

TRANSPORTATION MASTER PLAN



CEDAR
PARK



2015 UPDATE

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EXECUTIVE SUMMARY

Plan Purpose

The Cedar Park Transportation Master Plan Update is built on the goals and visions developed in the City's Comprehensive Plan, the 2002 Transportation Master Plan, and in the 2010 Hike and Bike Trails Master Plan. This plan update seeks to uphold the established precedents of Cedar Park, while framing a future transportation network focused on multi-modal mobility, connectivity and accessibility.

Population growth in and around Cedar Park has increased steadily in recent years resulting in increased traffic. These two factors have contributed to unsatisfactory congestion levels that are expected to continue at a steady rate for several years to come. In anticipation of this growth, City leaders seek to update the Transportation Master Plan that was created in 2002, so that access to highway facilities can be evaluated, the transportation network analyzed and the thoroughfare plan updated to accommodate the future conditions expected in the city and the surrounding region.

Project Background

According to the US Census Bureau, Cedar Park is the fourth fastest growing city in the country. In response to this growth, retail and other developments have sprung up throughout the area, providing amenities to Cedar Park residents, as well as drawing trips from outlying communities like Liberty Hill, Leander, Round Rock, Jonestown and Georgetown. The network experiences additional demand from Austin-bound commuters traveling through the area. Almost two-thirds of traffic on Bell Boulevard originates outside of the City, creating a major cut-through problem for Cedar Park roadways. Continued growth in outlying areas will continue to have a negative impact on Cedar Park's transportation network if alternate plans are not developed to handle this additional demand.

Many improvements in the City's 2002 Transportation Master Plan have been completed. City leaders and staff have been proactive in developing transportation improvements to address the congestion problems in the near-term future. Funding strategies are being investigated to pay for transportation investments for the future. Recommendations in the 2010 Hike and Bike Master Plan have also been considered in this Transportation Master Plan Update.

In addition to upholding the goals of the Comprehensive Plan and the 2002 Transportation Master Plan, this Update will establish a transportation system that enhances mobility, connectivity and accessibility of Cedar Park and offers alternate modes of transportation as an ultimate goal, as well as encouraging cut-through traffic on Old US 183/Bell Boulevard to utilize 183A as a primary route for through-trips.

Year	Population	Change
1970	687	--
1980	3,474	406%
1990	5,161	49%
2000	26,049	405%
2010	48,937	88%
2013	56,445	15%

Source: U.S. Census

5,161 CEDAR PARK
POPULATION IN 1990

26,049 CEDAR PARK
POPULATION IN 2000

56,445 CEDAR PARK
POPULATION IN 2013

US Census Bureau and Texas State Data Center



Implementation and Cost

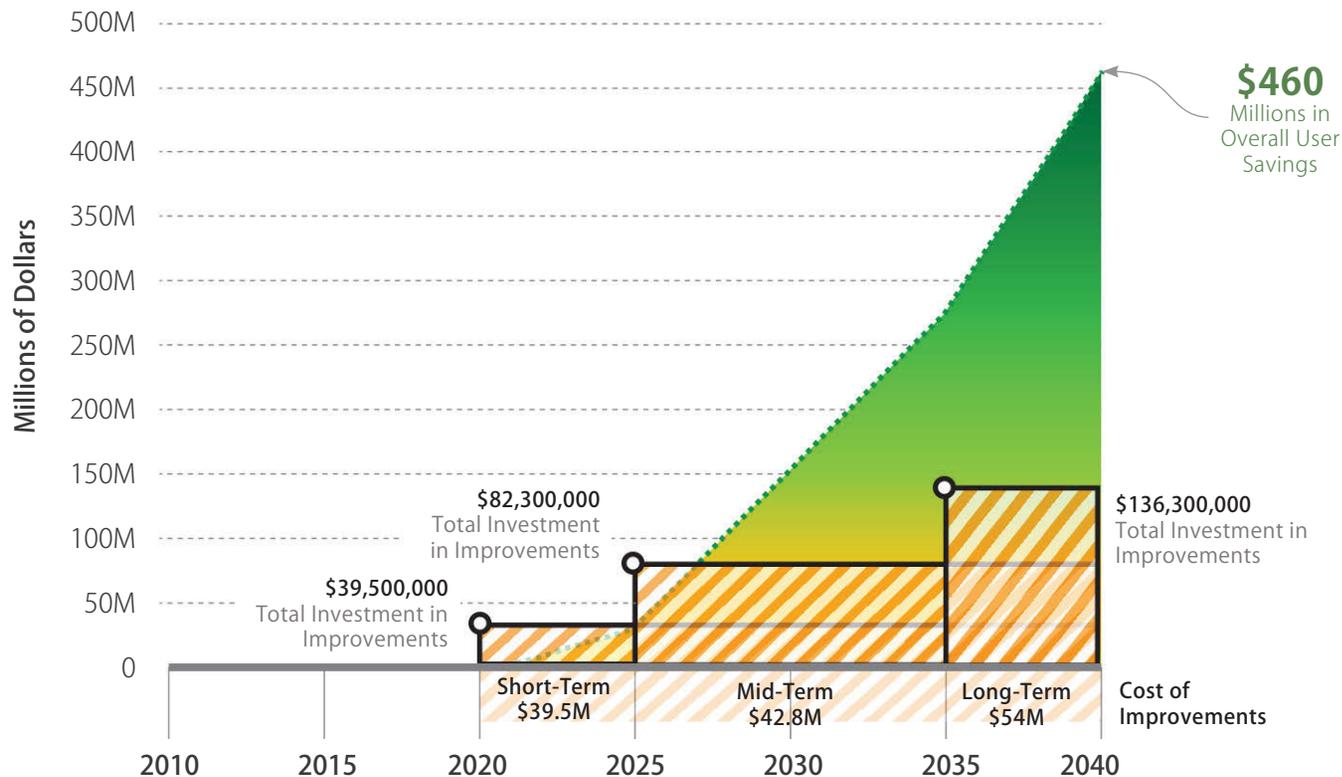
Sustainable growth, regional coordination, efficiency of mobility choices, context sensitive solutions and investment and economic development were just some of the factors used to evaluate and prioritize implementation of projects. Intersection delay savings were also compared against costs of improvements in order to help quantify short-, mid- and long-term improvements. User savings versus construction costs are illustrated in the adjacent graph and depicts user savings between 2020 and 2040 compared to anticipated construction costs.

The process for project prioritization and implementation must consider the funding sources to be used and the agencies responsible for their construction, maintenance and operations.

Possible innovative funding mechanisms include:

- Development Impact Fees, a common tool used to finance the construction of facilities in new developments.
- Tax Increment Financing, a tool intended to offset the public costs associated with the improvement of properties. It allows local governments to devote the additional tax revenues gained from increased property values to repay the public investment used to initially attract the redevelopment.
- Local governments across the US have increasingly looked to general obligation bonds to fund transportation projects.

User Savings vs. Construction Costs



Construction costs of these recommended improvements will be 30% of the total benefit savings if implemented by 2035.

Plan Development Process

To develop recommendations for an update to the Transportation Master Plan, many factors were evaluated and analyzed. City goals and planned projects were reviewed and incorporated. The Study Area was defined and major corridors as well as 51 critical intersections were studied to ensure thoroughness and to address community congestion concerns.

Future planning years were established and four scenarios were selected to analyze:

- Existing Conditions
- 2016 Conditions with Existing and Committed Improvements
- 2035 No Build Conditions (beyond the Existing and Committed Improvements)
- 2035 Conditions with Recommended Improvements in addition to Existing and Committed Improvements.

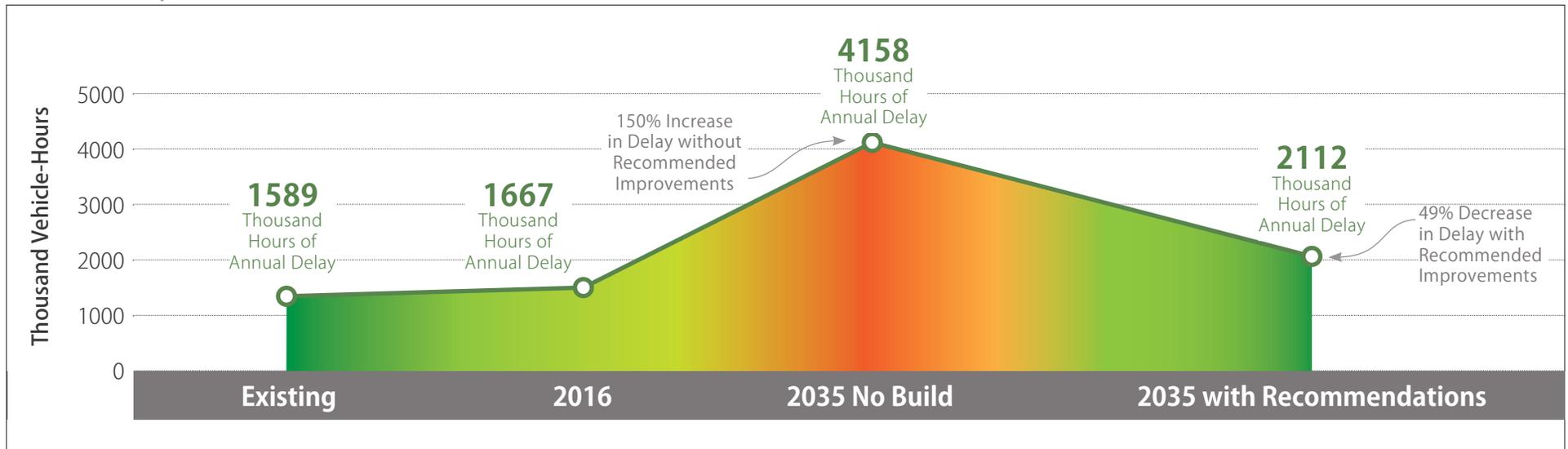
Data collection and field observations were made to collect existing data for analysis of existing conditions. Projected growth rates and recommended improvements were simulated in models to determine future conditions of the network. Total network delay was calculated for each of the scenarios and then converted to annual delay for comparison.

In order to quantify the impact of the proposed improvements, a cost analysis was performed based on the comparison of cumulative delay savings for each scenario. The cumulative delay savings for each scenario were based on the annual delay calculations and a value of time of \$17.70 per hour, calculated from the Texas A&M Transportation Institute's 2012 Urban Mobility Report and the April 2014 Consumer Price Index provided by the U.S. Bureau of Labor Statistics.

The analysis showed that the Recommended Improvements provide a significant amount of congestion relief, with a total annualized value of delay savings of approximately \$36 million.

The Recommended Improvements reduce annual delay by approximately 50% by 2035.

Annual Delay (thousand vehicle-hours)



Cumulative Delay Savings for each Scenario.



Short-, Mid-, and Long-Term Improvements

Corridor Recommendations

The roadway improvements to Cedar Park's transportation network are meant to ease congestion, improve safety and mobility for all users and to provide and plan for future connectivity and accessibility. The recommended improvements include traditional improvements such as roadway widening, restriping, signaling, addition of turn lanes and building new roadways. Other types of recommended improvements include innovative intersections, high-capacity transit, travel demand management strategies and multi-modal alternatives.

The recommended improvements have been quantified to short-, mid- and long-term with a cost-benefit analysis, so that projects can be prioritized to address the City's needs. The prioritized improvements are summarized in the adjacent table, and shown in the Recommendations Section of this Update.

Savings shown are Cumulative.
¹2020-2040 ²2025-2040 ³2035-2040

Short-Term	CORRIDOR	IMPROVEMENT	COST	SAVINGS ¹		
	Bell Boulevard	New Hope Drive: Construct northbound and southbound dual left-turn lanes		\$1M	\$14.7M	A
		Cypress Creek Road: Construct northbound and southbound right-turn lanes		\$1M	\$18.2M	B
	Whitestone Boulevard	Anderson Mill Road to Bagdad Road: Widen Whitestone Boulevard from four-lane section to a six-lane section		\$13.5M	\$56.7M	C
		Lakeline Blvd: Construct east-, west- and southbound dual left-turn lanes				D
		Cottonwood Creek to Market Street: Reconstruct to six-lane section		\$18M	\$51.3M	E
	N/A	Dynamic Message Signs and Wayfinding Improvements		\$1M	--	F
N/A	Update Traffic Management Center		\$5M		G	
			\$39.5M	\$140.9M		

Mid-Term	CORRIDOR	IMPROVEMENT	COST	SAVINGS ²		
	Anderson Mill Road	Whitestone Boulevard to Lime Creek: Reconstruct to four-lanes		\$13.5M	\$20.2M	F
		Zeppelin to Cypress Creek Road: Widen from two-lanes to four-lanes				G
	Lakeline Boulevard	Cypress Creek Road: Construct CFI		\$5M	\$22.6M	H
		Anderson Mill Road: Construct partial CFI				I
	RM 620	Pecan Park to Anderson Mill Road: Widen from four-lanes to six-lanes		\$15M	\$180M	J
		Little Elm Trail: Signalize intersection at RM 620				K
Whitestone Boulevard	Bell Boulevard: Construct partial CFI for east-west travel		\$6M	\$37M	L	
New Hope Drive	Whitestone Boulevard to Lakeline Boulevard: Widen New Hope Drive from two-lane section to a four-lane section		\$3M	--	M	
			\$42.8M	\$259.8M		

Long-Term	CORRIDOR	IMPROVEMENT	COST	SAVINGS ³		
	Cypress Creek Road	Bell Boulevard: Build two-lane overpass		\$6M	\$5.3M	N
	Parmer Lane	Whitestone Blvd. to Brushy Creek Road: Widen from four-lanes to six-lanes		\$22M	\$47.6M	O
		Brushy Creek Road: Build overpass				P
	Old Mill Road	Extend roadway from Lakeline Blvd. to Cypress Creek Rd./Brushy Creek Rd.		\$10M	--	Q
	Little Elm Trail	Extend roadway from Bell Boulevard to 183A		\$1M	--	R
	New Hope Drive	Cottonwood Creek Trail to Ronald Reagan Blvd.: Extend roadway east as four-lane divided section		\$15M	\$7.4M	S
Ronald Reagan Blvd. to Sam Bass Rd.: Extend roadway east as four-lane divided section		T				
			\$54M	\$60.3M		
Total Cost			\$136.3M	\$461M		

The family-oriented, business-friendly, planned and viable community

Cedar Park imagined in 1998 is well established and continues to thrive.

Recommendations and Strategies

City leaders have already taken significant steps to plan for growth and development in Cedar Park. The community Cedar Park envisioned back in 1998— one that is family-oriented, business-friendly, planned and viable— is already well established. With pro-active planning, active outside agency coordination and clear goals established through documents such as this one, the City will have a living roadmap to assist them plan for ‘the Cedar Park of both today and tomorrow’.

The improvements made to the transportation network in Cedar Park will be built over a long period of time. Recommendations in this plan will be implemented gradually as development occurs and infrastructure needs increase. This update will serve as a guide to help prioritize projects and suggests funding strategies as projects are selected to become a part of the built environment.

As Cedar Park moves forward to total build out and infill redevelopment begins to take on more permanence, over-arching goals of safe and efficient travel for all users and a focus towards multi-modal mobility, connectivity, accessibility should be regularly reviewed to ensure inclusion.

There are many strategies available to the City that will enable the goals of the Comprehensive

Plan, the Hike and Bike Trails Master Plan, and the Transportation Master Plan to be met for a safe, efficient multi-modal transportation network to maintain the quality of life and facilitate continued economic development.

The recommendations and strategies identified in this Transportation Master Plan Update includes but are not limited to:

- Update the Transportation Master Plan every five years
- Complete arterial roadway network
- Deploy ITS technologies and Travel Demand Management techniques
- Utilize available capacity of 183A
- Implement innovative intersection concepts
- Redevelop Bell Boulevard as a “To Place”
- Develop and implement Access Management guidelines
- Coordinate actively with outside agencies
- Consider a long range transit framework
- Implement Complete Streets concepts
- Consider context sensitive solutions
- Identify sustainable and innovative transportation funding strategies
- Implement 2010 Hike and Bike Trails Master Plan





INTRODUCTION

Overview

The City of Cedar Park has experienced a significant increase in traffic congestion over recent years due to the combined population growth from both regional and new developments within the City and from adjacent communities. Many projects in the City's 2002 Transportation Master Plan have been completed, and City leaders have retained HDR to develop the Cedar Park Transportation Update, building on the goals and visions established previously by the City.

Purpose

The purpose of the City of Cedar Park Transportation Master Plan Update is to identify and prioritize mobility improvements through 2035 that encourage safe and efficient travel within and through Cedar Park. As outlined in the City of Cedar Park Comprehensive Plan 2014, the City of Cedar Park aims to develop a viable transportation network and thoroughfare plan that fosters multi-modal mobility, connectivity, and accessibility throughout Cedar Park. The ultimate goal is to develop a transportation system that enhances Cedar Park and offers alternate modes of transportation.

Mobility components evaluated as part of this update include roadway operations and safety as well as pedestrian and bicycle facilities.

Through evaluation of future roadway improvements, multi-modal improvements, development activities and the subsequent impacts on traffic volumes and operations, improvements recommended in this report can help to achieve the visions and goals of the City of Cedar Park.



Background

The City of Cedar Park has more than doubled in size over the last decade and is currently the fourth Fastest-Growing City in the nation according to the U.S. Census Bureau. With its proximity to Austin and the picturesque Texas Hill County, Cedar Park continues to appeal to current and potential residents because of what it offers in terms of amenities, cost of living, education, and safety.

With an estimated population of 56,445 in 2013, Cedar Park's predominate land use is single family residential. Additional land uses include commercial, industrial, multi-family apartments and condominiums, and parks and open space. In the wake of its rapid expansion, Cedar Park is reaching its limits when it comes to developable land. However, surrounding cities such as Leander, Jonestown and Lago Vista will continue to grow rapidly over the coming years, increasing congestion on Cedar Park's major roadways.

The City of Cedar Park has been proactive in providing solutions for its mobility needs. Funding has been committed for a number of worthwhile projects that will assist in mitigating the impacts of continuing growth on its transportation network. The City's partnership with the Texas Department of Transportation (TxDOT) and Williamson County has been a major part of its efforts. The City has employed creative funding mechanisms in delivering key roadway projects well ahead of their scheduled implementation. These projects are referred to as 'Existing and Committed Improvements' throughout this report (see Page 2-18 for a map of these improvements). This update expands on the City's current

plans by developing a set of recommendations to improve safety and mobility for all roadway users, while upholding Cedar Park's multi-modal priorities established in part through the 2010 Hike and Bike Trails Master Plan. In addition, the benefit of these recommended improvements is quantified in order to develop the appropriate short-, mid-, and long-term roadway improvements that will improve the quality of life for the City residents.

This update focuses on identifying improvements for the City:

- Utilize intelligent transportation systems to better manage future travel demands by maximizing existing infrastructure capacity, i.e. Dynamic Message Signs, adaptive traffic control systems, mobile phone app, etc.
- Promote utilization of 183A as an opportunity to relieve congestion.
- Improve east-west corridor travel times on major roadways such as Whitestone Boulevard and New Hope Drive for access to 183A.
- Consider major innovative intersection improvements such as Continuous Flow Intersections(CFIs) and grade separation.
- Continue to develop strategies for the redevelopment of Bell Boulevard
- Close gaps in the bicycle and pedestrian network to provide better connectivity for alternate transportation modes.
- Develop a future transit framework that takes advantage of the Red Line and future US 183 Managed Lane as a key alternative for Cedar Park commuters.



Previous Transportation Master Plan

The City of Cedar Park adopted its first Comprehensive Plan in 1998. This plan established a Vision, Mission and Goals to be used to guide decisions and planning for the future of Cedar Park.



1998. First Comprehensive Master Plan is adopted.

Cedar Park envisions a community that is family-oriented, business-friendly, safe, planned and viable; a dynamic community that people want to live in and where businesses want to locate.

2002. First Transportation Master Plan is adopted.

This document established transportation related goals and objectives while outlining general actions for the City of Cedar Park to manage its infrastructure and address its mobility needs. The plan aimed to facilitate discussion of these issues and be a first step in developing integrated, cohesive transportation management policy.

2007. Comprehensive Master Plan is updated.

This update sought to re-evaluate the goals and vision stated in the 1998 document and to ensure the City's Master Plan continues to serve as a relevant and living guide for the community and its growth. The 2006 update included improvements to mobility and accessibility, increased safety, promotion of alternative travel modes, balanced financial responsibility and limiting of environmental impacts.

2015. Comprehensive Master Plan is expanded.

The 2014 Comprehensive Plan was initiated to establish a vision for Cedar Park based on input from the community. The plan's recommendations include establishing concentrated nodes of development, creating a walkable and connected environment for the community, and ensuring city services, infrastructure, and roadways continue to meet demand as the population increases.

The essence of the Vision Statements developed in 1998 remain relevant in 2015.



Current Transportation Issues

The City of Cedar Park has experienced significant growth over the past two decades. Although the City itself has a finite potential remaining for future growth, surrounding cities such will continue to develop steadily. Through-vehicle traffic is expected to increase on Cedar Park's transportation network, namely major north-south corridor Bell Boulevard (US 183) and major east-west corridor Whitestone Boulevard (RM 1431).

183A has adequate capacity to facilitate the north-south traffic that currently travels through Cedar Park's roadways and creates significant traffic congestion. Access to 183A and US 183 from east-west arterials such as Whitestone Boulevard, New Hope Drive, RM 620, Lakeline Boulevard and Cypress Creek Road is not ideal and needs enhancement. Moreover, the missing frontage roads of 183A between Whitestone Boulevard and Avery Ranch Boulevard also forces traffic to use Bell Boulevard.

Current ingress/egress to area regional facilities forces Cedar Park commuters to traverse through congested corridors that are outside of City of Cedar Park's jurisdiction (e.g. RM 620, RM 2222, Lakeline Boulevard at US 183 etc.).

Multitude of access driveways along Bell Boulevard is becoming a safety hazard and needs to be addressed to enhance mobility and safety.

Whitestone Boulevard is experiencing significant congestion due to major retail establishments fronting this major east-west regional facility.

Gaps in the sidewalk network on priority corridors such as New Hope Drive, Lakeline Boulevard, and Whitestone Boulevard hinder pedestrian mobility.

Varying roadway names can cause confusion for visitors in accessing their destination.

Currently there is no travel time information available for drivers to assist them in choosing less congested routes during the peak periods.



The goal of this Transportation Master Plan Update is to meet the future mobility needs of Cedar Park and to create a plan that encourages safe and efficient travel within and through the city for all modes of transportation.

Goals and Objectives

Objectives that would be accomplished by implementing the Recommended Improvements detailed within this report are:

- Mitigate congestion and improve traffic flow on major roadways.
- Improve utilization of nearby roadways with available capacity.
- Improve access management guidelines along major corridors.
- Coordinate closely with other municipalities for transportation improvements outside Cedar Park city limits that impact Cedar Park residents.
- Implement “Complete Streets” approach to create public places.
- Utilize intelligent transportation technologies to assist with travel demand management.
- Review and enact land use policies that will assist in reduction of vehicles miles travelled.
- Develop a future transit framework.
- Improve connectivity of pedestrian and bicycle facilities and provide convenient access routes.

In addition to the functional recommendations for this area, design considerations were recommended to achieve the project goals. Recommended design considerations are as follows:

- Select roadway design guidelines that enhance safety and mobility during peak hours.

- Create a public space along Bell Boulevard that accommodates local automobile traffic while developing a scaled environment for pedestrians and cyclists.
- Implement a “Complete Streets” design on Anderson Mill Road and Bell Boulevard that incorporates different modes of travel including automobiles, walking, and cycling.



Conceptual cross section for a Complete Street design.



CONDITIONS EVALUATION



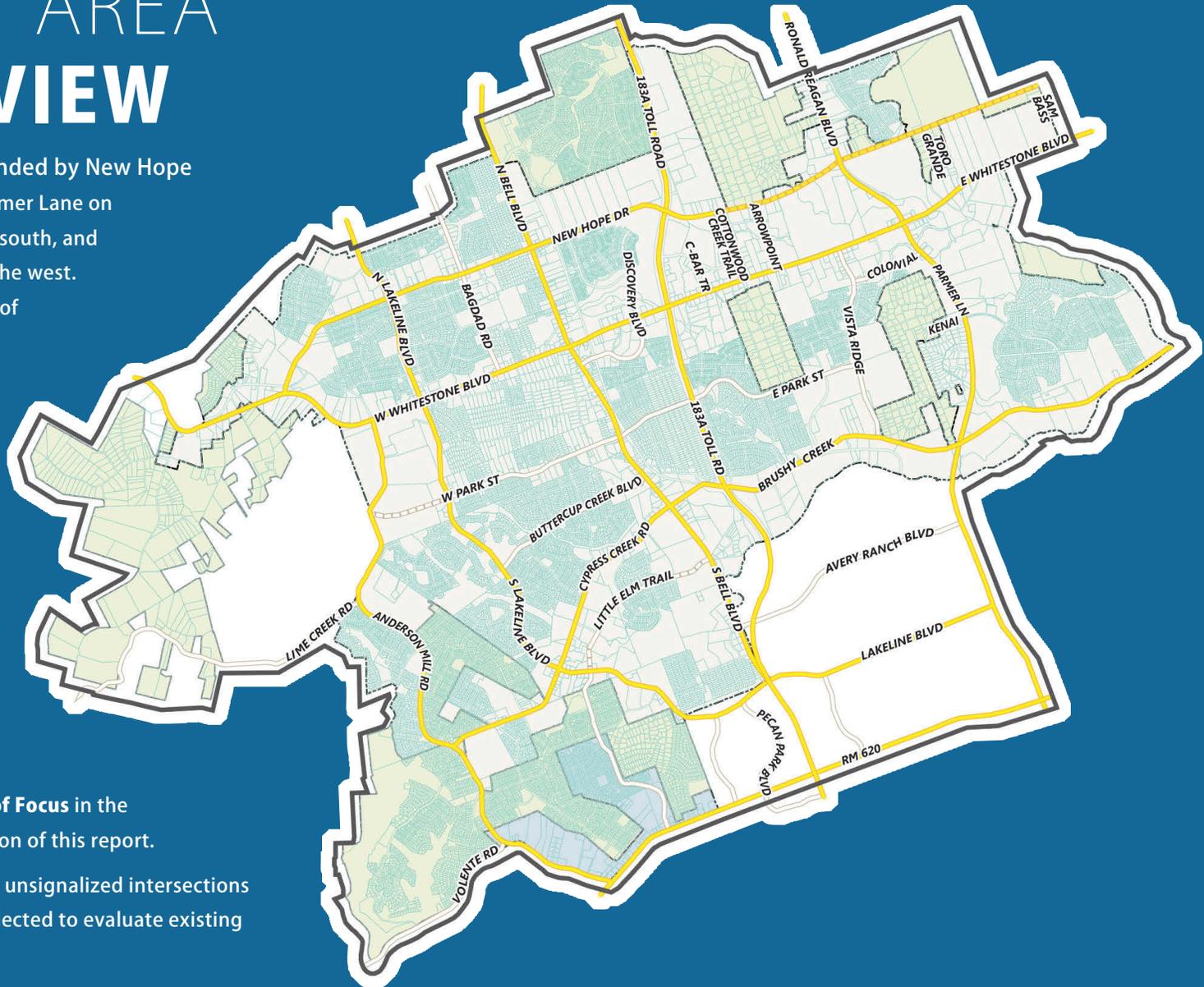
STUDY AREA OVERVIEW

The study area is bounded by New Hope Drive on the north, Parmer Lane on the east, RM 620 on the south, and Anderson Mill Road on the west.

This area spans the City of Cedar Park and crosses the city limits into Austin on the south.

New Hope Drive, Bell Boulevard, Whitestone Boulevard, Cypress Creek/Brushy Creek Road, Lakeline Boulevard, Anderson Mill Road, RM 620, and 183A are major thoroughfares within the city and are identified as **Corridors of Focus** in the Recommendations section of this report.

Fifty-one signalized and unsignalized intersections within this area were selected to evaluate existing and future conditions.



Zoning is a land-use planning tool that allows for designating permitted uses of land. Current land uses are detailed in the City's official Zoning Districts Map.

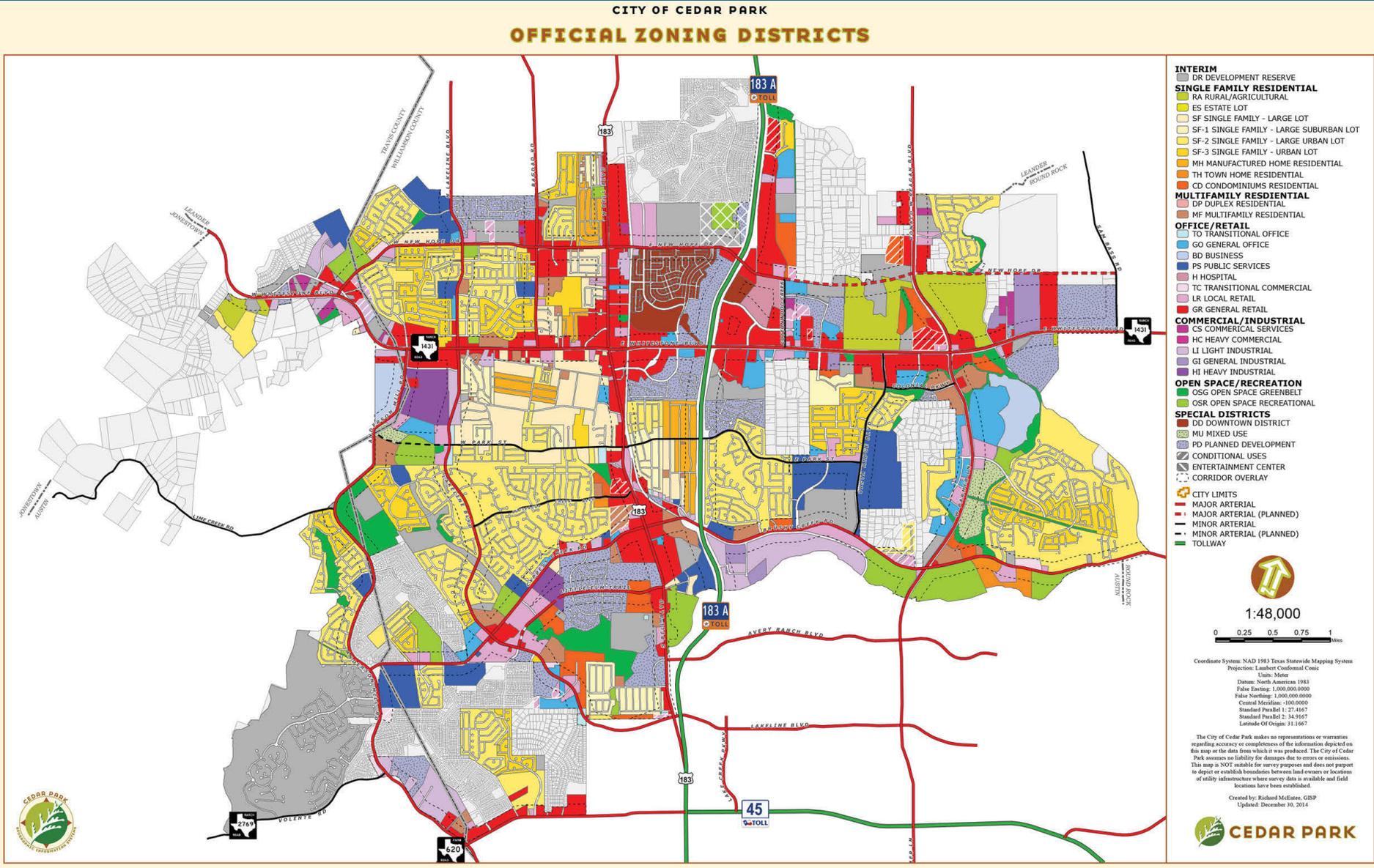


Figure 2-1. City of Cedar Park Official Zoning Districts.

Cedar Park's vigorous planning process involves establishing long range land use goals to meet its needs.

CITY OF CEDAR PARK
FUTURE LAND USE

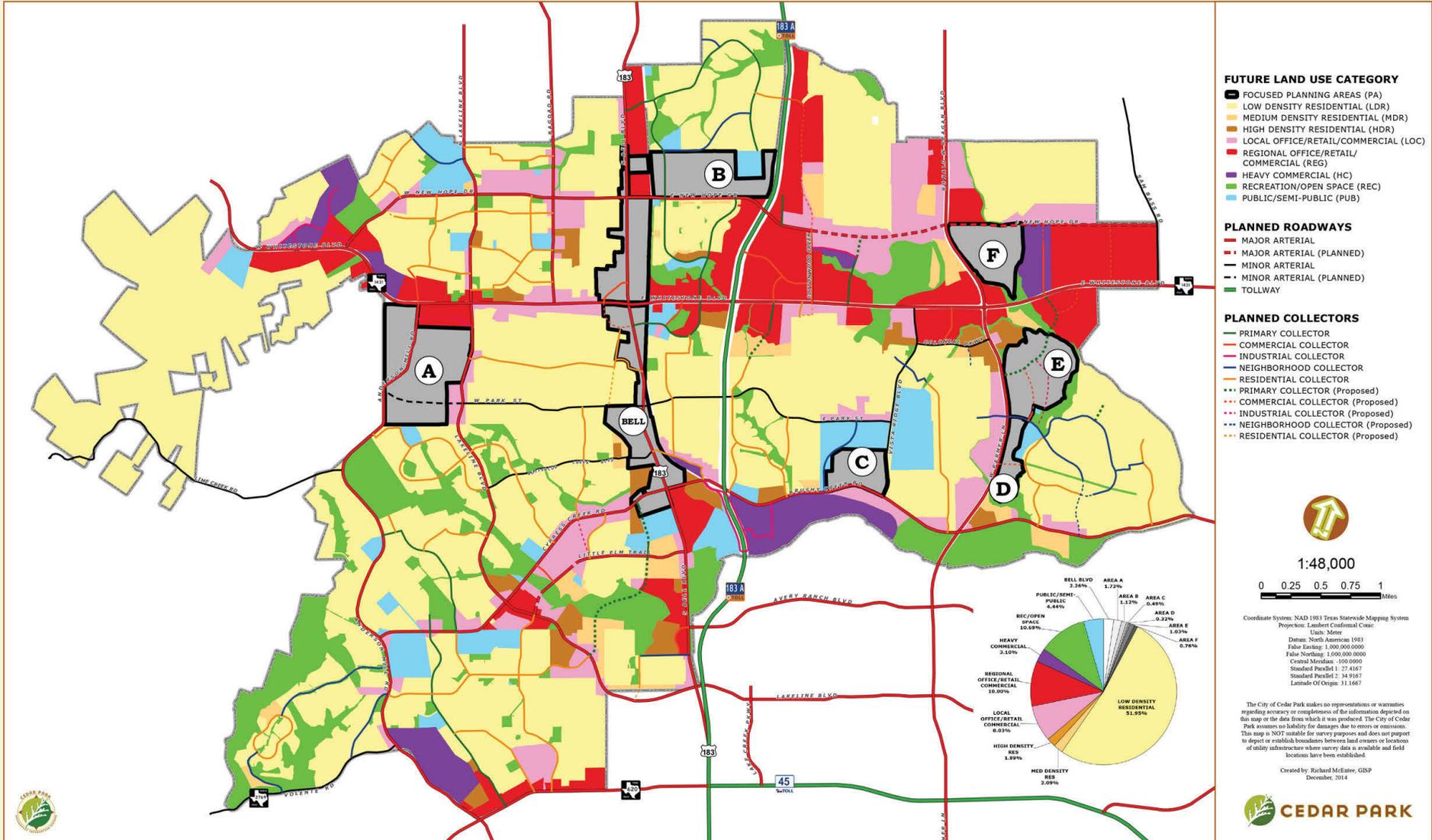


Figure 2-2. The City of Cedar Park Future Land Use as of July 2014.



Existing and future arterial roadways in Cedar Park are detailed in the city's Arterial Roadway Plan.

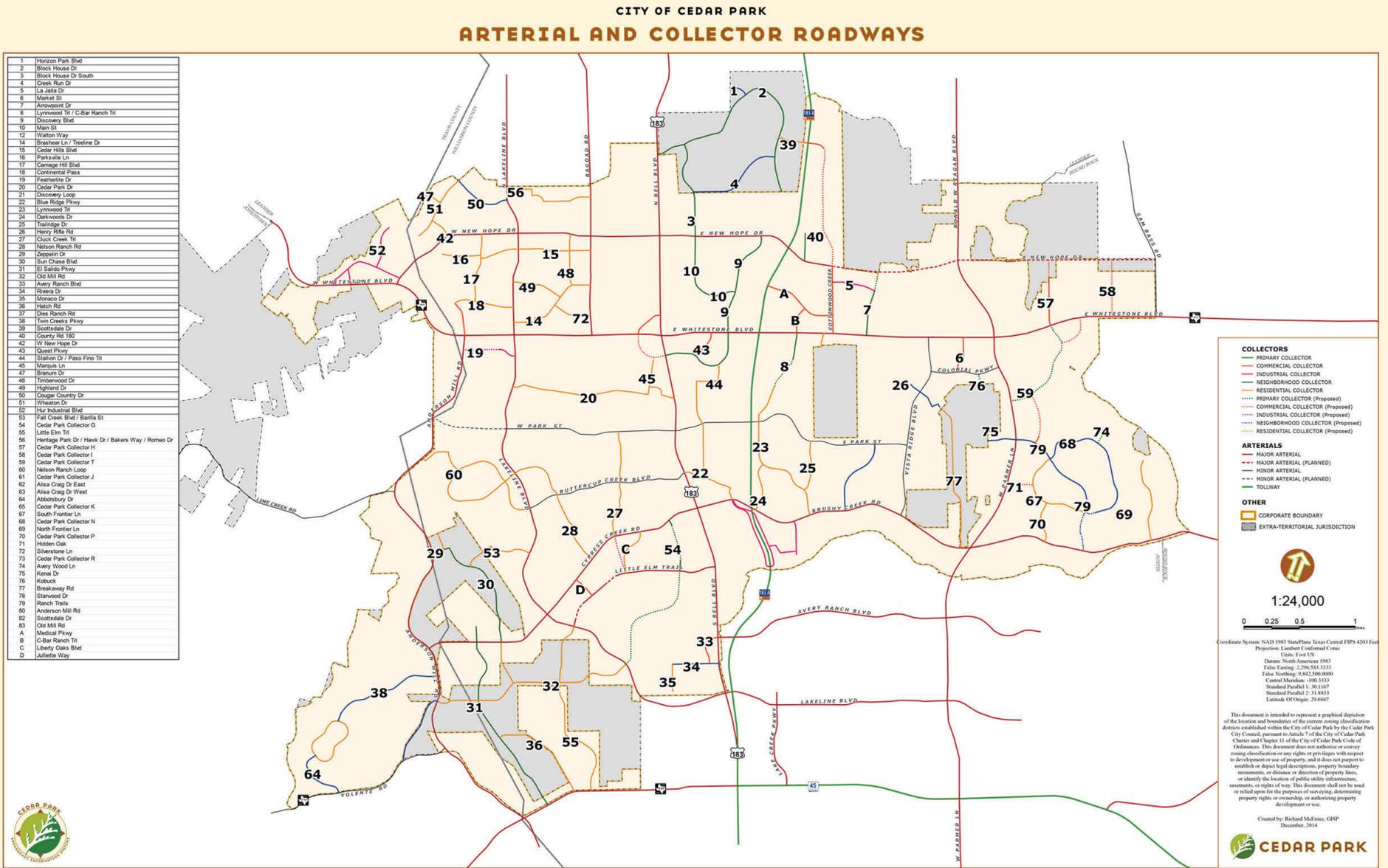


Figure 2-3. Thoroughfare Plan (Roadway Classifications)

ANALYSIS OVERVIEW

Assumed Scenarios

The planning horizon year of 2035 was established by the City of Cedar Park at the beginning of this project. Existing traffic conditions were assessed and future traffic conditions were simulated and compared to assess the City's future needs so that appropriate improvements could be determined.

Existing and future scenarios analyzed in this update were created using a traffic simulation modeling software that simulates street geometry, traffic control and vehicle volumes as defined for the City of Cedar Park.

Analysis was performed using a traffic simulation program called Synchro. Existing and future conditions were evaluated and analyzed for the AM and PM peak periods.

The following is a description of the conditions that will be detailed in the following pages.

- A 2013 Existing Conditions.**
Current traffic conditions for the year 2013 are evaluated.
- B 2016 Forecasted Conditions with Existing and Committed Improvements*.**
2016 forecasted traffic conditions + Existing and Committed Improvements.
- C 2035 Forecasted Conditions (No Build).**
2035 forecasted traffic conditions + Existing and Committed Improvements. These conditions can be expected if no additional improvements are made beyond those that are currently funded.
- D 2035 Forecasted Conditions with Recommended Improvements.**
2035 forecasted traffic conditions + Existing and Committed Improvements + Recommended Improvements identified in this Transportation Master Plan Update.

*Existing and Committed Improvements are roadway projects that the City of Cedar Park has already funded and committed to building. These are shown in more detail on page 2-18.

Process

The Scenarios analyzed in this Update were created using Synchro 8.0. Synchro is a traffic simulation modeling software and is based on the procedures contained in the 2010 Highway Capacity Manual (HCM). The HCM is a publication of the Transportation Research Board in the United States, and contains concepts, guidelines and procedures for analyzing capacity and quality of service for various highway facilities and transportation-related infrastructure.

Street geometry, traffic control and vehicle volumes are defined in a certain scenario, and Synchro outputs Measures of Effectiveness (MOEs) that can then be used to evaluate operational performance and provide a basis for comparison of alternatives. The MOEs that were evaluated for the existing and future conditions analysis are intersection delay and Level of Service (LOS).

LOS is a qualitative measure of the effect of a number of factors such as speed, volume of traffic, traffic control (signalized or unsignalized), geometric features, traffic interruptions, freedom to maneuver, safety, driving comfort, convenience, and operating cost.

LOS analysis provided the basis for determination of the recommended improvements presented in detail in Chapter 3 as well as the development of the Implementation Plan described in Chapter 4.

Intersection Level of Service is generally expressed using a letter designation from A to F, where LOS A represents little to no congestion and LOS F represents heavy congestion.

A  Less than 10	B  More than 10 Less than 20	C  More than 20 Less than 35
D  More than 35 Less than 55	E  More than 55 Less than 80	F  More than 80

Values shown reflect the number of seconds the average driver waits to pass through an intersection during a peak period. LOS D is typically considered acceptable for Cedar Park.



EXISTING CONDITIONS EVALUATION

Existing Traffic Data

An assessment of existing conditions helps identify current issues such as safety, roadway deficiencies, and motorized and non-motorized mobility in Cedar Park.

Extensive data collection was performed to obtain information on existing conditions in Cedar Park. A database of existing traffic count data was compiled from previous studies and counts collected by the City of Cedar Park between 2010 and 2013. 24-hour bi-directional tube counts along the city's major roadways identify the volume of traffic flowing through the city at various locations.

The following data was also collected as part of this study:

- Field observations during the peak hours to document operations.
- Existing roadway and intersection geometrics.
- Traffic signal timing information from the City.
- 2010 Hike and Bike Trails Master Plan from the City.
- Capital Area Metropolitan Planning Organization (CAMPO) Travel Demand Forecasts.



Existing Intersection Operations

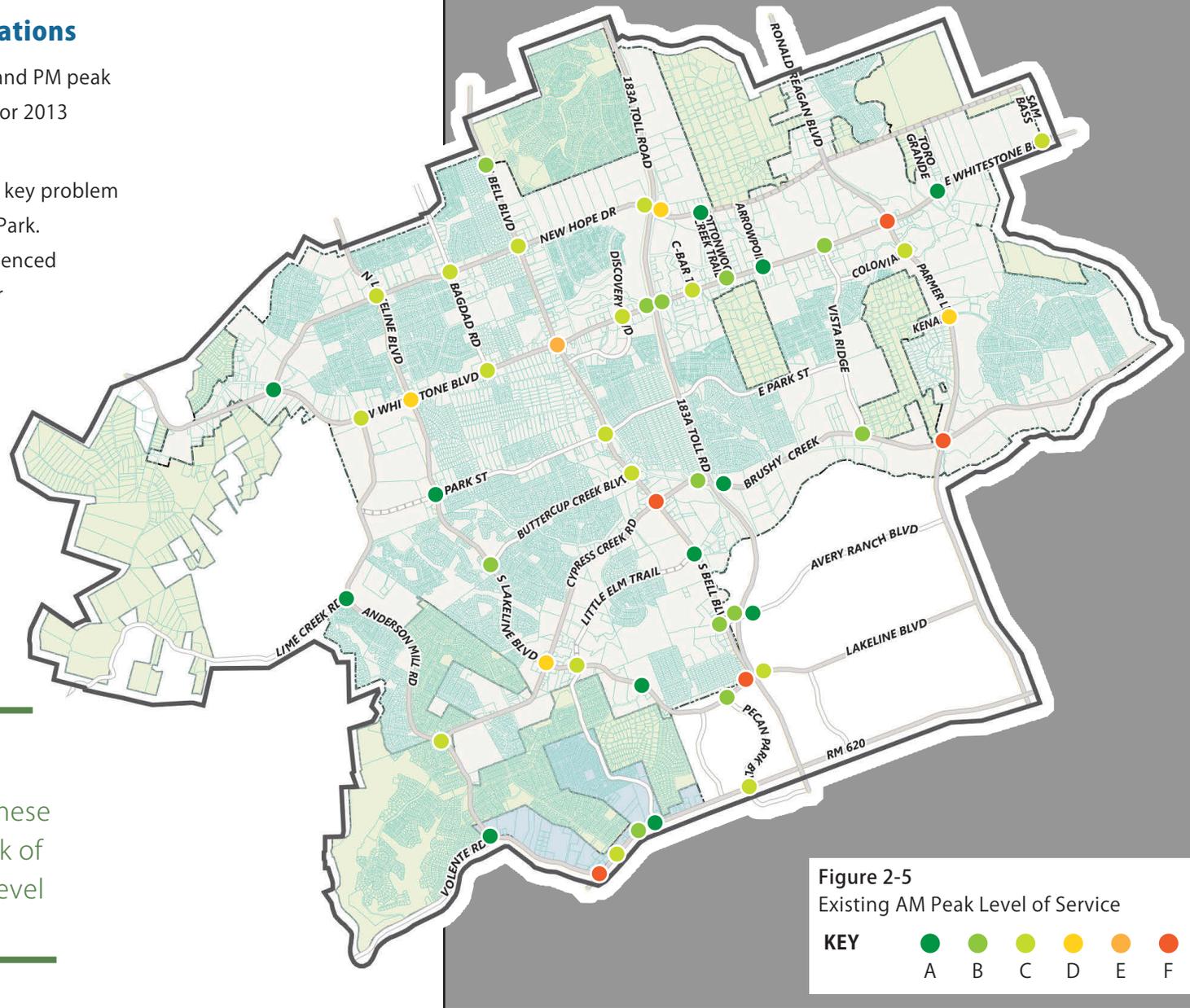
Figure 2-5 and Figure 2-6 show AM and PM peak hour intersection LOS, respectively, for 2013 Existing Conditions.

The analysis results highlight several key problem corridors and intersections in Cedar Park.

Unacceptable LOS is currently experienced along Bell Boulevard at several major intersections during peak times of the day with the worst conditions being during the PM peak.

Whitestone Boulevard experiences significant congestion at intersections with major north-south corridors including Bell Boulevard and Ronald Reagan Boulevard/Parmer Lane.

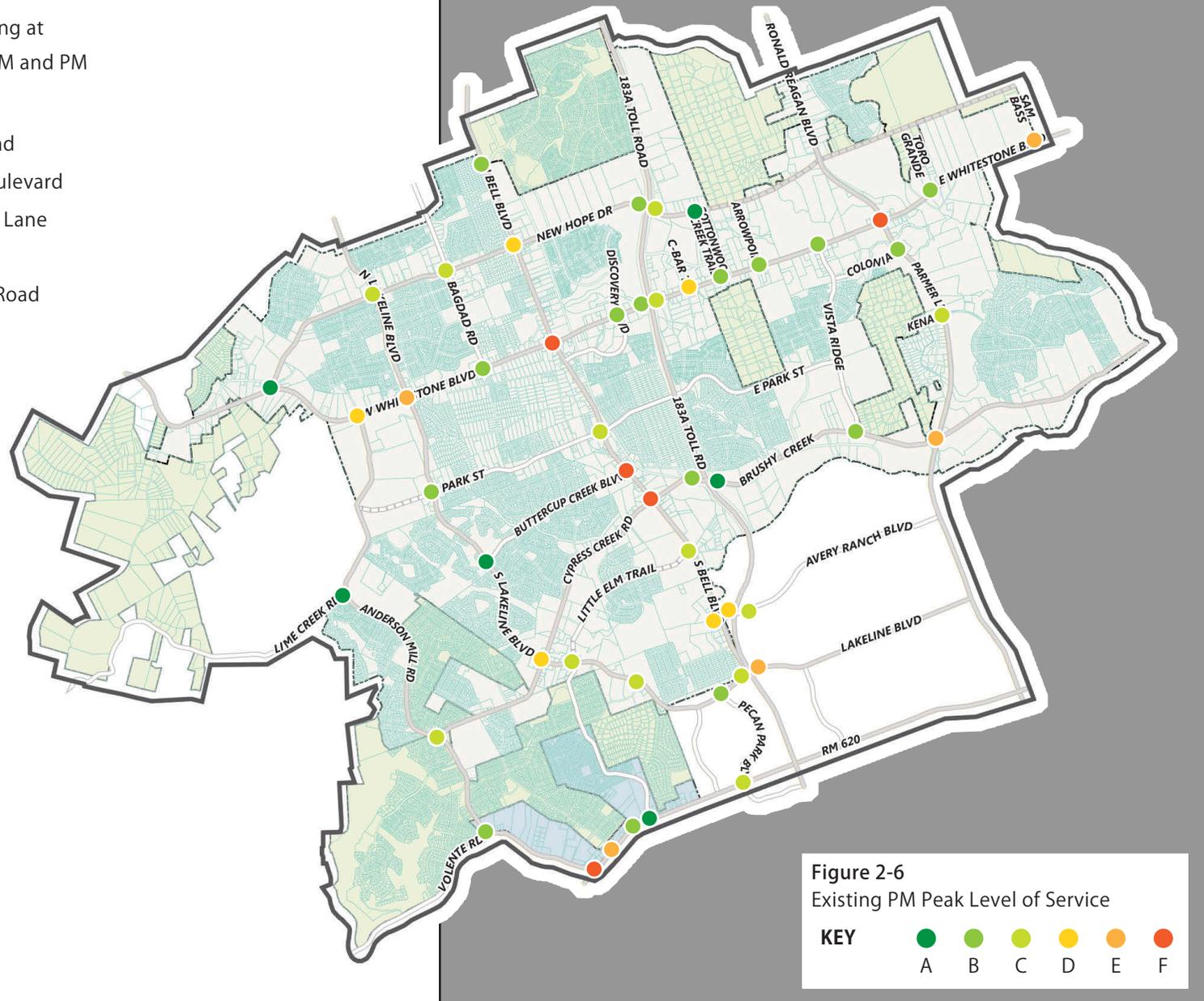
Although many major intersections are currently operating at LOS C and D, these intersections could be at risk of falling to an unacceptable level as growth continues.



Major intersections currently operating at unacceptable LOS during both the AM and PM peaks:

- Parmer Lane at Brushy Creek Road
- Whitestone Boulevard at Bell Boulevard
- Whitestone Boulevard at Parmer Lane
- RM 620 at Anderson Mill Road
- Bell Boulevard at Cypress Creek Road

These intersections were also identified as major bottleneck locations by the public as part of the Comprehensive Plan update process.



FUTURE CONDITIONS EVALUATION

Overview

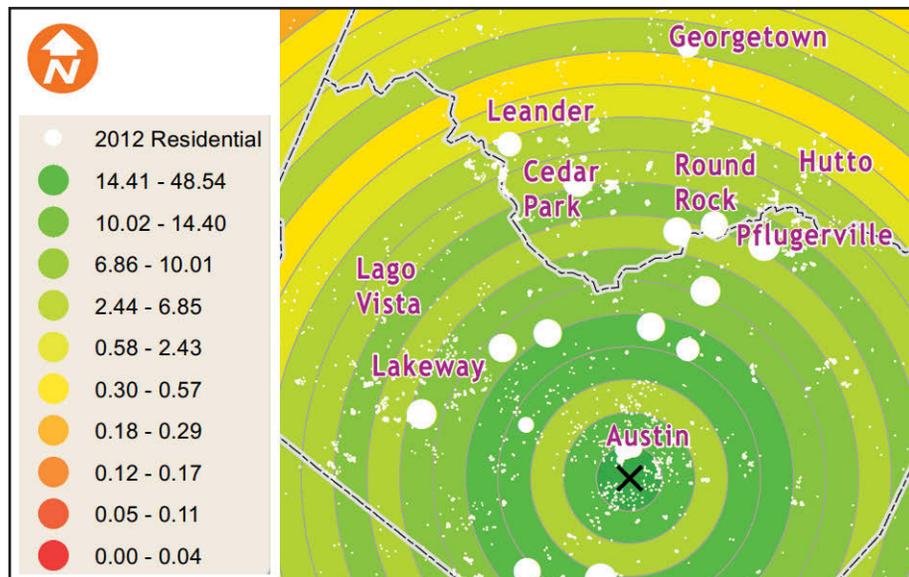
The 2016 and two 2035 scenarios analyzed for this report are compared in this section. These three scenarios demonstrate the future conditions and operations associated with increased traffic volumes, Existing and Committed Improvements, and the Recommended Improvements identified in Chapter 3 of this Transportation Master Plan Update.

Analysis of future traffic conditions required development of travel demand estimates. In order to develop 2035 travel demand estimates for the study area, historical growth patterns were used as a base.

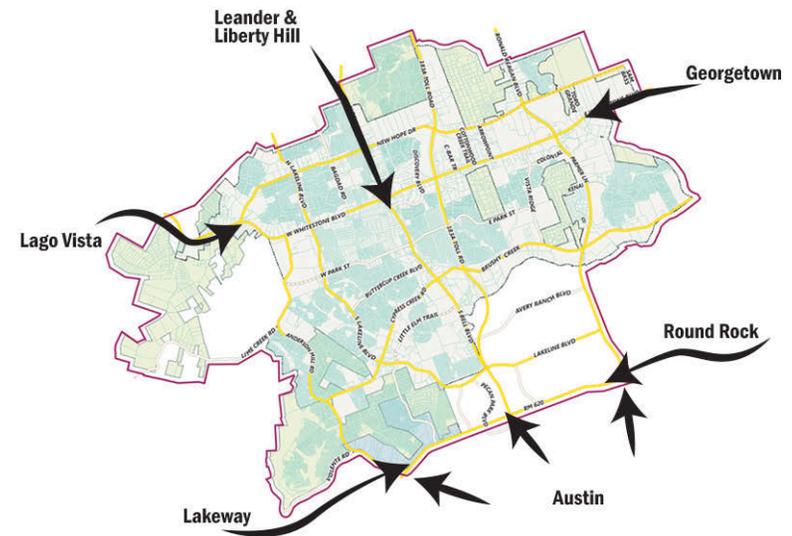
Growth Trends and Future Developments

According to CAMPO, between 2011 and 2012, central Texas was the fastest growing large metropolitan region in the country.

While the City of Cedar Park is nearing build-out, the City of Leander and other surrounding cities are expected to experience significant growth in coming years and the resulting traffic will utilize roadways such as Bell Boulevard, Lakeline Boulevard, and Anderson Mill Road as north-south thoroughfares during peak times. In addition, Whitestone Boulevard also carries major east-west regional traffic that travels through Cedar Park.



Detail of CAMPO Two Mile Growth Rings for 2012 (number of new residential units per square mile) -source: Capital Area Metropolitan Planning Organization



As populations increase and travel grows with it, Cedar Park's transportation network will continue to serve surrounding communities as a primary transportation through-route.

Population Growth

The Cedar Park 2014 Comprehensive Plan reports the estimated 2013 population of Cedar Park to be 56,445 residents (Texas State Data Center). That is an increase of 7,508 people since the 2010 Census, or 15% growth over the last three years. With population increases over 400 percent over ten year periods, the City has experienced rapid growth in the past four decades.

Ultimate Capacity

As documented in the Cedar Park 2014 Comprehensive Plan, ultimate capacity, or build-out, is the maximum number of residents the City could support given its current City limits and ETJ and the land uses identified on the Future Land Use Map (Page 2-5). Data from the Comprehensive Plan states that Cedar Park's build-out population is estimated to be approximately 100,160 residents. This estimate is based on the number of anticipated future acres of residential development, recommended dwelling units per acre, rates of occupancy, and number of persons per household.

The Cedar Park community can expect several thousand new residents to join the existing population through new development, future redevelopment, and eventual annexation of the ETJ areas identified in the 2014 Comprehensive Plan.

Year	Population	Change
1970	687	--
1980	3,474	406%
1990	5,161	49%
2000	26,049	405%
2010	48,937	88%
2013	56,445	15%

Source: U.S. Census

5,161 CEDAR PARK POPULATION IN 1990

26,049 CEDAR PARK POPULATION IN 2000

56,445 CEDAR PARK POPULATION IN 2013

US Census Bureau and Texas State Data Center



Growth in Cedar Park has brought new businesses to the area such as H-E-B, Wal-Mart, retail and restaurants. With this increase in population and businesses, also comes an increase in traffic.



Traffic Growth

Traffic growth rates for the City of Cedar Park were developed after review of a wide variety of information:

- CAMPO's Growth Rate Projections (Years 2015, 2025, and 2035)
- TxDOT's historical traffic counts (Year 2008 to Year 2011)
- City of Cedar Park 24-hour traffic counts (Year 2008 to 2013)
- CTRMA average 24-hour traffic counts (Year 2012)
- HDR's existing 24-hour traffic counts (Year 2013)

Using the historic growth rates as a guide while maintaining consistency with CAMPO projections as well as capacity limitations, growth rates were assumed for each corridor between the years of 2013 to 2020 and 2020 to 2035. The near-term growth rates reflect the rapid development in Cedar Park and the areas to the north. The long-term growth rate account for the areas reaching full-build and capacity and therefore reflects a moderate, sustainable growth. The growth rates are shown graphically in [Figure 2-7](#).

Growth rates were assumed for each corridor between the years **2013 - 2020** and **2020 - 2035**.



Projected Growth Rates for Future Years

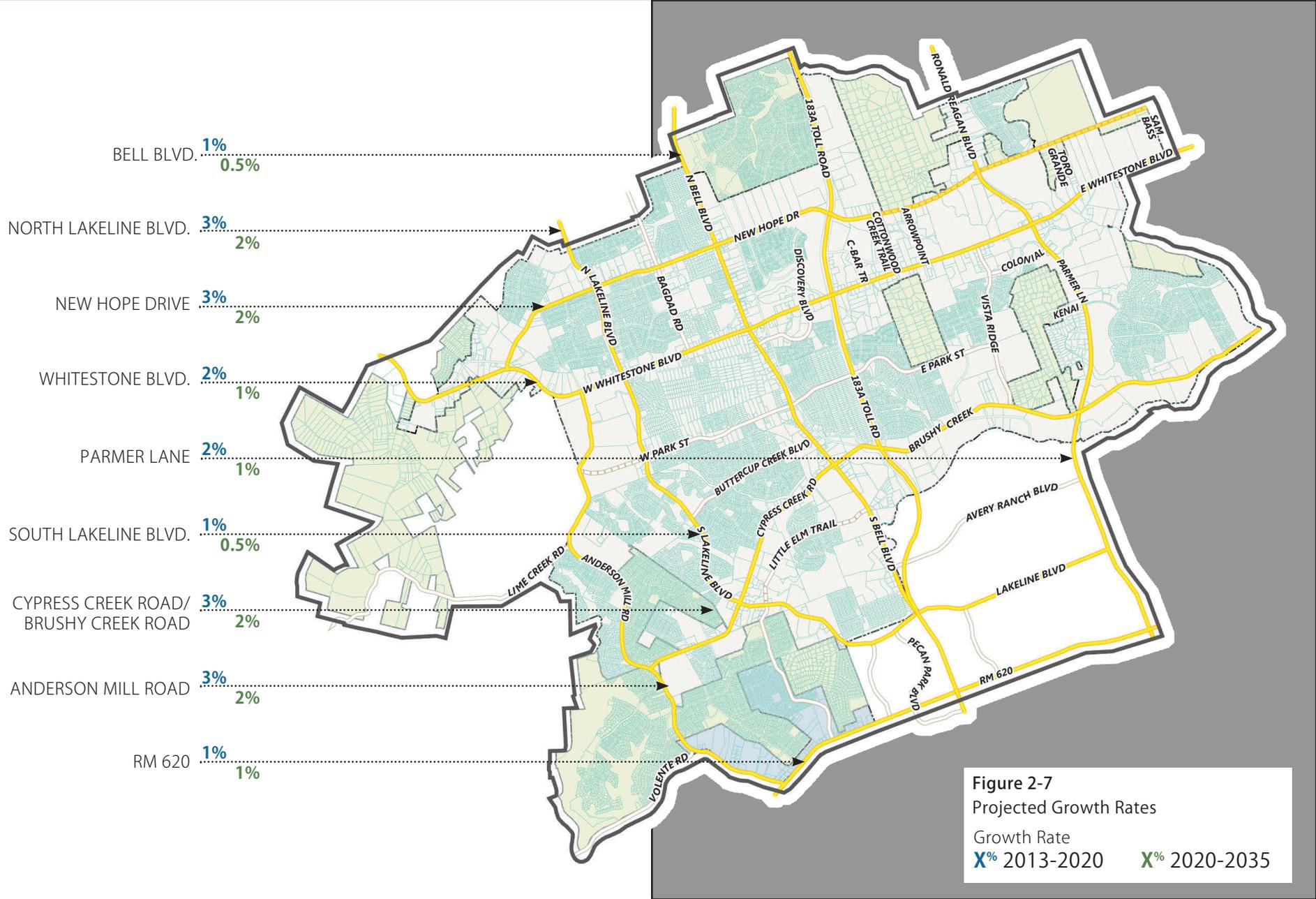


Figure 2-7
 Projected Growth Rates
 Growth Rate
 X% 2013-2020 X% 2020-2035



Future Intersection Operations

To project levels of intersection operations in future conditions, growth and development assumptions were used to predict future traffic operating conditions in Cedar Park in 2016 and 2035. Those conditions were described at the beginning of this section, and are shown again, below.

- A 2013 Existing Conditions.**
Current traffic conditions for the year 2013 are detailed.
- B 2016 Forecasted Conditions with Existing and Committed Improvements.**
2016 forecasted traffic conditions + Existing and Committed Improvements.
- C 2035 Forecasted Conditions (No Build).**
2035 forecasted traffic conditions + Existing and Committed Improvements. These conditions can be expected if no additional improvements are made beyond those that are currently funded.
- D 2035 Forecasted Conditions with Recommended Improvements.**
2035 forecasted traffic conditions + Existing and Committed Improvements + Recommended Improvements identified in this Transportation Master Plan Update.

Level of service for future scenarios B, C and D is detailed in the following pages.

The Existing and Committed Improvements shown on this page are those for which the City has committed and secured funding, and therefore these improvements have been accounted for in the following analysis.

Existing and Committed Improvements are outlined in the adjacent table and shown in [Figure 2-10](#).

Existing and Committed Improvements

CORRIDOR	IMPROVEMENT	
Bell Boulevard	New Hope Drive: Construct northbound and southbound right-turn lanes. <i>(Completed)</i>	1
	Walton Way: Construct southbound right-turn lane and additional northbound left-turn lane. <i>(Completed)</i>	2
Cottonwood Creek Trail	Whitestone Boulevard to New Hope Drive: Widen roadway from two lanes to four lanes.	3
Cypress Creek Road	Lakeline Boulevard: Construct eastbound and westbound dual left-turn lanes. Extend the existing northbound and southbound dual left-turn lanes.	4
	Bell Boulevard: Construct eastbound and westbound dual left-turn lanes.	5
Lakeline Boulevard	Old Mill Road: Signalize intersection.	6
	Whitestone Boulevard: Construct northbound dual left-turn lanes.	7
Little Elm Trail	Lakeline Boulevard to Bell Boulevard: Extend Little Elm Trail.	8
New Hope Drive	183A to Cottonwood Creek Trail: Widen roadway to four-lane section. <i>(Completed)</i>	9
Whitestone Boulevard	Market Street to Sam Bass Road: Widen roadway from four lanes to six lanes.	10
	Parmer Lane/Ronald Reagan Boulevard: Reconfigure intersection to Continuous Flow Intersection (CFI).	11
	Anderson Mill Road to Bagdad Road: Upgrade section to include a two-way left-turn lane.	12
	183A to east of Cottonwood Creek Trail: Restripe roadway to six lane section.	13
	Bell Boulevard: Construct one additional westbound through-lane and one additional eastbound through-lane.	14
	Discovery Boulevard: Construct dual westbound left-turn lanes	15

Improvements Existing and Committed

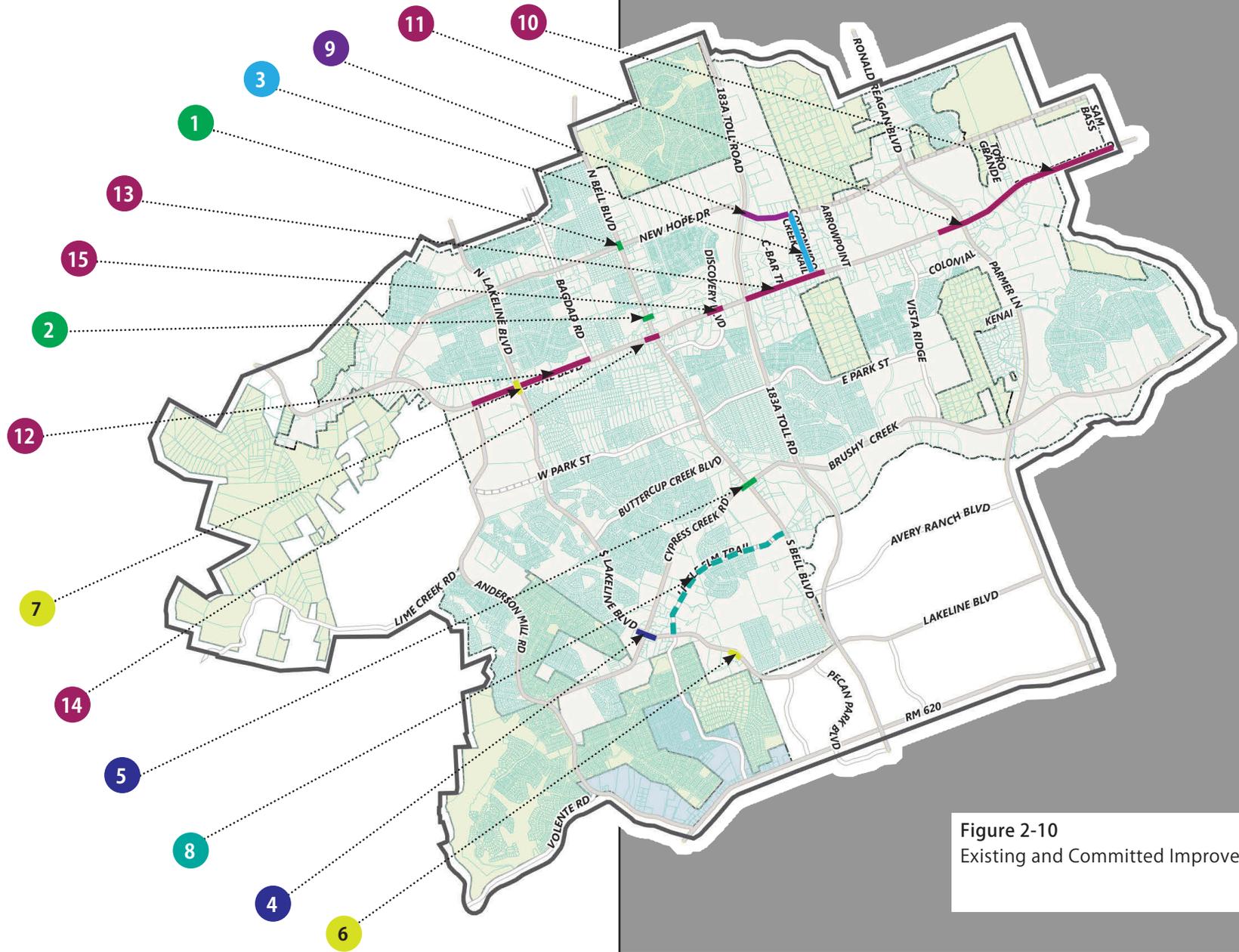
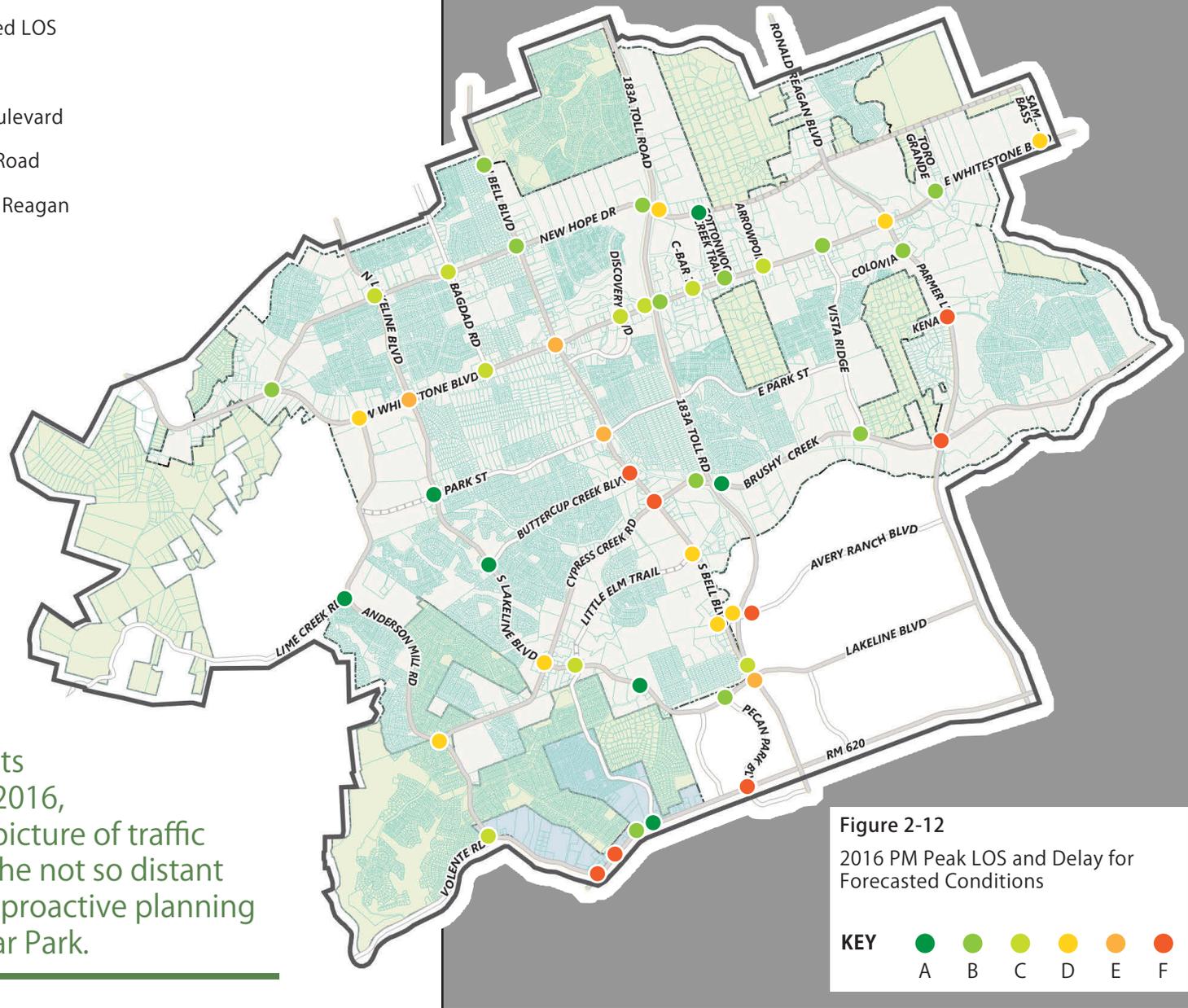


Figure 2-10
Existing and Committed Improvements



Major intersections showing improved LOS and less delay:

- Whitestone Boulevard at Bell Boulevard
- Bell Boulevard at Cypress Creek Road
- Whitestone Boulevard at Ronald Reagan Boulevard



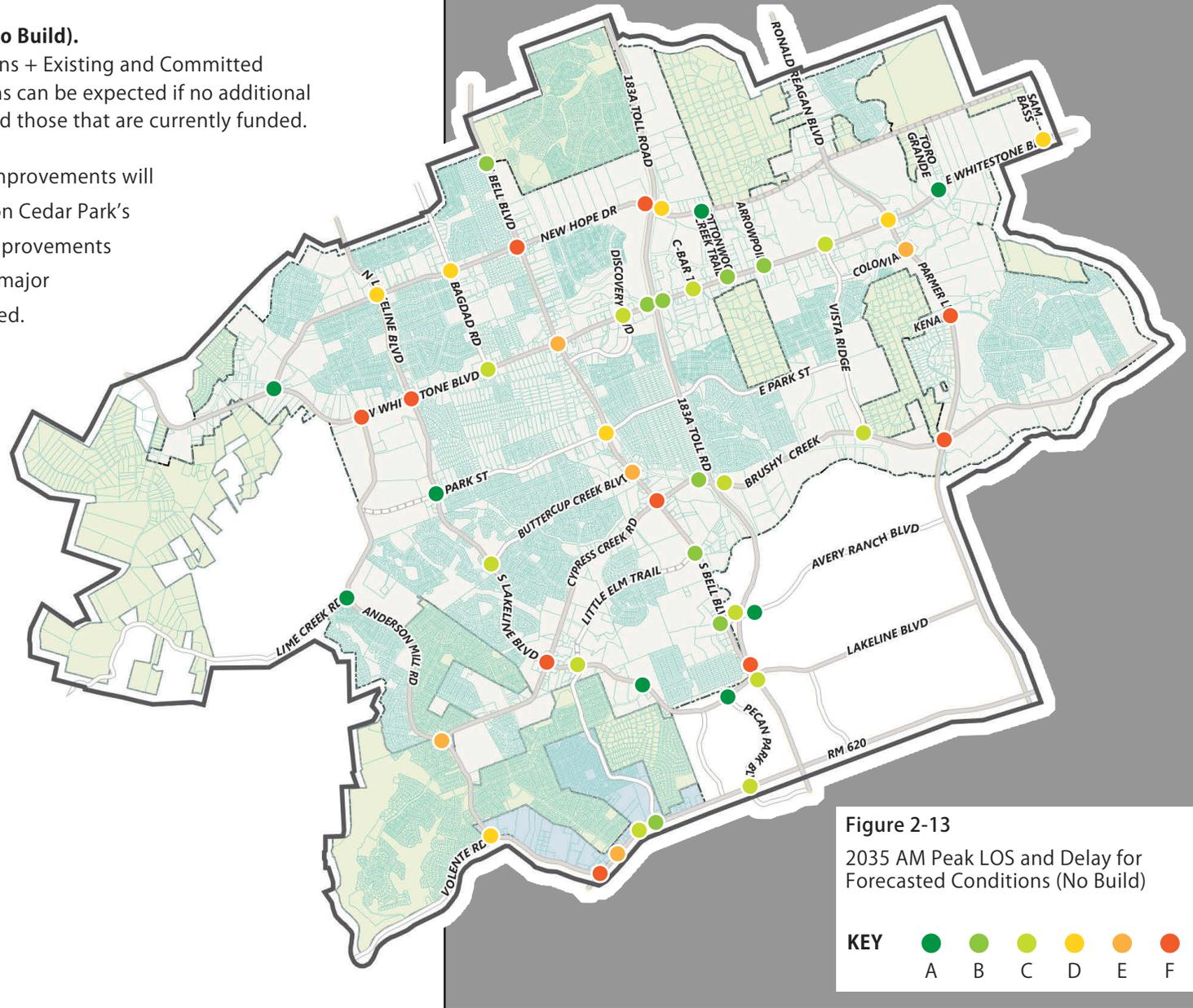
Assuming Existing and Committed Improvements will be implemented by 2016, this Scenario provides a picture of traffic operating conditions in the not so distant future, given the current proactive planning efforts of the City of Cedar Park.



2035 Forecasted Conditions (No Build).
 2035 forecasted traffic conditions + Existing and Committed Improvements. These conditions can be expected if no additional improvements are made beyond those that are currently funded.

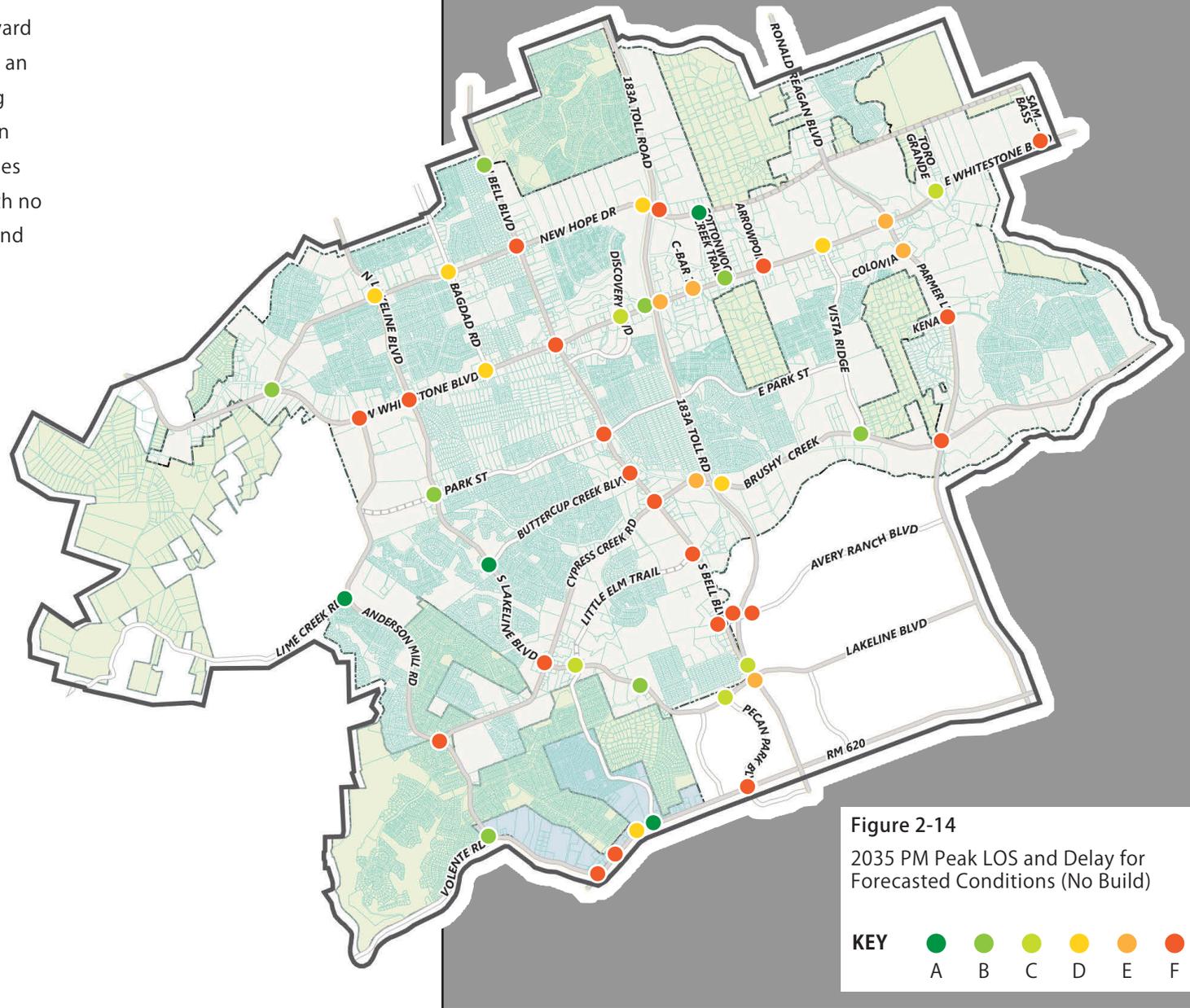
While the Existing and Committed Improvements will help to ease the impacts of growth on Cedar Park's roadways in 2016, with no further improvements by 2035, Cedar Park's roadways and major intersections will be heavily congested.

The 2035 Forecasted Conditions (No Build) scenario represents these conditions. Results of the 2035 Forecasted Conditions (No Build) LOS analysis for AM and PM peaks are shown in [Figures 2-13 and 2-14](#).



LOS 2035 No Build PM Peak

Major intersections along Bell Boulevard and Whitestone Boulevard will fall to an unacceptable LOS F especially during PM peak period due to the increase in traffic. Overall network delay increases by 148% between 2016 and 2035 with no improvements beyond the Existing and Committed Improvements.



D 2035 Forecasted Conditions with Recommended Improvements.
 2035 forecasted traffic conditions + Existing and Committed Improvements + Recommended Improvements identified in this Transportation Master Plan Update.

When Scenario C is assumed, intersections along Bell Boulevard, Whitestone Boulevard, Parmer Lane, and other major corridors see substantial improvement compared to the 'No Build' scenario.

The No Build scenario shown in Figures 2-13 and 2-14 is useful, as the analysis helps to identify the corridors and major intersections in need of improvements given the growth that is expected to occur before 2035.

The scenario shown here includes a set of Recommended Improvements that was developed with significant input from the City of Cedar Park and is presented in detail in [Chapter 3: Recommendations](#).

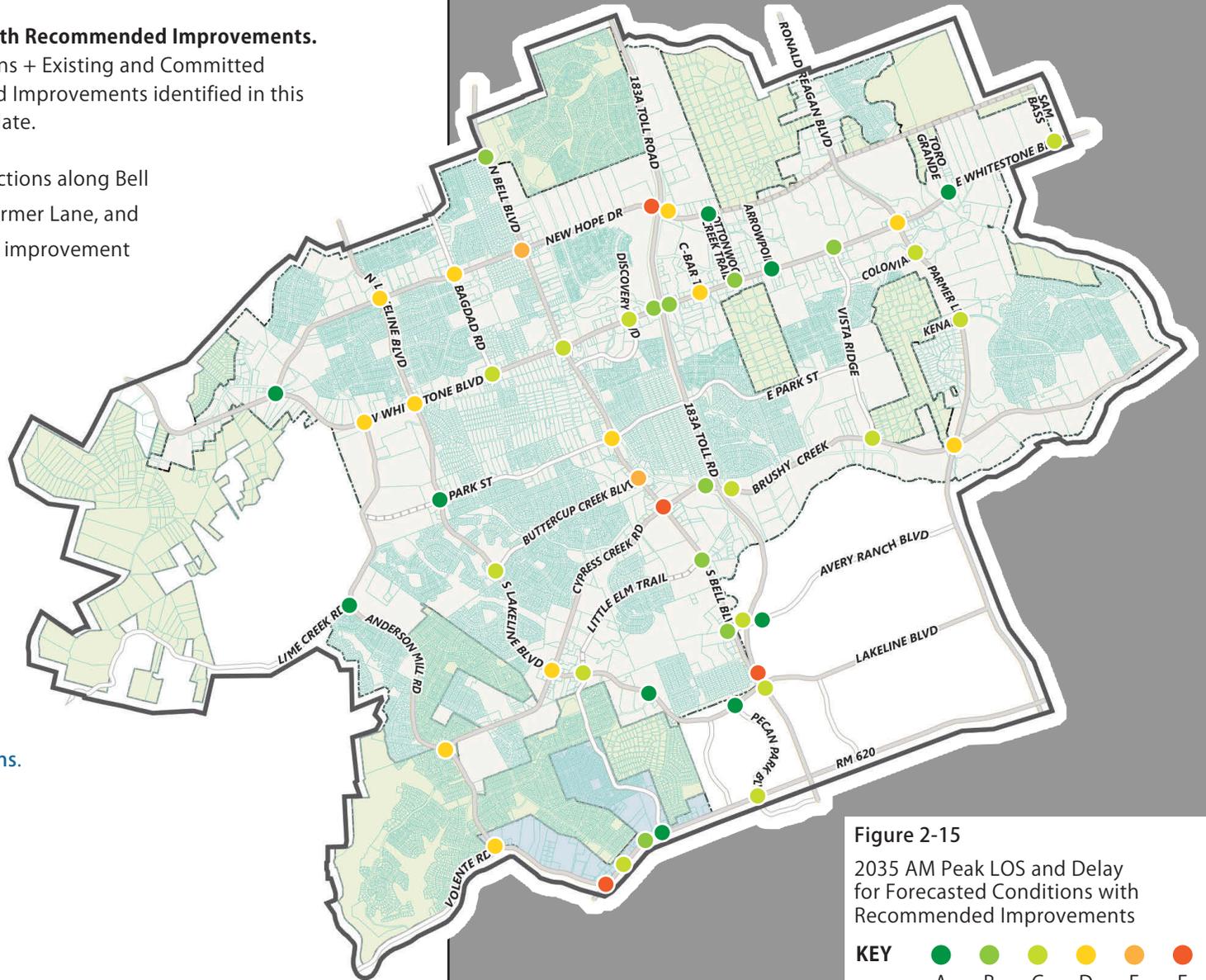


Figure 2-15
 2035 AM Peak LOS and Delay
 for Forecasted Conditions with
 Recommended Improvements

KEY

●	●	●	●	●	●
A	B	C	D	E	F

LOS 2035 with Improvements PM Peak

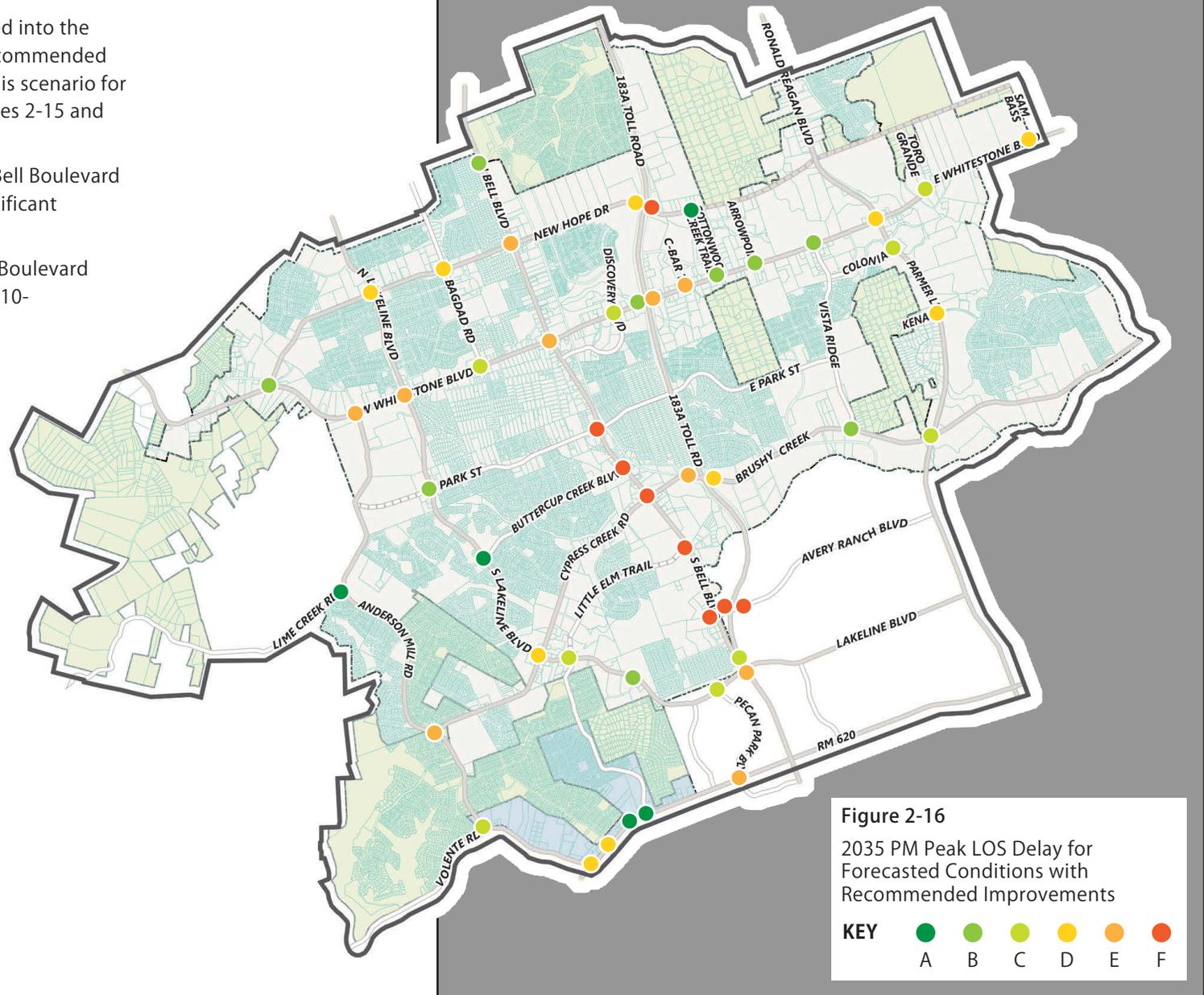
These improvements are incorporated into the 2035 Forecasted Conditions with Recommended Improvements scenario. Results of this scenario for AM and PM peaks are shown in Figures 2-15 and 2-16.

Although many intersections along Bell Boulevard are LOS F, in many cases there is significant reduction in intersection delay.

All intersections analyzed along Bell Boulevard could improve to a LOS E or better if 10-25% of traffic is:

- Successfully rerouted to 183A
- Utilizes other modes
- Takes advantage of Traffic Demand Management (TDM) technologies

Utilization of 183A provides an opportunity to relieve congestion on Cedar Park's major roadways.



User Delay Savings

Total network delay was calculated for each of the scenarios discussed in this report using the sum of intersection delay results provided by Synchro 8.0 analysis. The total network delay results were converted to annual delay to provide a comparison between scenarios that combines the AM peak and PM peak results. The annual delay savings were calculated based on the following assumptions:

- AM peak period delay savings realized over two hours (7:00 – 9:00 AM)
- PM peak period delay savings realized over two hours (4:00 – 6:00 PM)
- 250 travel days per year

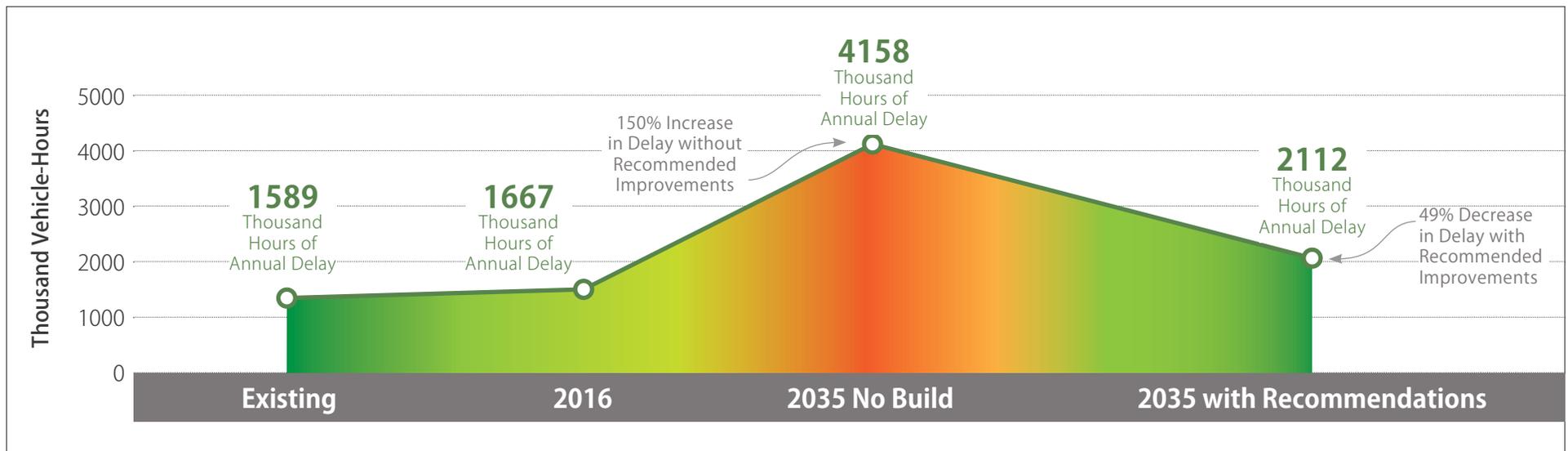
The above assumptions are conservative, as off-peak and weekend delay savings were not included.

In order to quantify the impact of the proposed improvements, a cost analysis was performed based on the comparison of cumulative delay savings for each scenario. The cumulative delay savings for each scenario were based on the annual delay calculations and a value of time of \$17.70 per hour, calculated from the Texas A&M Transportation Institute's 2012 Urban Mobility Report and the April 2014 Consumer Price Index provided by the U.S. Bureau of Labor Statistics. The **Annual Delay** graph below summarizes the results.

As shown, the Recommended Improvements provide a great amount of benefit, reducing annual delay by approximately 50% by 2035. The total value of the delay savings is approximately 36 million dollars annually. These delay savings alone are expected to recoup the construction costs of these improvements.

A similar method is used to perform a cost-benefit analysis in order to prioritize short-, medium-, and long-term roadway Recommended Improvements in the Implementation Plan section.

Annual Delay (thousand vehicle-hours)



Cumulative Delay Savings for each Scenario.



RECOMMENDATIONS



These initiatives support overarching goals to foster continued economic development and improve quality of life for the residents of Cedar Park.

Many transportation initiatives are currently underway that are based on existing Council approved policies and support transportation goals. This plan affirms and reinforces these initiatives, and will help ensure they are delivered consistently and supportively.

The plan also includes new transportation infrastructure projects, travel demand management techniques, and policy changes that have been identified through existing and future conditions evaluation. Some are relatively quick and straightforward to implement while others may unfold over several years, requiring further study, outside agency coordination, public and stakeholder consultation, and future decisions by Council.

As the City of Cedar Park moves forward with improvements to their community's transportation network, close coordination with outside agencies will be critical to facilitate more efficient implementation of future improvements to infrastructure, and provide better access to the facilities they operate. The roadways and infrastructure Cedar Park residents and commuters use to travel to their various destinations are, like all roadways and infrastructure, operated by different agencies with different agendas.

For Cedar Park, these agencies include TxDOT, Central Texas Regional Mobility Authority (CTRMA), Williamson County, Travis County, the City of Leander, the City of Austin and Capital Metropolitan Transportation Authority (CMTA).

Some key initiatives and actions are highlighted in the following pages. Each one was reviewed as part of an overall framework to ensure that the needs of the growth of Cedar Park and region are met for years to come.



CORRIDORS OF FOCUS

The roadways highlighted in this section have been selected based in part on analysis results of projected growth rates and travel demand. These roadways are a vital part of Cedar Park's transportation network. User demand and density is expected to increase as growth continues in the area.

The 2002 Transportation Plan identified a need to provide greater connectivity within and across Cedar Park. Arterials and freeways were anticipated to need considerable improvements to capacity and operations to ensure improved access and smoother traffic flow.

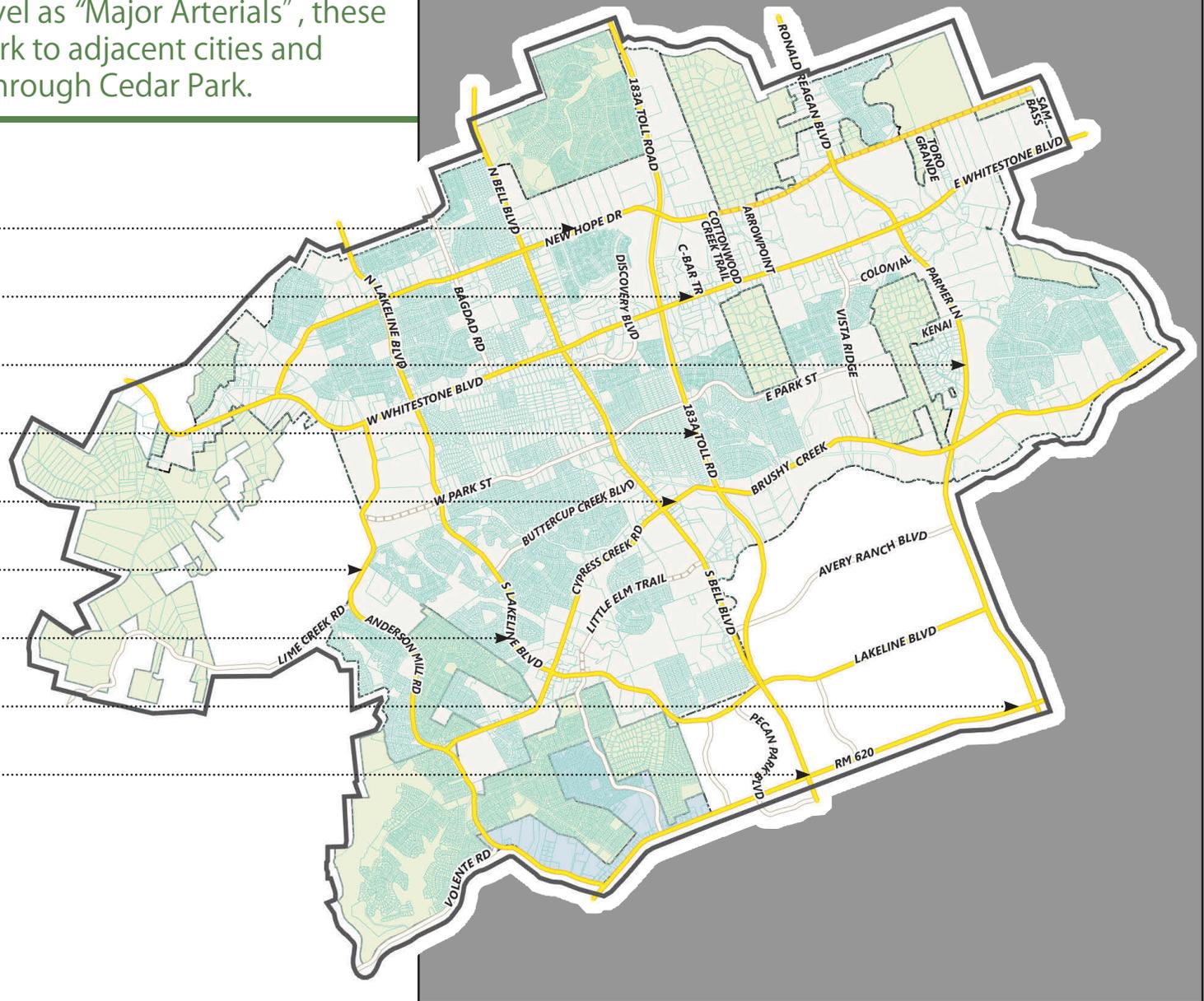
Cedar Park has taken initiative to develop its own internal transportation patterns. Roadways offering adequate capacity will provide connectivity to recreational areas in the west and commercial/business centers to the east.

Actions have already been taken to ensure these important thoroughfares are being updated to keep up with current and future demand. These Studies and Actions are highlighted in the following pages, along with additional recommendations that can help to maintain smooth traffic flow along these roadways for future motorists and commuters.



Defined in the City of Cedar Park's Roadway Classification Map and on a statewide level as "Major Arterials", these corridors connect Cedar Park to adjacent cities and provide travel across and through Cedar Park.

- NEW HOPE DRIVE
- WHITESTONE BLVD.
- RONALD REAGAN BLVD./
PARMER LANE
- 183A
- CYPRESS CREEK ROAD/
BRUSHY CREEK ROAD
- ANDERSON MILL ROAD
- LAKELINE BLVD.
- RM 620
- BELL BLVD.



ANDERSON MILL ROAD



Artistic illustration of Anderson Mill Road as a Complete Street.

Objective

Anderson Mill Road provides an important connection along Cedar Park's west side from Whitestone Boulevard south to Bell Boulevard/US 183. It serves heavy truck traffic from the quarry as well as multiple residential areas. Traffic flow is somewhat impeded by an inconsistent cross-section, and further impeded by multiple all-way stops along the corridor. Anderson Mill Road is heavily traveled on the southern end as a cut-through route from RM 620. It is used by recreational cyclists on the weekends. Multiple schools are located along this roadway.

Studies or Actions Completed

Much of Anderson Mill Road has been upgraded with a raised median, wide shoulders, and sidewalks. The road narrows to a two-lane section between Cypress Creek Road and Zeppelin Drive where quarry traffic can be heavy.

Recommended Improvements

- A** Upgrade remaining two-lane roadway segments between Whitestone Boulevard and RM 620 to four lanes in three phases:
 - Phase 1: Whitestone Boulevard to Lime Creek Road (partial widening).
 - Phase 2: Whitestone Boulevard to Lime Creek Road (completion of widening).
 - Phase 3: Zeppelin Drive to Cypress Creek Road.
- B** Reconfigure intersection at Anderson Mill Road and RM 620 with innovative intersection (CFI or grade separation).
- C** Remove all-way stop controlled intersections and upgrade to signals (where warranted) to facilitate through traffic along Anderson Mill Road.



WHAT IS A 'COMPLETE STREET'?

GOAL FOR CORRIDOR:

- Develop "Complete Streets" roadway concept for Anderson Mill Road, south of Whitestone Boulevard with landscaped median, travel lanes, bicycle lanes and sidewalks.

"Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work." *-Smart Growth America*



CYPRESS CREEK ROAD/BRUSHY CREEK ROAD



Cypress Creek Road/Brushy Creek Road provides access to Bell Boulevard and 183A and serves multiple schools and area recreational facilities.

Objective

A continuous four-lane divided section, this corridor experiences heavy traffic at major intersections such as Lakeline Boulevard, Bell Boulevard and Parmer Lane during peak periods. Improvements at major cross streets should be adequately planned to maintain safety and mobility on this east-west roadway.

Studies or Actions Completed

A new segment of Brushy Creek Road was recently completed from 183A to Parmer Lane including connections to the Brushy Creek Regional Trail system. The Capital Metro Red Line runs along the south side of Brushy Creek Road from Bell Boulevard to Vista Ridge Boulevard.

Committed Improvements

- 1 Extend existing northbound and southbound dual left-turn lanes at Lakeline Boulevard.
- 2 Construct eastbound and westbound dual left-turn lanes at Lakeline Boulevard.
- 3 Construct eastbound and westbound dual left-turn lanes at Bell Boulevard.

Recommended Improvements

- A Plan/program for future innovative intersection improvements at Bell Boulevard (partial grade separation on east-west street).
- B Construct northbound and southbound dual left-turn lanes on Bell Boulevard.
- C Improve signing at 183A and Brushy Creek Road.
- D Plan/program for future innovative intersection improvement at Parmer Lane (full grade separation).



NEXT STEPS

GOAL FOR CORRIDOR:

- Facilitate east-west connectivity in Cedar Park.
- Promote east-west travel along this corridor.
- Provide better access to 183A.
- Implement consistent ADA compliant sidewalk design along the corridor.

Improvements at major cross streets Lakeline Boulevard, Bell Boulevard and Parmer Lane should be adequately planned to maintain safety and mobility on this east-west roadway.



LAKELINE BOULEVARD



Lakeline Boulevard is an important north-south roadway with a major intersection at Bell Boulevard. Heavy development on this corridor has contributed to many mobility and safety issues.

Objective

With the US 183 freeway facility terminating at Lakeline Mall Drive, traffic from Cedar Park travels through the Lakeline Boulevard/US 183 interchange to access US 183 for travel into Austin and Cedar Park. While this is located within the Austin city limits, the impacts greatly affect Cedar Park commuters.

Studies or Actions Completed

Intersection improvements are planned for the interchange of Bell Boulevard and Lakeline Boulevard. There are continuous sidewalks along both sides of Lakeline Boulevard that end north of Old Mill Road.

Committed Improvements

- 1 Construct northbound dual left-turn lanes at Whitestone Boulevard.
- 2 Construct eastbound and westbound dual left-turn lanes at Cypress Creek Road.
- 3 Extend existing northbound and southbound dual left-turn lanes at Cypress Creek Road.
- 4 Extend Little Elm Trail from Lakeline Boulevard to Bell Boulevard.
- 5 Signalize intersection of Lakeline Boulevard and Old Mill Road.

Recommended Improvements

- A Construct eastbound, westbound, and southbound dual left-turn lanes at Whitestone Boulevard.
- B Plan/program for future innovative intersection improvements at Cypress Creek/Brushy Creek Road (CFI or partial grade separation for east-west movement).
- C Coordinate with the City of Austin to provide continuous ADA compliant sidewalks to Bell Boulevard.
- D Extend Old Mill Road from Lakeline Boulevard to Cypress Creek Road.
- E Explore options to provide a direct connection between Lakeline Boulevard and US 183 and SH 45.



PUBLIC COMMENT

GOAL FOR CORRIDOR:

- Work with regional partners for mobility solutions for the area surrounding Bell Boulevard and Lakeline Boulevard.

“I think it’s a tremendous asset to have that kind of roadway, because growth is coming. It’s already here, and it will continue.”

-Community Impact, Lakeline Blvd. Extension Project Moving Forward



NEW HOPE DRIVE



New Hope Drive will provide vital congestion relief for Whitestone Boulevard as well as carry traffic to 183A.

Objective

New Hope Drive connects Whitestone Boulevard to 183A. While it provides access to Bell Boulevard and 183A, it also serves local neighborhoods, schools, churches, and the Cedar Park Center. New sidewalks line the majority of the corridor.

Studies or Actions Completed

New Hope Drive was recently extended east to the Cottonwood Creek Trail and 183A, providing direct access to the tolled facility. Intersection improvements are planned at key locations.

Committed Improvements

- 1 Construct northbound and southbound right-turn lanes at Bell Boulevard. *(Completed)*
- 2 Widen roadway to four lanes from 183A to Cottonwood Creek Trail. *(Completed)*

Recommended Improvements

- A Construct northbound and southbound dual left-turn lanes on Bell Boulevard.
- B Extend roadway east from Cottonwood Creek Trail to Ronald Reagan Boulevard as four-lane divided section.
- C Extend roadway from Ronald Reagan Boulevard to Sam Bass Road.
- D Upgrade New Hope Drive to a four-lane divided section between Whitestone Boulevard and Lakeline Boulevard.



WHAT DOES A 'COMPLETE STREET' LOOK LIKE?

GOAL FOR CORRIDOR:

- Complete four-lane cross section to Ronald Reagan Boulevard.
- Complete gaps in sidewalks to provide a continuous ADA compliant facility.
- Promote east-west travel along New Hope Drive.

"A Complete Street in a rural area will look quite different from a Complete Street in a highly urban area, but both are designed to balance safety and convenience for everyone using the road." -Source: *Smart Growth America*



RONALD REAGAN BOULEVARD/PARMER LANE



Artistic illustration of intersection improvements at Parmer Lane and Ronald Reagan Boulevard.

This major corridor connects Cedar Park with Austin to the south and Liberty Hill and Leander to the north.

Objective

The portion of Ronald Reagan Boulevard/Parmer Lane that fall within the City's limits runs between New Hope Drive and Brushy Creek Road and serves several residential communities. This four-lane divided roadway experiences heavy traffic volumes which add to operational issues at the intersections of Whitestone Boulevard, Avery Ranch Boulevard and Brushy Creek Road.

Committed Improvements

- 1 Reconfigure Whitestone Boulevard and Parmer Lane to a CFI.

Recommended Improvements

- A Widen roadway from four-lane to six-lane section between New Hope Drive and Brushy Creek Road. Coordinate with City of Austin to provide continuous section to the south to RM 620.
- B Plan/program for future innovative intersection improvements at Brushy Creek Road (full grade separation).



NEXT STEPS

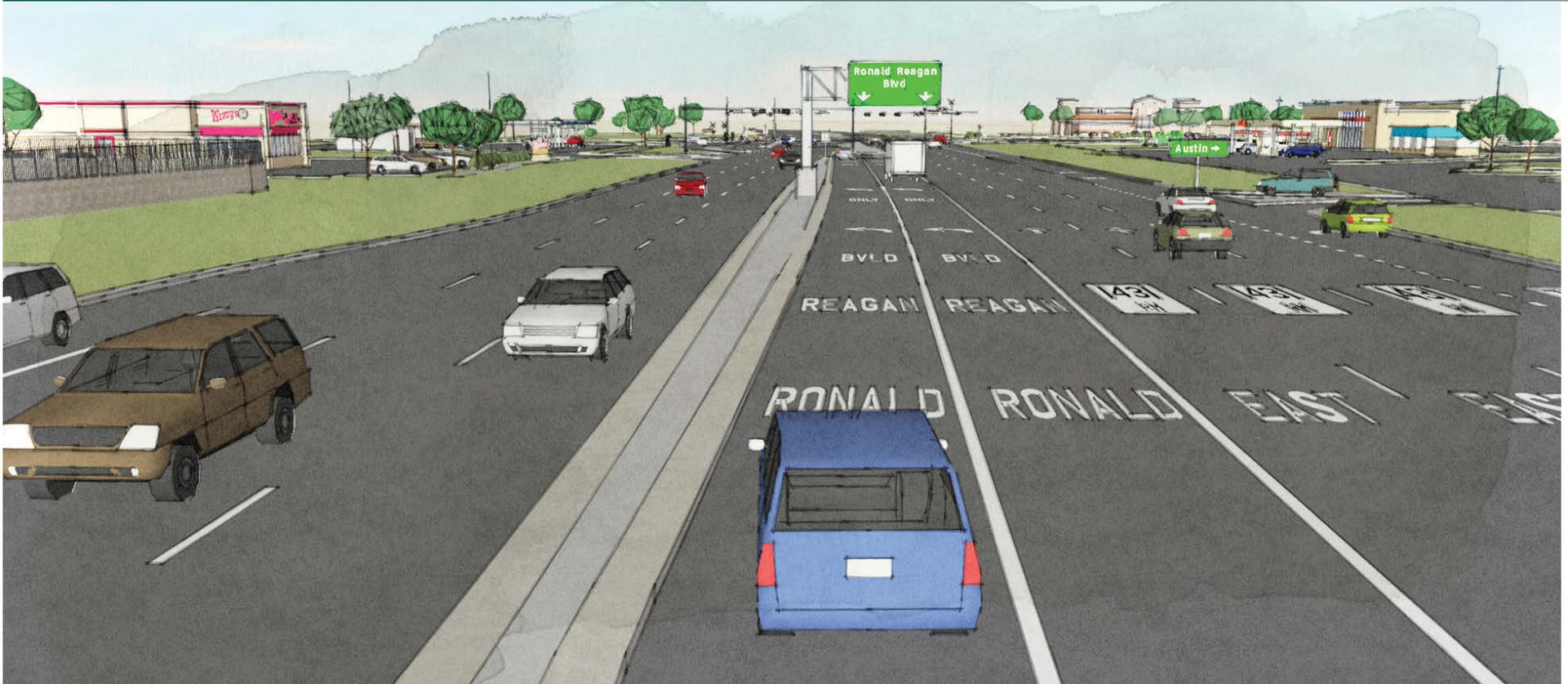
GOAL FOR CORRIDOR:

- Plan for future innovative intersection improvements at Cypress Creek Road/Brushy Creek Road.

Improve capacity along this major north-south roadway through widening and innovative intersection improvements to alleviate congestion.



WHITESTONE BOULEVARD (RM 1431)



Artistic illustration of the Continuous Flow Intersection at 1431 and Parmer Lane.

Objective

Whitestone Boulevard provides regional connectivity from Marble Falls to Round Rock. With connections to both Bell Boulevard and 183A, traffic volumes have been increasing in recent years. The City of Cedar Park aims to promote mobility and safety along this corridor as well as support economic development in the area. The railroad crossing and major cross streets present challenges along the Whitestone Boulevard corridor.

Studies or Actions Completed

Whitestone Boulevard between Market Street and Sam Bass Road is currently being upgraded to a six-lane divided roadway. A recent TxDOT project identified short and long-term improvements including the addition of turn lanes at many major intersections.

Committed Improvements

- 1 Construct northbound dual left-turn lanes at Lakeline Boulevard.
- 2 Widen road from four lanes to six lanes from Market Street to Sam Bass Rd.
- 3 Reconfigure Whitestone Boulevard and Parmer Lane to a CFI.
- 4 Upgrade cross-section from Anderson Mill Road to Bagdad Road to include a two-way left-turn lane.
- 5 Restripe roadway to six-lane section from 183A to Cottonwood Creek Trail.
- 6 Construct one additional westbound and eastbound through-lane at Bell Blvd. *(Completed)*
- 7 Construct dual westbound left-turn lane at Discovery Boulevard.

Recommended Improvements

- A Construct east, west, and southbound dual left-turn lanes at Lakeline Blvd.
- B Upgrade roadway to six lanes from Anderson Mill Road to Bagdad Road.
- C Upgrade roadway to six lanes from Cottonwood Creek to Market Street.
- D Reconfigure Whitestone Boulevard and Bell Boulevard to a CFI.
- E Reprogram signal timing along Whitestone Boulevard such that it optimizes traffic flow for east/west arterial travel.
- F Implement DMS signs to provide travel time information to commuters destined for Austin to chose best north-south facility.



SMART GROWTH OPPORTUNITIES IN CEDAR PARK

GOAL FOR CORRIDOR:

- Implement access management to improve safety along the corridor.
- Promote as an east-west connector across the City of Cedar Park.

“Smart growth means building communities with housing and transportation choices near jobs, shops and schools. This approach supports local economies and protects the environment. Smart growth creates healthy communities with strong local businesses.” *-Smart Growth America*



RM 620



Objective

RM 620 is an east-west thoroughfare that divides Cedar Park and Austin. Operated and maintained by TxDOT, the segment that borders Cedar Park is a two lane undivided section with a two-way left turn lane. The roadway is characterized by commercial development and access to residential areas while also providing an important connection to SH 45 and US 183. Operations along this roadway are in need of improvement to facilitate east-west travel and to mediate delay at the intersection of RM 620 and Anderson Mill Road.

Studies or Actions Completed

Recently, speed limits along much of RM 620 from Anderson Mill Road to SH 71 were lowered by 5 miles per hour or more. The 2014 Austin Strategic Mobility Plan contains a multi-modal mobility Corridor Development plan for the roadway that will examine future land use and transit options.

Recommended Improvements

- A** Consider widening to a six-lane divided section between Anderson Mill Road and US 183.
- B** Investigate improved configuration for US 183/SH 45/RM 620 interchange connections from RM 620 to reduce cut-through traffic and impact on City roadway network.
- C** Study potential for reversible managed lane on RM 620 that provides connection to a 183A managed lane.

Congestion at RM 620 and Anderson Mill Road is considered to be one of the critical transportation issues for Cedar Park.



GOAL FOR CORRIDOR:

- Implement access management to improve safety along the corridor.
- Improve connections to regional facilities for citizens of Cedar Park.

WHAT IS ACCESS MANAGEMENT?

Access Management regulates vehicle access points to businesses, public facilities, residences and all manner of public places and properties. Some strategies include optimal spacing between traffic signals and driveways, safe turning lanes, and median treatments. Good access management promotes safe and efficient use of the transportation network.



183A



Objective

183A is a toll road that runs from San Gabriel Parkway in Leander to the north to the US 183/SH 45/RM 620 interchange to the south. Maintained by CTRMA, the toll road is electronic only and does not have cash toll booths. Although some traffic from US 183 has moved to 183A since its opening there is still available capacity to relieve congestion on major roadways in Cedar Park.

Studies or Actions Completed

The northern extension of 183A from FM 1431 to just north of FM 2243 opened on April 6, 2012. A 10-foot wide shared use path that spans five miles allows pedestrians and cyclists to travel from Leander to Cedar Park.

Recommended Improvements

- A** Construct direct access from Bell Boulevard to southbound 183A south of Avery Ranch Boulevard.
- B** Consider constructing missing segment of 183A frontage road between Avery Ranch Boulevard and Whitestone Boulevard. Appropriate traffic and revenue studies should be completed to explore the viability of this.
- C** Redesignate 183A frontage roads when they are constructed as US 183.
- D** Convert US 183 to a City of Cedar Park roadway and redesignate as Bell Boulevard. Direct truck traffic to 183A.
- E** Explore innovative tolling options for Cedar Park residents to encourage use of 183A.
- F** Add a dynamic message sign on northbound 183A prior to the Avery Ranch Boulevard exit.



DYNAMIC MESSAGE SIGNS

GOAL FOR CORRIDOR:

- Increase utilization of this facility as a strategy to relieve congestion in Cedar Park.
- Implement ITS and Dynamic Message Signs to give motorists real time data regarding travel times on this corridor.

"DMS can provide valuable motorist information such as travel times, or delays caused by traffic incidents or construction. Also, special events that typically generate traffic demand that exceeds capacity - fairs, concerts, sporting events - provide additional opportunities for providing travel time information to motorists." -U.S. Department of Transportation, Federal Highway Administration.



BELL BOULEVARD/US 183



Objective

Bell Boulevard/US 183 is a TxDOT facility and is the main artery connecting the Cedar Park and Leander area to Austin. Bell Boulevard carries up to 45,000 vehicles per day. As the Cedar Park and Leander areas grow, maintaining mobility along this corridor has been a challenge. The opening of 183A has provided and will continue to provide an alternative choice for commuters.

Studies or Actions Completed

TxDOT recently completed an operational study to identify short and long-term improvements for the Bell Boulevard corridor through Cedar Park. Intersection improvements were recommended at several key locations. Once funding is identified, these improvements will move forward to design and construction.

Under a TxDOT contract, HDR performed detailed analysis of the US 183 corridor from San Gabriel Parkway in Leander south to Avery Ranch Boulevard in Cedar Park. This report and its findings are provided in the Appendix.

Committed Improvements

- 1 Construct southbound right-turn lane and additional northbound left-turn lane at Walton Way.
- 2 Construct dual left-turn lanes on Cypress Creek Road.
- 3 Extend Little Elm Trail from Lakeline Boulevard to US 183.
- 4 Construct northbound and southbound right-turn lanes at New Hope Drive. *(Completed)*
- 5 Construct one additional westbound and eastbound through-lane on Bell Blvd. at Whitestone Boulevard. *(Completed)*

Recommended Improvements

- A Construct southbound dual left-turn lanes with Dynamic Message Signs at New Hope Drive.
- B Construct northbound dual left-turn lanes at New Hope Drive.
- C Construct northbound and southbound dual left-turn lanes at Cypress Creek Rd.
- D Reconfigure Whitestone Boulevard and Bell Blvd. to a CFI.
- E Plan for future partial grade separation at Bell Blvd. and Cypress Creek Rd.
- F Extend Little Elm Trail from Bell Blvd. to 183A.



REDEVELOPING BELL BOULEVARD

It is important to ensure mobility along and across Bell Boulevard while providing opportunities for redevelopment along the corridor. As the area redevelops, bicycle and pedestrian amenities and improved signing and lighting will attract residents to Bell Boulevard as a “to” place instead of a “through” place.

GOAL FOR CORRIDOR:

- Continue to pursue the Comprehensive Plan vision of a family-friendly destination that creates a vibrant mix of existing establishments and new businesses.
- Work with regional partners to enhance access to US 183 for Cedar Park residents.





BELL BOULEVARD **REDEVELOPMENT** PLAN

Bell Boulevard runs through the heart of Cedar Park. With the population boom in Central Texas, this once rural section of US 183 is now heavily traveled as a major north-south corridor carrying traffic through the city and connecting to Austin to the south and Leander to the north. Extensive development to the east and the west have contributed to the current heavy congestion.

As more peak period traffic from Leander and Cedar Park utilizes 183A for the savings in travel time it offers, traffic flow along Bell Boulevard will likely improve. Multi-modal improvements and “Complete Streets” cross-sections could create safe access for all users. The redevelopment of Bell Boulevard will help to create an identity for the City of Cedar Park and enhance the driver experience.

The redevelopment of Bell Boulevard has long since been an ambition of the City of Cedar Park. In 2004, the city initiated the US 183 Corridor Enhancement Project to address issues such as safety, mobility, aesthetics and pedestrian access. This plan hopes to continue the effort by outlining steps to revitalize this major thoroughfare so that it appeals to visitors and residents alike.



Artistic illustration of redevelopment on Bell Boulevard.



A 'TO' PLACE INSTEAD OF A 'THROUGH' PLACE

GOAL FOR CORRIDOR:

- Seek to improve the land use mix, appearance, and character of Bell Boulevard.
- Implement traffic calming and traffic management elements.
- Consider a 'rebrand' for the corridor.

Festivals, market days or parades held along Bell Boulevard could attract a sense of community to this central corridor. Backage roads run parallel to a main route, providing alternative access to motorists. An established backage road system for Bell Boulevard could provide continued mobility for through and destination traffic during such area events.



TRAVEL DEMAND MANAGEMENT

Objective

Travel Demand Management (TDM), or Transportation Demand Management, is a general term for strategies that increase the over-all efficiency of a travel network by encouraging a shift from single-occupant vehicle (SOV) trips to other types of travel modes, or by shifting auto trips out of traditional peak periods.

TDM seeks to focus on moving people and goods rather than motor vehicles, and to reduce the number of SOV trips by increasing the number of travel options, providing incentives and information to encourage and help individuals modify their travel behavior, or by reducing the physical need to travel.



Trips made with a friend or co-worker reduce travel demand instantly and at no cost.

The overall goal and desired result will determine the best set of TDM strategies to implement. TDM is found to be most effective when combined with other complementary strategies:

- Off-Peak Travel
- Telecommuting
- Employer-based programs such as In-House Ride-Matching, Transit Pass Subsidies or Alternative Work Hours
- Carpooling or Van Pooling
- Congestion Pricing for toll facilities (tolls are adjusted based on time of day and/or congestion levels)
- Mixed Use Development

There are a number of TDM strategies the City could consider for implementation into the Cedar Park Transportation network.



GOAL FOR TDM STRATEGIZING:

- Explore ridesharing as a way to move away from single occupancy vehicle travel and reduce congestion on roadways.
- Enhanced connection to Capital Metro Lakeline Station.
- Participate in Project Connect Long Range Transit Vision.

Wayfinding

A 'trailblazing' or wayfinding sign system can direct commuters and motorists to the optimal facility and on to their further destinations.

To better distribute traffic from more congested routes to less congested alternatives, Dynamic Message Signs placed in advance of a route decision point, provide real-time information to motorists where and when they need it and offer an alternative route.

- Develop consistent signing for Whitestone Boulevard and Bell Boulevard.
- Develop a wayfinding guide sign system for Cedar Park attractions and key locations.
- Improve signing from Cedar Park roadways to encourage use of 183A.

Rideshare Programs

City of Cedar Park Comprehensive Plan 2006 Update specifies that carpooling should be investigated and implemented as a way to tie Cedar Park into the regional public transportation lines. Rideshare programs hope to encourage carpooling as a viable transportation option. Real-time internet and phone applications are available to link drivers and riders with similar commutes. Residents of Cedar Park could take advantage of this method of travel as a way to move away from single occupancy vehicle travel and reduce congestion on its roadways.



Access Management

Access management is the systematic control of the location, spacing, design, and operation of driveways, median openings, interchanges, and street connection. By managing roadway access, the City of Cedar Park can increase public safety, extend the life of major roadways, reduce traffic congestions, support alternative modes, and improve the appearance and quality of the built environment.

A set of techniques that the City of Cedar Park can use to control access to highways, major arterials, and roadways include:

- Access Spacing
- Driveway Spacing
- Safe Turning Lanes
- Median Treatments
- Right-of-Way Management

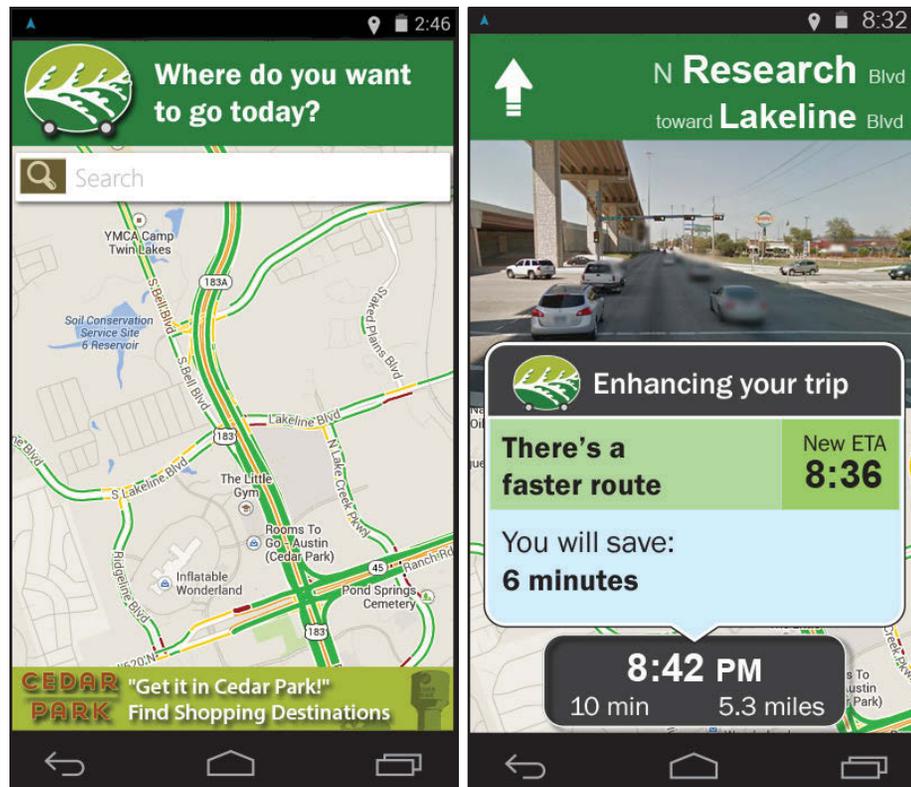
It is recommended that redundant or extraneous driveways along corridors such as Whitestone Boulevard and Bell Boulevard be closed or consolidated to improve corridor operations and safety.



INTELLIGENT TRANSPORTATION SYSTEMS

Objective

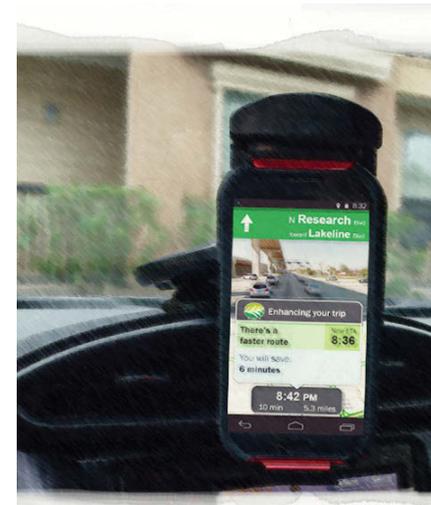
Intelligent Transportation Systems (ITS) focus on using technology to enable drivers to operate vehicles with greater knowledge of existing traffic conditions. With multiple parallel routes available throughout Cedar Park, ITS can be utilized to provide information to drivers on current roadway conditions allowing them to choose a route based on the shortest travel time. Examples of ITS include advanced signing and real-time travel information, built-in navigation systems for vehicles, and phone alerts regarding travel information.



Recommendations

- Investigate implementation of adaptive traffic control systems.
- Implement Dynamic Message Signs on Bell Boulevard and Whitestone Boulevard to provide real-time travel time information to motorists regarding use of Bell Boulevard and 183A.
- Develop smart phone app for City of Cedar Park residents to provide real-time roadway information such as travel time, crash information, or construction updates.
- Invest for a future upgrade of the Traffic Management Center where cameras will monitor traffic conditions.

Develop phone apps to provide real-time travel information to City of Cedar Park Residents.



Advanced technologies such as ITS offer many opportunities to gather and communicate real-time data that can enable drivers to operate vehicles with greater knowledge of existing traffic conditions.



MULTI-MODAL IMPROVEMENTS

The City of Cedar Park recognizes the importance of maintaining the quality of life for its residents and visitors. Transportation improvements for all modes are important to encourage sustainable growth. The city establishes its multi-modal priorities in part through the 2010 Hike and Bike Trails Master Plan. The plan emphasizes providing access and connectivity through sidewalks, bicycle routes, and trails. Multi-modal improvements are meant to make walking, riding a bike, or using transit more comfortable, convenient, and safe.

The goal of multi-modal improvements is different from that of traditional roadway improvements because the focus is on moving people rather than vehicles. Integration of the different modes into the transportation system of Cedar Park is critical to reduce dependency on single occupancy vehicles. More employment opportunities and a changing demographic within Cedar Park means



Multi-modal improvements seek to offer citizens who work and live around Cedar Park a safe and efficient way to conduct daily activities such as trips to school, work, or access to community amenities.

multi-modal commute options can help reduce single occupancy vehicle demand on Cedar Park roadways and increase people moving capacity. This section offers recommendations to meet travel demand growth beyond identified roadways improvements and traffic management.

The following recommendations are provided to alter the nature of the physical environment by improving mobility for residents and through traffic while maintaining the character and identity of the residents who live there and attracting people from other areas surrounding Cedar Park.

In a growing number of communities, bicycling and walking are considered factors of a community's livability.

BICYCLE AND PEDESTRIAN MASTER PLAN

Bicycling and walking as healthy modes of transportation, or as purely recreational activities, provide positive benefits in many areas including personal health, the health of the environment, reduced traffic congestion, improved quality of life, and the increased economic vitality of communities.

In a growing number of communities, bicycling and walking are considered indicators of a community's livability – a factor that has a profound impact on attracting businesses and workers as well as tourism. In cities and towns where people can regularly be seen out bicycling and walking, there is a sense that these are safe and friendly places to live and visit.

The City's 2002 Transportation Master Plan emphasized a growing need for alternative modes of transportation that would accommodate cyclists and pedestrians. Goal #3 states that Cedar Park should offer and encourage the use of travel modes other than the automobile. Citizens should be encouraged to use bicycles, walking and public transit.



BICYCLE NETWORK

Objective

The City of Cedar Park, in accordance with previous Master Plans, seeks to promote bicycling as a reasonable means of access to schools, parks and other areas of interest or recreation.

Studies or Actions Completed

The 2010 Hike and Bike Trails Master Plan has identified existing and future opportunities for sidewalks, bicycle routes, and trails in the City. Recreational cycling has greatly increased in Cedar Park most significantly on Anderson Mill Road, Ronald Reagan Boulevard, and Whitestone Boulevard. Recent projects have included shared use paths and wide outside lanes and shoulders to encourage cycling.

Next Steps

- Designate facilities as bikeways with a goal of connecting well-traveled cycling routes with major corridors and attractions.
- Install exclusive bike paths near existing roadways such as Anderson Mill Road.
- Consider bike lanes when roadway projects are considered for widening.
- Enhance bike signs and markings as appropriate to enhance safety.
- Where on-street bicycle facilities are not feasible, construct shared use paths.
- Update the 2010 Hike and Bike Trails Master Plan biannually.
- Consider cycle tracks or latest best practice bike facilities for recreational/commute purposes.



GOAL FOR CYCLISTS:

- Promote cycling as a reasonable means of access to schools, parks and other areas of interest or recreation.

2010 Citywide Hike and Bike Trails Survey Question: What Type of Bicycle Facilities Would You Like to See in Cedar Park?



Soft Surface Multi Use Trail was the Preferred Trail Type chosen by the Cedar Park Community. Other trail options included Off-Street Bikeways, Paved Multi-Use Paths, Shared-Use Bike Lanes, and On-Street Dedicated Bike Lanes.

CEDAR PARK VISION

“A citywide hike and bike trails plan provides the framework by which the City of Cedar Park and the private sector can work together to jointly create beautiful and meaningful trail corridors and make informed decisions as to how to fund trail development in a satisfactory manner.”

-City of Cedar Park Hike and Bike Trails Master Plan

The Cedar Park 2014 Comprehensive Plan found that many residents would like to expand existing bike facilities in their communities.



PEDESTRIAN NETWORK

Objective

The City of Cedar Park adopted a Citywide Hike and Bike Trails Master Plan in 2010. The Master Plan was designed to meet a long term vision that would “create a system of trails that connects all of Cedar Park by allowing residents to go from one end of the City to the other in a fun and healthy way”.

The City of Cedar Park wishes to promote walking for short trips, recreation, and safe access to schools, retail establishments and parks.

Studies or Actions Completed

The 2010 Hike and Bike Trails Master Plan has identified existing and future opportunities for sidewalks and trails in the City. The Master Plan identifies priority corridors for sidewalk and trail implementation.

Next Steps

- Fill in sidewalk gaps on priority corridors such as Anderson Mill Road, New Hope Drive, Bell Boulevard, Lakeline Boulevard, and Whitestone Boulevard.
- Coordinate with Public Works projects and local developers to provide opportunities for trail development as part of ongoing and new projects.
- Continue to prioritize and implement bike and pedestrian projects as defined in the 2010 Hike and Bike Trails Master Plan and update the plan biannually.
- Review the conditions of existing sidewalk and crosswalk network for ADA compliance.
- Upgrade existing traffic signal system as necessary to install Accessible Pedestrian Signal (APS) units.
- Emphasize safe ADA compliant pedestrian crosswalks at major intersections.
- Implement consistent and uniform application of signing, markings and other visual cues for motorists and pedestrians to create a safer crossings.

2010 Citywide Hike and Bike Trails Survey Question:

Where Would You Prefer Trails to Go in Your Neighborhood?



Cedar Park residents respond to a Public Meeting Survey question regarding their trail system.



GOAL FOR PEDESTRIANS:

- Promote walking for short trips, recreation, and parks, and to schools and retail establishments.



CEDAR PARK VISION

An overall theme of the Cedar Park 2014 Comprehensive Plan is “a walkable and connected environment that allows the community to be active and access destination points without the use of a motorized vehicle.”



TRANSIT/PUBLIC TRANSPORTATION

Objective

The City of Cedar Park is well situated in the Greater Austin Metropolitan Region. A significant percentage of Cedar Park residents work outside the city limits, and many of them use the roadway network to travel to Austin. As traffic congestion continues to increase, the use of public transportation can play a vital role for the residents of Cedar Park.

Studies or Actions Completed

Limited transit options are currently available to Cedar Park residents. Capital Metro's Red Line provides service from Leander to Austin. Two stations are located near Cedar Park – the Leander Station and the Lakeline Station. The City of Cedar Park's 2014 Comprehensive Plan identifies Capital Metro's long-term vision is to develop the Lakeline Station area as a transit-oriented development (TOD) with a vibrant mix of land uses. While Capital Metro does not serve the City of Cedar Park transit options via bus can be considered to connect to the existing transit facilities.

Next Steps

- Enhance connections to the existing Lakeline Station.
- Consider increasing parking at the Lakeline Park and Ride to provide improved capacity and facility access to Cedar Park commuters.
- Consider increasing service frequency and capacity to allow Cedar Park residents additional options and flexibility to transit modes.
- Consider transit framework for the City of Cedar Park to take advantage of adjacent commuter rail service.
- Consider development of City shuttle service to adjacent Capital Metro Park and Ride locations.
- Consider a future Red Line Station in Cedar Park between Park Street and Discovery Boulevard as part of Bell Boulevard Redevelopment Plan.
- Consider joining Capital Metro, when feasible, to provide transit service in Cedar Park.

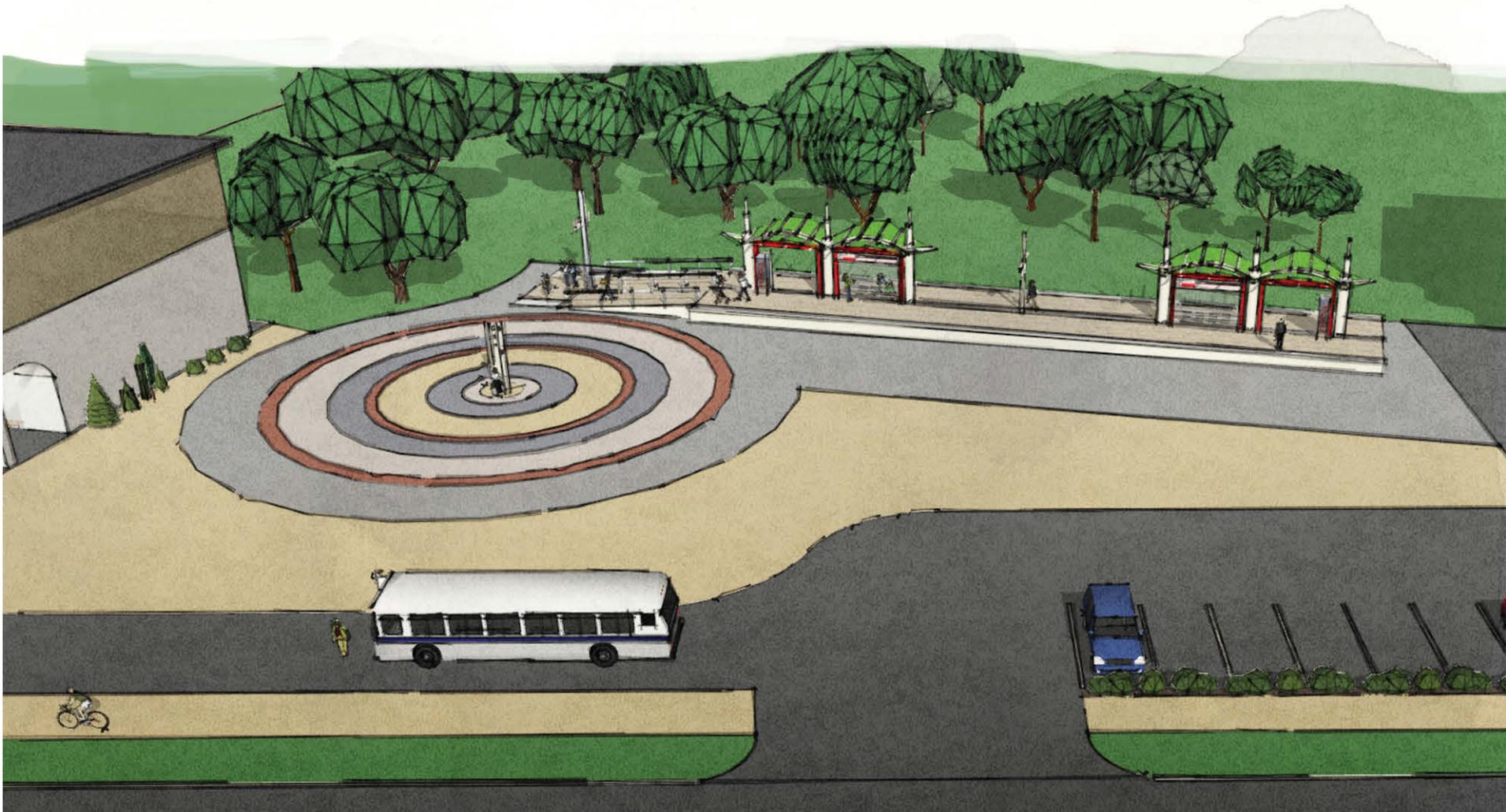


A local shuttle system could connect commuters and visitors to the Lakeline Station.



A bus system could be considered as an option to provide access across the community.

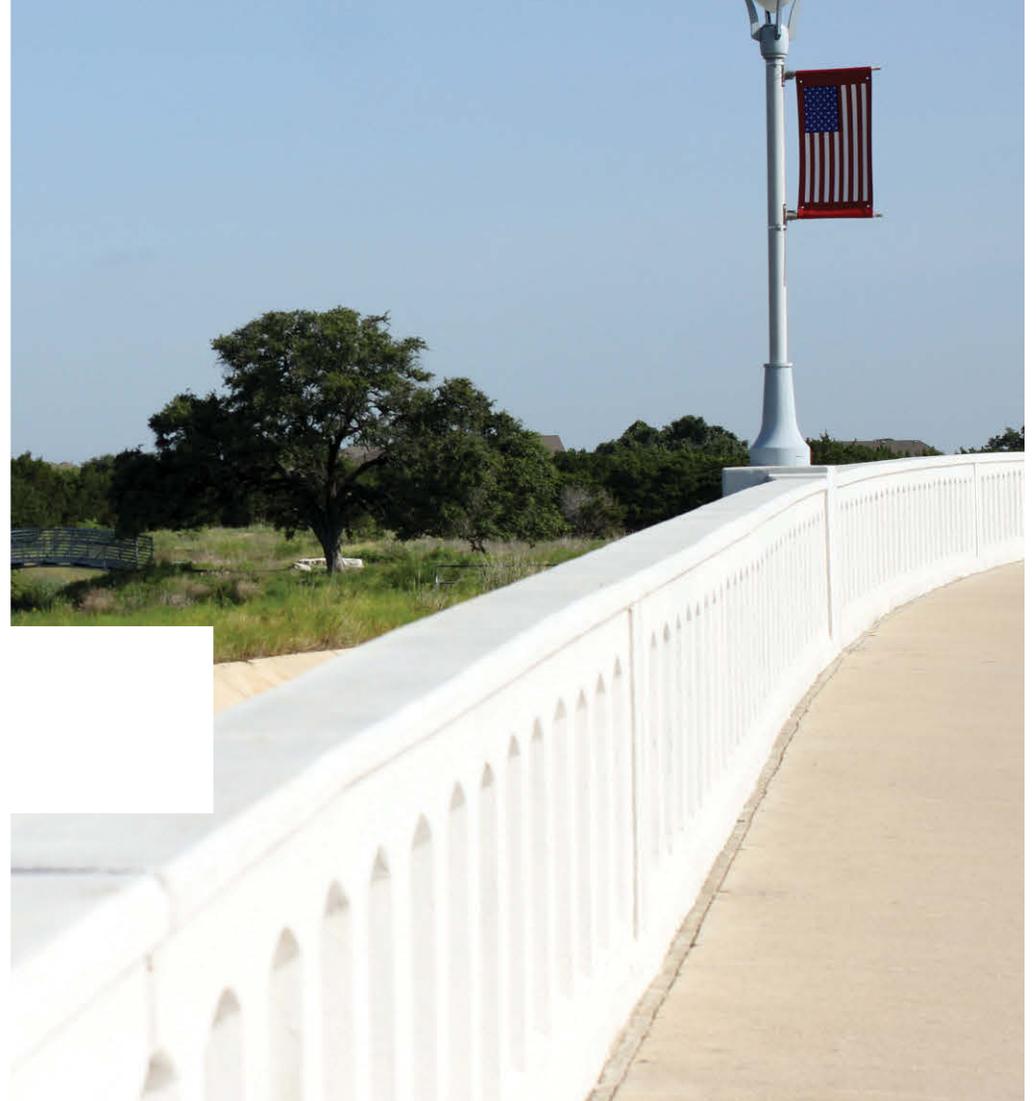
As stated in the City of Cedar Park 2014 Comprehensive Plan, should the City decide to pursue additional transit options, a public input and education program would be conducted to maximize community support. Options should be studied by a cost-benefit analysis or similar analyses to determine which, if any, would be fiscally feasible and desirable by the City.



At the heart of the American dream is the simple hope that each of us can choose to live in a neighborhood that is beautiful, safe, affordable and easy to get around. -*Smart Growth America*



IMPLEMENTATION PLAN



COST BENEFIT ANALYSIS

In addition to the benefit-cost analysis, the proposed recommended improvements were also evaluated qualitatively based on the following criteria:

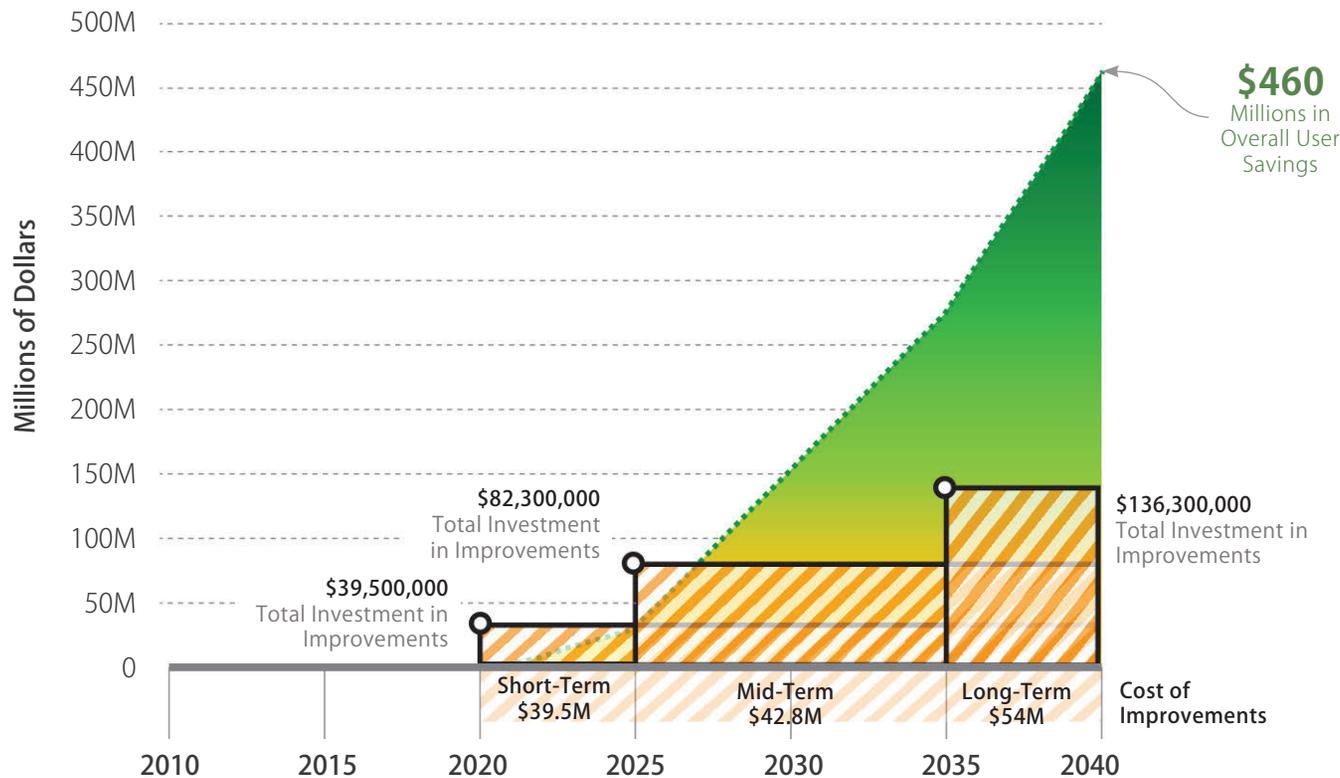
- Sustainable Growth
- Regional Coordination
- Travel Time Efficiency
- Investment and Economic Development
- Context Sensitive Solutions

The graph *User Savings vs. Construction Costs* depicts user savings between 2016 and 2035 compared to the anticipated cost of these improvements.

The total implementation cost of the Recommended Improvements is estimated at approximately \$105 million. If all Recommended Improvements are implemented by the year 2035, overall user savings approach \$450 million, recouping the construction costs.

It is assumed that short-term improvements are implemented by 2020, mid-term improvements are implemented by 2025, and long-term improvements are implemented by 2035.

User Savings vs. Construction Costs



Construction costs of these recommended improvements will be 30% of the total benefit savings if implemented by 2035.

\$136 TOTAL COST OF RECOMMENDED IMPROVEMENTS (MILLIONS OF DOLLARS)

\$460 OVERALL USER SAVINGS (MILLIONS OF DOLLARS)



PRIORITIZATION OF IMPROVEMENTS

In order to prioritize Recommended Improvements, benefit-cost analysis was performed using the estimated cost of Recommended Improvements and intersection delays savings at major intersections. The cumulative delay savings for each intersection were based on the annual delay calculations and a value of time of \$17.70 per hour, calculated from the Texas Transportation Institute's 2012 Urban Mobility Report¹ and the April 2014 Consumer Price Index provided by the U.S. Bureau of Labor Statistics².

Based on this evaluation process, the list of improvements has been categorized as short-, mid- and long-term improvements as shown in the adjacent figure.

Short-Term	CORRIDOR	IMPROVEMENT	COST	SAVINGS ¹		
	Bell Boulevard	New Hope Drive: Construct northbound and southbound dual left-turn lanes		\$1M	\$14.7M	A
		Cypress Creek Road: Construct northbound and southbound right-turn lanes		\$1M	\$18.2M	B
	Whitestone Boulevard	Anderson Mill Road to Bagdad Road: Widen Whitestone Boulevard from four-lane section to a six-lane section		\$13.5M	\$56.7M	C
		Lakeline Blvd: Construct east-, west- and southbound dual left-turn lanes				D
		Cottonwood Creek to Market Street: Reconstruct to six-lane section		\$18M	\$51.3M	E
	N/A	Dynamic Message Signs and Wayfinding Improvements		\$1M	--	
N/A	Update Traffic Management Center		\$5M			
			\$39.5M	\$140.9M		

Mid-Term	CORRIDOR	IMPROVEMENT	COST	SAVINGS ²		
	Anderson Mill Road	Whitestone Boulevard to Lime Creek: Reconstruct to four-lanes		\$13.5M	\$20.2M	F
		Zeppelin to Cypress Creek Road: Widen from two-lanes to four-lanes				G
	Lakeline Boulevard	Cypress Creek Road: Construct CFI		\$5M	\$22.6M	H
		Anderson Mill Road: Construct partial CFI				I
	RM 620	Pecan Park to Anderson Mill Road: Widen from four-lanes to six-lanes		\$15M	\$180M	J
		Little Elm Trail: Signalize intersection at RM 620				K
	Whitestone Boulevard	Bell Boulevard: Construct partial CFI for east-west travel		\$6M	\$37M	L
	New Hope Drive	Whitestone Boulevard to Lakeline Boulevard: Widen New Hope Drive from two-lane section to a four-lane section		\$3M	--	M
			\$42.8M	\$259.8M		

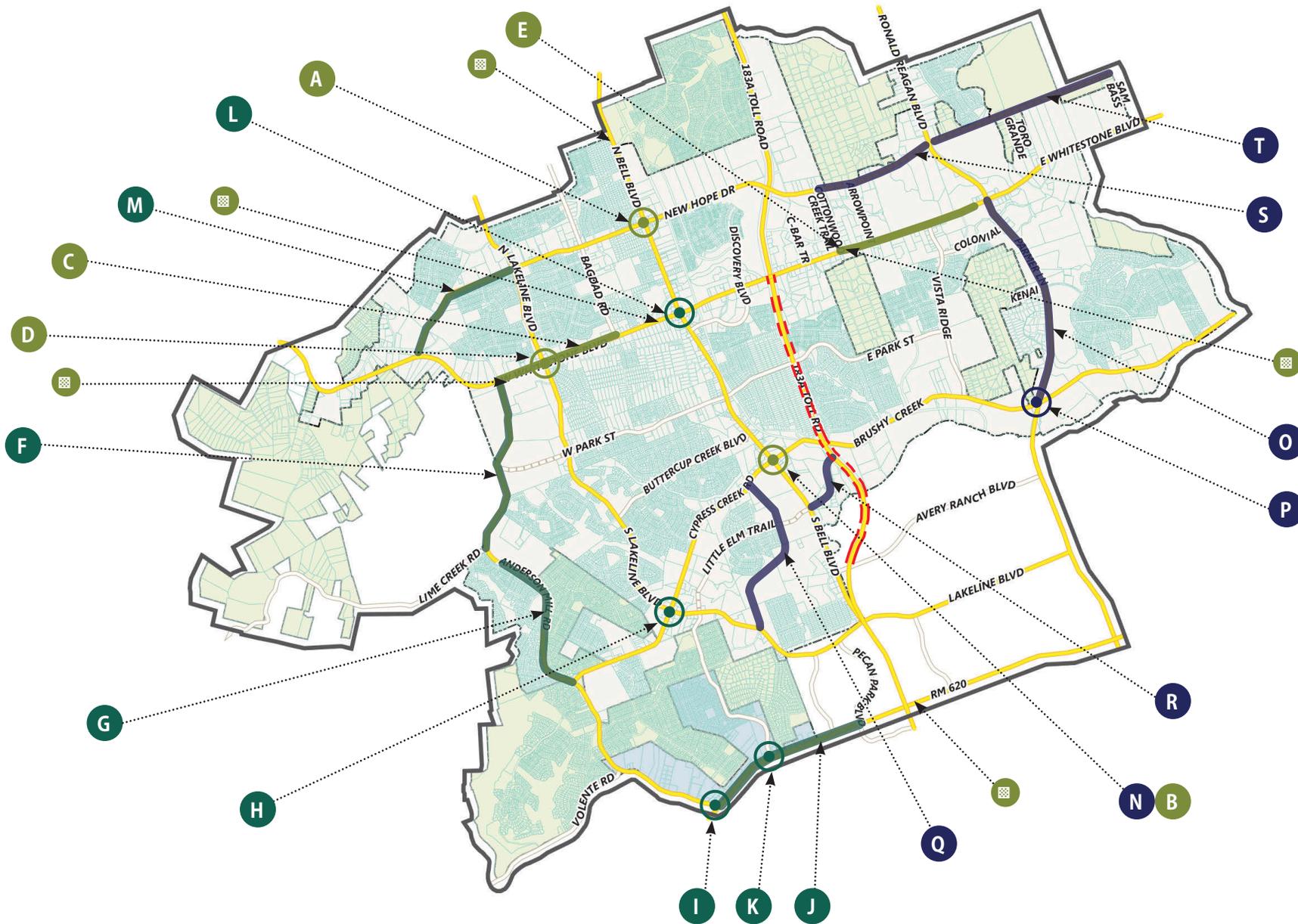
Long-Term	CORRIDOR	IMPROVEMENT	COST	SAVINGS ³		
	Cypress Creek Road	Bell Boulevard: Build two-lane overpass		\$6M	\$5.3M	N
	Parmer Lane	Whitestone Blvd. to Brushy Creek Road: Widen from four-lanes to six-lanes		\$22M	\$47.6M	O
		Brushy Creek Road: Build overpass				P
	Old Mill Road	Extend roadway from Lakeline Blvd. to Cypress Creek Rd./Brushy Creek Rd.		\$10M	--	Q
	Little Elm Trail	Extend roadway from Bell Boulevard to 183A		\$1M	--	R
	New Hope Drive	Cottonwood Creek Trail to Ronald Reagan Blvd.: Extend roadway east as four-lane divided section		\$15M	\$7.4M	S
		Ronald Reagan Blvd. to Sam Bass Rd.: Extend roadway east as four-lane divided section				T
				\$54M	\$60.3M	

Total Cost \$136.3M \$461M

Savings shown are Cumulative.

¹2020-2040 ²2025-2040 ³2035-2040

Short-, Mid-, and Long-Term Improvements



FUNDING STRATEGIES

The process for project prioritization and implementation must consider the funding sources to be used and the agencies responsible for their construction, maintenance and operations.

Besides opportunities for County, State and Federal funding, the City of Cedar Park can explore a variety of sources for locally funded projects. Some of these alternative new funding sources may require City ordinance resolution or citizen referendum to establish public support.

Possible funding mechanisms include:

- Development Impact Fees
- Tax Increment Financing (TIFs)
- 4A/4B Economic/Community Development Corporations
- General Obligation Bonds
- County Cost Participation Agreements
- State Transportation Funds through TxDOT
- Federal Funds through CAMPO
- Public Private Partnership (PPP)
- State Infrastructure Bank (SIB)
- Transportation Reinvestment Zone (TRZ)

The City for Cedar Park should explore the possibility of County, State and Federal funding to support the Recommended Improvements in this plan.





SUMMARY AND CONCLUSIONS



These initiatives support overarching goals to foster continued economic development and improve quality of life for the residents of Cedar Park.

The City of Cedar Park Transportation Master Plan Update identifies and prioritizes mobility improvements that encourage safe and efficient travel within and through Cedar Park. The City of Cedar Park aims to develop a viable transportation network and thoroughfare plan that fosters multi-modal mobility, connectivity, and accessibility throughout Cedar Park.

The intent of this update is to serve as a living document, in which once incorporated into the City's Comprehensive Plan, will serve as a framework for transportation decisions for the City of Cedar Park in the future.



RECOMMENDATIONS AND STRATEGIES

The initial recommended actions identified in this plan will serve as a valuable planning guide for the City in the years to come. This Transportation Master Plan Update should be revised by the City on a regular basis, when engaging in transportation improvements and new development activity. This is necessary to ensure consistency with goals and priorities of the plan and to include any identified improvements from the Master Plan into developments, as they occur. With changes to transportation, traffic, land use, and other conditions over time, the plan should be reassessed every five years to determine if an update is needed.

Complete Arterial Roadway Network.

The City of Cedar Park has developed a network of existing and future arterial roadways in the Arterial Roadway Plan. Completing this network as identified in the Cedar Park plan will help to improve connectivity and ease congestion.

Intelligent Transportation Systems.

ITS technologies can enhance the driving experience in many ways. As ITS becomes more integrated with our transportation infrastructure, drivers can expect safe, networked communications among vehicles, infrastructure and personal communication devices

that enable drivers to operate vehicles with greater knowledge of existing traffic conditions.

Cedar Park may consider utilizing available ITS options to ease congestion where possible and enhance the drivers experience through real-time travel information and adaptive control systems.

Outside Agency Coordination.

Cedar Park will continue to grow, as will its infrastructure. As the City continues to move forward with planned developments and future projects, close coordination with the various agencies operating these roadways will help to ensure developments are implemented efficiently and smoothly.

To lessen the impact of transportation improvements outside Cedar Park city limits on Cedar Park residents, cultivating a relationship and coordinating with other municipalities will help smooth the road for future growth.

Design Complete Streets.

Complete streets are designed to provide an optimal and safe transportation experience for all users. There are many ways to create more complete roadways that are low cost, fast to implement and high impact.

Cedar Park has several major arterials such as Anderson Mill Road and Whitestone Boulevard running through residential and business districts that could provide an enhanced user experience should a 'Complete Streets' design be implemented in the future.

Innovative Intersections.

Diverging Diamonds, Continuous Flow and Median U-Turns. Innovative, alternative intersections are often able to reduce traffic congestion in affordable and sustainable ways.

As growth continues, the City of Cedar Park should look to implement innovative intersection improvements and full or partial grade separations to alleviate congestion at major intersections.

Redevelop Bell Boulevard.

Future efforts to reclaim Bell Boulevard as a destination route for the City of Cedar Park could help to achieve a major Comprehensive Plan goal.

Redeveloping Bell Boulevard as a 'To' place rather than a 'Through' place will contribute to the City's goal to create a family-oriented, business-friendly, dynamic community that people want to live in and businesses want to be.

Implement Access Management.

Implement access management strategies to promote safety and mobility. As growth continues and businesses move or expand in Cedar Park, systematic planning of driveway location, spacing and design will help to ensure smooth traffic operations follow.

By managing roadway access, public safety will increase, congestion will decrease, and the appearance and quality of the built environment will improve.

Utilize 183A.

Seek to improve operations on east-west thoroughfares such as New Hope Drive, Cypress Creek Road/Brushy Creek Road and Whitestone Boulevard to facilitate smoother connections to 183A.

Encourage the utilization of 183A as an opportunity to motorists to reach their destinations more efficiently, thereby relieving congestion on local thoroughfares such as Bell Boulevard.

Plan for a future with transit.

Public transportation has many benefits. Enhanced personal opportunities such as mobility and freedom from increased transportation options, savings in time and fuel prices, and a smaller footprint on the environment are just a few. Public transportation provides an affordable alternative to driving and is proven to help reduce congestion.

Opportunities for Cedar Park to develop its own transit system currently exist. Implementing a framework for public transportation will provide congestion relief to the people who make Cedar Park home, as well as to those just passing through.









CEDAR

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TRANSPORTATION MASTER PLAN

2015 UPDATE



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