily developed urban areas, LOS D may be acceptable. In rural areas, LOS B is desirable for freeway facilities. In many instances, I-35 already exceeds LOS values of B and C for rural and urban sections, respectively. Given the nature of I-35, using a standard of LOS B and C for rural and urban sections would produce unobtainable capacity requirements for much of the corridor. Therefore, capacity needs along I-35 were identified against a standard of LOS C and D for rural and urban sections of I-35, respectively.

The number of additional travel lanes needed for I-35 to have acceptable urban and rural congestion was identified by adding a lane in each direction for I-35 and rerunning the traffic model until the desired LOS was achieved. **Figure 9** depicts the number of additional lanes that would be needed through the I-35 corridor to achieve the desired LOS in 2040. The identified needed lanes would be in addition to any capacity-enhancement projects that are already funded or programmed in financially constrained transportation plans.



Figure 8: Level of Service in 2015 and 2040



Figure 9: Additional Lane Needs along the I-35 Corridor in 2040

3.5.1 Future Options

Traffic modeling performed for the I-35 SCP indicates that portions of the I-35 corridor would require as many as 12 additional lanes by 2040 in order to achieve an acceptable LOS. Environmental, social, and financial constraints limit the potential expansion of I-35 in certain locations, particularly in the major urban areas of Dallas, Fort Worth, Austin, and San Antonio. As a result, widening to accommodate the number of lanes that may be needed based on the travel demand modeling that was performed may not be feasible. Thus, building our way out of congestion within the existing I-35 corridor is not an option. Other alternatives beyond adding additional pavement and capacity will need to be considered in the future to accommodate the projected travel demand.

The project team identified potential future options that could allow for alternative approaches to meeting projected future travel demand within the I-35 corridor. These alternatives include operational efficiency improvements, improved multimodal options and connectivity, travel demand management strategies, and intelligent transportation systems. Without implementation of these alternative future options, travel demands within the I-35 corridor will not come close to being met within many of the metropolitan areas along the I-35 corridor by the year 2040.

3.5.1.1 Operational Efficiency Improvements

Operational efficiency improvements are highway improvements that do not involve adding more general purpose lanes. The goal of the improvements is to improve traffic flow. These improvements could include ramp modifications, installing or extending auxiliary lanes, intersection improvements, signage and pavement markings.

Ramp modifications could be implemented in areas where entrance and exit ramps do not meet current design standards or in heavily congested areas that experience ramp traffic backups. The modifications could help to correct existing design deficiencies in order to move traffic on, off, and through the facility more effectively. Ramp modifications could include moving or removing existing entrance and exit ramps, extending ramps, or reversing entrance and exit ramps. **Figure 10** depicts a traditional diamond ramp configuration and a reconfigured "X" ramp design where the entrance and exit ramps have been reversed to help improve safety and reduce congestion.



Figure 10: Ramp Reversals

Source: Texas A&M Transportation Institute, System Modification Strategies – Ramp Reconfiguration

Auxiliary lanes are extra lanes that are constructed between interchanges. Auxiliary lanes provide room for drivers to safely increase and decrease speed when entering and exiting the interstate. Interstate auxiliary lanes are depicted in **Figure 11**.



Figure 11: Auxiliary Lanes

3.5.1.2 Improved Multimodal Options and Connectivity

Addressing future transportation demand in the I-35 corridor requires a comprehensive approach that provides connected multimodal options. A high-quality, interconnected multimodal transportation system would provide travelers with alternatives to traveling on I-35 in single-occupancy vehicles. In addition to reducing total trips on I-35, a comprehensive and connected multimodal transportation system also serves a broader cross-section of the Texas population, including the elderly, disabled, and low-income Texans who rely on public transit. Future improvements to I-35 should consider the inclusion of accessible multimodal options on or adjacent to the corridor. Improved multimodal options could include fixed-route bus service, bus rapid transit (BRT), light rail, and bicycle and pedestrian facilities that are interconnected and provide access to, across, and along I-35.

3.5.1.3 Travel Demand Management Strategies

According to the 2009 National Household Travel Survey (NHTS), work trips account for over a quarter of all vehicle miles traveled by households. Travel Demand Management (TDM) strategies involve ways to reduce travel demand and single occupancy vehicle trips, particularly trips taken to commute to work. TDM strategies can be voluntary or mandatory and involve cooperation among state agencies, major employers, and legislators. TDM strategies include flexible work hours, compressed work weeks, telecommuting, ridesharing, and enhanced transit options. Implementation of TDM strategies can be targeted at both reducing overall congestion and reducing congestion during peak travel periods. **Figure 12** shows the average annual travel activity per household by trip purpose. **Table 6** provides more information about some TDM strategies that could be implemented within the I-35 corridor.



Figure 12: 2009 NHTS Average Annual Travel Activity per Household by Purpose

Table 6: TDM Strategies

Strategy	Strategy Description	Potential Impacts
Flexible Work Hours	Allow employees to work outside of normal business hours, potentially avoiding peak traffic periods.	Peak period reduction in traffic and congestion.
Compressed Work Weeks	Eliminate a day from employees' schedules by compressing hours into a shorter work week.	Overall reduction in traffic and congestion.
Telecommuting	Allow employees to work from home or at other remote locations.	Overall reduction in traffic and congestion.
Ridesharing	Promote carpooling by facilitating the development of employee carpools and/or vanpools.	Overall reduction in traffic and congestion.
Enhanced Transit Options	Provide incentives for employees to choose transit alternatives over commuting by single occupancy vehicles.	Overall reduction in traffic and congestion.

3.5.1.4 Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) are tools that promote mobility and safety by enhancing communications and collecting data among various transportation systems. Current examples of ITS on the I-35 corridor include Dynamic Message Signs, traffic detection devices, and lane control signals. These devices help roadway users obtain real-time information about accidents and traffic, manage congestion at intersections, and provide information about anticipated travel times.

As existing technologies advance and new technologies emerge, the application of ITS on I-35 will also change. For example, ITS could support the functioning of autonomous and connected vehicles on I-35 by 2040. The TxDOT Office of Strategic Planning has assembled a Texas Technology Task Force to identify key emerging technologies and analyze the potential impacts of those technologies on our transportation system. The Task Force has studied several topics related to technology's transformative influence on transportation including connected vehicles, autonomous vehicles, big data, drone technology, and growing e-commerce. The next step for the Task Force is to develop a Strategic Technology Business Plan with goals and objectives for technology adoption and promotion. This plan will have a statewide focus, but its recommendations should be considered when implementing the future options discussed in this section along I-35.

4.0 PATH TO IMPLEMENTATION

4.1 Recommended Projects

Following the review and analysis of facility and transportation data, the project team identified locations in each of the seven TxDOT Districts along the I-35 corridor where there was an existing or anticipated future transportation need.

Based on the findings of the I-35 SCP technical analysis, the project team developed an initial list of proposed projects needed in the I-35 corridor. The project team also developed a technical project matrix that integrated the results of the technical analysis. Information included in the technical project matrix was used to develop a preliminary project development schedule. The I-35 SCP project team then met with each of the seven TxDOT Districts along I-35 during the summer of 2015 to get their feedback on the projects proposed in their District.

The project team conducted additional technical analyses to assist with the evaluation of the proposed I-35 projects. These analyses included a preliminary environmental screening, high-level cost assessment, and high-level ROW assessment. Summaries of the results of the environmental, cost, and ROW analyses are included in the I-35 SCP recommended projects matrix in **Appendix A**.

The I-35 SCP recommended projects are based on technical analysis and consultation with TxDOT Districts, Divisions, and Administration. **Section 4.2** describes how the timing of the projects was developed.

4.2 Project Development Strategy

The project team coordinated with the seven TxDOT Districts along I-35 to establish a project development strategy for the recommended I-35 SCP projects. Some of the projects recommended in the I-35 SCP had previously been identified through other planning efforts, but are not fully funded. In some cases, previously identified projects may have already advanced beyond the planning and programming phase of the project development process. Project timelines were developed to correspond with the general project development except when District input indicated that a shorter or longer timeframe would be needed to develop the project.



The project development strategy provides anticipated timelines for all of the recommended I-35 SCP projects based on the current status of each project, the project development process described above, and input from the respective project District staff. The project development strategy graphic also depicts the number of lanes, including general purpose and managed lanes, that would be on I-35 from 2015 to 2040 if all currently scheduled improvements as well as all recommended I-35 SCP projects were implemented. As shown in **Figure 14**, the entire I-35 corridor in Texas would have 6 or more lanes by 2040 if the project development strategy were fully implemented.

I-35 Statewide Corridor Plan





Without implementation of the I-35 SCP project development strategy, over half of the I-35 corridor is anticipated to function at LOS E or F by 2040, even when all other currently planned future projects are implemented. **Figure 15** shows the 2015 percentage of I-35 lane miles by LOS category compared to the projected 2040 LOS breakdown. The I-35 project development strategy presented in **Figure 16** lays out a path to congestion relief for the I-35 corridor over the next 24 years. The 42 I-35 SCP recommended projects are shown on the map in **Figure 17**. More detailed descriptions for each of the recommended projects can be found in **Appendix A**.

Figure 15: Percent of I-35 Lane Miles by LOS in 2015 and 2040



Figure 16: I-35 Project Development Strategy



Figure 17: I-35 SCP Recommended Projects



4.3 Conclusions

The majority of existing funding for highway improvements in Texas has traditionally come from state motor fuel taxes, vehicle registration fees, and federal motor fuel taxes allocated through the Federal Highway Trust Fund. In 2014, Texans voted in support of Proposition 1, a ballot measure that authorized a constitutional amendment to secure additional transportation funding by redirecting a portion of revenues collected through existing oil and gas taxes. Passage of Proposition 1 resulted in an additional \$1.7 billion of transportation funding in 2015 to be used for construction, maintenance, rehabilitation and ROW acquisition for public roads.

In 2015, Texas voters approved Proposition 7, a constitutional amendment to divert \$2.5 billion from the general sales and use tax revenue to the State Highway Fund after those revenues exceed \$28 billion per year. Proposition 7 also directs 35 percent of motor vehicle sales tax revenue to the State Highway Fund after those revenues exceed \$5 billion per year. Proposition 7 is anticipated to provide an additional \$2.5 billion in fiscal year 2018-19 to the State Highway Fund.

Despite this infusion, TxDOT still anticipates that currently available revenues will not be sufficient to address the projected needs of the Texas transportation system in 2040.¹⁵ Approximately \$5 billion in additional revenue annually, a near doubling of existing revenues of \$5.5 billion annually, would be needed just to maintain current conditions on the Texas highway system according to TxDOT projections.¹⁶

The 42 recommended I-35 SCP projects represent a \$25.6 billion funding gap over the next 25 years for the I-35 corridor alone. This amounts to over \$1 billion per year in 2015 dollars that would be needed for I-35 between 2015 and 2040. **Figure 18** and **Table 7** show the needed funding for I-35 SCP projects by District.

¹⁵ TxDOT (2016). Texas Transportation Plan 2040. ¹⁶ Ibid.

Table 7: I-35 Project Development Funding by District

District	I-35 SCP Projects
Wichita Falls	\$645,000,000
Dallas	\$7,547,780,195
Fort Worth	\$2,717,000,000
Waco	\$1,993,795,881
Austin	\$3,991,000,000
San Antonio	\$5,327,691,332
Laredo	\$3,343,000,000
Total	\$25,565,267,408





The I-35 SCP near-term projects, with anticipated completion by 2025, total \$16.7 billion and account for approximately 65 percent of the total needed funding for I-35. In order to move these projects toward implementation, TxDOT will need to work with the legislature to identify funding for I-35 during the next legislative session in 2017. **Figures 19** and **20** show the funding break out between near-term and long-term projects as well as the percentage of funding that would be needed by District in the near- and long- term according to the I-35 project development strategy.



Figure 19: Near- and Long-Term Funding Needed for I-35







4.4 Next Steps

It is important that TxDOT work toward securing funding for the recommended I-35 SCP projects in order to address the mobility, safety, and congestion needs of the corridor. Communicating the plan to the Texas Transportation Commission, the Texas Legislature, and others is a critical next step to advancing these projects and starting the funding discussion. The I-35 SCP projects can then be included in applicable long-range planning documents (e.g., MTP, UTP) and short-range planning programs (e.g., STIP, TIP). The projects would then be able to proceed to further stages of project development as funding is identified. After approval of the preliminary design schematic and environmental clearance, projects could advance to final design, letting, and construction. TxDOT's Transportation Planning and Programming Division would continue to work with the TxDOT Districts along I-35 to advance the recommended I-35 SCP projects throughout the project development process.

Appendix A: I-35 Statewide Corridor Plan Recommended Projects Matrix

Project Map ID	Facility	Limits	Description	Planning Status	100 Most Congested Roadways Ranking (2016)	Environmental Status	Anticipated ROW Needs	Uninflated Construction Cost Estimate
I35_WFS_A	I-35	South of US 82 to Exit 1 in Oklahoma	Widen from 4 to 6 lanes	A capacity need for this section of I-35 is identified in the Texas Rural Transportation Plan.	N/A	TxDOT initiated an Environmental Assessment (EA) in December 2014 for the proposed widening of I-35 to 6/8 lanes (interim/ultimate) and realignment of the Burlington Northern Santa Fe rail line. An environmental decision is anticipated in 2016. Additional information regarding this EA can be found at: http://www.txdot.gov/, keyword search "I-35 Improvement Project in Cooke County."	Based on the schematic design completed for the project's environmental document, acquisition of additional right of way is anticipated.	\$190,000,000
I35_WFS_B	I-35	North of FM 3002 to South of US 82	Widen from 4 to 6 lanes	A capacity need for this segment of I-35 is identified in the Texas Rural Transportation Plan.	N/A	TxDOT initiated an EA in December 2014 for the proposed widening of I-35 to 6/8 lanes (interim/ultimate) and realignment of the Burlington Northern Santa Fe rail line. An environmental decision is anticipated in 2016. Additional information regarding this EA can be found at: http://www.txdot.gov/, keyword search "I-35 Improvement Project in Cooke County."	Based on the schematic design completed for the project's environmental document, acquisition of additional right of way is anticipated.	\$320,000,000
I35_WFS_C	I-35	South of US 82 to Red River Bridge	Widen from 6 to 8 lanes	A capacity need for this section of I-35 is identified in the Texas Rural Transportation Plan.	N/A	TxDOT initiated an EA in December 2014 for the proposed widening of I-35 to 6/8 lanes (interim/ultimate) and realignment of the Burlington Northern Santa Fe rail line. An environmental decision is anticipated in 2016. Additional information regarding this EA can be found at: http://www.txdot.gov/, keyword search "I-35 Improvement Project in Cooke County."	Based on the schematic design completed for the project's environmental document, acquisition of additional right of way is anticipated.	\$26,000,000
135_WFS_D	I-35	North of FM 3002 to South of US 82	Widen from 6 to 8 lanes	A capacity need for this section of I-35 is identified in the Texas Rural Transportation Plan.	N/A	TxDOT initiated an EA in December 2014 for the proposed widening of I-35 to 6/8 lanes (interim/ultimate) and realignment of the Burlington Northern Santa Fe rail line. An environmental decision is anticipated in 2016. Additional information regarding this EA can be found at: http://www.txdot.gov/, keyword search "I-35 Improvement Project in Cooke County."	Based on the schematic design completed for the project's environmental document, acquisition of additional right of way is anticipated.	\$52,000,000

I-35 Statewide Corridor Plan Recommended Projects Matrix - Wichita Falls District

Note: Information included in this table is current as of October 2016.

October 2016

Project Map ID	Facility	Limits	Description	Planning Status	100 Most Congested Roadways Ranking (2016)	Environmental Status	Anticipated ROW Needs	Uninflated Construction Cost Estimate
I35_WFS_E	Burlington Northern Santa Fe Rail Line	Spring Creek Road to Hockley Road	Relocate the existing rail line prior to beginning the widening of I-35 from 4 to 6 lanes from FM 3002 to south of US 82	A capacity need for this section of I-35 is identified in the Texas Rural Transportation Plan.	N/A	TxDOT initiated an EA in December 2014 for the proposed widening of I-35 to 6/8 lanes (interim/ultimate) and realignment of the Burlington Northern Santa Fe rail line. An environmental decision is anticipated in 2016. Additional information regarding this EA can be found at: http://www.txdot.gov/, keyword search "I-35 Improvement Project in Cooke County."	Based on the schematic design completed for the widening of I-35 to 8 lanes from 0.7 miles north of FM 3002 to 0.2 miles south of US 82 project's environmental document, acquisition of additional right of way is anticipated for this proposed rail line relocation project.	\$27,000,000
I35_WFS_F	I-35	Denton County Line to North of FM 3002	Widen from 6 to 8 lanes	A capacity need for this section of I-35 is identified in the Texas Rural Transportation Plan.	N/A	A National Environmental Policy Act (NEPA) study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include floodplains.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated	\$30,000,000

I-35 Statewide Corridor Plan Recommended Projects Matrix - Wichita Falls District

October 2016

I-35 Statewide Corridor Plan Recommended Projects - Dallas District

Project Map ID	Facility	Limits	Description	Planning Status	100 Most Congested Roadways Ranking (2016)	Environmental Status	Anticipated ROW Needs	Uninflated Construction Cost Estimate
I35_DAL_A	I-35	US 380 to North of FM 3002	Widen from 4 to 6 lanes	This project is identified in the Metropolitan Transportation Plan (MTP) for the North Central Texas Council of Governments (NCTCOG).	N/A	A NEPA study has not been initiated for this proposed project but is anticipated to begin in 2016. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include community resources, cultural resources, hazardous materials, and water resources including a stream crossing at Clear Creek.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$621,000,000
I35_DAL_B	I-35	US 380 to Denton/Cooke County Line	Widen from 6 to 8 lanes	This project is identified in the MTP for the NCTCOG.	N/A	A NEPA study has not been initiated for expansion to 8 lanes from US 380 to the Denton/Cooke County Line. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include community resources, cultural resources, hazardous materials, environmental justice, and water resources including a stream crossing at Clear Creek.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$239,000,000
I35_DAL_C	I-35W	SH 170 to I-35E/ I-35W split (North)	Widen from 4 to 6 lanes and add concurrent managed lanes	Denton County is conducting a feasibility study to look at capacity improvements. This project is identified in the MTP for the NCTCOG.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include floodplains, wetlands, parks, hazardous materials, and the Denton Creek stream crossing.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$747,000,000
I35_DAL_D	I-35E	North of I-635 to US 380	Widen from 6 to 8 lanes and widen from 2 to 4 managed lanes from north of I-635 to Turbeville Road; Widen from 1 to 2 managed lanes from Turbeville Road to US 380.	This project is identified in the MTP for the NCTCOG. Phase 1 construction is currently underway.	18	Three Findings of No Significant Impact (FONSI) for Phases 1 and 2 were issued in January 2011, December 2011, and January 2012.	Based on the schematic design completed for the project's environmental document, acquisition of additional right of way is anticipated.	\$3,400,000,000

Note: Information included in this table is current as of October 2016.

October 2016

6

Project Map ID	Facility	Limits	Description	Planning Status	100 Most Congested Roadways Ranking (2016)	Environmental Status	Anticipated ROW Needs	Uninflated Construction Cost Estimate
I35_DAL_E	I-35E	SH 183 to Loop 12	Widen from 6 to 8 lanes	This project is identified in the MTP for the NCTCOG.	N/A	A FONSI was issued in June 2005 for the reconstruction and widening of I 35E from SH 183 to Loop 12.	Based on the schematic design completed for the project's environmental document, acquisition of additional right of way is anticipated.	\$200,000,000
I35_DAL_F	I-35E	North of Oak Lawn Avenue to I-35E/SH 183 split	Add managed lanes and reconstruct the existing 6/8 lane facility	This project is identified in the MTP for the NCTCOG and the TxDOT 2017 Unified Transportation Program.	8	A FONSI was issued in July 2005 for the reconstruction of the existing facility and addition of managed lanes on I-35E from north of Oak Lawn Avenue to the I-35E/SH 183 split. It is likely that a re-evaluation would be necessary due to the amount of time that has lapsed since the FONSI was issued.	Based on the schematic design completed for the project's environmental document, acquisition of additional right of way is anticipated.	\$597,560,770*
I35_DAL_G	I-35E	I-30 to north of Oak Lawn Avenue	Construct 5 collector- distributor roads and reconstruct frontage roads	This project is not included in the current MTP for the NCTCOG. Operational improvements by 2027 on I-35E from north of Oak Lawn Avenue to I-35E/SH 183 split are included in the MTP.	8	A FONSI was issued in July 2005 for interim operational improvements from 8 th Street to Empire Central Drive. A new EA is currently being prepared for operational improvements to I-35E from I-30 to north of Oak Lawn Avenue.	Based on the schematic design completed for the project's environmental document, acquisition of additional right of way is anticipated.	\$756,000,000
I35_DAL_H	I-35E	US 67 to I-30	Widen from 8 to 10 lanes and convert HOV lanes to managed lanes	This project is identified in the Metropolitan Transportation Plan for the North Central Texas Council of Governments and the TxDOT 2017 Unified Transportation Program.	17	TxDOT initiated an EA in Fall 2015 for the proposed widening and improvements to I-35E from US 67 to I-30 and the EA is anticipated for completion by the end of 2016. The draft EA is available at: http://thesoutherngateway.org/	According to a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$545,219,425*

I-35 Statewide Corridor Plan Recommended Projects - Dallas District

* Construction cost estimate from TxDOT 2017 Unified Transportation Program

October 2016

I-35 Statewide Corridor Plan Recommended Projects - Dallas District

Project Map ID	Facility	Limits	Description	Planning Status	100 Most Congested Roadways Ranking (2016)	Environmental Status	Anticipated ROW Needs	Uninflated Construction Cost Estimate
I35_DAL_I	I-35E	I-20 to US 67	Reconstruct/widen from 6 to 8 lanes	This project is identified in the Metropolitan Transportation Plan for the North Central Texas Council of Governments.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include community resources, cultural resources, hazardous materials, ecosystems with high habitat value, and a stream crossing at Five Mile Creek.	According to a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$90,000,000
I35_DAL_J	I-35E	US 77 north of Waxahachie to Belt Line Road	Widen from 6 to 8 lanes	Formal planning efforts have not begun for this project.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include community resources, environmental justice communities, ecosystems with high habitat value, floodplains, and a stream crossing at Red Oak Creek	According to a high-level preliminary assessment, acquisition of additional right of way is anticipated	\$127,000,000
I35_DAL_K	I-35E	US 77 south of Waxahachie to US 77 north of Waxahachie	Widen from 6 to 8 lanes	Formal planning efforts have not begun for this project.	N/A	A NEPA study has not been initiated for expansion to 8 lanes from US 77 south of Waxahachie to US 77 north of Waxahachie. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include water resources and ecosystems with high habitat value.	According to a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$225,000,000

October 2016

10

I-35 Statewide Corridor Plan Recommended Projects – Fort Worth District

Project Map ID	Facility	Limits	Description	Planning Status	100 Most Congested Roadways Ranking (2016)	Environmental Status	Anticipated ROW Needs	Uninflated Construction Cost Estimate
I35_FTW_A	I-35W	North of I-30 to Eagle Parkway	Widen from 4 to 6 lanes from north of US 81/287 to Eagle Parkway; Widen from 4 to 8 lanes and widen from 2 to 3 managed lanes from north of I-820 to north of US 81/287; and Widen from 4/6 lanes to 8 lanes from north of I-30 to north of I-820.	This project is identified in the MTP for the NCTCOG.	23, 31	A FONSI was issued in March 2012 for the reconstruction and widening of I-35W from north of I-820 to Eagle Parkway, and a separate FONSI was issued in August 2012 for the widening of I-35W from north of I-30 to north of I-820.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$850,000,000
I35_FTW_B	I-35W	SH 174 to I-20	Widen from 6 to 8 lanes	This project is identified in the MTP for the NCTCOG.	N/A	A NEPA study has been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include community resources, environmental justice communities, floodplains, wetlands, and hazardous materials.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$482,000,000
I35_FTW_C	I-35W	US 67 to SH 174	Widen from 4 to 6 lanes	This project is identified in the MTP for the NCTCOG.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include community resources, cultural resources, hazardous materials, and water resources including floodplains and the Village Creek crossing.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$647,000,000
I35_FTW_D	I-35W	US 67 to I-20	Widen from 6 to 8 lanes from US 67 to SH 174 and widen from 8 to 10 lanes from SH 174 to I-20	Formal planning efforts have not begun for this project.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include community and cultural resources, environmental justice communities, floodplains, a stream crossing at Village Creek, and hazardous materials.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$372,000,000

Note: Information included in this table is current as of October 2016.

October 2016

I-35 Statewide Corridor Plan Recommended Projects – Fort Worth District

Project Map ID	Facility	Limits	Description	Planning Status	100 Most Congested Roadways Ranking (2016)	Environmental Status	Anticipated ROW Needs	Uninflated Construction Cost Estimate
I35_FTW_E	I-35W	Hill/Johnson County Line to US 67	Widen from 4 to 6 lanes	Formal planning efforts have not begun for this project.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include community resources, floodplains, wetlands, and a stream crossing at South Fork Chambers Creek.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$366,000,000

October 2016

Project Map ID	Facility	Limits	Description	Planning Status	100 Most Congested Roadways Ranking (2016)	Environmental Status	Anticipated ROW Needs	Uninflated Construction Cost Estimate
I35_WAC_A	I-35W	I-35E/I-35W split (South) to Hill/Johnson County Line	Widen from 4 to 6 lanes	A capacity need for this section of I-35 is identified in the Texas Rural Transportation Plan.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include cultural resources, floodplains and hazardous materials.	Based on a high-level preliminary assessment, acquisition of additional right of way is not anticipated.	\$220,000,000
I35_WAC_B	I-35E	I-35E/I-35W split (South) to Hill/Ellis County Line	Widen from 4 to 6 lanes	Formal planning efforts have not begun for this project.	N/A	A NEPA study has not been initiated for this project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include floodplains, wetlands, ecosystems with high habitat value, and hazardous materials.	Based on a high-level preliminary assessment, acquisition of additional right of way is not anticipated.	\$100,000,000
I35_WAC_C	I-35	North Loop 340 to SH 22/ SH 171	Widen from 6 to 8 lanes	A capacity need is for this section of I-35 is identified in the Texas Rural Transportation Plan from SH 22/171 to the Hill/McLennan County line.	N/A	A NEPA study has not been initiated for expansion to 8 lanes from North Loop 340 to SH 22/171. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include cultural resources, environmental justice communities, floodplains, ecosystems with high habitat value, and hazardous materials.	Based on a high-level preliminary assessment, acquisition of additional right of way is not anticipated.	\$452,000,000
I35_WAC_D	I-35	South Loop 340 to North Loop 340	Widen from 6 to 8 lanes	This project is identified in the MTP for the Waco Metropolitan Planning Organization (MPO) and the TxDOT 2017 Unified Transportation Program.	N/A	A NEPA study has not been initiated for expansion to 8 lanes from South Loop 340 to North Loop 340. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include cultural resources, environmental justice communities, a stream crossing at the Brazos River crossing, floodplains, wetlands, ecosystems with high habitat value, and hazardous materials.	Based on a high level preliminary assessment, acquisition of additional right of way is not anticipated.	\$436,795,881*

I-35 Statewide Corridor Plan Recommended Projects – Waco District

* Construction cost estimate from TxDOT 2017 Unified Transportation Program

Note: Information included in this table is current as of October 2016.

October 2016

16

Project Map ID	Facility	Limits	Description	Planning Status	100 Most Congested Roadways Ranking (2016)	Environmental Status	Anticipated ROW Needs	Uninflated Construction Cost Estimate
I35_WAC_E	I-35	North Loop 363 to South Loop 340	Widen from 6 to 8 lanes	Formal planning efforts have not begun for this project.	N/A	A NEPA study has not been initiated for expansion to 8 lanes from North Loop 363 to South Loop 340. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include cultural resources, environmental justice communities, floodplains, wetlands, ecosystems with high habitat value, and hazardous materials.	Based on a high-level preliminary assessment, acquisition of additional right of way is not anticipated.	\$418,000,000
I35_WAC_F	I-35	US 190 to South Loop 363	Widen from 6 to 8 lanes	This project is identified in the MTP's Illustrative list for the Killeen-Temple MPO.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include cultural resources, environmental justice communities, floodplains, wetlands, stream crossings at South Nolan Creek and the Leon River below Belton Lake, parks, and hazardous materials.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$130,000,000
135_WAC_G	I-35	Williamson/Bell County Line to US 190	Widen from 6 to 8 lanes	Formal planning efforts have not begun for this project.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include cultural resources, environmental justice communities, floodplains, wetlands, ecosystems with high habitat value, stream crossings of the Lampasas River and Salado Creek, and hazardous materials.	Based on a high-level preliminary assessment, acquisition of additional right of way is not anticipated.	\$237,000,000

I-35 Statewide Corridor Plan Recommended Projects – Waco District

October 2016

Project Map ID	Facility	Limits	Description	Planning Status	100 Most Congested Roadways Ranking (2016)	Environmental Status	Anticipated ROW Needs	Uninflated Construction Cost Estimate
I35_AUS_A	I-35	SH 130 to Williamson/Bell County Line	Widen from 6 to 8 lanes	A portion of this project is identified in the MTP for the Capital Area Metropolitan Planning Organization (CAMPO) from SH 130 to SH 195.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the project area include cultural resources and a stream crossing at Berry Creek, and floodplains.	Based on a high-level preliminary assessment, acquisition of additional right of way is not anticipated.	\$191,000,000
135_AUS_B	I-35	Posey Road to SH 130	Implement the Mobility35 Program which includes adding one managed lane in each direction and adding operational and safety improvements	The Mobility35 program is included in the MTP for CAMPO.	2, 22, 38, 69	NEPA studies for a portion of the added capacity project are anticipated to be initiated in 2015 from RM 1431 to SH 45SE. Other NEPA studies and project development activities are underway or are scheduled to begin for operational improvements of independent utility throughout the project area. Based on a high-level preliminary assessment, potential environmental constraints within the project area include cultural resources, parks, floodplains, stream crossings at Onion Creek, San Marcos River, and Blanco River, and hazardous materials. Additional information about the Mobility35 program and associated NEPA studies can be found at: http://my35.org/capital/projects/default.htm.	Potential right-of-way needs will be determined during the NEPA process.	\$3,800,000,000

I-35 Statewide Corridor Plan Recommended Projects – Austin District

October 2016

20

Project Map ID	Facility	Limits	Description	Planning Status	100 Most Congested Roadways Ranking (2016)	Environmental Status	Anticipated ROW Needs	Uninflated Construction Cost Estimate
I35_SAN_A	I-35	South of FM 306 to Comal/Hays County Line	Widen from 6 to 8 lanes	A capacity need for this section of I-35 is identified in the Texas Rural Transportation Plan.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential constraints within the proposed project area include community resources, cultural resources, environmental justice communities, floodplains, wetlands, and hazardous materials.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$260,000,000
I35_SAN_B	I-35	FM 1103 to south of SL 337	Widen from 6 to 10 lanes	This project is identified in the TxDOT 2017 Unified Transportation Program.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include cultural resources, environmental justice communities, floodplains, and hazardous materials.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$133,691,332*
135_SAN_C	I-35	AT&T Center Parkway to FM 1103	Add 4 managed lanes	This project is identified in the Metropolitan Transportation Plan for the Alamo Area Metropolitan Planning Organization.	47, 66	A FONSI was issued in July 2015 for the addition of 4 managed lanes to I 35 between AT&T Center Parkway to FM 1103.	Based on the schematic design completed for the project's environmental document, acquisition of additional right of way is anticipated.	\$1,600,000,000
I35_SAN_D	I-35	I-10 to AT&T Center Parkway	Widen from 6 to 10 lanes	A portion of this project is identified in the Metropolitan Transportation Plan for the Alamo Area Metropolitan Planning Organization from I-10 to AT&T Center Parkway. A portion of this project is also identified in the Central Planning and Environmental Linkages Study from US 90 to US 281. More information about the Study can be found online at http://www.my35.org/alamo/projects/p el.htm.	53	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints include community and cultural resources, environmental justice communities, floodplains, stream crossings and the Upper San Antonio River and San Pedro Creek, and hazardous materials.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$660,000,000

I-35 Statewide Corridor Plan Recommended Projects – San Antonio District

* Construction cost estimate from TxDOT 2017 Unified Transportation Program

Note: Information included in this table is current as of October 2016.

October 2016

I-35 Statewide Corridor Plan Recommended Projects – San Antonio District

Project Map ID	Facility	Limits	Description	Planning Status	100 Most Congested Roadways Ranking (2016)	Environmental Status	Anticipated ROW Needs	Uninflated Construction Cost Estimate
I35_SAN_E	I-35	Spur 422 to I-10	Widen from 6 to 10 lanes	A widening project from 6 to 8 lanes from US 90 to Loop 13 is identified in the Metropolitan Transportation Plan's Illustrative list for the Alamo Area Metropolitan Planning Organization.	N/A	A NEPA study has not been initiated for this proposed project. According to a high-level, preliminary assessment, potential environmental constraints include community resources, environmental justice communities, floodplains, a stream crossing at Sixmile Creek, and hazardous materials.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$470,000,000
I35_SAN_F	I-35	Loop 1604 to Spur 422	Widen from 4 to 6 lanes from Loop 1604 to I-410 and widen from 4 to 8 lanes from I-410 to Spur 422	A widening project to expand to 8 lanes from Spur 422 to Atascosa County line is identified in the Metropolitan Transportation Plan's Illustrative List for the Alamo Area Metropolitan Planning Organization.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include environmental justice communities, cultural resources, floodplains, ecosystems with high habitat value, hazardous materials, and crossings at Medio Creek, Lower Leon Creek, and Medina River below the Medina Diversion Lake.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$504,000,000
I35_SAN_G	I-35	La Salle/Frio County Line to Loop 1604	Widen from 4 to 6 lanes	A widening project to expand to 8 lanes from Spur 422 to Atascosa County line is identified in the Metropolitan Transportation Plan's Illustrative list for the Alamo Area Metropolitan Planning Organization.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include environmental justice communities, cultural resources, floodplains, wetlands, ecosystems with high habitat value, crossings at Chacon Creek and the Frio River, and hazardous materials.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated	\$1,700,000,000

October 2016

Project Map ID	Facility	Limits	Description	Planning Status	100 Most Congested Roadways Ranking (2015)	Environmental Status	Anticipated ROW Needs	Uninflated Construction Cost Estimate
135_LRD_A	I-35	Webb/La Salle County Line to La Salle/Frio County Line	Widen from 4 to 6 lanes	Formal planning efforts have not begun for this project.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area may include cultural resources, environmental justice communities, wetlands, a stream crossing at the Nueces River, and hazardous materials.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$1,300,000,000
I35_LRD_B	I-35	US 83 to Webb/La Salle County Line	Widen from 4 to 6 lanes	Formal planning efforts have not begun for this project.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area may include cultural resources, environmental justice communities, floodplains, and wetlands.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$597,000,000
135_LRD_C	I-35	Shiloh Drive to US 83	Widen from 4/6 to 8 lanes	Formal planning efforts have not begun for this project.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment potential environmental constraints within the proposed project area include cultural resources, environmental justice communities, floodplains, hazardous materials, and a stream crossing at Manadas Creek.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$836,000,000
	I-35	Texas/Mexico Border to Shiloh Drive	Widen from 6 to 8 lanes	Formal planning efforts have not begun for this project.	N/A	A NEPA study has not been initiated for this proposed project. Based on a high-level preliminary assessment, potential environmental constraints within the proposed project area include environmental justice communities, cultural resources, hazardous materials, floodplains, wetlands, and crossings at Manadas Creek and the Rio Grande River below the Amistad Reservoir.	Based on a high-level preliminary assessment, acquisition of additional right of way is anticipated.	\$610,000,000

I-35 Statewide Corridor Plan Recommended Projects – Laredo District