VICTORIA 2040 METROPOLITAN TRANSPORTATION PLAN

Adopted by Policy Advisory Committee: April 14, 2015
First Amendment Adopted by Policy Advisory Committee: November 10, 2015
Second Amendment by Administrative Authority: June 28, 2017

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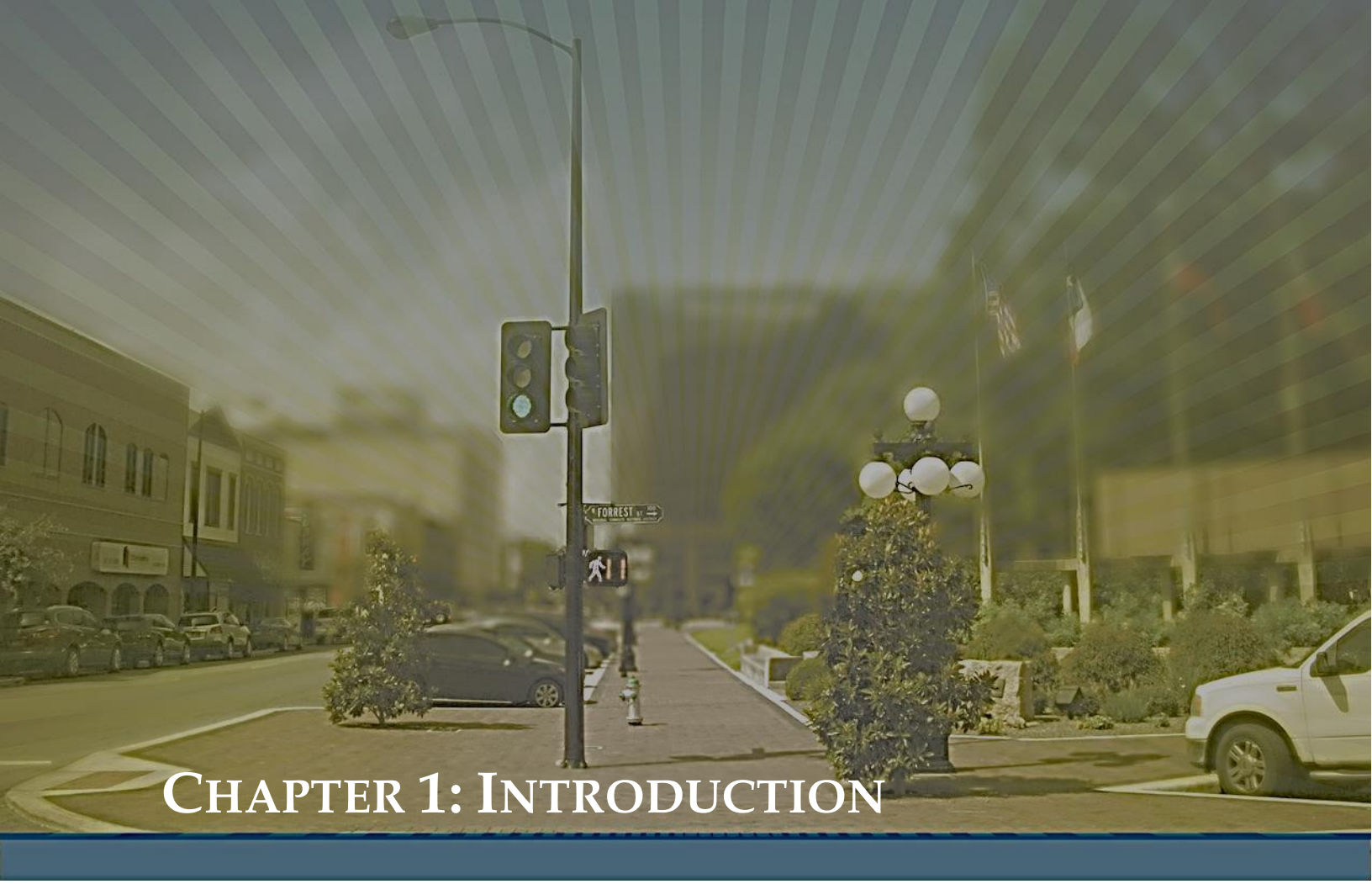


CHAPTER 1: INTRODUCTION

CHAPTER HIGHLIGHTS

- Relevance of the Long-Range Plan
- Frequently Asked Questions About the MPO
- Frequently Asked Questions About the MTP
- Outline of MTP Chapters

Historically, the dominant mode of travel in Victoria was the personal automobile, and a transportation planning process that focused on automobile mobility was appropriate and adequate. However, people are rethinking their transportation needs, preferences, and habits. It is now critical to consider multiple options for mobility and access, and therefore progress in the way we plan for transportation.

The transportation system influences every aspect of a region's growth and prosperity because it provides linkages to the various nodes of activity where people live, work, and play. Therefore, there are critical links between the performance of the transportation system and issues such as:

- air quality
- economic development
- environmental resource consumption
- fiscal effectiveness and budget constraints

- land use and development patterns
- quality of life and aesthetics
- safety and security
- social equity
- support for all transportation modes

The purpose of a plan is not to predict the future; it is to enable it.

Anonymous

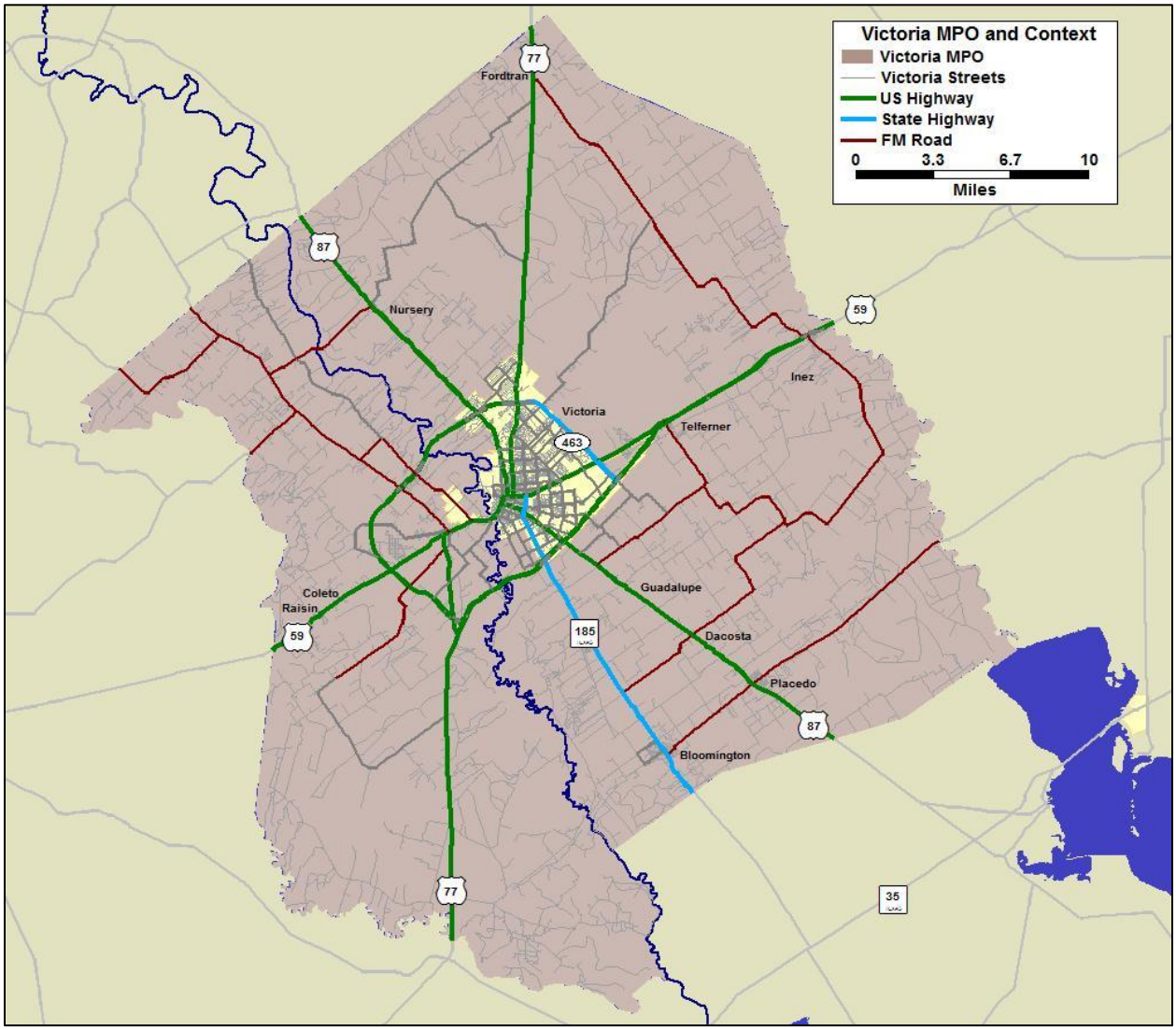
It is important that the long-range transportation plan for Victoria addresses these criteria and helps to develop the region's transportation system as an efficient and equitable network.

This **Victoria 2040 Long-Range Metropolitan Transportation Plan** (MTP) is the comprehensive, multimodal, and coordinated long-range transportation plan for Victoria County. The MTP serves as a guide for transportation system investments in the region over the next 25 years. It identifies policies and programs that reflect the local community's goals, and develops a list of projects for all transportation modes to address those goals. Projects are evaluated, prioritized, and then selected based on the levels of funding that are reasonably expected to be available over the next 25 years. To track the effectiveness of the projects, standards were developed to monitor the ongoing performance of the system and prepare for the next MTP update.

The Victoria Metropolitan Planning Organization

The needs of the transportation system in the region are not limited to the Victoria municipal boundaries, and a broader view is required to consider the needs of the whole region. To fill this need, federal regulations have established the **Metropolitan Planning Organization** (MPO) for the Victoria region. The MPO is the agency charged with conducting transportation planning, providing a forum for regional decision making, and establishing a "**continuing, comprehensive, and cooperative**" (3 C) planning process in partnership with other local, state, and federal players. The Victoria MPO was established for this purpose in 1982, and provides planning for all of Victoria County. Its boundaries and context are shown in **Figure 1.1**.

Figure 1.1 Victoria MPO and Context



Preparing this Metropolitan Transportation Plan (MTP) to guide long-term investments is only one of the planning purposes of the Victoria MPO. The MPO also produces a Transportation Improvement Plan (TIP) for short-term investments and a Unified Planning Work Program (UPWP) to define the annual schedule of planning work performed. Mapped traffic counts in the region, other plans and reports, and studies for specific transportation projects are also produced and available on the MPO website at http://www.victoriampo.org. Public participation is welcomed throughout the process for each of these MPO products, and is guided by the Public Participation Plan, which is also available on the MPO website. The public participation process, which was updated specifically for this MTP update, is described in Chapter 4.

Relevance of the Long-Range Metropolitan Transportation Plan

In addition to its primary purpose of guiding regional transportation investments over the next 25 years, the MTP is used to document how the region conforms to required laws and regulations. In order to receive federal transportation funds, the Victoria MTP must comply with three major federal laws:

The US Department of Transportation's Moving Ahead for Progress in the 21st Century (**MAP-21**) was signed into law in 2012 as the multi-year transportation funding authorization through the end of 2014. The **Grow America Act** is the pending replacement authorization bill.

The **Civil Rights Act of 1964** introduced the concept of environmental justice. It establishes the rule that the transportation planning process and the implementation of projects must not have a disparate impact on minority groups, and requires that all groups have a fair and meaningful opportunity to participate in the decision-making process.

A good plan is like a road map. It shows the final destination and usually the best way to get there.

H. Stanley Judd

The **Clean Air Act Amendments** (**CAAA**) of 1990 set standards for air quality in a region. Transportation programs in a designated air quality non-attainment or maintenance area must be in conformity with air quality goals. Proposed new National Ambient Air Quality Standards (NAAQS) for ozone and Particulate Matter 2.5 ($PM_{2.5}$) may have an impact on Victoria's air quality and attainment status.

A goal without a plan is just a wish.

Antoine de Saint-Exupéry

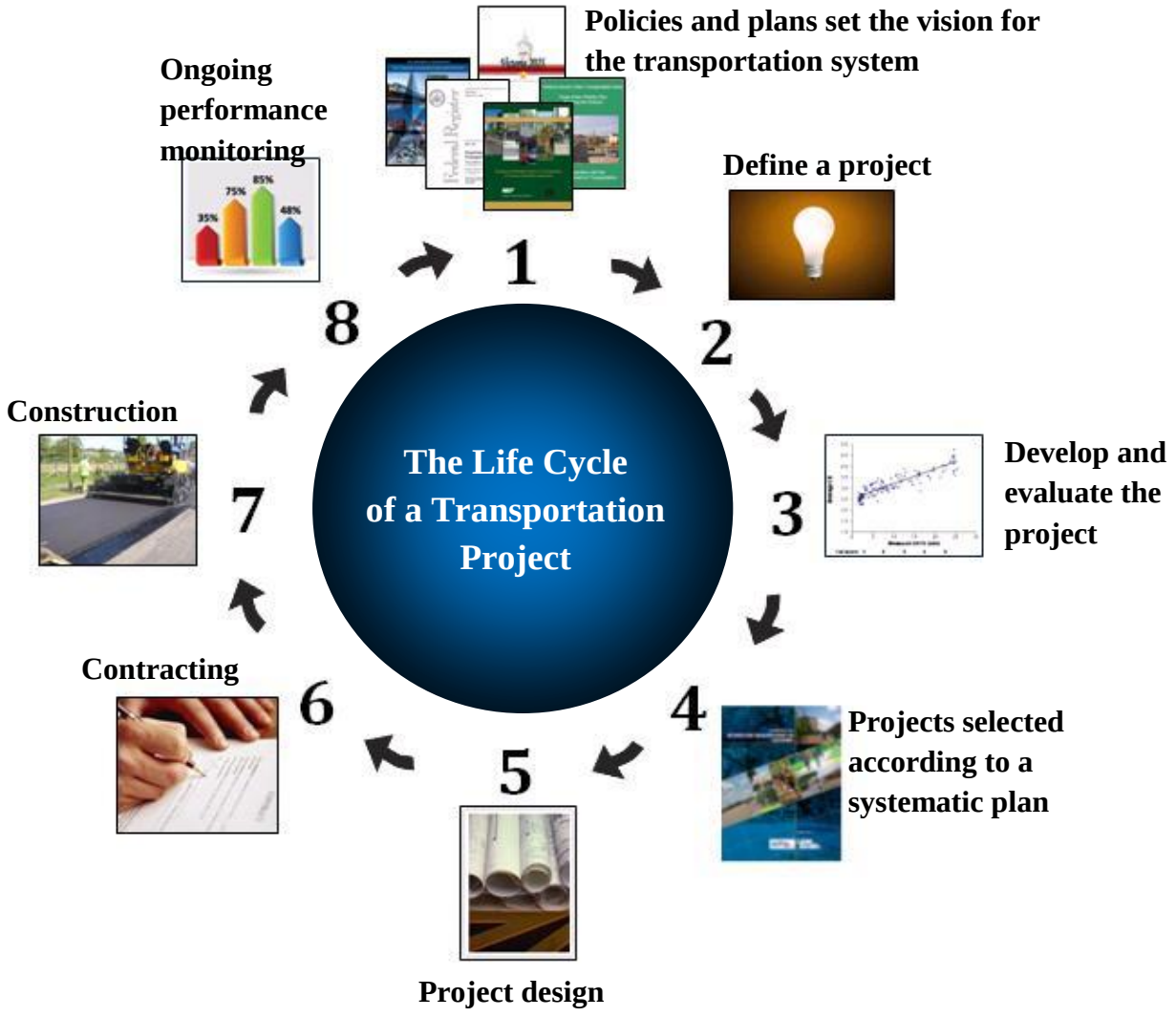
All transportation projects that use federal funds must comply with these three major laws, and must be included in the long-range MTP and the short-range TIP. Although the MTP is required in order to receive federal funding, it is not a regulatory document. Rather, the MTP's purpose is to develop a strategy to plan for projects that make the best use of public funds and meet the goals of the community. The MTP provides the foundation for all other aspects of transportation decision making by establishing the vision and goals for transportation within a region, and identifying the strategies for implementation. Long-range planning is one part of the full life cycle for a transportation project.

The Life Cycle of a Transportation Project

Designing a transportation system to meet a single goal with a single travel mode would be straightforward. In the real world, a region's vision for its transportation system is more complex, taking into account the multiple goals and constraints affecting the system. The foundation of this MTP is to establish a systematic and open process to develop transportation projects through their full life cycle, as shown in **Figure 1.2**. A transportation project of any

kind, such as building new capacity, maintaining existing pavement, supporting the transit system, or synchronizing signal timing, can be seen as passing through eight general phases in its full life cycle from the initial idea through completion and operation. Different agencies are responsible for different phases of a project. In general, The Victoria MPO conducts the planning phases 1 through 4, with this MTP defining, guiding, and documenting the process. Local public works departments, the Texas Department of Transportation (TxDOT), and the US DOT work cooperatively on the design and implementation of a project, covering phases 5 through 7 (project completion). The Victoria MPO, along with local, state, and federal agencies, is involved once a project is completed and implemented as its performance within the full transportation system is monitored in phase 8. Any deficiencies or performance issues are then brought forward to help define the needs for new projects in phases 1 and 2.

Figure 1.2: The Life Cycle of a Transportation Project



1. It starts with local POLICIES

The vision of what the people of Victoria County want their transportation system to be is the core of the entire planning process. An established vision leads to the definition of performance measures and targets so that individual elements of the transportation system can be measured on how well they contribute to the regional vision. Where an element falls short of the vision, a system need is defined.

2. Develop a PROJECT

Once needs are defined for the system, potential projects can be defined to address the needs. Different potential projects addressing the same needs may be defined using different transportation modes and strategies, different geographic limits, and different coordination with other projects. For example, if the analysis of system needs shows unacceptable levels of congestion on a certain stretch of road, different potential projects may be defined to:

- Add capacity in the form of new travel lanes;
- Add capacity in the form of a continuous center turn lane;
- Add efficiency through traffic signal synchronization;
- Add capacity on a parallel road to divert traffic away from the congested road;
- Increase transit ridership to reduce the number of vehicle trips on the congested road;
- Implement Travel Demand Management (TDM) strategies to reduce the number of trips in the area.

We don't have much time for planners or reverence for long-term plans. There's a pretension of extraordinary prescience in any plan for 2040! But they are correct in saying: let's give priority to solving the problems we know we have now over addressing problems we might or might not have decades ahead.

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3. The project is developed according to a systematic PROGRAM

Any one of the potential projects developed in phase 2, or some combination of projects, may be the optimum solution. The MTP planning process uses both quantitative mathematical tools and more subjective qualitative tools to evaluate each of the candidate projects. The process is designed to evaluate and rank projects for all transportation modes on an equal basis, and to provide a prioritized list of projects for implementation throughout the 25-year life of the plan. The prioritized projects are balanced against the anticipated available funding, so the MTP is "fiscally constrained."

4. Final approval of the PLAN

The MTP is reviewed through the public participation process and through formal reviews by regional, state, and federal agencies. The final approval of the plan is made by the Victoria MPO Policy Advisory Committee.

5. Project DESIGN

Once a project is approved in the adopted long-range MTP, the schedule for implementation is set. Projects which are to be implemented within the next four years are placed in the short-range Transportation Improvement Program (TIP).

6. CONTRACTING, acquire right-of-way, and other resources

With project design complete, the right-of-way, materials, work crew schedules, and other resources are gathered. Contracting for resources and construction begins in this phase.

7. CONSTRUCTION phase

Construction or implementation of a project is the final phase for project completion, but not of the full project lifecycle.

8. COMPLETION and ongoing monitoring

An evaluation of current conditions against the regional transportation vision defined the system needs in phase 1. With a project completed, ongoing monitoring of performance is necessary to determine how well a project met the needs. Ongoing performance monitoring shows how effective a particular project, and all projects as a whole, is performing in the full transportation system.

Frequently Asked Questions about an MPO

What is an MPO and what does it do?

> **Plans are only good intentions unless they immediately degenerate into hard work.**
>
> ***Peter Drucker***

Federal law requires that a Metropolitan Planning Organization (MPO) is designated for each urban area with a population of 50,000 or more. The MPO is to provide a continuing, cooperative, and comprehensive (3-C) transportation planning process that results in plans and programs that consider all transportation modes and supports metropolitan community development and social goals. The ultimate goal of the planning process is the development and operation of an integrated, intermodal transportation system that facilitates the efficient movement of people and goods.

Federal and state legislation requires that each MPO have a long-range transportation plan covering a 25-year period. This plan is called the Metropolitan Transportation Plan (MTP). Its

purpose is to develop the overall vision for multimodal planning in the region, develop a systematic and inclusive planning process, determine future needs, and develop a prioritized list of projects that will effectively address future needs in an efficient and equitable manner. The MTP must be "fiscally constrained", so that all programmed projects are within the budget of reasonably anticipated available funding out to the planning horizon year.

Forecasting is hard, especially about the future

Yogi Berra

The existing Victoria MTP plans for transportation projects out to the year 2035. It was adopted in 2010 and amended in 2012. In keeping with the requirement to maintain a 25-year planning horizon, this update of the MTP extends the planning program out to the year 2040.

In addition to the MTP, the long-range planning process includes the development of other supporting plans and documents, including:

- The TIP is the short-range **Transportation Improvement Program**. It presents the various transportation projects for highways, transit, other modes, maintenance, and operations that are expected to begin construction or implementation within the next four years. All regional transportation projects and programs must be identified and prioritized in the TIP in order to be eligible for federal funding. The MTP is the source for all projects which are included in the TIP, and there is an express requirement that the two plans be consistent. The TIP is submitted to TxDOT for inclusion in the Statewide Transportation Improvement Program (STIP). The TIP is a working document to program funding and implementation of projects, and is continuously updated as needed throughout the year.

- The UPWP is the **Unified Planning Work Program**. It documents the purely planning portion of MPO activities. The UPWP is updated annually, and identifies the planning activities scheduled to be carried out for the coming year. This document includes a list of the tasks, and for each task details descriptions of the work to be done, final products, agencies tasked with the work, time frame, and sources of funding.

- The PPP is the **Public Participation Plan**. It outlines the procedures used to inform the public about the planning process and to provide meaningful and timely opportunities for them to review, make comments, and participate.

Partners in the MTP development process include the MPO Policy Advisory Committee, TxDOT, and operators of publicly owned transit services. Public participation is encouraged throughout the full development process, and the draft MTP is reviewed by state and federal agencies. Final approval of the MTP is made by the MPO policy board.

Who is on the MPO? Who's in charge?

The City of Victoria acts as the fiscal agent for the Victoria MPO, providing accounting services, building space, and other services. The Victoria MPO is nested within the City's Development Services Department, which provides for the MPO Coordinator and staff services.

The Victoria MPO is governed by a 10-member Policy Advisory Committee representing all of the governing bodies within Victoria County that have the ability to maintain, change, or create projects for all modes of transportation. The current members of the Policy Advisory Committee and the agencies they represent are listed in **Table 1.1**.

Table 1.1: Victoria MPO Policy Advisory Committee

Role	Name	Agency
Chair	Tom Halepaska	Victoria City Council Member
Vice-Chair	Danny Garcia	Victoria County Commissioner
Member	Emett Alvarez	Victoria City Council Member
Member	Paul Frerich	TxDOT District Engineer
Member	Charmelle Garrett	Victoria City Manager
Member	Clint Ives	Victoria County Commissioner
Member	Skip Kaup	Port of Victoria Director
Member	Lynn Short	Victoria Director of Public Works
Member	Mike Walsh	TxDOT Victoria Area Engineer
Member	Fred Watts	Victoria Airport Manager

Frequently Asked Questions about the MTP

Why do we need a plan?

Road use and congestion are projected to increase over the coming years with population growth, economic development, development of the freight system, and growth in the energy sector. It is clear that the current roadway system will not be sufficient to accommodate future needs at the same levels of service that are enjoyed today unless actions are taken to plan for improved transportation capacities and efficiencies for all modes.

Good long-range planning makes good sense. Good planning involves the public, increases the efficiency and effectiveness of the transportation system, and helps develop an integrated multimodal system that is consistent with the public's vision for the region. The need for systematic long-range planning, and the obvious benefits from establishing a continuing, comprehensive, and cooperative planning process is so great that developing an MTP has been set as a requirement by state and federal transportation agencies in order them to provide funding for local projects.

Who prepares the plan? Who approves it?

The Victoria MPO is the agency designated to conduct regional transportation planning for Victoria County. Under the guidance of state and federal regulations, the MPO develops long- and short-term plans in a continuing, cooperative, and comprehensive planning process. The MPO developed the 2040 Victoria MTP in partnership with a consultant, its regional, state, and federal partners, local jurisdictions, and an outreach effort to involve the general public.

The completed plan will be reviewed by the MPO and its regional, state, and federal partners; the public will have an additional opportunity to review and comment on the final draft. Ultimate approval and adoption of the plan is made by the MPO Policy Advisory Committee.

What travel modes are addressed in the plan?

The MTP plan process is designed to help develop an integrated and balanced multimodal transportation system. In addition to private autos, public transit, pedestrian, and bicycle modes were all considered. For freight movement, truck, rail, water freight at the Port of Victoria, and air freight at the Victoria Airport were also taken into account. Transportation issues are examined with land use, economic development, and community issues to help ensure efficiency and equity.

What area does the plan cover?

The 2040 Victoria MTP covers all of Victoria County.

What years does the plan cover?

Federal regulations say that the MTP must span at least a 20-year period. This plan will be applicable from its adoption in 2015 to a horizon year of 2040; the 25-year period provides a buffer element to ensure compliance with regulations even if there is delay in developing subsequent plans. While the MTP is focused on the long range, the priorities established in the plan and the projects selected by the plan will feed into the short-range TIP, and will begin to be implemented almost immediately.

What is the timeframe for developing the plan?

The plan is being developed over a 15-month period, with a due date of final adoption by the MPO Policy Advisory Committee of April 2015. The schedule is designed to allow for ample review periods, and has scheduled public meetings in July 2014 and February 2015.

Who pays for the plan and the transportation system?

The MTP planning process is required to be "fiscally constrained," meaning that reasonable sources of funding must be identified for all planned transportation projects through the horizon year 2040. There are various federal, state, and local funding sources identified for planned projects. In addition, a list of unfunded projects is maintained as a convenience in order to aid the planning process.

Outline of MTP Chapters

Chapter 1: Introduction

The first chapter introduces the MTP and shows why a long-range plan is relevant. The MPO is introduced as the government agency charged with developing the MTP and other regional transportation plans.

Chapter 2: Planning Context

The various regulations and requirements at the federal, state, and local levels that impact regional transportation planning are introduced in this chapter.

Chapter 3: Changing Conditions in Victoria

Chapter 3 presents summaries of demographic data for Victoria County as presented in the old 2006 travel demand model, the most recent 2012 model, and the current 2040 model forecast. An environmental justice discussion is also introduced. Based on this analysis, geographic areas of concern for project generation are noted.

Chapter 4: Public Participation

The goals and methods of public participation are presented in Chapter 4. The *Voice of Victoria* ongoing community survey is introduced and discussed. Summary results of public outreach efforts from all media are given.

Chapter 5: Project Evaluation Process and Criteria

Following the summary of regional goals demonstrated through the public outreach process, the final goals for the MTP are presented**.** The background and process for developing projects, for developing project evaluation criteria and weights, and for evaluating projects both with and without the travel demand model are presented.

Chapter 6: Review, Analysis, and Project Generation by Transportation Modes

Chapter 6 presents a similar analysis for roads, urban & rural transit, bicycle & pedestrian, airport, and freight modes. Each section covers existing conditions and notes any recent and on-going studies and projects. Forecast conditions and a deficiency analysis for each mode are used to generate projects, and project analysis is then detailed.

Chapter 7: Safety & Security

Safety and security receives a significant new emphasis in MAP-21. This chapter details the safety and security issues in Victoria County for each travel mode.

Chapter 8: Environment and Air Quality

Chapter 8 details the current and proposed requirements for maintenance and for non-attainment status under the Clean Air Act. Parks, trails, endangered species, historic areas, and other environmentally sensitive areas in Victoria County are also presented.

Chapter 9: Financial Plan

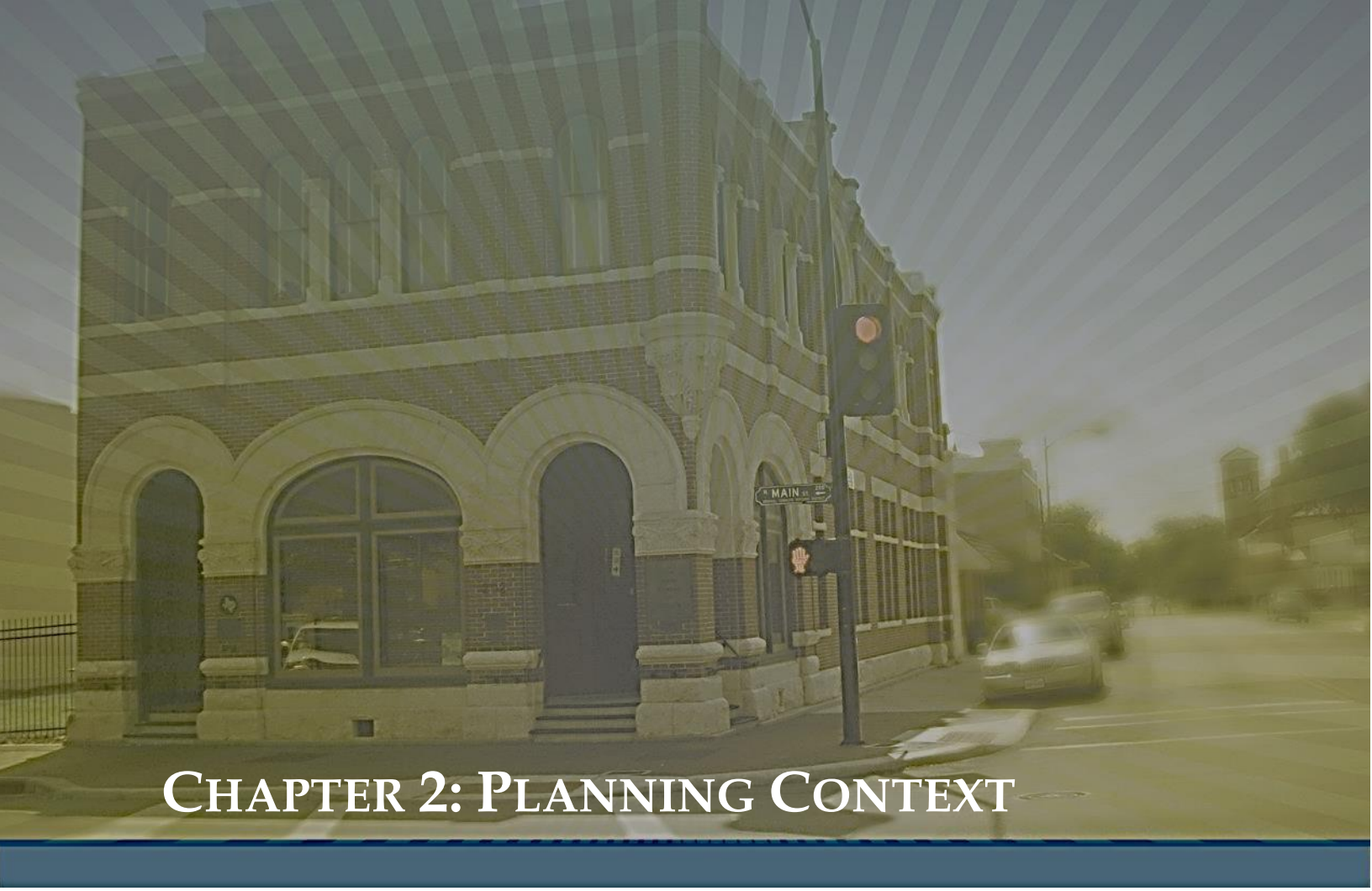
The MTP is required to be constrained to the funds which can reasonably be expected to become available over the next 25 years. This chapter presents the tools and data used to estimate the constrained funding levels used for this MTP. The TRENDS model made available by TxDOT is a significant tool.

Chapter 10: Project Selection

The process for selecting a fiscally-constrained package of projects for all modes that will efficiently and effectively meet regional goals is detailed in this chapter. Coordination with other plans and projects to enhance the value and cost effectiveness of the projects is also discussed. Finally, this chapter presents the selected and prioritized short-term and long-term projects and the un-prioritized list of unfunded projects.

Chapter 11: Summary of Benefits & Next Steps

Report cards presenting an evaluation of current 2012 and forecast 2040 conditions with and without the selected projects are presented in this chapter. The report cards cover the selected modes and topic areas. Details of the ongoing performance monitoring process and how it will feed into deficiency analysis and project generation for future planning is also presented. Future planning directions for Victoria County are detailed as part of the next steps in the regional transportation planning process. This chapter also presents some concepts and strategies to increase funding and to make the available funding more efficient and more effective.



CHAPTER 2: PLANNING CONTEXT

CHAPTER HIGHLIGHTS

- Federal Planning Context
- Relevant MAP-21 Programs
- Required Elements of the MTP
- Transportation Planning Factors
- State Planning Context
- Local Planning Context

It is obvious that effective transportation planning for a region must consider the existing transportation system and the intensity and distribution of the region's population and employment. However, it is just as important to consider the context of the various federal and state regulations which cover the transportation planning process.

Federal Planning Context

In the mid-twentieth century, transportation planning was primarily focused on highway building and expansion to accommodate the increased use of automobiles. Through recent decades, the focus has shifted to a multimodal transportation system including roadways, public transit, and bicycling and pedestrian facilities. As a result, more recent transportation laws, regulations, and policies have encouraged the development of a multimodal transportation planning process. In recent years, metropolitan transportation planning has been shaped and defined by the following four federal acts.

The **Intermodal Surface Transportation Efficiency Act** (ISTEA)**,** signed into law on December 18, 1991, is heralded as the first piece of federal transportation legislation intended to define the federally-aided transportation program in the post-Interstate Highway System era. This landmark transportation act diverged from traditional transportation planning requirements and advocated for a collaborative, integrated, and multimodal approach to transportation planning and funding. Further, it gave more powers to MPOs, provided for more flexible funding strategies, and required the consideration of many planning factors that addressed such societal issues as energy conservation, economic development, and system preservation.

The **Transportation Equity Act for the 21st Century** (TEA-21) was enacted June 9, 1998 and authorized the federal surface transportation programs and funding from 1998 to 2003. TEA-21 continued many of the planning requirements of ISTEA and emphasized a set of seven planning factors for metropolitan and statewide transportation planning. As with ISTEA, there was a continued focus on public involvement in the planning process, but with an increased emphasis on including such stakeholders as transit operators and freight suppliers; additionally, it sought to include traditionally underserved populations such as minorities and low-income groups. There was also an added focus on environmental issues and an integration of environmental process requirements.

The **Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users** (SAFETEA-LU) was signed into law on August 10, 2005, and authorized the federal surface transportation programs and funding from 2005 to 2009. The $286 billion legislation represented the largest surface transportation investment in our country's history. SAFETEA-LU addressed several challenges prevalent in transportation, including improving safety and security, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, heightening public participation, and protecting the environment. The set of seven planning factors established under TEA-21 was expanded to eight under SAFETEA-LU. This authorization bill expired on September 30, 2009, and was extended several times by Congress through the use of continuing resolutions.

The **Moving Ahead for Progress in the 21st Century Act** (MAP-21) was signed into law by President Obama on July 6, 2012. **Funding surface transportation programs at over $105 billion for fiscal years 2013 and 2014, MAP-21 was the first long-term highway authorization enacted since 2005.** This new transportation law authorized and funded federal surface transportation programs up to September 30, 2014. MAP- 21 is a continuance and refinement of the programs and planning requirements established under SAFETEA-LU, including a set of eight planning factors. MAP-21 also consolidates several highway programs and establishes new requirements for transportation planning. The US Department of Transportation maintains a page dedicated to MAP-21 with summaries, presentation, webinars, and guidance at http://www.fhwa.dot.gov/map21.

As the current federal authorization bill, MAP-21 provides the primary regulatory context for the development of the Victoria 2040 Long-Range Metropolitan Transportation Plan and the overall regional transportation planning process.

The **Grow America Act** was proposed by President Obama and US DOT Secretary Anthony Foxx as the authorization legislation to succeed MAP-21. It focuses on providing a stable source of funding for state and local planning with a 4-year budget, increasing safety across all transportation modes, reducing project approval and permitting timelines, bolstering freight networks, and encouraging transportation planning to address regional economic needs. It continues the focus on the performance measures that were introduced in MAP-21.

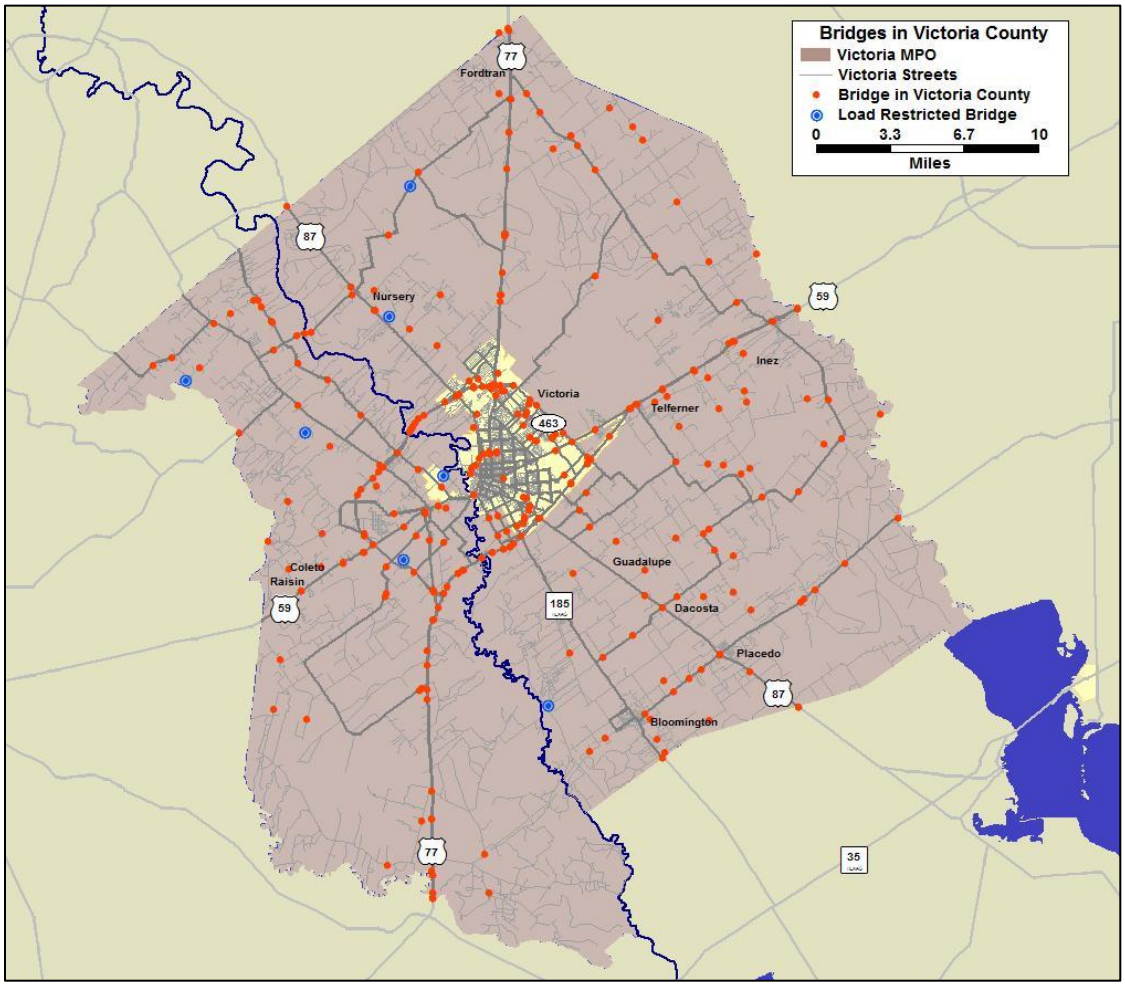
Relevant MAP-21 Programs

Surface Transportation Program (STP)

The STP is the primary element of MAP-21. It provides the program rules and funding source for projects to improve the conditions and performance on any federal-aid highway or bridge project, public transit capital projects, public transit terminals and facilities, and facilities for non-motorized transportation. Provisions of MAP-21 have changed some of the definitions of STP programs. In particular, the program for Transportation Enhancements has been supplanted by a new Transportation Alternatives program, which consolidates several related programs and adds some new activities. Transportation alternatives, recreational trails, and the safe routes to school programs all fall under the new Transportation Alternatives program.

A suballocation of STP funding is reserved for off-system bridges. **Figure 2.1** shows the 330 on-system and off-system bridges in Victoria County. Based on data from the 2013 National Transportation Atlas Database, seven bridges are posted with load limits, and three have condition ratings for their substructure of "poor" or "serious".

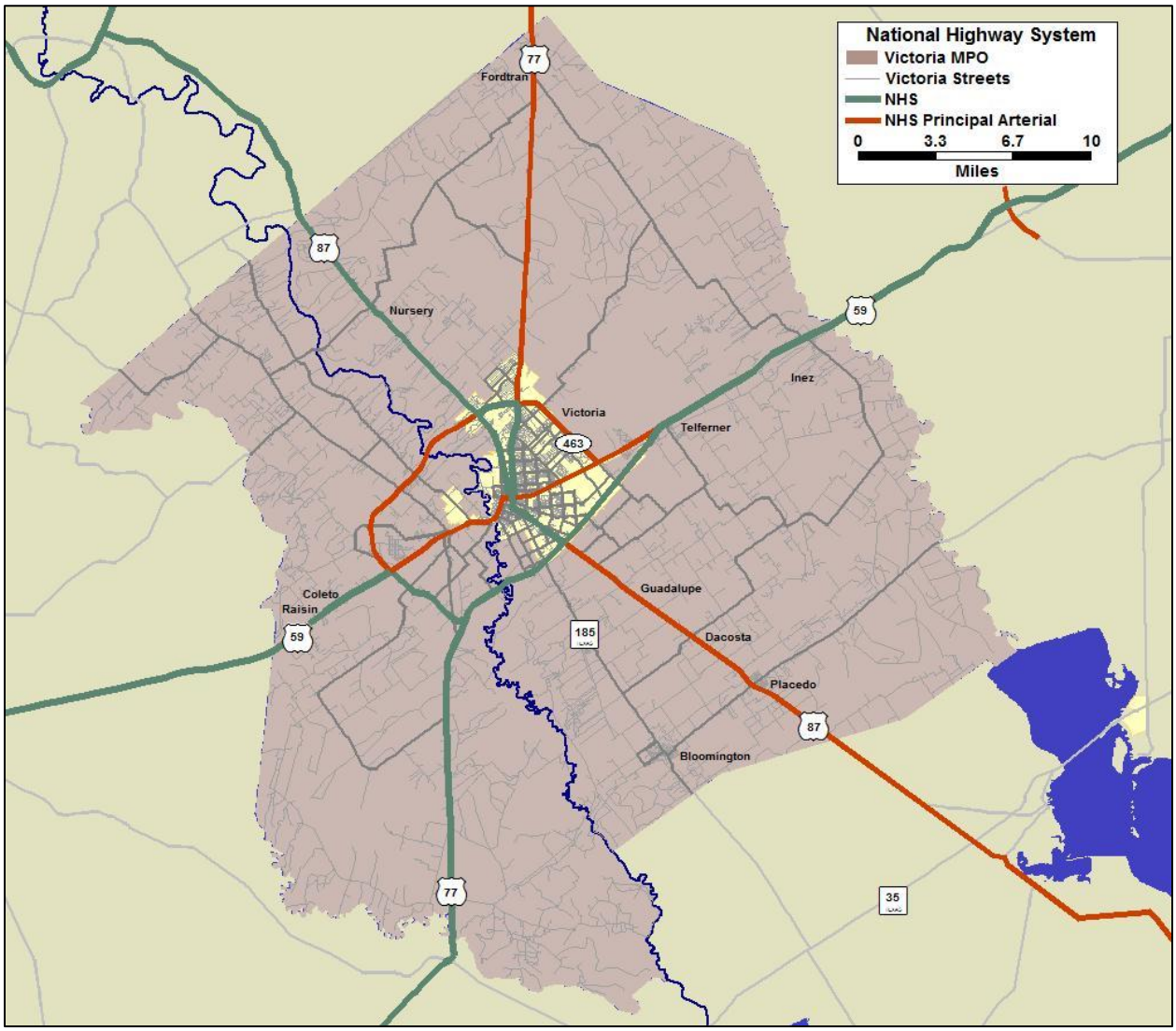
Figure 2.1: Bridges and Load Posted Bridges in Victoria County



National Highway Performance Program (NHPP)

The new definition of the National Highway System (NHS) as specified under MAP-21 has been expanded to include all designated principal arterials, routes providing access between the NHS and significant intermodal facilities, and the strategic defense highway network (STRAHNET) and STRAHNET connections to major military bases. The NHS in Victoria County, as designated by the USDOT and reflecting changes specified in the NHS memorandum of September 28, 2012, is shown in **Figure 2.2**. In this update, all roadways functionally classified as principal arterials were added to the NHS. The USDOT will establish performance measures for pavement conditions, bridge conditions, and system performance on the NHS.

Figure 2.2: Designated National Highway System in Victoria County

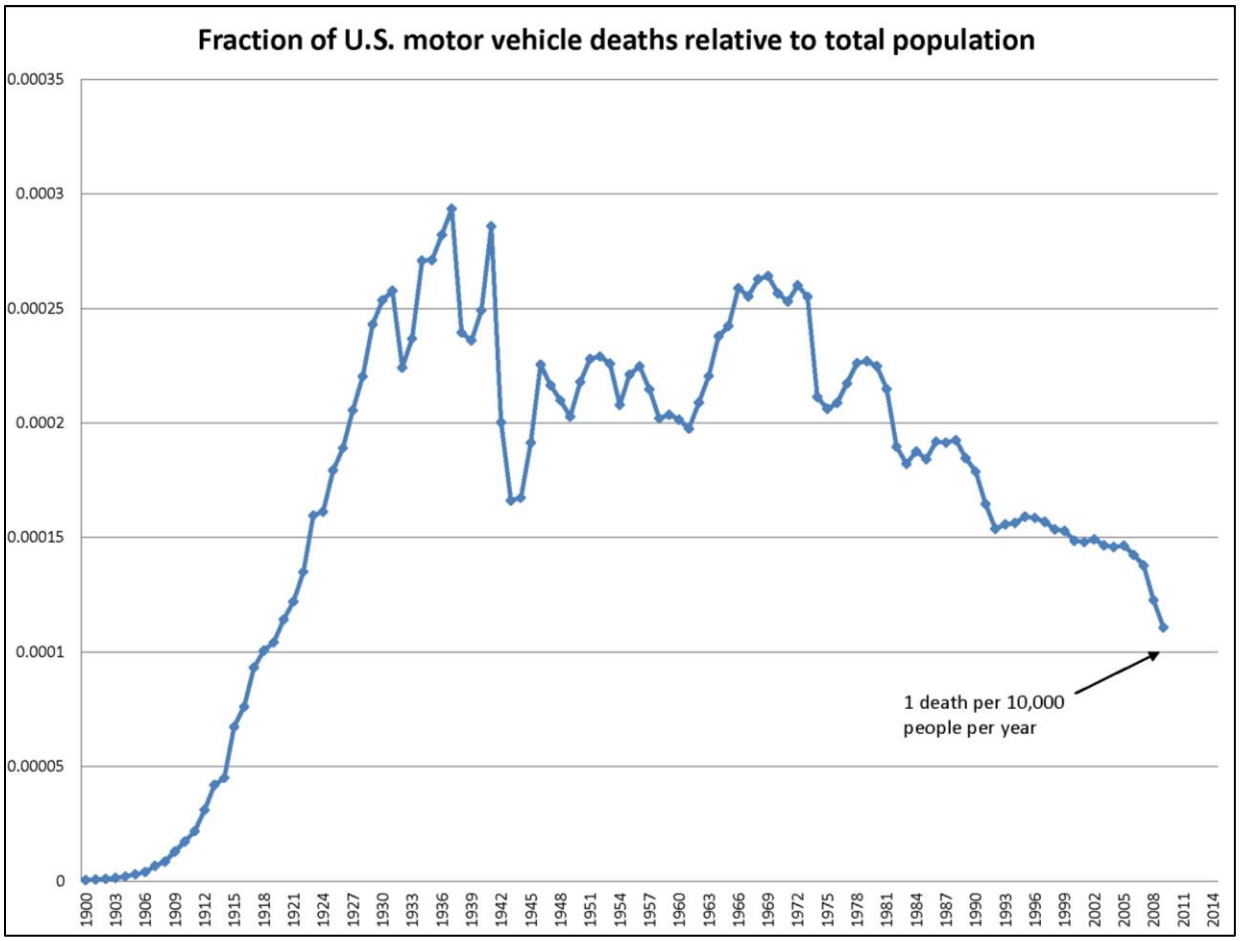


Reference source: http://www.fhwa.dot.gov/planning/national_highway_system/nhs_maps

Highway Safety Improvement Program (HSIP)

The rate of traffic fatalities per population clearly shows a significant trend of decline since the late 1930s, and particularly over the past two decades, as shown in **Figure 2.3**. Continued improvement is desired and traffic safety is specified as the USDOT's first priority.Total highway deaths from 1899 to 2012 are 3,551,332.

Figure 2.3: Historic Traffic Fatality Rates



The federal-level HSIP focuses on system performance. Each state contributes to the program by identifying key safety problems, documenting their relative severity compared to other states, and then adopting performance goals to improve safety. Each state is to develop a Strategic Highway Safety Plan (**SHSP**) to address safety issues. State-level targets for the absolute number and the rates per vehicle mile travelled of serious injuries and fatalities are set in the SHSP.

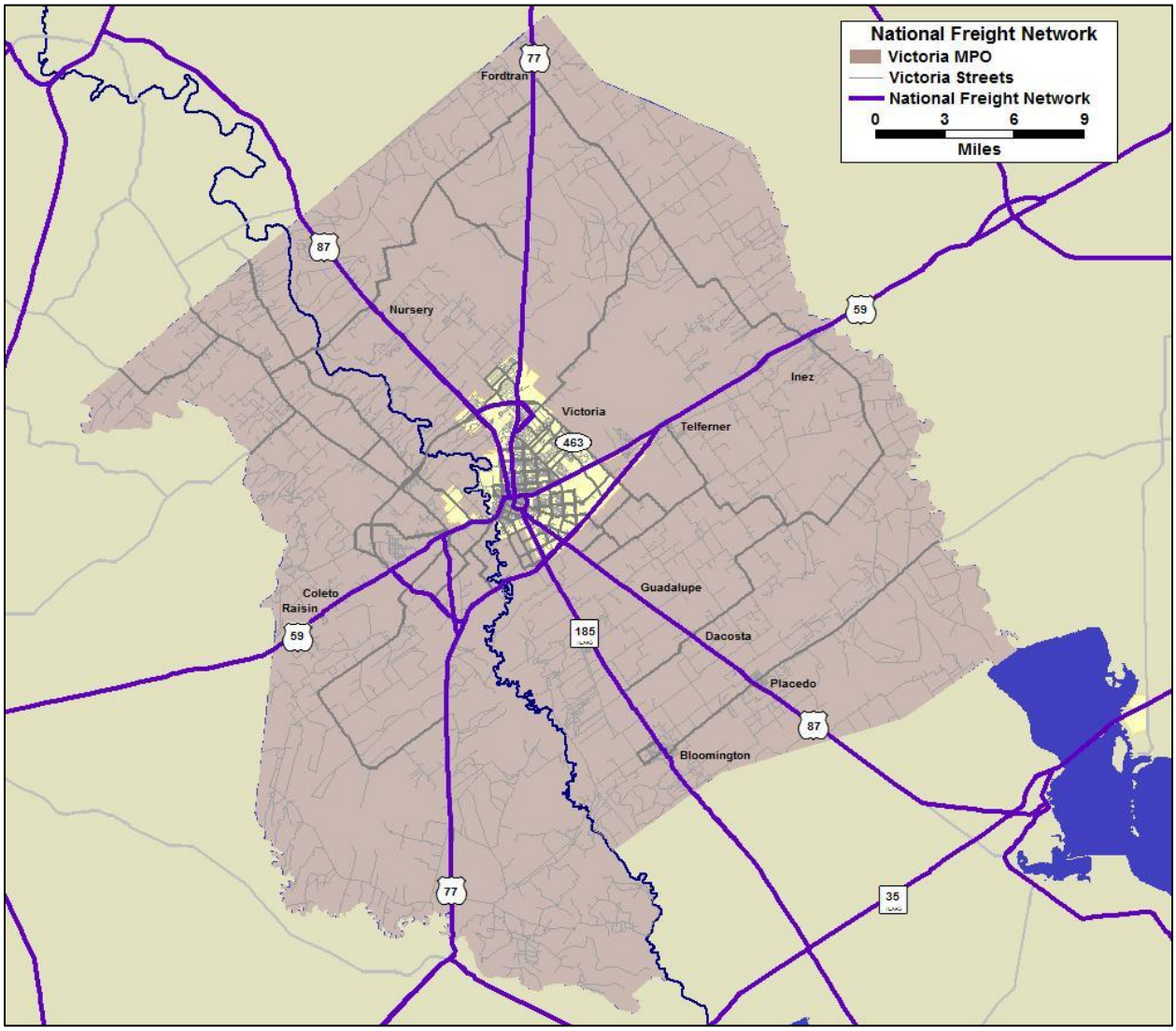
Congestion Mitigation and Air Quality Improvement Program (CMAQ)

The continuing CMAQ program provides an ongoing and flexible funding source for transportation projects and programs designed to help meet the requirements of the Clean Air Act. Funding is available for areas designated as non-attainment or maintenance for ozone, carbon monoxide, or particulate matter. MAP-21 will establish new performance measures for traffic congestion and on-road mobile source emissions under the CMAQ program.

Freight Issues

MAP-21 includes a number of provisions designed to enhance freight movement and support national-level performance goals. The condition and performance of the designated National Freight Network form an important focus, with a national-level strategic freight plan to be developed by the USDOT. The National Freight Network is shown in **Figure 2.4**.

Figure 2.4: National Freight Network



Performance Measures

One of the most significant changes in MAP-21 is the requirement that the MTP incorporates performance plans for specific programs. Establishing a performance-based system is described as the cornerstone of the act. The MTP must describe the performance measures and targets used in addressing system performance, and must show the progress made in achieving those targets. In coordination with the MTP, the short-range Transportation Improvement Program (TIP) must also include a description of the performance targets and how the programmed projects are expected to contribute to achieving them. The purpose is that states and MPOs will select transportation projects that will make progress toward nationally-defined goals. The seven national performance goals for Federal-aid highway programs are:

- **Highway Safety** – To achieve a significant reduction in traffic fatalities and serious injuries on all public roads;
- **Infrastructure Condition** – To maintain highway infrastructure in a state of good repair ;
- **Congestion Reduction** – To achieve a significant reduction in congestion on the National Highway System;
- **System Reliability** – To improve the efficiency of the surface transportation system
- **Freight Movement and Economic Vitality** – To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development;
- **Environmental Sustainability** – To enhance the performance of the transportation system while protecting and enhancing the natural environment;
- **Reduced Project Delivery Delays** – To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

The specified timelines for implementing performance measures and targets involve ongoing coordination and cooperation between the US Department of Transportation, TxDOT, individual MPOs, and public transit operators. In keeping with the established goal of providing robust and meaningful public participation throughout the transportation planning process, the timelines include review and comment periods to allow the general public to have a voice. With this complexity in the program, a certain amount of time is required in order to fully define and implement the performance measures and targets. States are required to establish performance targets in coordination with MPOs and transit operators within one year after the final rule establishing performance measures by the USDOT. MPOs are required to establish performance targets in coordination with the states and transit operators within 180 days after adoption of targets by the state or transit operators.

The Victoria MPO intends to fully participate in this process with TxDOT and public transportation providers to establish appropriate performance targets. However, the separate timeline required for this MTP requires that it be developed before the required performance measures and targets are established. To accommodate this difference in the required timelines, it is necessary that this MTP is developed with references to the anticipated performance measures and targets. As the USDOT, TxDOT, and Victoria MPO finalize the performance measures and targets, they will be incorporated in the transportation planning process with amendments to the MTP and TIP.

Required Elements of the MTP

The Code of Federal Regulations CFR § 450.322 details specific requirements the MTP must meet. The approach taken by this 2040 Victoria MTP to address each of these requirements is outlined below.

The transportation planning process shall address at least a 20-year planning horizon

This MTP spans a 25-year horizon from the year 2015 to its horizon year 2040.

The transportation plan shall include both long-range and short-range strategies that lead to an integrated multimodal transportation system

The long-range MTP includes specific projects and strategies for all transportation modes, including roads, transit, bicycle/pedestrian facilities, aviation, rail, and intermodal facilities. Further, the needs of freight transportation have also been considered. The MTP categorizes projects as short-term (2015-2024) and long-term (2025-2040). In addition, the MTP includes illustrative projects that are beyond the financial capacity of the MTP. These projects are considered to be very long-term (beyond 2040). If additional funding becomes available, it is expected that some of these projects would be moved to the long-term horizon.

The MPO shall review and update the transportation plan at least every four years in nonattainment areas and maintenance areas and at least every five years in attainment areas

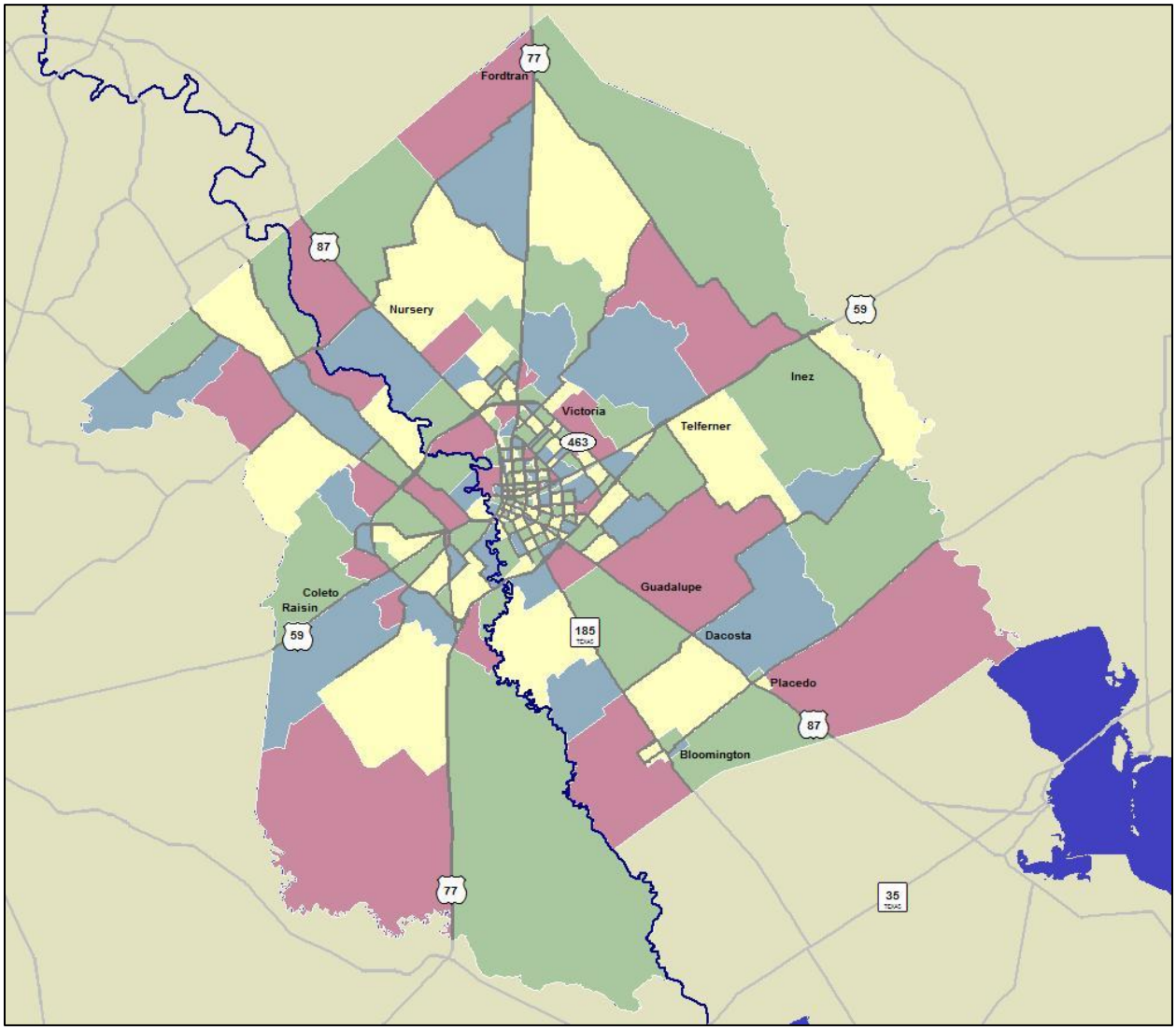
Because Victoria is considered to be in attainment for ozone, carbon monoxide, and particulate matter, the plan is on a five year update cycle. This MTP reflects an update of the previous plan which was approved in April of 2010, and subsequently amended in December 2012. The next MTP update is expected to occur in April 2020.

The MPO shall base updates on the latest available estimates for population, land use, travel, employment, congestion, and economic activity

This 2040 Victoria MTP is based on the most recent available set of socioeconomic and transportation planning data at the Traffic Analysis Zone (TAZ) level, as prepared by the MPO for its travel demand model. The 2040 future year socioeconomic data was developed to account for currently planned developments as well as areas of the region most suitable for growth.

The TAZ system is structured to give more detail in the more densely populated regions of the county, and to define zones with homogeneous characteristics of population and employment. **Figure 2.5** shows the 225 internal TAZs used in the Victoria travel demand model.

Figure 2.5: Traffic Analysis Zones in the Victoria Travel Demand Model



The transportation plan shall include projected transportation demand of persons and goods in the metropolitan planning area over the period of the transportation plan

As part of the transportation planning process, TxDOT validated a new 2012 base and 2040 forecast travel demand model.

The transportation plan shall include existing and proposed transportation facilities that should function as an integrated system

Chapter 6 of the MTP includes a discussion and a "report card" on the conditions of the existing transportation system for each passenger and freight mode. The fiscally-constrained list of prioritized projects which will shape the future transportation system is presented in Chapter 10.

The transportation plan shall include operational and management strategies to improve the performance of existing transportation facilities

In each of the sections by mode in Chapter 6, the MTP addresses operational and management strategies to improve the performance of the existing system in order to relieve congestion and enhance the safety and mobility of people and goods in the Victoria region. Strategies to increase the effectiveness of projects and thereby stretch the available funding are presented with the financial plan in Chapter 9.

The transportation plan shall include an assessment of capital investment and other strategies to preserve the existing system and provide for multimodal capacity increases

The MTP addresses capital investment strategies to preserve existing transportation infrastructure and provide for multimodal capacity increases based on regional priorities and needs. In particular, the modal sections found in Chapter 6 outline capacity-enhancing projects for their various modes of transportation.

The transportation plan shall include descriptions of all existing and proposed transportation facilities in sufficient detail for conformity determinations. In all areas (regardless of air quality designation), all proposed improvements shall be described in sufficient detail to develop cost estimates

The MTP project development team worked closely with project proponents to sufficiently define the scope of all projects to develop reasonable cost estimates. The MTP projects listed in Chapter 10 present both project descriptions and cost estimates.

The transportation plan shall include a discussion of potential environmental mitigation activities to restore and maintain environmental functions affected by the transportation plan

Chapter 8 of the MTP includes a discussion of the environmental impacts of the transportation plan and potential mitigation efforts.

The transportation plan shall include pedestrian walkway and bicycle transportation facilities

The MTP recognizes the importance of providing sufficient pedestrian and bicycle facilities. Pedestrian and bicycle modes are treated together in Chapter 6.

The transportation plan shall include transportation and transit enhancement activities

Transportation enhancement projects in MAP-21 are now grouped in the category of Transportation Alternatives. These types of projects are featured throughout the deficiency analysis, project generation, and project selection path of the MTP.

The transportation plan shall include a financial plan that demonstrates how the adopted transportation plan can be implemented and that meets several requirements as outlined in 23 CFR § 450.322

A financially constrained plan with costs and revenues in year of expenditure dollars is presented in Chapter 9. Only reasonably available funding sources were considered. Given the current uncertainty and instability of federal funding and the status of the Highway Trust Fund, some uncertainty in the levels of future funding is expected.

The metropolitan planning organization shall consult with state and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation regarding development of the transportation plan

The *Voice of Victoria*, an ongoing survey program to establish a continuous program of public participation, is expected to enhance public participation for this MTP and for other future transportation planning tasks. The program was designed to reach a wide range of stakeholders in the development of the MTP, including the agencies with an interest in the areas of land use management, environmental resources, environmental protection, conservation, and historic preservation. The *Voice of Victoria* process is described in Chapter 4. In addition, historic and regional conditions were inventoried and are reflected in Chapter 3.

The transportation plan shall include a safety element that incorporates or summarizes the priorities, goals, countermeasures, or projects as well as emergency relief and disaster preparedness plans and strategies and policies that support homeland security and safeguard the personal security of all motorized and non-motorized users.

The MPO recognizes the importance of providing a safe and secure transportation system, and Chapter 7 is dedicated to these issues.

The MPO shall provide interested parties with a reasonable opportunity to comment on the transportation plan

The Victoria MPO strictly adheres to its public participation plan and has developed the *Voice of Victoria,* an ongoing survey program to establish a continuous program of public participation. Part of the rationale for developing this program was to reach out to a broader range of public groups and to provide a way to both track participation and to target specific groups for a more intense outreach effort. The ongoing nature of the *Voice of Victoria* survey program means that comments can be solicited and received from the public even after specific deadlines for the MTP have passed; it is therefore never too late for the public to have a voice.

The MTP shall be published or otherwise made readily available for public review

The Victoria MTP is made available for public review through both printed copies available at the MPO offices and electronically accessible formats through the MPO's website at http://www.victoriampo.org. A public meeting will be held ion February 10, 2015 to formally present the draft MTP to the public, followed by the presentation of the updated MTP on March 17, 2015. Following a four-week opportunity for further review and comments, the final MTP will be presented to the MPO Policy Committee on April 14, 2015.

The MPO shall not be required to select any project from the illustrative list of additional projects included in the financial plan.

Although an illustrative list of additional projects is included in the MTP, the MPO acknowledges that it will not be required to select any from that list. These unfunded projects are presented as a planning aid and as projects to be considered if additional funding becomes available.

The MPO's performance measures as required by MAP-21 will be developed in coordination with federal and state performance measures.

The specification of performance measures by the USDOT and TxDOT is an ongoing process with a timeline which is separate from the Victoria MTP development deadlines. Due consideration was given to draft versions of the USDOT and TxDOT performance measures as they were published during the MTP development cycle. Once the USDOT and TxDOT performance measures are finalized, they will be incorporated into this MTP through an amendment.

Draft USDOT performance measures for safety published in May 2014 call for an evaluation of fatalities and serious injuries on all public roads. The measure will be a 5-year rolling average of incident rates per 100 million vehicle miles traveled.

Other anticipated USDOT performance measures include: infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reduced project delivery delays

The MPO will set regional targets once statewide goals are established. The MPO will integrate the targets into its planning process.

Once the USDOT and TxDOT performance measures are finalized and incorporated into this MTP through an amendment, final performance targets for Victoria can also be finalized. These will also be incorporated into this MTP through an amendment.

State's and MPO's long-range plans will include System Performance Reports that describe the progress made toward achieving performance targets.

The "report cards," which detail conditions for each mode for 2012 and 2040, were designed in anticipation of this requirement. They will illustrate the progress made toward achieving performance targets. Once targets are finalized, the "report cards" can be updated to reflect any changes.

Transportation Planning Factors

On February 14, 2007, the U.S. Department of Transportation promulgated the Final Rule on Statewide and Metropolitan Transportation Planning. Within 23 CFR § 450.306, a series of eight planning factors are identified and required to be considered in the metropolitan transportation planning process. The Victoria MPO's approach to these planning factors is as follows:

The 8 planning factors that were defined by the US Department of Transportation under ISTEA and SAFETEA-LU have been carried forward unchanged into MAP-21.

1. Economic Vitality: The transportation network provides the region with access to jobs, shopping, education, and recreational activities. It also enables inter-regional travel and affects freight movement and international trade. Therefore, the transportation network must be planned to maintain mobility and increase system efficiency with both short-term and long-term views, while considering all transportation modes. This MTP provides recommendations for projects and strategies that should relieve congestion on key transportation corridors that provide access to primary activity centers such as jobs, schools, shopping, and other recreational activities. Further, improvements to infrastructure supporting freight movement and air travel is also considered in the MTP in order to increase regional and global competitiveness.

Environmental Justice is a related issue considered in this MTP to help ensure that the economic benefits and costs imposed by the transportation system are shared equitably by all segments of the population in Victoria County.

2. Safety: Motorized and non-motorized users of the transportation system expect and deserve a safe experience while travelling. The Victoria MPO has developed this plan with safety considerations in mind, as safety is noted as the primary goal of the USDOT. Strategies to improve safety include developing transportation system management techniques such as access management, increasing capacity through system expansion projects (specifically within congested corridors), considering on-street bicycle lanes and off-street trails, providing for hurricane evacuation routes, and reducing the number of at-grade rail crossings.

3. Security: Concerns for security have gained more prominence in transportation planning in recent years. Serious consideration has been given to planning the transportation system's response to possible threats, including natural disasters such as hurricanes, while developing this MTP.

4. Accessibility and Mobility: Improving the accessibility and mobility of both people and freight is a key objective of the Victoria MPO. The two concepts are similar but have a distinct difference: mobility refers to the ability of a person to physically move to another place where a good or a service is available; access refers to the ability of a person to acquire a good or a service regardless of their physical location. A full-featured transportation plan addresses both concepts with consideration of all transportation modes in order to promote an integrated and efficient system.

5. Environment, energy conservation, planned growth: People are increasingly conscious of their actions on the environment and show concern that Victoria's natural resources can meet their needs for today and for the future. Both population growth and economic development tend to increase the amount of travel and impose more intense demands on the natural and built environment. Transportation investments can help address this issue by building towards a more efficient and balanced intermodal system that considers quality of life issues as well as access and mobility issues.

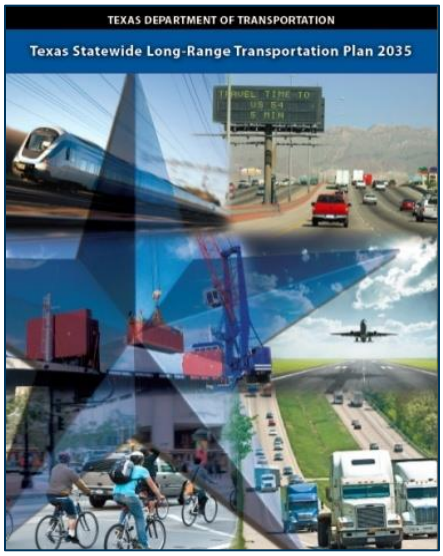
6. Modal Integration and Connectivity: The Victoria MTP includes projects that support a balanced and integrated multimodal system.

7. System Management and Operation: Getting the most out of the existing transportation infrastructure through efficient and cost-effective projects is a key goal of the Victoria MPO. This MTP considered projects in categories to address this goal such as improving traffic signal synchronization, improving access management along existing roadways, improving existing intersections, and eliminating at-grade railroad crossings to help the transportation system perform more efficiently.

8. System Preservation: While growth in the region certainly calls for increased transportation capacity, it is just as important to maintain the existing infrastructure in a state of good repair.

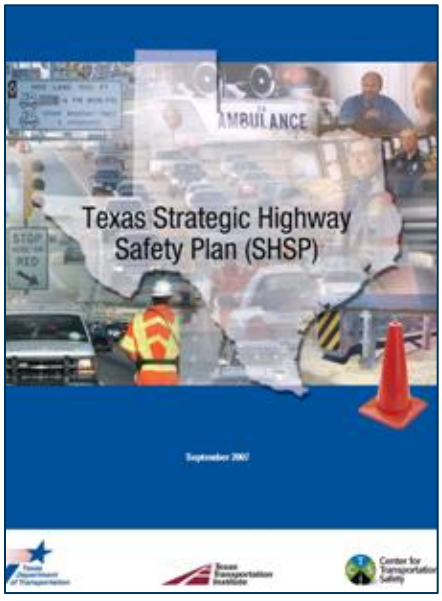
State Planning Context

TxDOT, in coordination with its Divisions, the South Region, and the Yoakum District Office, works in cooperation with the Victoria MPO to carry out transportation planning tasks and activities. The following state-level plans have been identified as pertinent to the metropolitan transportation planning process:



Statewide Long-Range Transportation Plan

Transportation planning is an ongoing effort at all levels of government. TxDOT and the MPOs develop various transportation related plans (goals, strategies, and policies) and programs (funding mechanisms and sources) in conjunction with other transportation agencies. The statewide long-range plan builds on these ongoing planning efforts. Individual plans prepared by TxDOT such as the Texas Rail Plan, the Texas Airport System Plan, Regional Coordinated Public Transportation planning, and the TxDOT Strategic Plan are incorporated into the Statewide Long-Range Transportation Plan effort.



TxDOT Strategic Plan (2013-2017)

This document is an overarching policy statement designed to provide a framework for taking action within TxDOT. It addresses strategies and tactics that are necessary in order for TxDOT to fulfill its mission and goals from 2013-2017 and establishes performance measures to monitor progress.

Texas Strategic Highway Safety Plan (SHSP)

SAFETEA-LU required that all states develop and implement an SHSP; the metropolitan transportation planning process must be consistent with the plan. This requirement is carried forward in MAP-21. This document identifies safety needs and directs investment decisions to reduce highway fatalities and serious injuries on public roads.

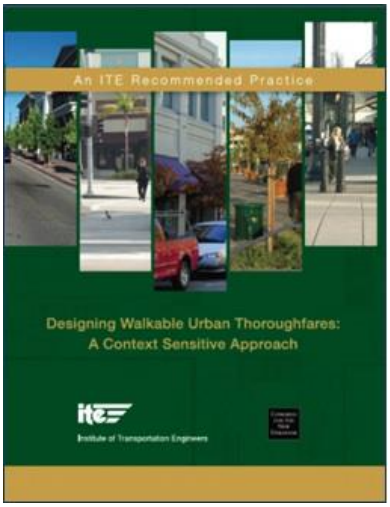
Unified Transportation Program (UTP)

This document is a 10-year plan approved by the Texas Transportation Commission which defines 12 different categories of funding that will guide transportation project development and construction in the state of Texas. The UTP is further divided into two documents; the Statewide Mobility Program (SMP) and the Statewide Preservation Program (SPP). It represents a medium-range planning document that should be consistent with MTPs across the state.

Local Planning Context

This 2040 Victoria MTP has been developed with a robust public participation process designed to give the general public, regional transportation agencies, and industry groups a voice in setting the vision for the transportation system, defining candidate projects and processes used for project evaluation, and reviewing the final MTP document. This process forms one element of the planning context for the MTP. Other elements include previous local transportation plans, plans prepared by mode-specific agencies, state regulations, and federal regulations.

Complete Streets

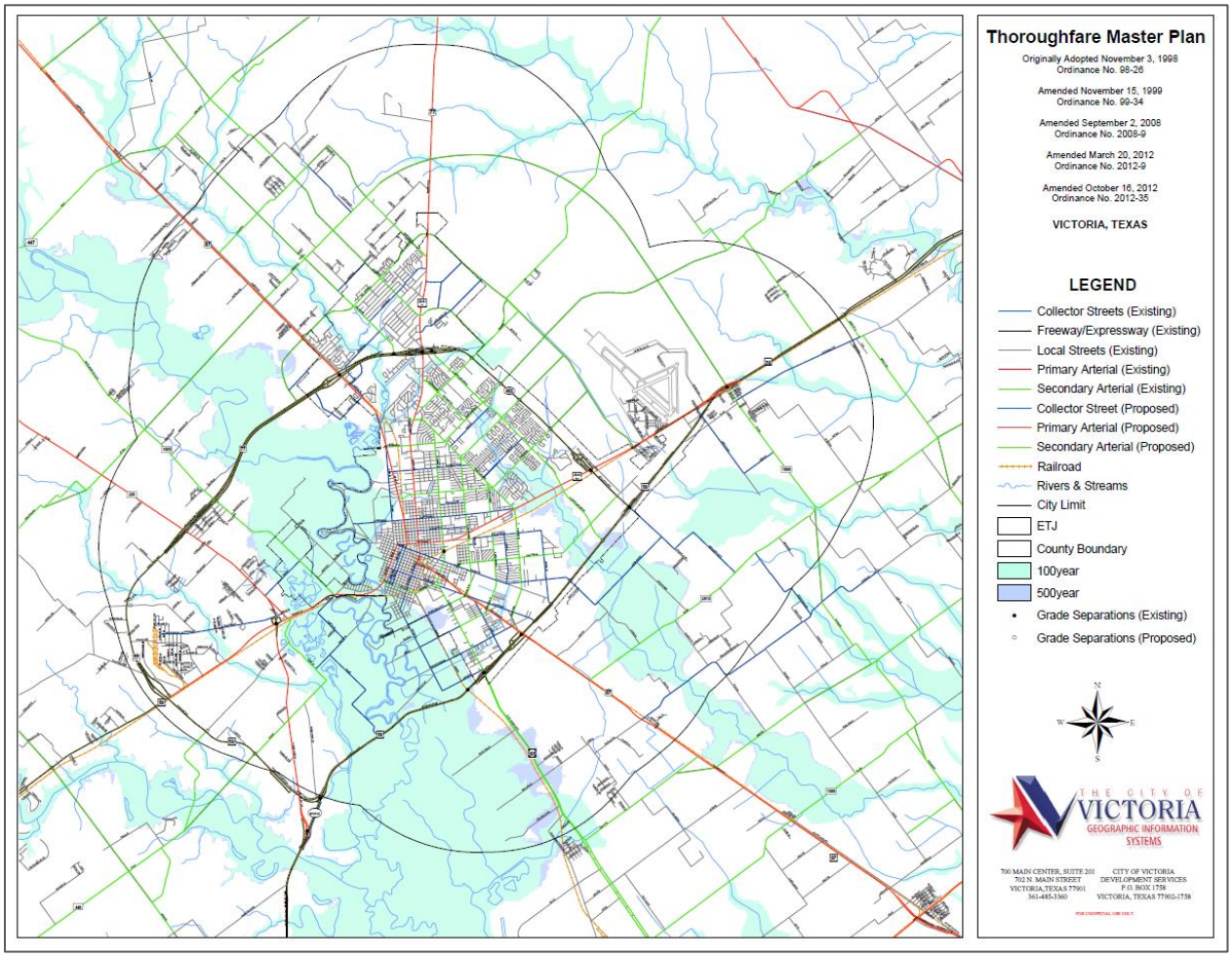


Several of the goals and objectives in the Victoria 2025 Comprehensive Plan, the 2004 downtown study, the Parks Master Plan, and other local plans detail the desire for the types of pleasant urban streets which are referred to as "Complete Streets", "Great Streets", or "Context-Sensitive Solutions." These goals point to a desire to develop a road system that is both aesthetically pleasing and operationally efficient. A streetscape offering access, sidewalks, and landscaping can be as important as the travel way. Further, the Parks Master Plan and the Paseo de Victoria master plan for pedestrians and bicycles refer to connectivity and linkages to the street system. A key resource for designing these types of streets is Designing Walkable Urban Thoroughfares: A Context Sensitive Approach, produced jointly by the Institute of Transportation Engineers (ITE) and the Congress for the New Urbanism. Strategies from this tool kit were suggested to the MPO for review and discussion before they were used in MTP development.

Victoria Thoroughfare Master Plan

The City of Victoria Thoroughfare Master Plan is important for listing the existing and proposed collectors, secondary arterials, and primary arterials for the City. The Thoroughfare Plan was adopted in November 1998, and has been amended as necessary. The latest amendment was in October 2013. All of the final fiscally constrained and prioritized projects, as well as the list of unfunded projects, were reviewed for compliance with the Thoroughfare Plan. The current Thoroughfare Master Plan is shown in **Figure 2.6**.

Figure 2.6: Victoria 2013 Thoroughfare Master Plan

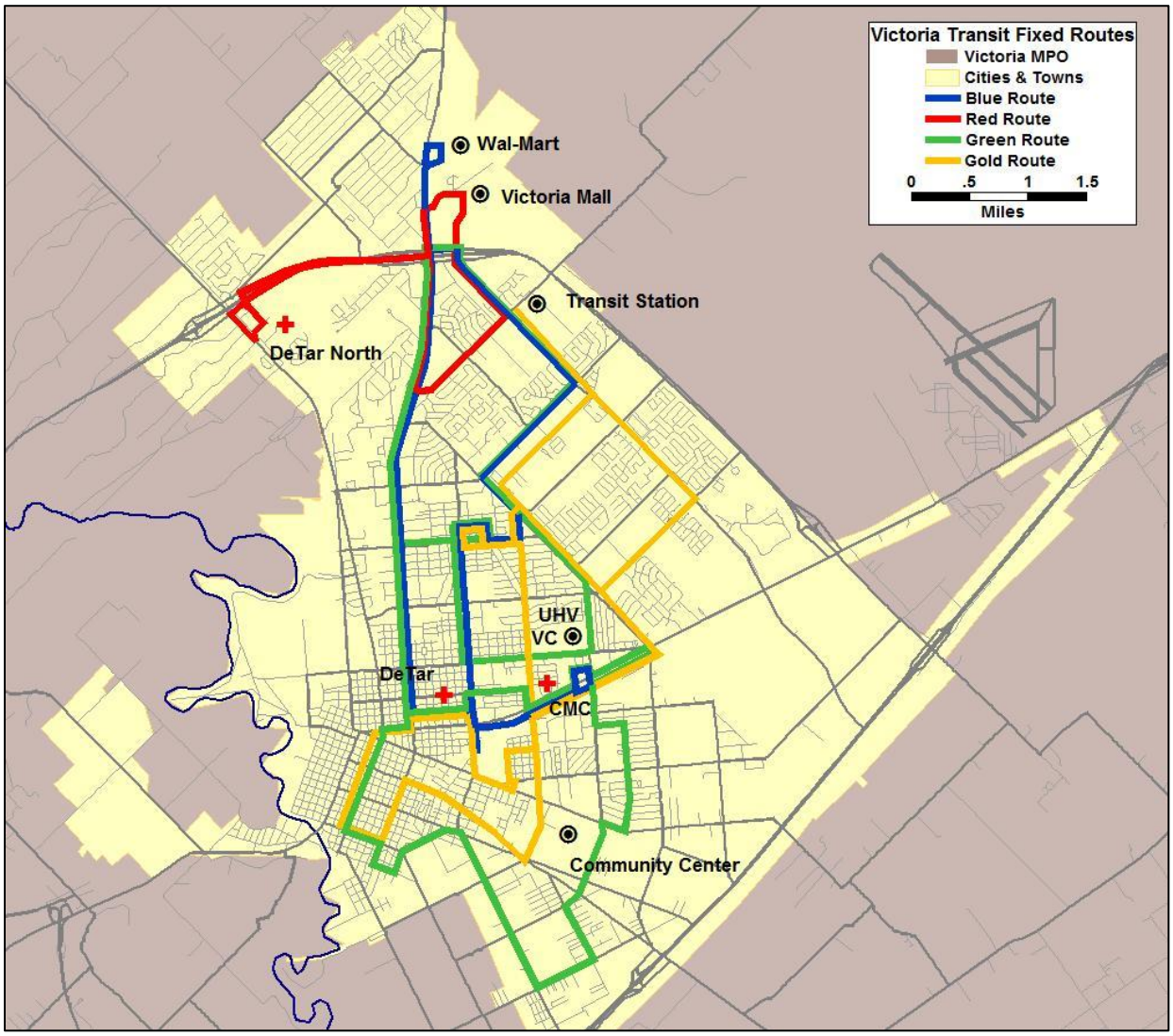


Victoria Transit and R Transit

While most, if not all other MPOs in Texas, are faced with the task of coordinating their rural and urban public transit systems, Victoria is extremely fortunate to have both systems run by the same provider, the Golden Crescent Regional Planning Commission (GCRPC). GCRPC, using several providers, operates fixed routes within the City of Victoria, a complementary paratransit service, after-hours and weekend service for job access, and rural demand-response service.

Victoria Transit operates four fixed routes in the most densely populated area of Victoria, as shown in **Figure 2.7**. The Flex Route operates similarly to the fixed route service and provides weekend and evening services designed to support job access within the City of Victoria. The complementary paratransit system provides curb-to-curb service throughout the same area in a demand-response system requiring advance reservations.

Figure 2.7: Victoria Transit Fixed Routes



GCRPC also operates R Transit for rural public transportation in Victoria County and 6 surrounding counties. It provides curb-to-curb service through an on-call system, supported by a fleet of 28 vehicles and 6 local providers.

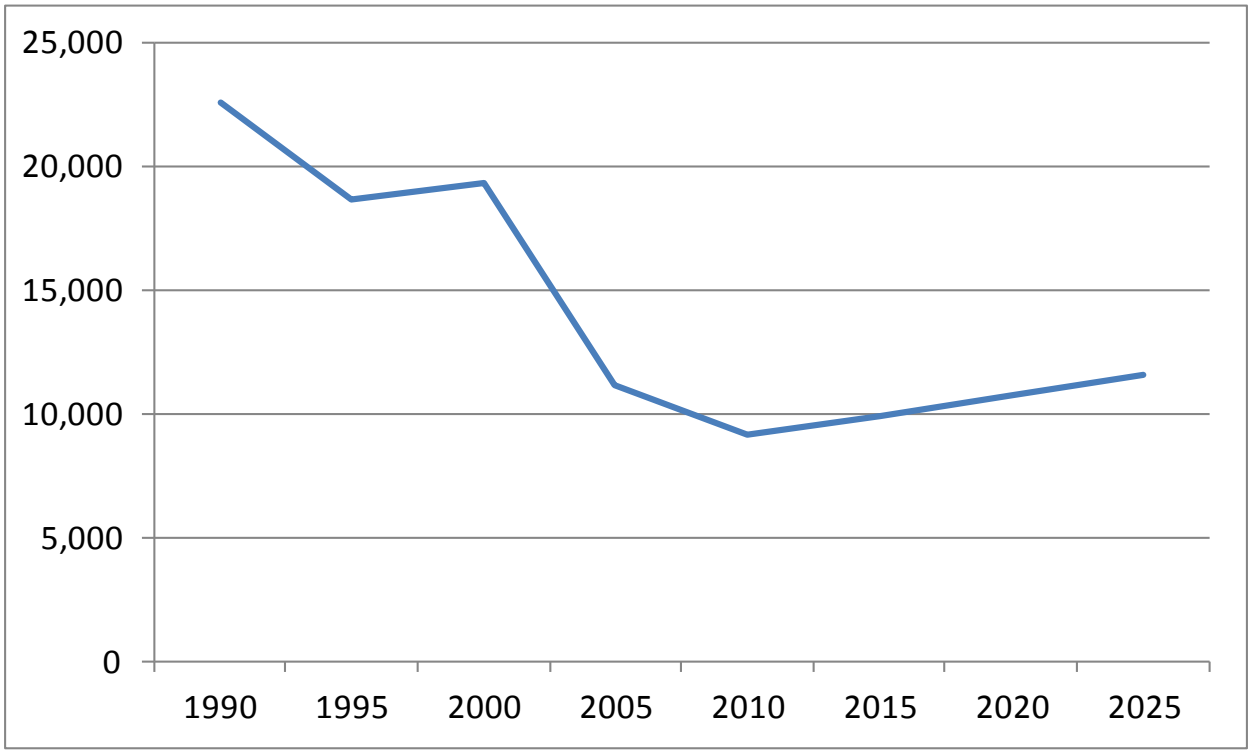
Issues related to planning for Victoria Transit and R Transit relate to their infrastructure, operations, and clients. Transit-dependent clients must be particularly accounted for in the planning process to ensure that their future needs are met.

Victoria Regional Airport

The Victoria Regional Airport is owned by Victoria County and operated by the Prautes Corporation, a private contractor. Flight operations are approximately 64% military, 30% general aviation, 3% scheduled commercial, and 3% air taxi. Average operations are 125 flights per day.

Factors that impact the competitiveness of air service in Victoria have included the frequency of service and the fare structure at connecting airports. The recent history of commercial air service shows a significant decline in air traffic since 1990, which has both caused and resulted in decreasing levels of service. This decline in traffic and the projected air traffic to the year 2025 is shown in **Figure 2.8**.

Figure 2.8: Historic Trend and Forecast Air Traffic in Victoria



When Continental Connections / United Express / Colgan Air ended their service to Victoria in June 2012, the County and Airport selected Sun Air International to serve Victoria under the Essential Air Service (EAS) program. EAS is a federal program developed after airline deregulation in 1978 to maintain a minimum level of air service to smaller communities. As a general matter, this program involves subsidizing two to four round trips per day to a major hub airport, using 19-seat turboprop aircraft.

Sun Air International was selected in July 2012 to provide service to Houston's George Bush Intercontinental airport with a nine-passenger turboprop aircraft beginning in July 2012. The service featured 13 flights to Houston each week.

Figure 2.9: Public Charters Jetstream Aircraft

Essential Air Service authorization for Victoria expired on September 30, 2014. New services began under the Alternate Essential Air Service pilot program on November 2, 2014. Public Charters, Inc. provides flights to Austin and Dallas-Fort Worth with 30 flights each week. It is anticipated that their service will increase enplanements by 71% over 2012 levels within the first year of operation. Service is provided using a Jetstream 19-passenger turboprop aircraft, shown in **Figure 2.9**.

The Texas Airport System Plan, which was updated in 2010, provides the basis for coordinated statewide airport planning. It inventories infrastructure, forecasts need, and provides a general estimate of needed improvements and their costs. The plan specifies an Airport Master Plan Update for the Victoria Airport for FY 2015.

The status of commercial air operations under the Alternate Essential Air Service pilot program is also an important issue for Victoria. Since the selected service under Public Charters is to switch services from the Houston hub airport to Dallas-Fort Worth and to change both the aircraft and the frequency of service, it is anticipated that no other short-term aviation plans will be implemented until after a ramp-up period for the new service so that reliable data can be collected.

The other issue for Victoria Airport planning relates to land-side access and opportunities. As a former Air Force Base, the airport includes land, buildings, and infrastructure which can support industrial uses. Economic development of these assets is a planning consideration.

Port of Victoria

The Port of Victoria lies at the end of a 35-mile canal to the Gulf Intracoastal Waterway (GIWW). The canal is currently dredged to a depth of 12 feet, the same as the GIWW. This depth categorizes it as shallow-draft and leads the port to primarily focus on barge traffic. Major cargoes are crude oil, other liquid and dry bulk, and general cargoes. The port is served by the Union Pacific railroad, with BNSF railroad having trackage rights. Activity from the Eagle Ford shale is increasing barge shipments at the Port of Victoria. Oil is currently trucked to the port from the Eagle Ford field about 30 miles south of Victoria. The current capacity of the Port of Victoria is about 150,000 barrels per day, which can be handled by 5 barges.

In addition to its role as a freight shipper, the Port also includes 1,800 acres of property with waterway, rail, and highway frontage that is available for industrial uses. The industrial park is both a Foreign Trade Zone and a Texas Enterprise Zone.

Recent expansion of the port included a new barge slip with a holding capacity of 50 barges. A new multi-purpose dock for continued expansion of liquid cargo shipping is under construction, with completion anticipated in the late summer of 2014. A new general purpose / container dock and an oil pipeline from the Eagle Ford fields are also under construction.

Plans for the Port of Victoria should consider the 2009 Texas Port and Waterway Forecast, which estimates that total general cargo tonnage for the Port will grow by 55.5% from 2008 to 2035. Containers at the Port of Houston are expected to grow within the range of 140 to 420% for the same period, which is important because the Port of Victoria and the Port of Houston have an existing Memorandum of Understanding (MOU) designed to divert truck container traffic between the two ports onto barges.

Issues for planning for the Port of Victoria include its docking operations, increased oil-related traffic and a planned pipeline terminal, landside access by rail and truck, and development of the 1,800 acres that are available for industrial use. Available industrial land at the port is shown in **Figure 2.10**. Safety issues related to increased truck traffic and turning movements on nearby highways are an additional planning issue.

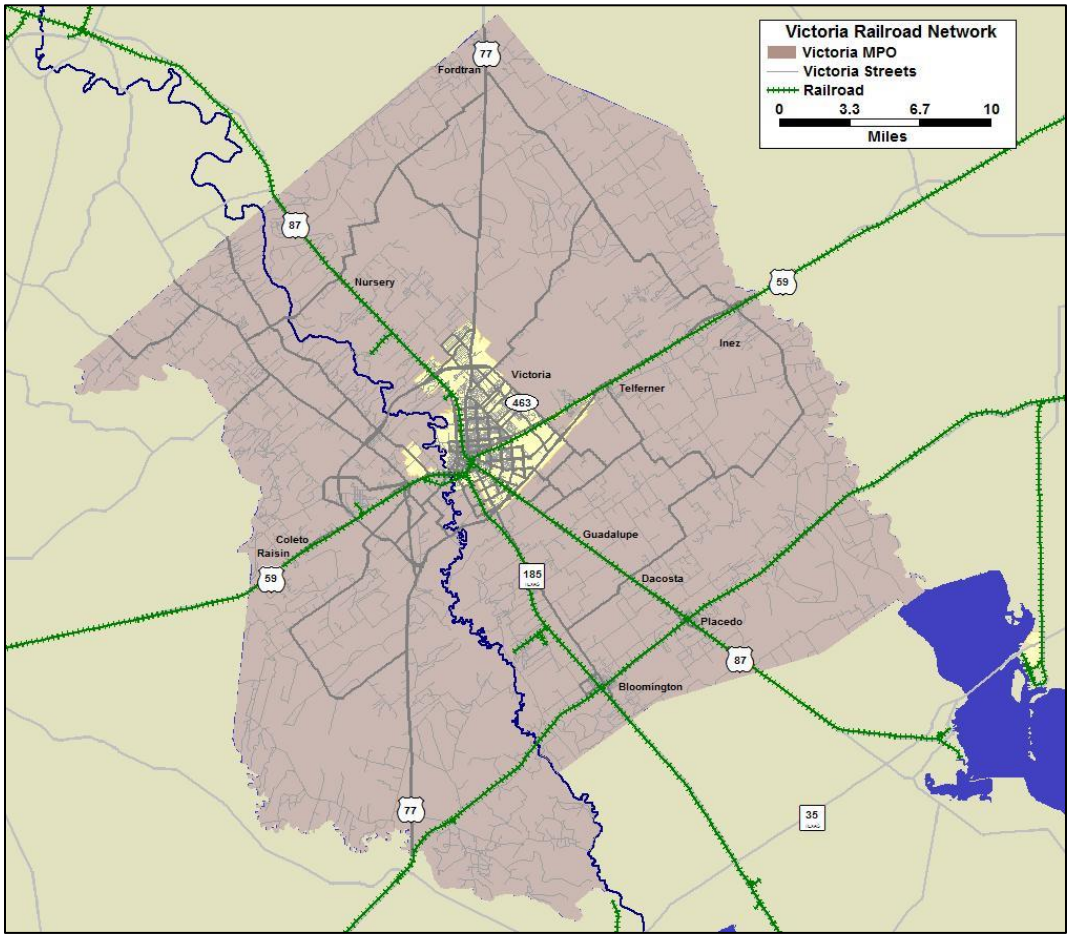
Figure 2.10: Industrial Land Available at the Port of Victoria

Rail Freight

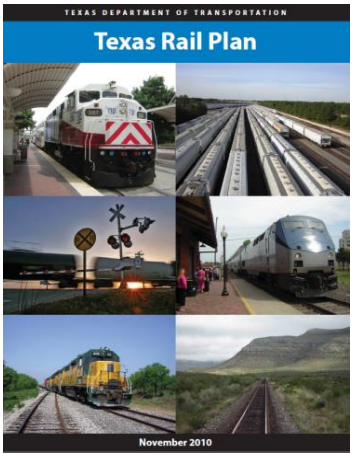
Victoria is well-connected to the national rail infrastructure. Railroad tracks tie Victoria south to the Valley, east to the deep-water ports of Port Lavaca and Point Comfort, north to Houston, and west to San Antonio. The Port of Victoria is currently served by rail. The Victoria Regional Airport was formerly served, but the spur from the rail line adjacent to the airport on the east side of US 59 has been removed. The airport has preserved the right-of-way for the spur.

Most of the rail tracks in the Victoria region are owned by Union Pacific. Burlington Northern – Santa Fe (BNSF) and Kansas City Southern (KCS) have trackage rights in the area and at the Port of Victoria. KCS owns the Rosenberg Line, which they rehabilitated and re-opened in 2009. A complete picture of rail lines in Victoria is displayed in **Figure 2.11**.

Figure 2.11: Railroad Tracks in Victoria



As part of the reactivation of the Rosenberg Line, KCS is considering a bypass that would divert train traffic away from major roadways. Preliminary engineering has been done for the bypass, but right-of-way has not been acquired. A Federal Railroad Administration rail relocation grant has been submitted but has not yet been approved. In this context, there is no definite timeframe for the construction of the bypass.



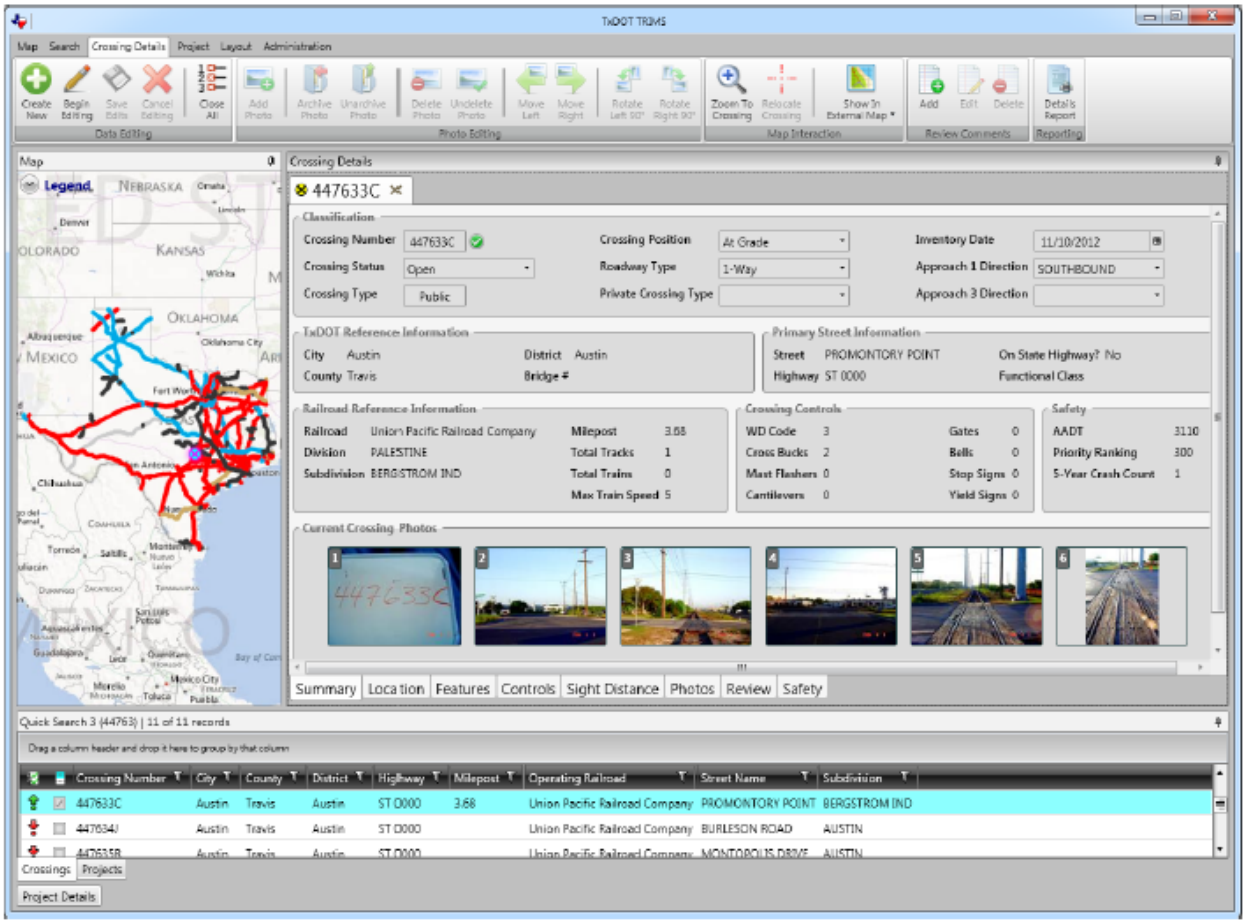
Critical planning issues for rail include trackage, sidings, operations, bridges, landside access to the port, and at-grade crossings.

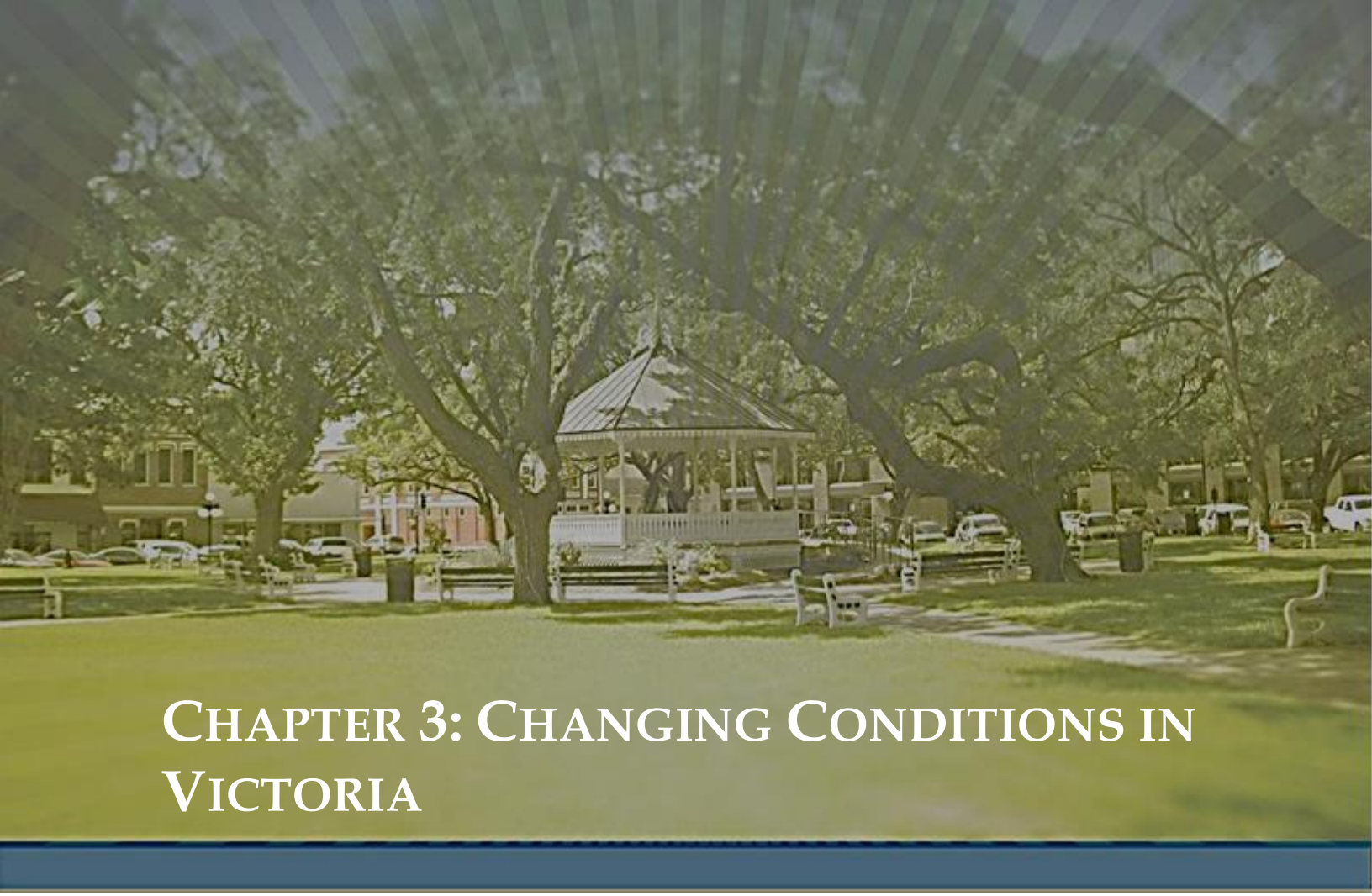
Railroads are increasingly turning to longer and heavier trains to maximize capacity and efficiency. Longer trains require longer sidings to allow trains to meet and pass, and for storage capacity. The 14-mile line between Port Lavaca and the UP Angleton Subdivision has almost no sidings. Consequently, the Texas State Rail Plan recommends a second track from Bloomington to the Victoria Industrial Spur, (Improvement BA-6), and from Bloomington to Placedo (Improvement BA 7).

At-grade crossings are a critical planning issue for Victoria for both safety and congestion. The Texas State Rail Plan cites the at-grade crossings at Rio Grande St (Bus 59) and the US 77 WB frontage road as significant issues in Victoria. These crossings, however, were not identified as funded.

At-grade crossings are inventoried in the TxDOT Rail Division's online Texas Railroad Information Management System (TRIMS). That tool, as seen in **Figure 2.12**, provides a map and data for all at-grade crossings in Texas.

Figure 2.12: Texas Railroad Information Management System





CHAPTER 3: CHANGING CONDITIONS IN VICTORIA

CHAPTER HIGHLIGHTS

- Demographic Data Overview
- 2012 & 2040 Demographic Trends
- Other Indicators of Growth & Activity
- Summary

The life cycle of a transportation project, as discussed in Chapter 1, begins and ends with a methodical evaluation of system performance. This analytical approach is certainly not the sole source of projects nor the only measure for evaluating projects; other intangible considerations such as local support, staging portions of a project over time, and designing a project to take advantage of available funding play a part in developing a regional transportation network that is a true system rather than a set of individual, isolated projects.

The analytical approach is the foundation of the planning process so that projects for all transportation modes and all geographic areas are equitably and consistently evaluated. An analytical approach that uses the travel demand model, which evaluates transportation with a 2012 base year and 2040 forecast year, also allows for an equitable and consistent evaluation of projects across time.

We don't have much time for planners or reverence for long-term plans. There's a pretension of extraordinary prescience in any plan for 2040! But they are correct in saying: let's give priority to solving the problems we know we have now over addressing problems we might or might not have decades ahead.

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> **The mark of a truly educated man is that he can be deeply moved by statistics.**
>
> *George Bernard Shaw*

Existing and forecast demographics are a key component of the project evaluation process supported by the travel demand model. The amount, density, and distribution of demographic characteristics such as population, income, and employment are key variables that impact travel behavior in a region. Reviewing current and anticipated issues helps determine geographic areas of concern for transportation planning. Taken together, the current demographics, anticipated demographic issues, and geographic areas of concern provide insights into the process of generating transportation projects.

In addition to providing information on current and anticipated travel behavior, demographics are useful for what is termed an "Environmental Justice" analysis to determine if the costs and the benefits of the transportation system are shared equitably in all geographic areas; this analysis is further explained in Chapter 8.

Demographic Data Overview

Population data is considered one of the most important elements of a region's demographic characteristics. An understanding of travel behavior and its trends in the future are based primarily on the size and location of the population. This plan utilizes a 2012 base year and a 2040 forecast year; consequently, demographic data was developed and analyzed for these years.

The population of Victoria County is expected to grow from 88,965 in 2012 to 105,298 in 2040, as shown in **Figure 3.1**; similarly, the State of Texas is anticipated to grow from 25,208,897 in 2012 to 37,022,513. **Table 3.1** shows the comparative populations for Victoria County and the State of Texas for the years 1990 through 2040.

Figure 3.1: Victoria County Population, 1990-2040

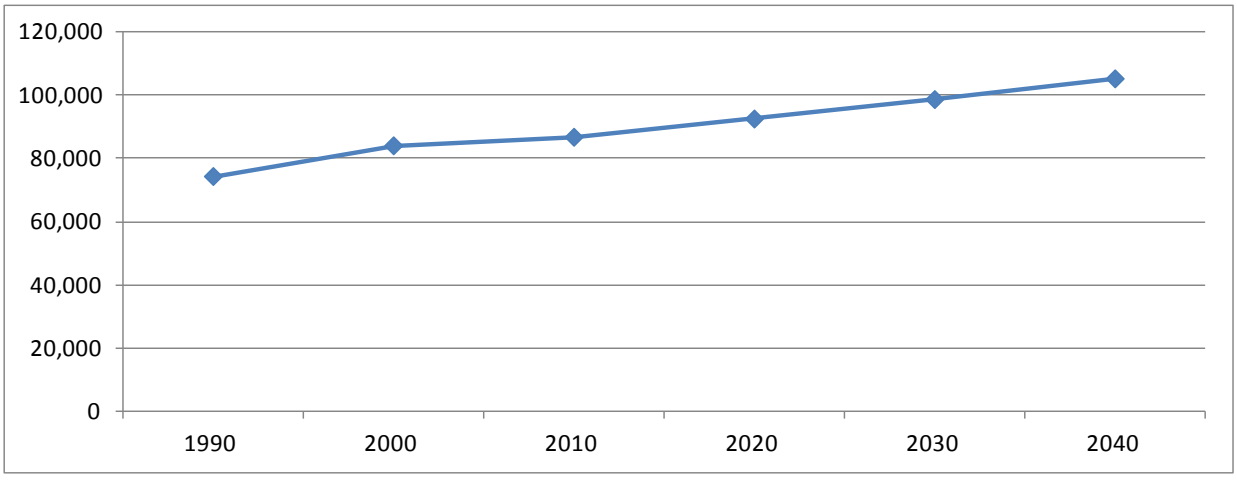
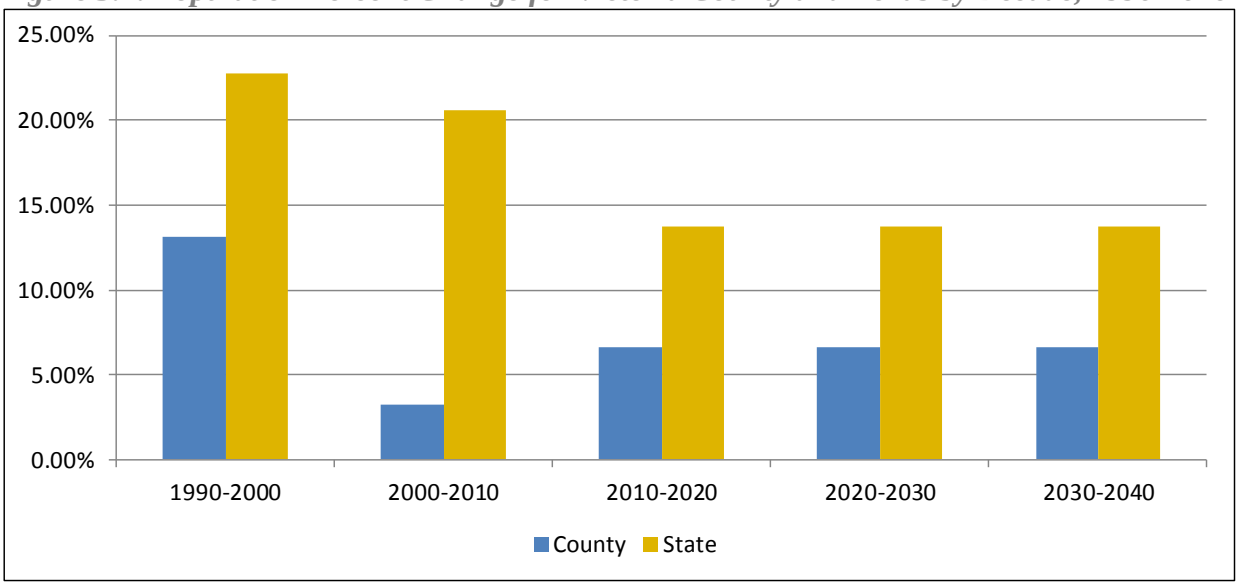


Table 3.1: Victoria County and State of Texas Population, 1990-2040

Region	1990	2000	2010	2020	2030	2040
Victoria County	74,361	84,088	86,793	92,568	98,728	105,298
State of Texas	16,986,510	20,851,820	25,145,561	28,606,377	32,543,509	37,022,513

Figure 3.2 compares the percent change in population for Victoria County and Texas by decade. Victoria County has consistently grown at a lower rate than the state. This is particularly noticeable between 2000 and 2010 when Victoria County only grew by 2,705. However, while the rate of growth for Texas is expected to slow in future years, it is expected to increase for Victoria County.

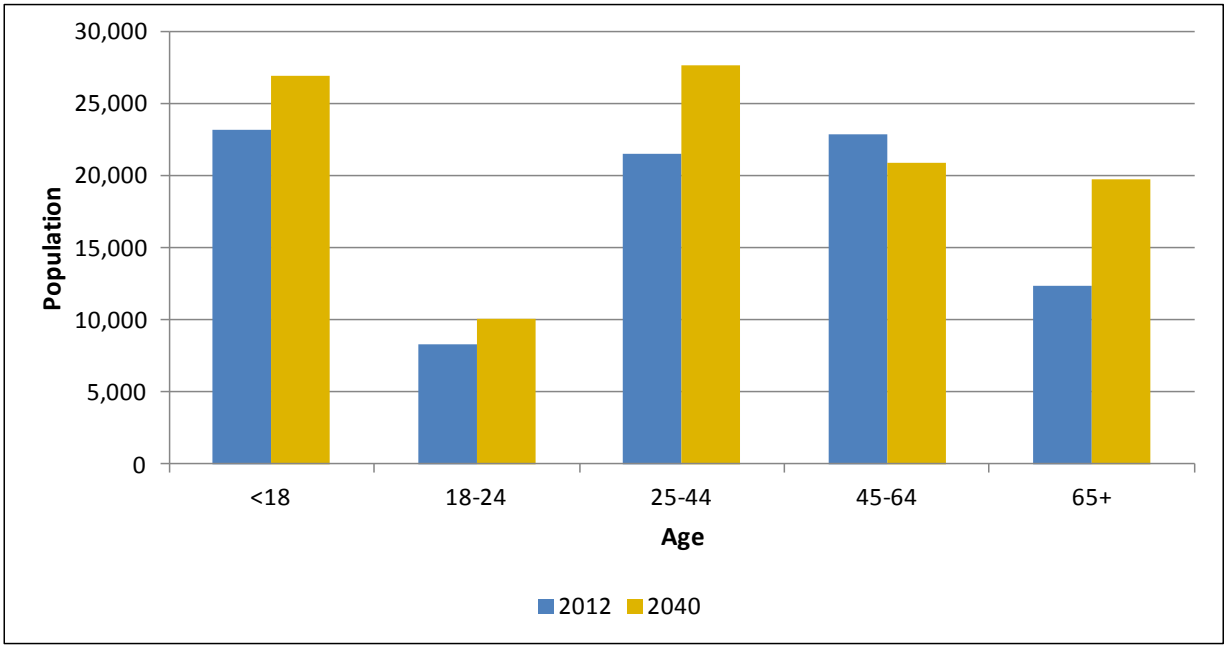
Figure 3.2: Population Percent Change for Victoria County and Texas by Decade, 1990-2040



Population by Age

The distribution of the population of Victoria County by age for 2012 and 2040 is shown in **Figure 3.3**. The proportion of each age category to the total county population is relatively stable for the younger age groups; the under 18 and the 18-24 categories each change by less than 1%. The 25-44 age category increases from 24.4% of total population in 2012 to 26.3% in 2040, while the 45-64 category drops from 25.9% to 19.9%. This is the largest change in the proportion of any age category. The oldest age category, 65+ years, is projected to grow from 14.0% to 18.8%.

Figure 3.3: County Distribution of Population by Age, 2012 and 2040

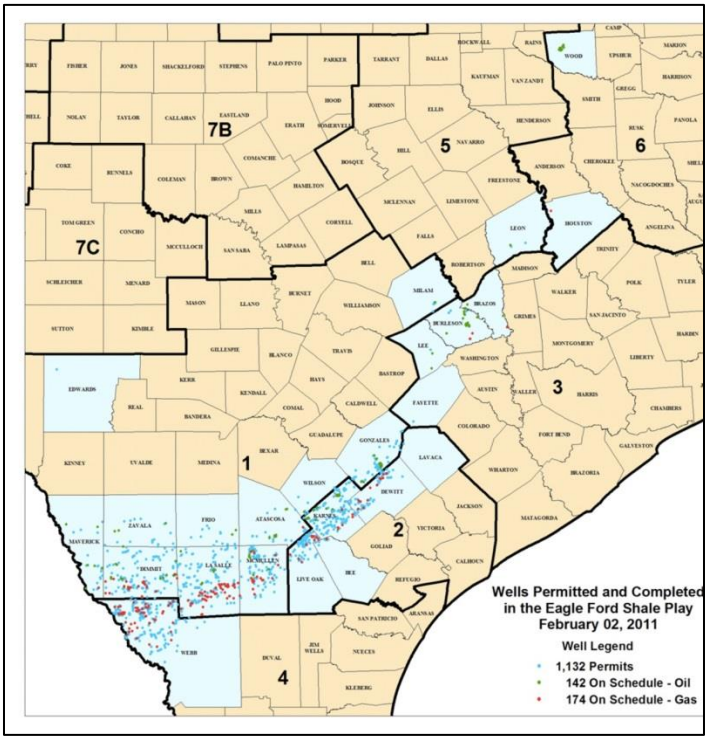


This increase in the proportion of total county population in the 25-44 and the 65+ age categories is a result of the three following trends prevalent in Victoria County, Texas, and the nation.

The first trend is the increase in employment from the oil boom. Victoria lies on the fringe of the Eagle Ford shale play, as seen in **Figure 3.4**. The oil activity has a significant effect on Victoria County.

The impact of the Eagle Ford shale plays on employment and population is significant**.** The San Antonio Economic Development Corporation estimates that the play has created 38,000 full-time jobs in the surrounding 14-county region. For Victoria County, it is reasonable to expect that this will lead to an increase in the projected work force in the active 25-44 age category.

Figure 3.4: Victoria County and Eagle Ford



The second population trend in Victoria County is the aging of the population, which is consistent with a national trend. The 65+ age category increases from 14.0% to 18.8%. Part of the reason for this trend is that improvements in health care are leading to longer life spans.

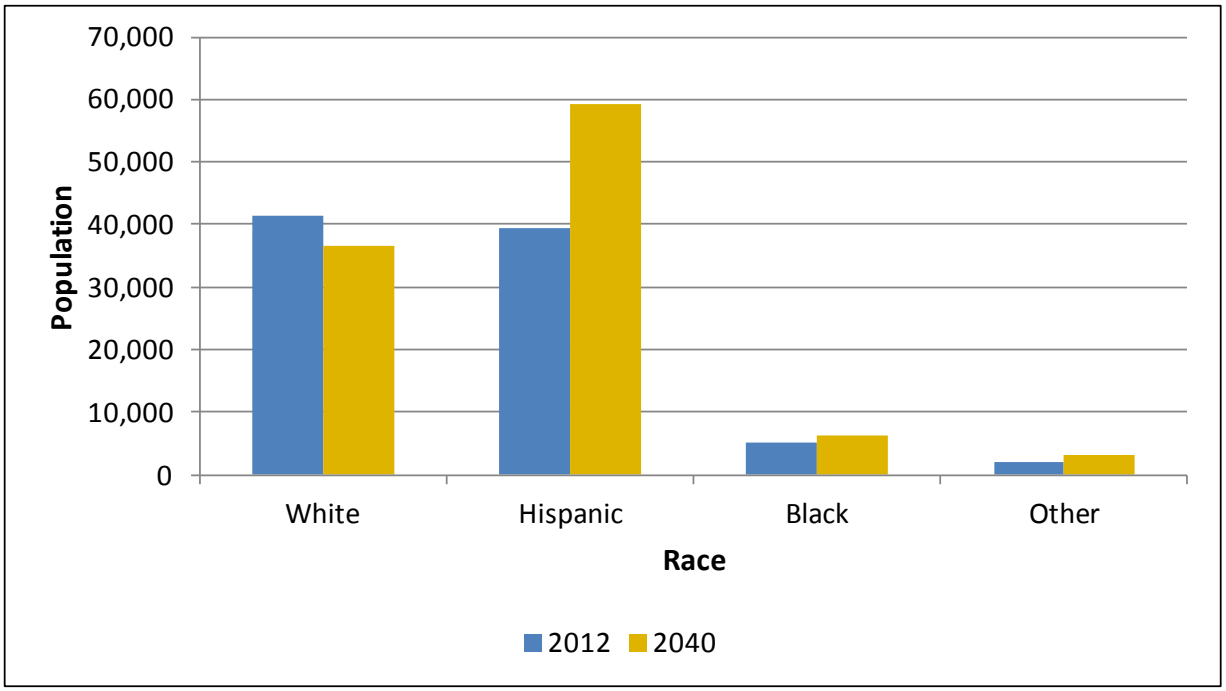
The third population trend is related to the racial makeup in Victoria County. An increase in the percentage of the Hispanic population is anticipated in the future, as shown in **Figure 3.5**. As the Hispanic cohorts typically have higher birth rates than others, this projection contributes to the increase of the younger age cohorts for the 2040 projection.

Population by Race

The change in population distribution by race is clearly visible in **Figure 3.5**. The white population decreases from 41,388 to 36,569, an almost 12% decline. The proportion of white population drops from 47.0% of the total county population in 2012 to 34.7% in 2040. The black population is projected to have a slight numerical increase, but remains constant at 6.0% of the total county population.

The Hispanic population has a noticeable increase both numerically and proportionally. The 19,688 persons added to the Hispanic population for 2040 is an almost 50% increase from 2012, while overall population for the county increases only 19.5%. As a proportion of the total county, Hispanic population increases from 44.8% to 56.2% in 2012 and 2040, respectively.

Figure 3.5: County Distribution of Population by Race, 2012 and 2040



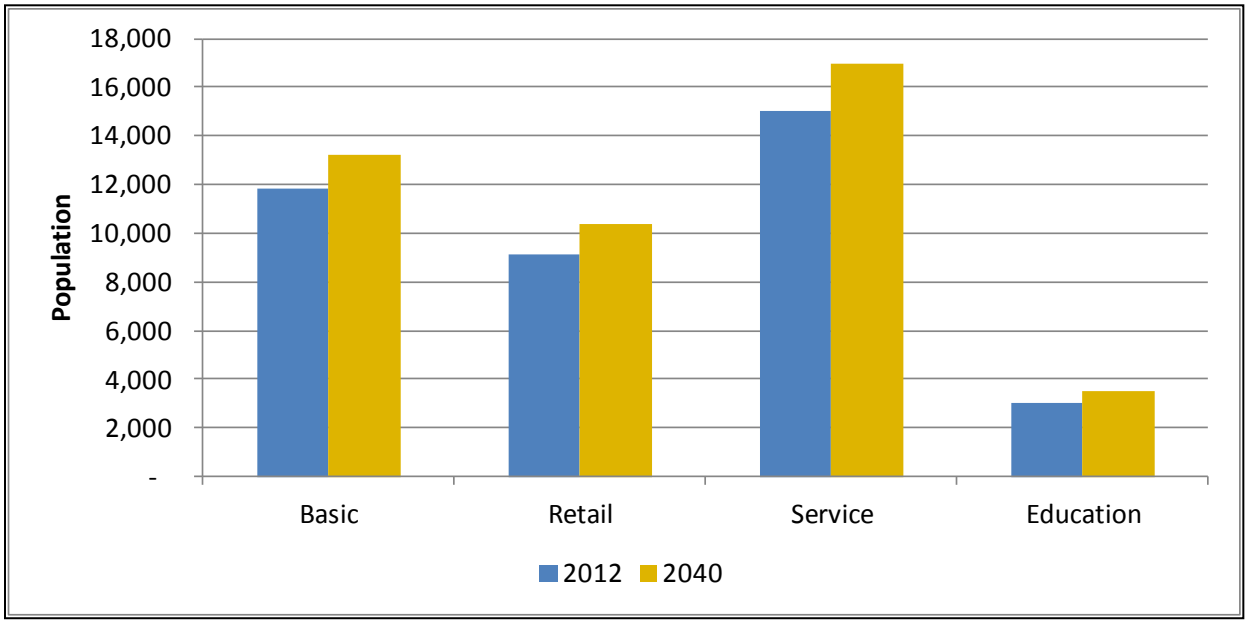
Employment

Employment data is aggregated by four employment types: basic, retail, education, and service. Total employment and employment type as a percent of total employment for 2012 and 2040 is summarized in **Table 3.2**. All employment types are expected to increase, with total employment increasing by 5,116. The distribution between employment types is anticipated to remain fairly constant between 2012 and 2040.

Table 3.2: Employment by Type for Victoria County, 2012-2040

	Employment		Percent of Employment	
	2012	2040	2012	2040
Basic	11,807	13,232	30.29%	30.01%
Retail	9,115	10,366	23.39%	23.51%
Service	15,027	16,964	38.55%	38.47%
Education	3,028	3,531	7.77%	8.01%
Total	38,977	44,093		

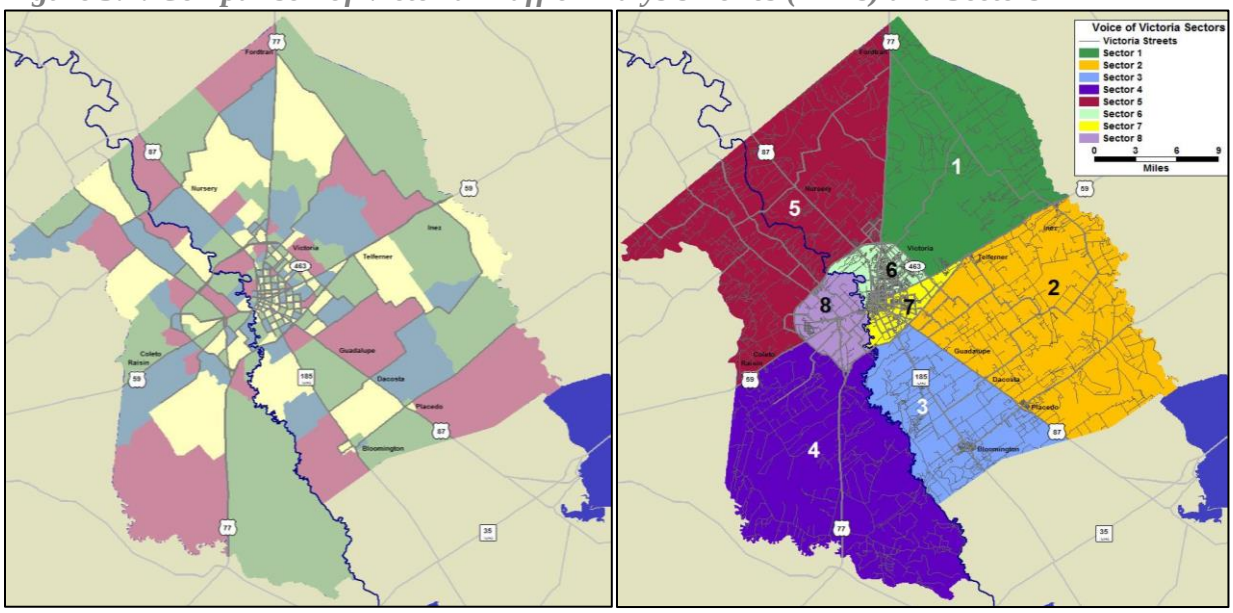
Figure 3.6: Employment by Type for Victoria County, 2012-2040



2012 & 2040 Demographic Trends

Population and employment data was developed for smaller geographic units called Traffic Analysis Zones (TAZs). Eight sectors were also defined to combine and compare data. **Figure 3.7** shows the comparison between the 225 TAZs and eight sectors. The TAZs nest into the sectors so their data can be aggregated and presented in a consistent way for both analysis years.

Figure 3.7: Comparison of Victoria Traffic Analysis Zones (TAZs) and Sectors



Population Trends

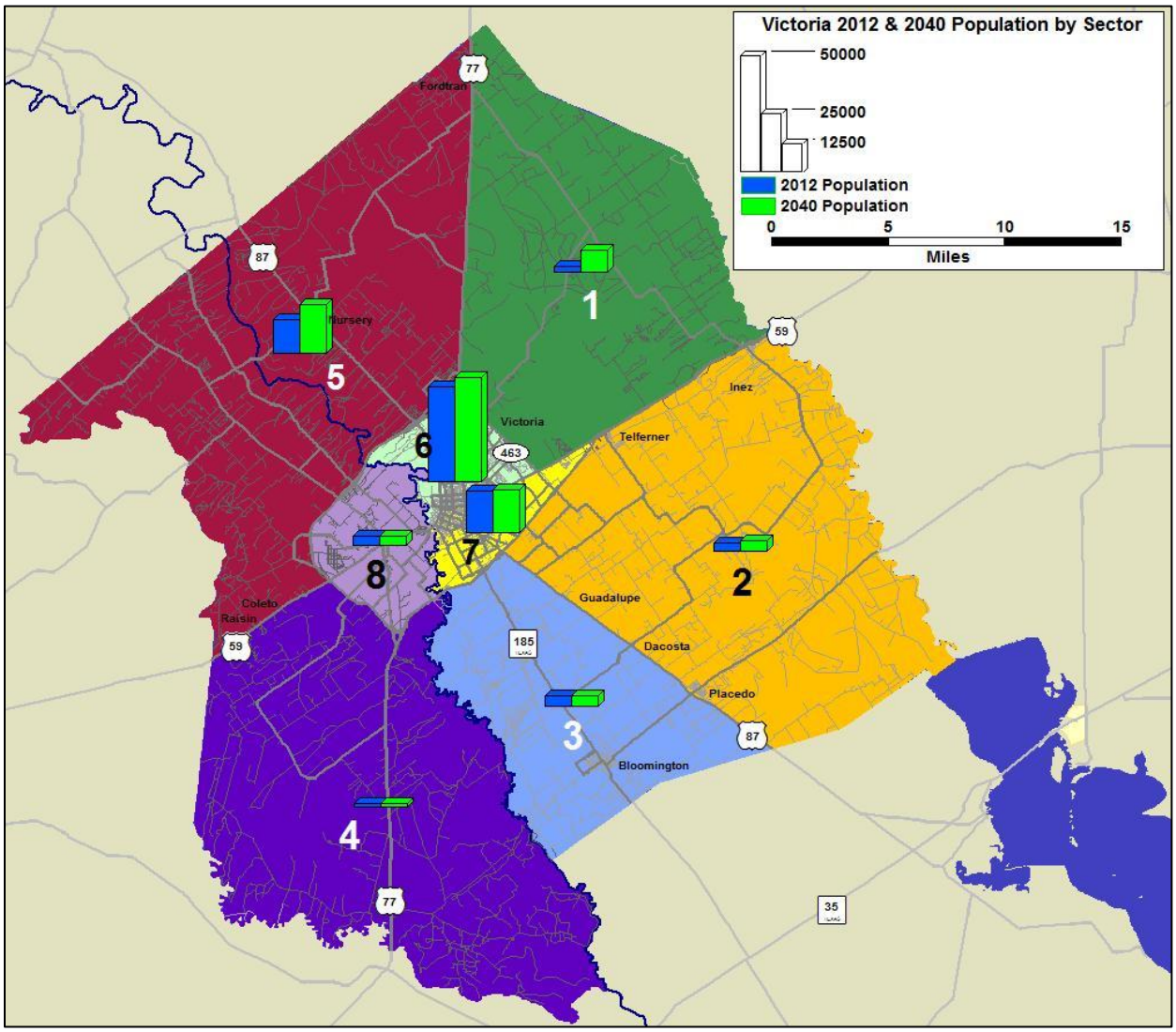
The distribution of population throughout Victoria County is a crucial variable in transportation planning. It will show trends that influence travel behavior, and in turn affect the characteristics and needs of the transportation system. **Table 3.3** summarizes general population trends expected between 2012 and 2040.

Table 3.3: Victoria County Population Trends, 2012 and 2040

	2012	2040
Highest population proportions	Sectors 6, 7, & 5	Sectors 6, 7, & 5
Percent inside the Loop	70%	62%
Percent East of the Guadalupe River	80%	79%
Percent North of US 59 / Business US 59	66%	71%
Density	Concentration within the City of Victoria, specifically inside the Loop and east of the Guadalupe River	Concentration within the City of Victoria, specifically inside the Loop and east of the Guadalupe River

Figure 3.8 depicts the population distribution between the eight defined sectors. In 2012, sectors 1, 5, and 6 contained 2.9%, 16.5%, and 45.5% of the total population; the same sectors will hold 8.9%, 19.5%, and 41.5% of the population in 2040. These changes show a noticeable trend towards growth in the northwest portion of the county.

Figure 3.8: Victoria County Population by Sector, 2012 and 2040



Employment Trends

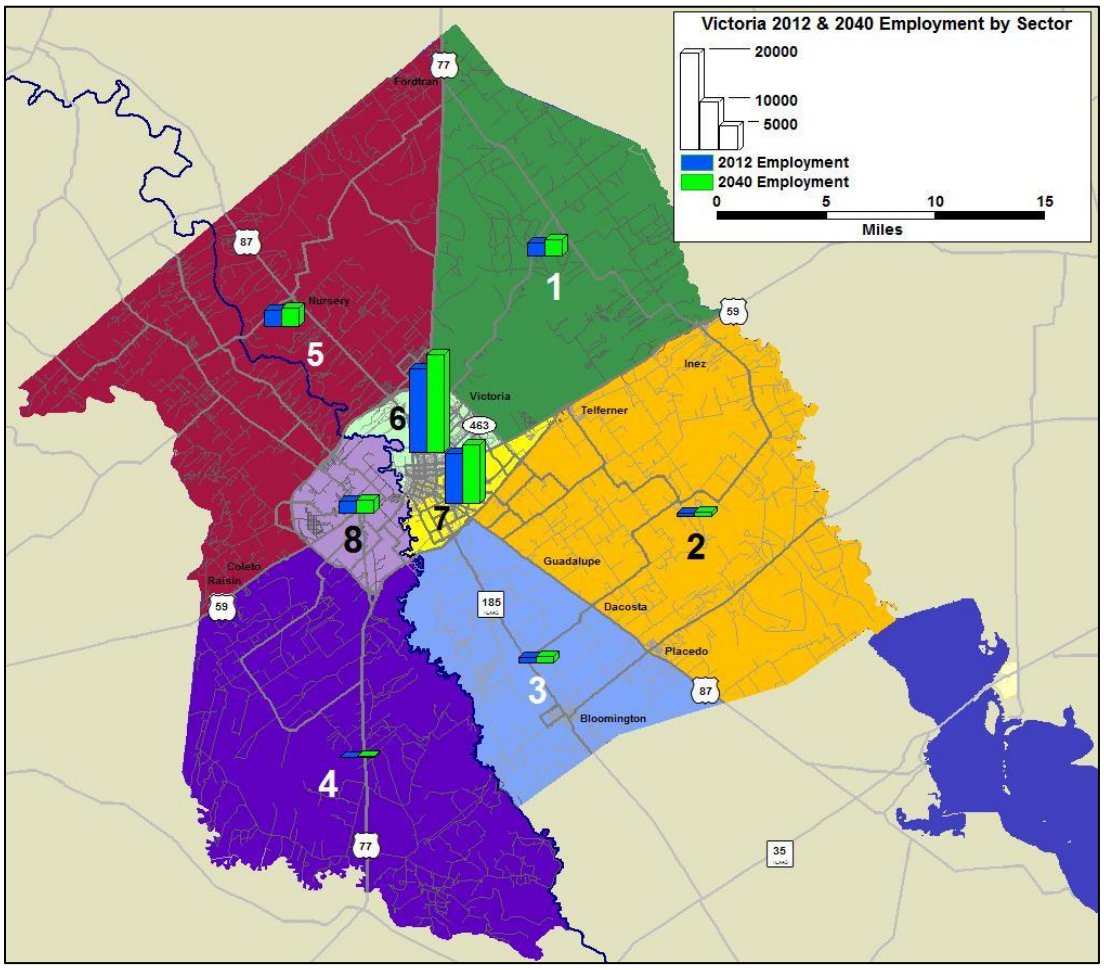
Similar to population, the distribution of employment also impacts travel behavior and is vital to appropriately plan for the future of transportation. **Table 3.4** summarizes general employment trends anticipated between 2012 and 2040.

Table 3.4: Victoria County Employment Trends, 2012 and 2040

	2012	2040
Highest employment proportions	Sectors 6 & 7	Sectors 6 & 7
Percent inside the Loop	78%	78%
Percent East of the Guadalupe River	85%	86%
Percent North of US 59 / Business US 59	64%	64%
Density	Concentration within the City of Victoria; specifically within the Central Business District and on Main Street, Navarro Street, and Business US 59	Concentration within the City of Victoria; specifically within the Central Business District and on Main Street, Navarro Street, and Business US 59

Figure 3.9 illustrates employment by sector for 2012 and 2040. In 2012, Sector 1 contained just below 3,000 employees; it is expected to grow to almost 3,500 employees in 2040, which is a 17% increase. Sectors 6 and 7 will still contain the majority of the employment in 2040, continuing the trend of most employment being located within the City of Victoria.

Figure 3.9: Victoria County Employment by Sector, 2012 and 2040



Other Indicators of Growth and Activity

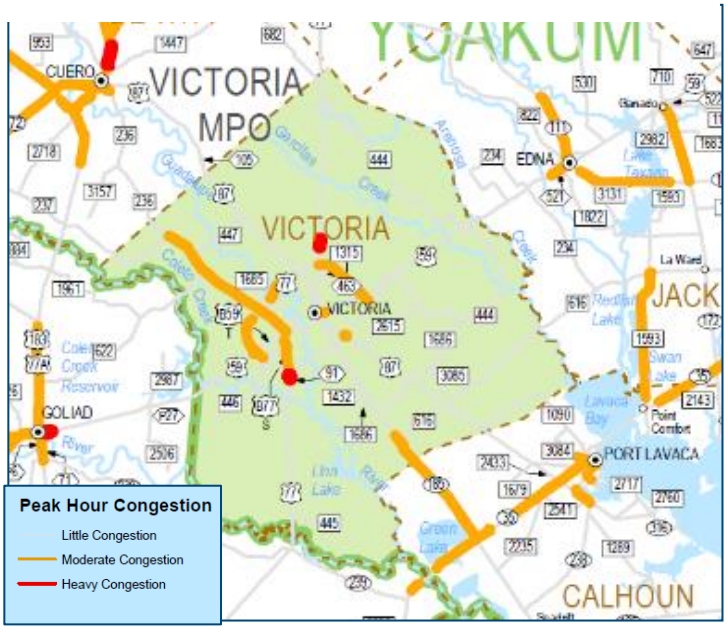
In addition to analyzing demographics as a transportation impact, it is also important to consider actual traffic conditions. Traffic congestion and traffic volume are both studied below. Traffic trends are utilized in conjunction with demographic trends to determine the transportation needs for the future.

Traffic Congestion

Figure 3.10 shows the TxDOT Congestion Map for 2012, highlighting peak-period congestion based on TxDOT Average Annual Daily Traffic (AADT) counts and speed data. Moderate peak-period congestion is apparent in the following corridors:

- Loop 463
- US 77
- FM 236
- Business US 59
- SH 185
- US 59

Figure 3.10: TxDOT 2012 Estimated Congestion



Forecast congestion for the year 2032 is illustrated in **Figure 3.11**. It is obvious that the 2012 moderate peak-period congestion is expected to continue and spread to other corridors. Congestion in 2032 is expected to occur on the following corridors:

- Loop 463
- US 77
- Business US 77
- US 59
- Business US 59
- SH 185
- FM 236
- FM 447

Figure 3.11: TxDOT 2032 Estimated Congestion

Traffic Volumes

The Victoria MPO completed traffic counts throughout Victoria and compiled a list of the highest volume intersections in 2013, as shown in **Table 3.5**. It should be noted that eight of the top ten intersections are along Navarro Street.

Table 3.5: Top 30 Intersections in Victoria by Traffic Volume

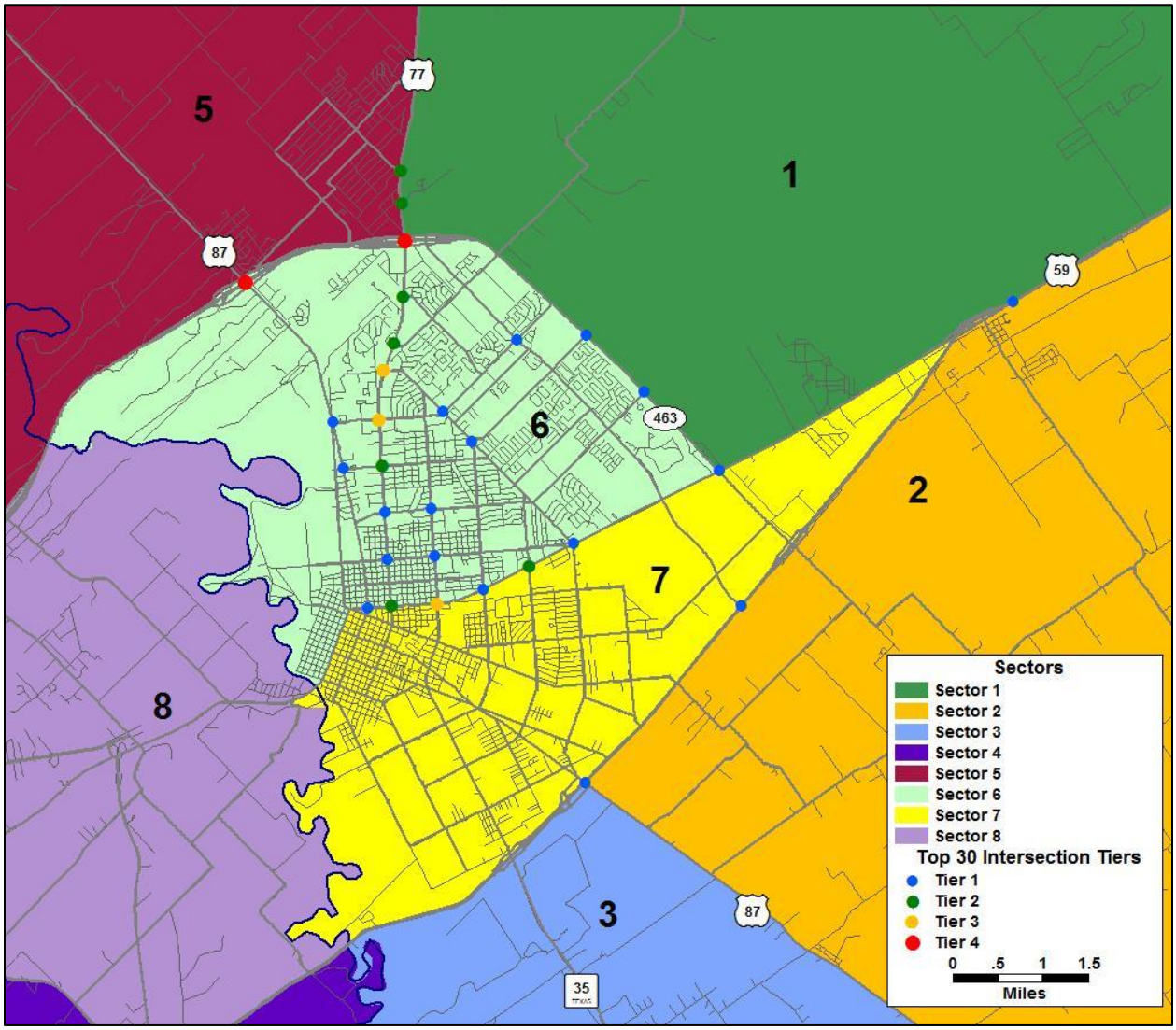
Intersection		Count
Main Street	Zac Lentz Parkway	63,769
Navarro Street	Loop 463	61,342
Navarro Street	Sam Houston Drive	45,914
Business US 59	Laurent Street	45,757
Navarro Street	Mockingbird Lane	45,626
Navarro Street	Salem Road	40,433
Navarro Street	Business US 59	40,126
Navarro Street	Larkspur Street	38,942
Navarro Street	Guy Grant Road	38,579
Navarro Street	Glascow Street	37,616
Business US 59	Ben Wilson Street	37,253
Navarro Street	Crestwood Drive	36,852
Navarro Street	Airline Road	35,061
Sam Houston Drive	Ben Jordan Street	34,890
Business US 59	Ben Jordan Street	34,503
Sam Houston Drive	Mockingbird Lane	33,106
Business US 59	Sam Houston Drive / Delmar Drive	30,910
Business US 59	Main Street	30,711
Navarro Street	Red River Street	30,532
US 59	John Stockbauer Drive	30,149
Business US 59	Loop 463	29,893
John Stockbauer Drive	Mockingbird Lane	29,472
Main Street	Crestwood Drive	28,387
Laurent Street	Red River Street	28,291
US 59	US 87 / Port Lavaca Drive	27,594
US 59 main lanes	East of airport	26,120
Main Street	Mockingbird Lane	26,111
Loop 463	Airline Road	25,900
Laurent Street	Airline Road	25,313
Loop 463	Ben Jordan Street	25,146

The average volume for the top 30 intersections is 35,477. An analysis using the standard deviation measures the amount of variation, or dispersion, from the average value. The standard deviation for this data set is 9,607 and was used to classify the top 30 intersections into four tiers of intensity. These four tiers are explained in **Table 3.6** and displayed in **Figure 3.12**.

Table 3.6: Tier Definitions for Highest Volume Intersections

	Standard Deviation	Range of Volumes	Number of Intersections	Color
Tier 1	Up to average	25,146 – 35,061	18	Blue
Tier 2	1 standard deviation above average	36,852 – 40,433	7	Green
Tier 3	1-2 standard deviations above average	45,626 – 45,914	3	Yellow
Tier 4	2 or more standard deviations above average	61,342 – 63,769	2	Red

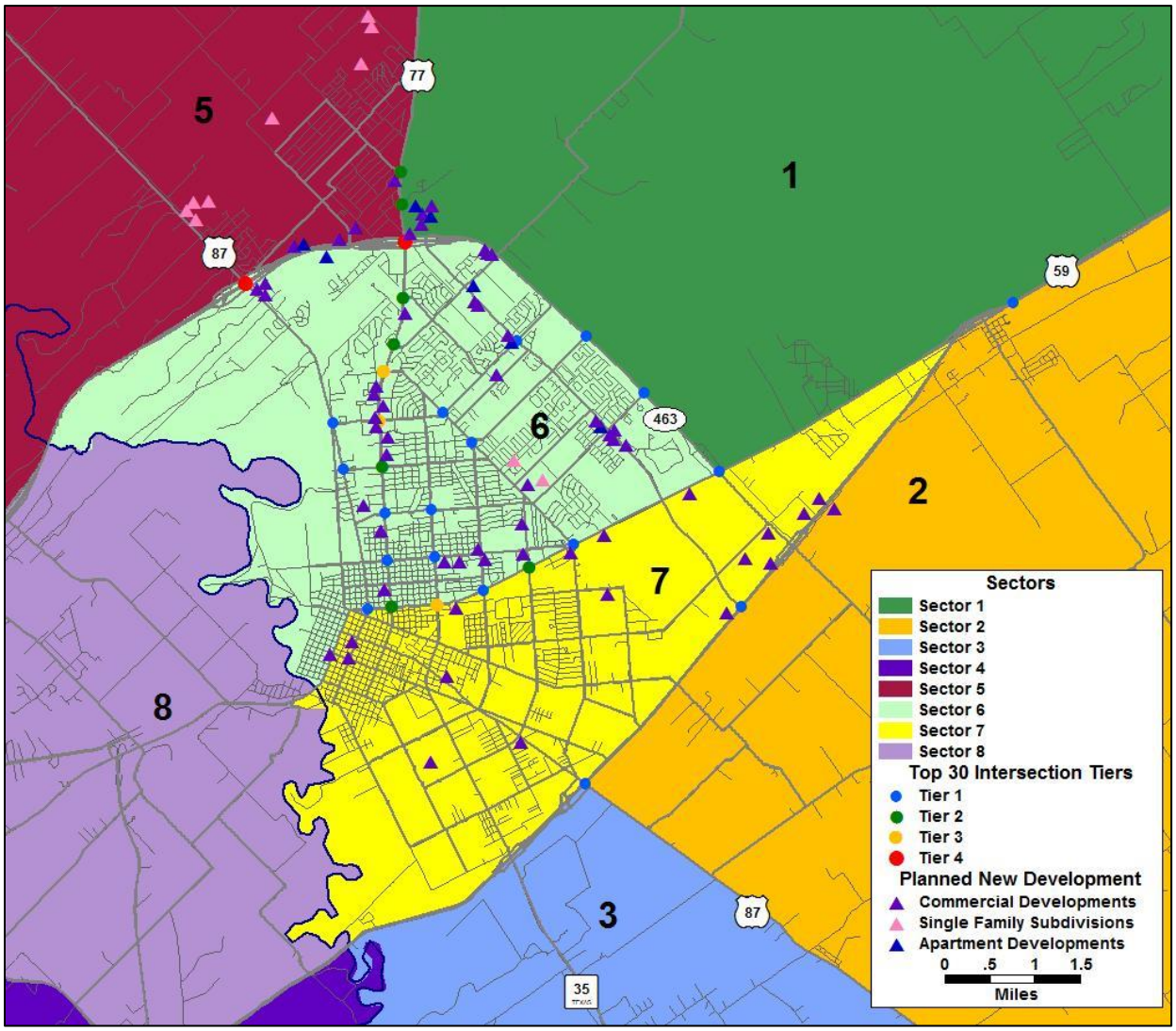
Figure 3.12: Highest Volume Intersections by Tier



Of the five intersections in Tiers 3 and 4, three intersections are along Navarro Street. Additionally, the US 87 and US 77/Zac Lentz Parkway intersection is in Tier 4 and is the highest volume intersection. These four intersections are all on the north side of Victoria and in or between Sectors 1, 5, and 6.

Figure 3.13 illustrates the top 30 intersections with the same tiers and also includes aggregated data of planned commercial, single family, and apartment development based on information from the City of Victoria Development Services Department on 2011 – 2013 building permits. Many of these developments are along Navarro Street and in sectors 5 and 6. Consistent with the demographic analysis, growth in the northern sectors will be a factor in future transportation improvements.

Figure 3.13: Top 30 Intersections, Sectors, and 2011-2013 Development



Capacity and Level of Service

A travel demand model (TDM) was developed for this plan and was utilized to analyze traffic flows for a base year of 2012 and a forecast year of 2040; it accounts for population and employment growth to capture current and future capacities on the roadway network. The model calculates average daily capacities and traffic volumes for roadways with a functional classification of collector and above.

Functional class is assigned to the model network, which matches existing roadways, to reflect their operational characteristics, including speed and capacity. These are used in the model validation to assign traffic to the correct paths so that the modeled traffic flows will match the actual traffic counts. **Figures 3.14 and 3.15** display the 2012 Victoria model network and the functional class assigned to each link.

Traffic flow band maps demonstrate overall traffic flow patterns on a roadway system. The modeled traffic flows are shown in **Figure 3.16**. The width of the line is proportional to the traffic volumes. The figure shows a clear relationship between higher functional class roads and higher traffic volumes. Furthermore, it emphasizes the significance of Navarro Street between Loop 463 and Business US 59 as one of the highest volumes corridors in Victoria.

Figure 3.14: 2012 Functional Class, Victoria County

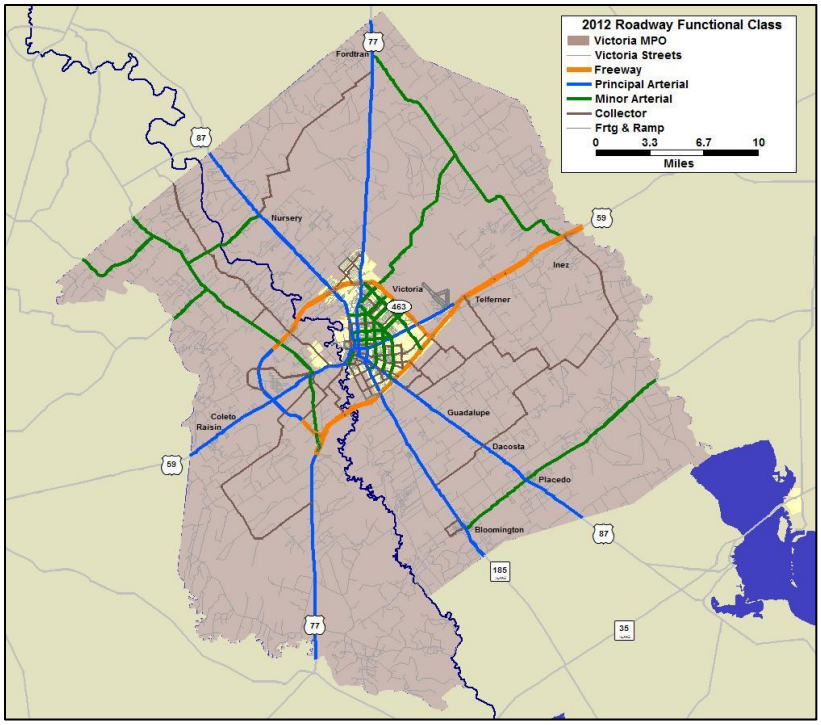


Figure 3.15: 2012 Functional Class, City of Victoria

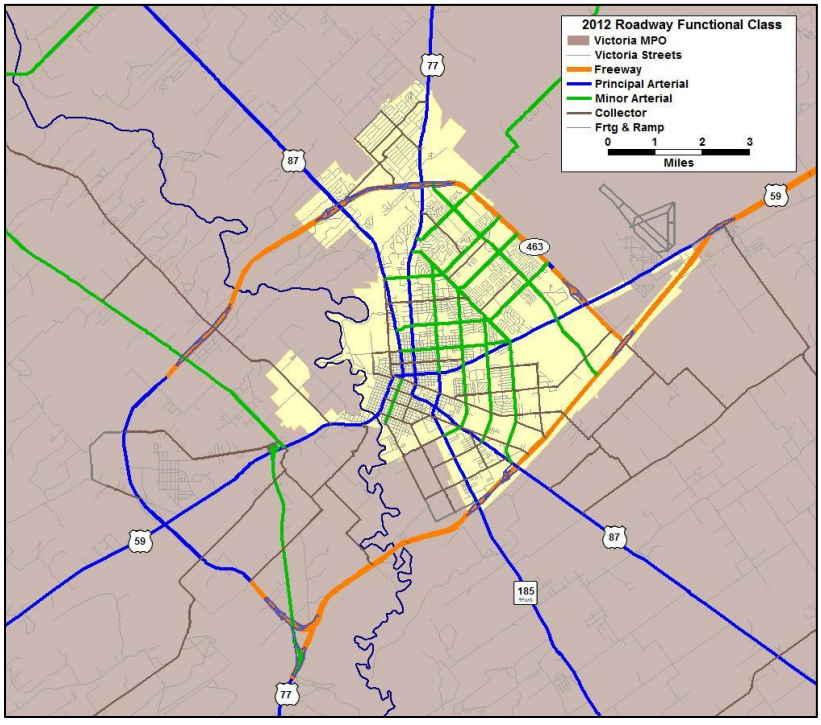
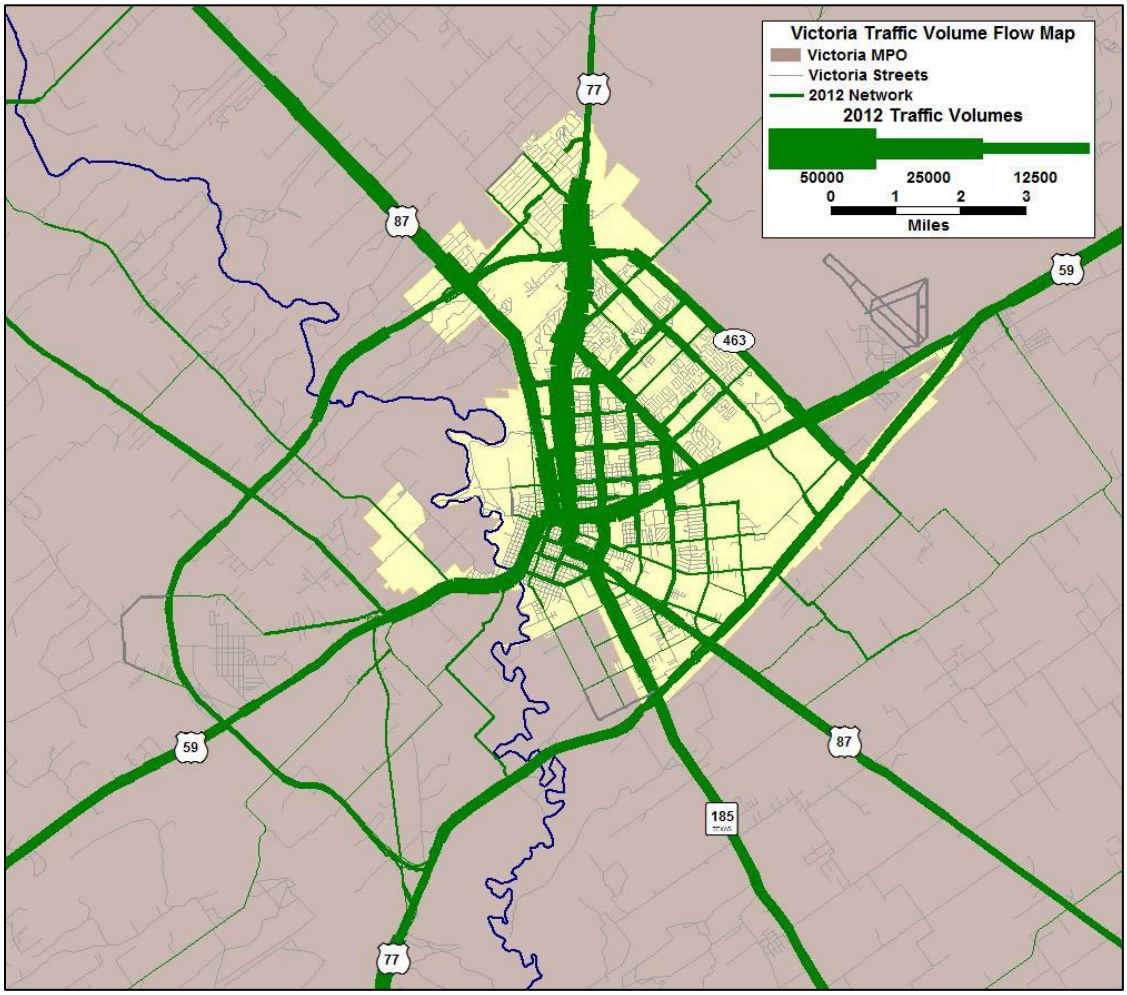


Figure 3.16: 2012 Traffic Volume Flow Band

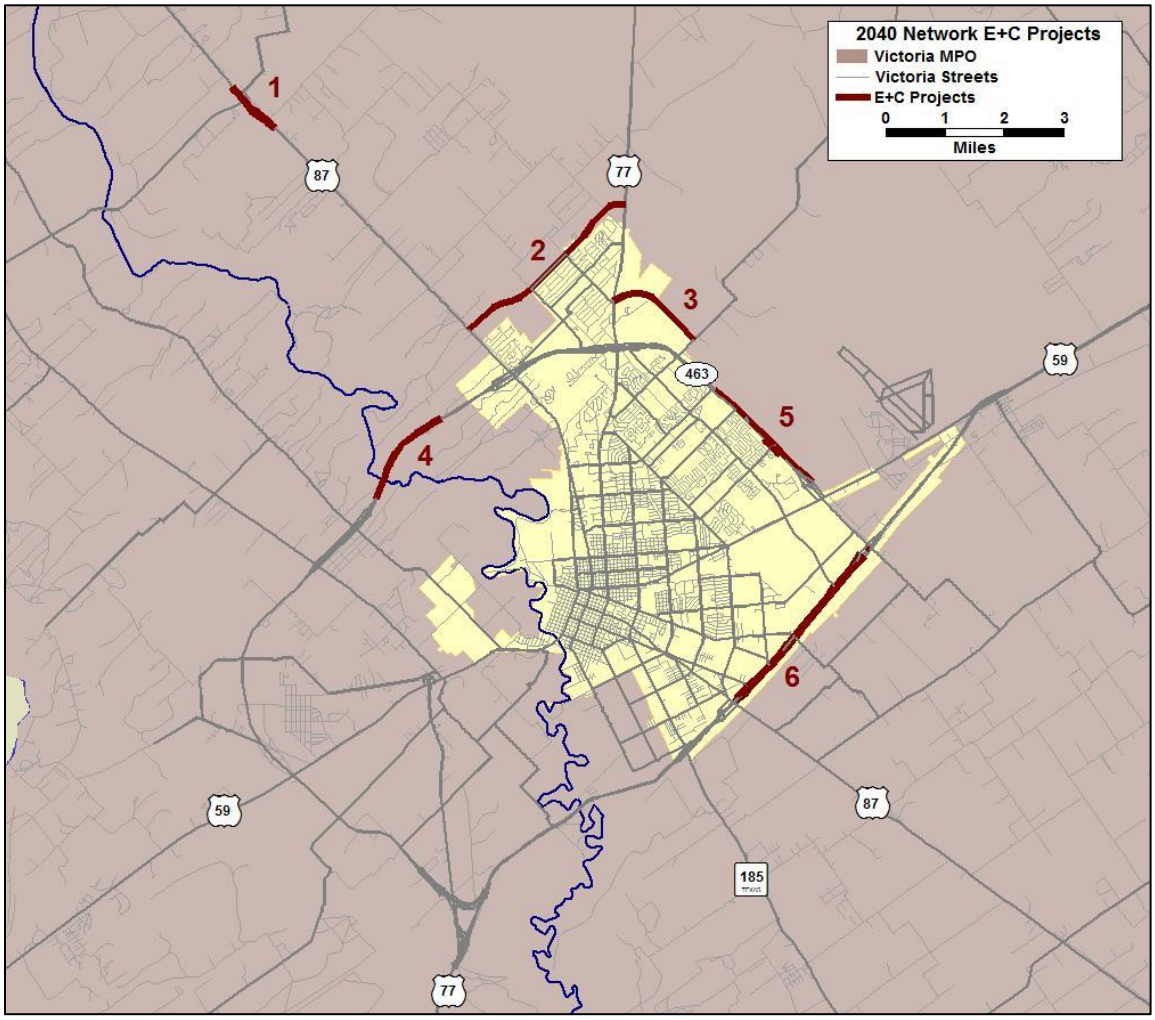


Traffic flow patterns are generally consistent over time unless roadway projects are constructed and create new pathways. Six new projects were considered in the 2040 travel demand model, including four TxDOT projects that currently have secured funding and two City of Victoria projects that are anticipated to be completed by 2040. These six projects make-up the existing plus committed forecast network (E+C), as summarized in **Table 3.7** and illustrated in **Figure 3.17**. Even with these projects, the patterns in modeled traffic flow band map for 2040 is virtually identical to the 2012 map.

Table 3.7: 2040 Existing +Committed (E+C) Network Projects

Number	Road	Limits From	Limits To	Project Description
1	US 87	At FM 447		Construct grade seperation
2	Ball Airport Rd.	US 87	US 77	Extend existing road
3	Glascow St.	Navarro St.	Salem Rd.	Extend existing road
4	US 77	West of US 87	East of FM 1685	Upgrade bridges to 4-lane divided
5	Loop 463	Business US 59	Mockingbird Ln.	Grade seperation and frontage roads
6	US 59	US 87	Loop 463	Construct one-way frontage roads

Figure 3.17: Existing + Committed (E+C) Projects in the 2040 Network



Each roadway is divided into separate links in the model in order to show how a roadway operates at different locations. The match between a link's traffic volume and its capacity is described in terms of a volume-to-capacity (v/c) ratio. Links with low v/c ratios are relatively easy to drive on and are described as having a high Level of Service (LOS). Conversely, links with high v/c ratios experience traffic congestion and are described as having a low LOS.

Table 3.8: LOS and V/C Ranges

LOS	V/C Ratio Range	
A	0.00	0.25
B	0.26	0.40
C	0.41	0.60
D	0.61	0.80
E	0.81	1.00
F	> 1.00	

The concept of LOS is defined in terms of certain ranges of v/c ratios, shown in **Table 3.8**. The six LOS categories are aggregated into three groups for clarity: LOS A-B is "desirable," LOS C-D is "acceptable," and LOS E-F is "undesirable." LOS by link for the 2012 and 2040 network are shown in **Figures 3.18 and 3.19** for the entire County and insets with more detail in **Figures 3.20 and 3.21**.

Figure 3.18: 2012 Network Level of Service, Victoria County

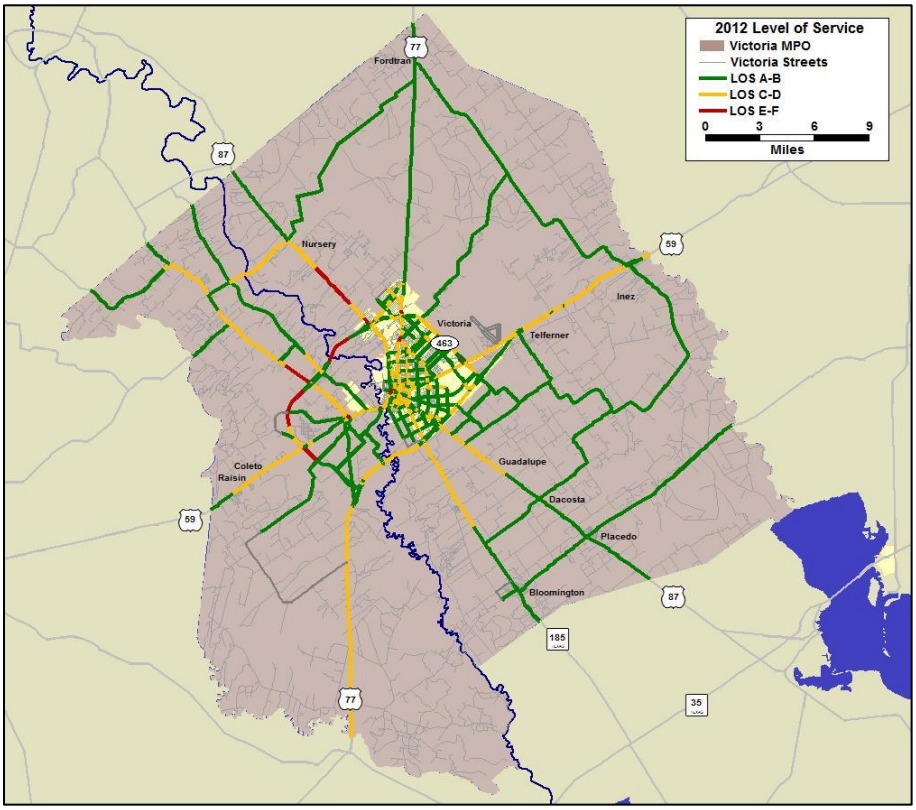


Figure 3.19: 2040 Network Level of Service, Victoria County

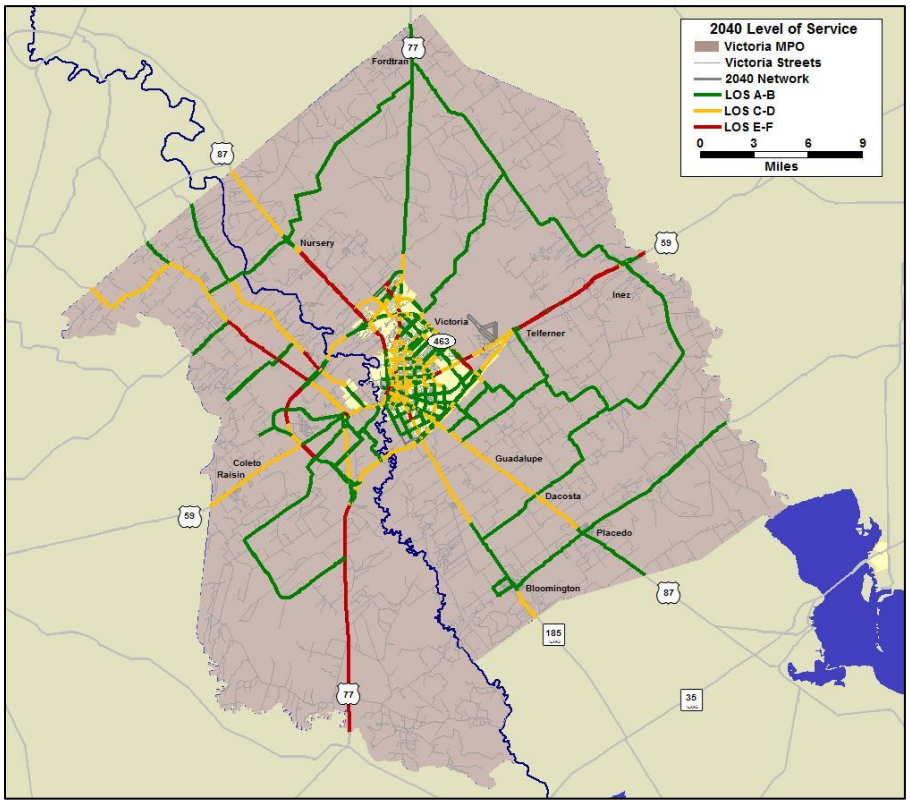


Figure 3.20: 2012 Network Level of Service, City of Victoria

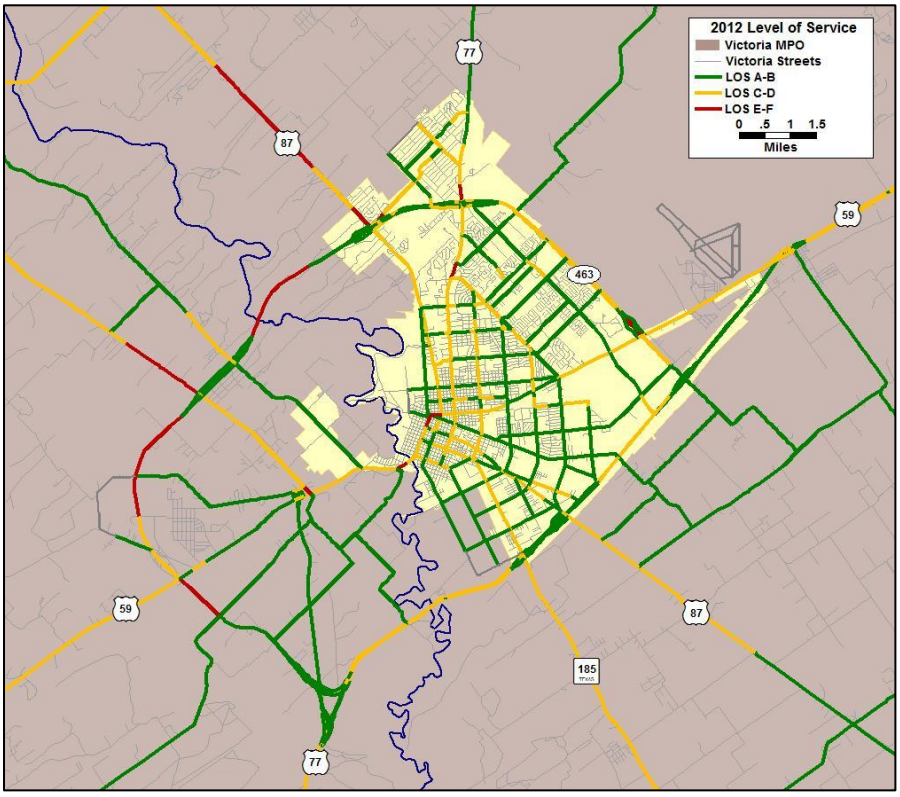
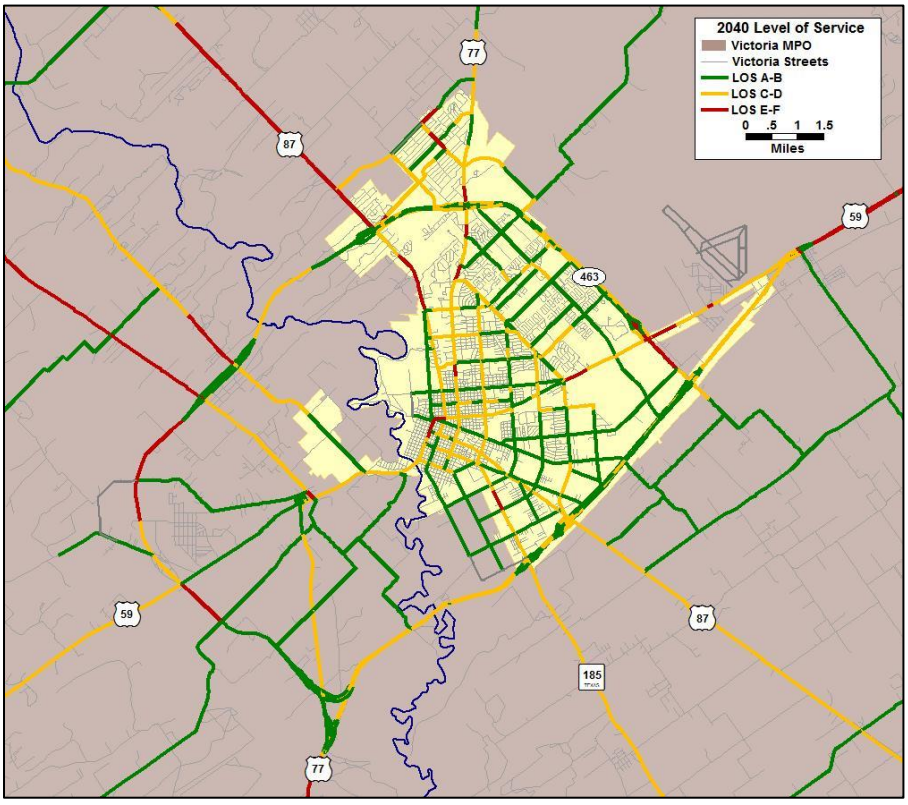


Figure 3.21: 2040 Network Level of Service, City of Victoria



While the patterns of traffic flow as revealed by the traffic flow band maps are virtually identical for 2012 and 2040, the volumes comprising those flows are not. The demographic forecast for 2040 anticipates increased population and employment, and as a result higher traffic volumes throughout the Victoria region. With the limited number of projects programmed in the E+C network, the result is an expected lowering of LOS for area roads.

Notable differences at the County level in LOS from 2012 to 2040 include:

- **US 77 over Guadalupe River**: the project to widen US 77 raises its LOS from LOS E-F to C-D.
- **Sector 5**: the decreased LOS on various roads in this area reflects the effects of anticipated development.
- **US 87**: southeast towards Placedo the LOS C-D section is extended.
- **US 59**: from the airport east to the county line decreases from LOS C-D to E-F.
- **US 77**: south from the loop to the county line declines from LOS C-D to E-F.
- **FM 1685**: approaching the loop decreases from LOS C-D to LOS E-F.

Noteworthy changes within the City of Victoria between 2012 and 2040 include:

- **Sectors 6 & 7**: the already developed areas within Victoria have less forecast demographic growth resulting in stable LOS.
- **Navarro Street**: north from the loop experiences some increases in LOS E-F, but remains relatively stable.
- **US 87**: approaching the loop from the north displays more areas of LOS E-F.
- **Zac Lentz Parkway and Business US 59**: increased congestion is forecast around this intersection.

An aggregate view of the change in the amount of overall network mileage for each LOS category and the change in Vehicle Miles Travelled (VMT) for each category is shown in **Table 3.9**. Together, the data show a slight decrease in the amount of mileage and VMT at LOS A-B and a corresponding increase for LOS C-D. The data for LOS E-F show dramatic increases in percentages, however this is because only 13 miles were classified LOS E-F in 2012. The change in VMT at LOS E-F is far more significant. The slight change in mileage and the larger change in VMT indicate that congestion will increase on roads which are already congested in 2012.

Table 3.9: Mileage and VMT by LOS for 2012 and 2040

	2012		2040		Percent Change	
LOS	Mileage	VMT	Mileage	VMT	Mileage	VMT
A-B	314	849,287	289	797,121	-7.96%	-6.14%
C-D	126	1,495,790	140	1,582,678	11.11%	5.81%
E-F	13	176,614	50	999,410	284.62%	465.87%
Total	453	2,521,691	479	3,379,209	5.74%	34.01%

Table 3.10 shows the mileage at each LOS category by functional class group. Mileage at LOS A-B decreases and at LOS E-F increases for every functional class group. The most notable increases on LOS E-F are the Freeway and Principal Arterial functional class groups. Again this indicates that the forecast 2040 congestion is centered on facilities that already experience congestion in 2012. Navarro Street is a prime example of a corridor in this category.

Table 3.10: LOS by Functional Class for 2012 and 2040

	2012			2040			Percent Change		
Functional Class	A-B	C-D	E-F	A-B	C-D	E-F	A-B	C-D	E-F
Freeway	30	36	3	24	30	16	-20.00%	-16.67%	433.33%
Principle Arterial	43	55	8	27	52	26	-37.21%	-5.45%	225.00%
Minor Arterial	87	21	2	77	27	6	-11.49%	28.57%	200.00%
Collector	129	10	0	128	20	2	-0.78%	100.00%	-

Summary

A review of the existing and projected demographic data in a region is an important step in determining transportation needs. The amount, density, and distribution of population, income, and employment are key variables that impact travel behavior in a region. A review of current and projected travel behavior is valuable in discovering trends and anticipated demographic issues revealed by trends. Furthermore, current and anticipated issues help determine geographic areas of concern for transportation planning. Taken together, these factors provide insights into the process of generating transportation projects.

A review of demographics, congestion, highest volume intersections, planned development, and travel demand model forecasts all point to the same geographic areas and corridors of concern for Victoria. The primary geographic areas and transportation corridors of concern include:

- **Sector 6**: current intense population and employment and intense forecast commercial and residential development.
- **Sector 7**: similar trends, yet slightly less, as Sector 6.
- **Sector 5**: anticipated hot spot for population growth.
- **Navarro Street**: currently a highly trafficked corridor and major thoroughfare for Sectors 5, 6, and 7.
- **Other corridors**: current and forecast impacts anticipated along SH 185, Loop 463, US 77, US 59, Business US 59, FM 236, FM 1685, and FM 447.

These findings of geographic areas of concern for generating transportation projects focus solely on needs caused by traffic. While this is an important consideration, it is not the only concern in defining regional transportation needs. A comprehensive and equitable plan should also consider the needs of all transportation modes and regional goals such as access, safety, railroad crossings, economic development, and maintenance. Finally, the plan as a whole must consider environmental justice both in generating and in evaluating projects.

CHAPTER 4: PUBLIC PARTICIPATION

CHAPTER HIGHLIGHTS

- MPO Public Participation Plan
- *Voice of Victoria* Survey Program
- General Transportation Survey Results
- Transit Survey Results
- Stakeholder Survey Results

Public participation is a vital aspect of any planning process. It aids in identifying the needs and desires of citizens and leads to a more informed and engaged public, ultimately resulting in a plan that is more representative of the community for which it was designed. A lack of participation is unfortunate on several levels, as low participation can mean that the public is not actually informed and does not truly have a say in the transportation planning process or in the decisions made in their region. Further, the small minority of people who do participate often do not represent a true or equitable cross-section of the people, the interests, or the needs of the region.

The typical public participation effort is aimed at fulfilling federal requirements through public hearings. After relying on these methods for previous plans, the Victoria Metropolitan Planning Organization launched a public participation effort aimed primarily at attending existing public events rather than expecting the public to attend meetings or hearings. This new participation strategy, the *Voice of Victoria*, was designed to address this and other issues with public participation. The entire participation strategy included surveys, media outreach, public hearings, and online information. The process began June 2, 2014 and concluded on September 30, 2014.

Victoria MPO Public Participation Plan

Public participation for this 2040 Long-Range Metropolitan Transportation Plan (MTP) is guided by State and Federal regulations and by the Victoria MPO Public Participation Plan (PPP), adopted in February 2013. The PPP cites the emphasis of the public participation process on "…early, ongoing public involvement in the transportation planning process," and the policy of developing the public participation process as a tool to "…ensure that the public is fully informed about transportation issues…is given reasonable access to transportation plans and project documents, and has adequate opportunities to express their opinions and concerns about transportation issues in an orderly manner and appropriate forum." The PPP specifies certain minimum standards for the public participation process in order to meet these goals:

- **Review and Comment Period:** a public review and comment period is to be advertised with a minimum of 72 hours notice. The referenced documents are to be made available at the City of Victoria Department of Development Services office and online. Comments are to be received by the MPO staff in person or via email, phone, or fax. Any significant comments received during the public comment period will be summarized in the final MTP, and will also be reported to the Policy Advisory Committee prior to plan approval. For an MTP update, the review and comment period is to last 30 days prior to plan approval.

- **Public Hearings:** public hearings are required to be advertised with a minimum of 72 hours notice. For an MTP update, at least two public hearings are required, and must occur at least 30 days prior to plan approval.

- **Mailing List:** the MPO is to maintain a mailing list of individuals and organizations which may be interested in transportation issues. When advertising public review and comment periods and public hearings, the members of this mailing list will be contacted by mail.

- **MPO Website:** links to primary planning documents and other MPO information will be posted on the MPO website.

The *Voice of Victoria* Survey Program

The *Voice of Victoria* survey program provided an outlet for citizens to make comments and respond to surveys at popular locations and events, public hearings, on Victoria Transit buses, and through the internet. Three different surveys addressed general transportation, transit, and stakeholder questions. At the conclusion of the public participation period a total of 452 responses were received, including 314 general transportation surveys, 127 transit surveys, and 11 stakeholder surveys.

The rationale for developing this program was to reach a broader range of public groups and provide a way to both track participation and target specific groups for a more intense outreach effort. The ongoing nature of the *Voice of Victoria* survey program means that comments can be solicited and received from the public even after specific deadlines for the MTP have passed. So, while there must be deadlines for including public comments into any given document, it is therefore never too late for the public to have a voice and for their comments to be documented in a larger and broader planning process.

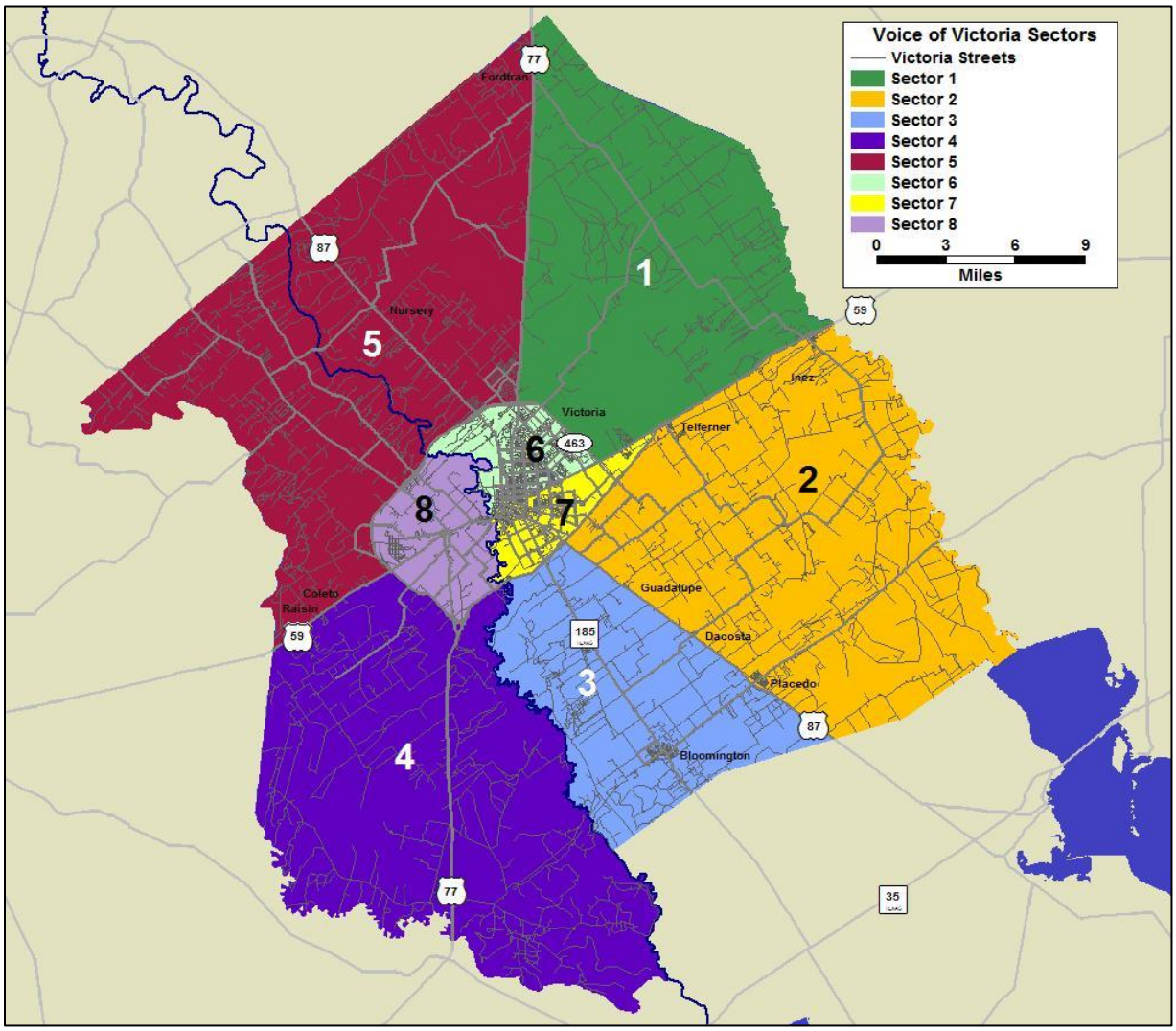
The *Voice of Victoria* survey program was structured to be used for both transportation and other planning purposes in the future. Ideally, this will result in a larger overall body of responses and may be used to establish longitudinal surveys over time. One of the most significant responses to the *Voice of Victoria* surveys was the 152 people who provided their contact information and volunteered to receive further information to participate in other survey efforts.

Voice of Victoria Surveys

The general and transit surveys were designed as a one-page tri-fold handout that allowed the participant to return a completed survey by mail. Surveys were also available through the website www.surveymonkey.com. All surveys were offered in both English and Spanish. Examples of all surveys can be found in Appendix A.

In order to enhance participation and remove any real or perceived barriers to sharing the responses, the surveys were deliberately designed to not ask for any private or confidential information. An optional question was provided to allow respondents to volunteer their contact information. Instead, to track the responses and see if all geographic areas of the MPO were represented, eight survey sectors were defined. A map of these sectors was provided with both surveys, and respondents were asked simply to identify which sector they lived in. The eight geographic sectors used to categorize the responses are shown in **Figure 4.1**.

Figure 4.1: Voice of Victoria Sectors



Voice of Victoria Outreach

A variety of methods were utilized to distribute surveys and increase awareness of the *Voice of Victoria* and the MTP. **Table 4.1** summarizes the survey distribution sources and illustrates the number of survey responses by type of distribution. It is obvious that local events and online were the most effective methods to gather input; additionally, on-board transit was the most successful technique to collect responses for the transit survey. The public hearing proved to be the least effective form of participation, as zero surveys were completed.

Table 4.1: Survey Responses by Type of Distribution

	General Survey		Transit Survey		Stakeholder Survey	
	Responses	Percent	Responses	Percent	Responses	Percent
Local Events	116	36.9%	19	15.0%	N/A	N/A
Public Hearing	-	0.0%	-	0.0%	N/A	N/A
Online	161	51.3%	48	37.8%	11	100.0%
Personal Distribution	29	9.2%	N/A	N/A	N/A	N/A
On-Board Transit	1	0.3%	59	46.5%	N/A	N/A
Mail	7	2.2%	1	0.8%	-	0.0%
Total	314		127		11	

A total of 135 surveys were collected at local events. As shown in **Table 4.2,** MPO staff attended a total of 14 different events and held one public hearing over the course of the public participation period. At each event staff was equipped with a table, the *Voice of Victoria* banner, surveys, maps, pens, coloring sheets, and crayons. The coloring sheets were very effective in attracting families to the table and useful for locations with a large number of children, like the Texas Zoo and Victoria Public Library. Both those holding the events as well as the people in attendance were very receptive of the Voice of Victoria's presence; the events were successful as they not only provided an outlet for distributing and receiving completed surveys, but also for increasing public awareness of the plan update and the planning process.

Table 4.2: Local Events Attended throughout Public Participation Period

Date	Event
6/7/2014	Texas Zoo - Reptile Weekend
6/9/2014	Victoria Public Library - Summer Reading Kickoff
6/10/2014	Victoria Bach Festival
6/11/2014	Texas Zoo - $3 Day
6/12/2014	Silver Bullet Street Dance
6/21/2014	Museum of the Coastal Bend - Extinct Texas Animals Event
7/8/2014	Victoria MPO Policy Advisory Committee - MTP Public Hearing
7/9/2014	Texas Zoo - $3 Day
7/12/2014	Victoria Farmer's Market
7/19/2014	Museum of the Coastal Bend - Moon Day
7/31/2014	Victoria Northside Rotary Club
8/1/2014	Victoria Public Library - End of Summer Reading Party
8/5/2014	VEDC Victoria Partnership Meeting
8/13/2014	Texas Zoo - $3 Day
8/14/2014	Silver Bullet Street Dance

In addition to event attendance, staff maintained an online presence and utilized a variety of media resources to raise the public's awareness of the MPO and the MTP. The *Voice of Victoria* online survey was available through SurveyMonkey, with links on the Victoria MPO website as well as the *Voice of Victoria* Facebook page. A total of 220 surveys were completed online. Below is a summary of all resources used throughout the public participation process.

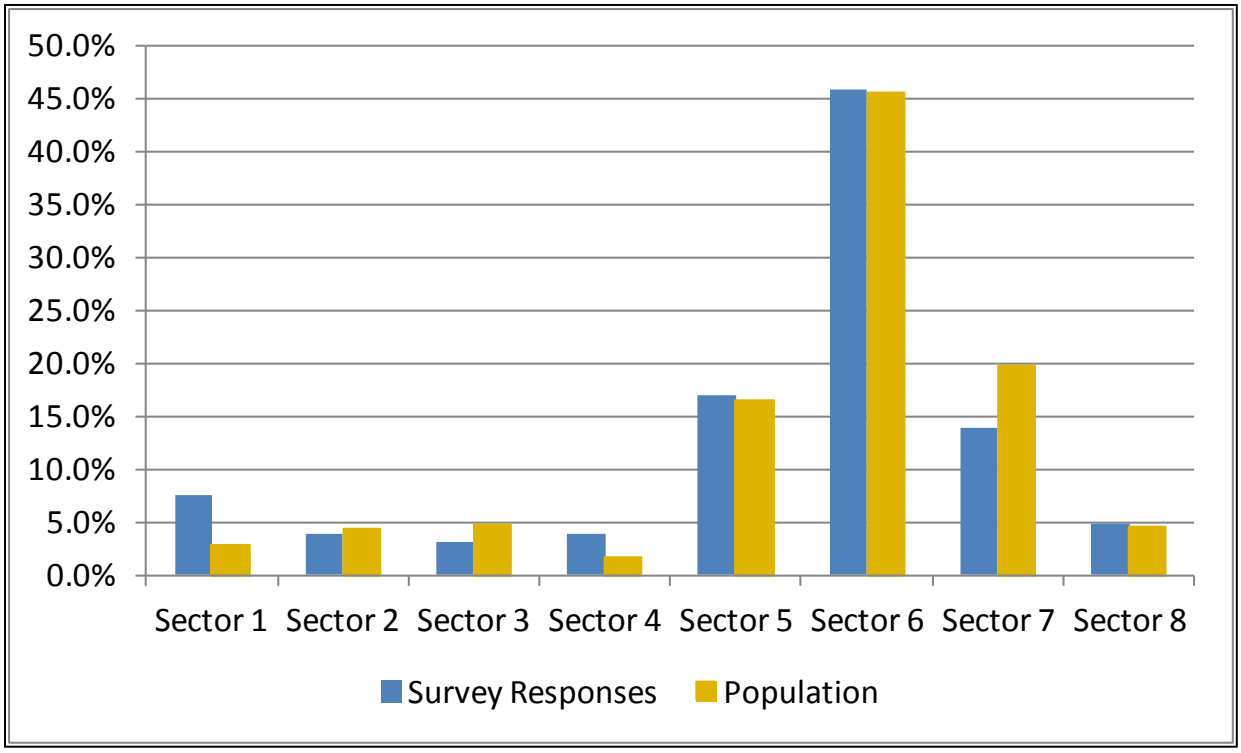
- **Facebook**: the Facebook page received 279 "likes" over the course of the summer and staff promoted the survey on the page; unfortunately the page was not very active in terms of public response.
- **Informational Videos**: throughout the summer a 30-second commercial ran on all local television stations to promote the survey and a 3-minute informational video on the MPO and MTP ran on Vtv15, the municipal-based television channel in Victoria. Both of these videos were also available on the City of Victoria's YouTube page.
- **Podcast**: staff participated in a 14-minute City of Victoria podcast to discuss the role of the MPO and the MTP.
- **Local Television**: the public participation process was highlighted in the *Community Crossroads* weekend television program through the Crossroads Today news outlet.
- **Local Newspapers**: the *Victoria Advocate* wrote two articles on the MPO planning process and provided links to the online survey through their online articles; *Revista de Victoria* wrote one article to share information on the MTP and the public's opportunity to participate.

General Transportation Survey Results

Geographic Distribution of Responses

Of the 314 general survey responses, 288 participants provided their geographic sector of residence. The purpose in keeping track of responses by sector is to ensure that all sectors are fairly represented in the responses. As seen in **Figures 4.2**, the responses by sector are reasonably proportional to the population by sector.

Figure 4.2: Percent of General Survey Responses and Total Population by Sector



Survey Results

The first two questions of the General Transportation Survey asked participants to rate existing transportation conditions and future transportation projects. The purpose of the questions was to capture the public's perception of the quality of existing facilities and the desirability of types of future projects.

Table 4.3 summarizes the results of both questions. Pavement quality, signal timing, sidewalks & trails, traffic congestion, and traffic safety all had an average rating less than 2, meaning that more people rated those categories as 'poor' than 'neutral.' The worst existing conditions rating for pavement quality is 0.32 points lower than the second worst. Further, pavement quality has the highest rating for Future Projects, exceeding the second highest rating by 0.19 points; this clearly indicates that pavement quality is a priority amongst the community. Both existing conditions and future project ratings also suggest that signal timing and pedestrian systems are key transportation categories to be considered.

Table 4.3: Average Ratings from General Survey

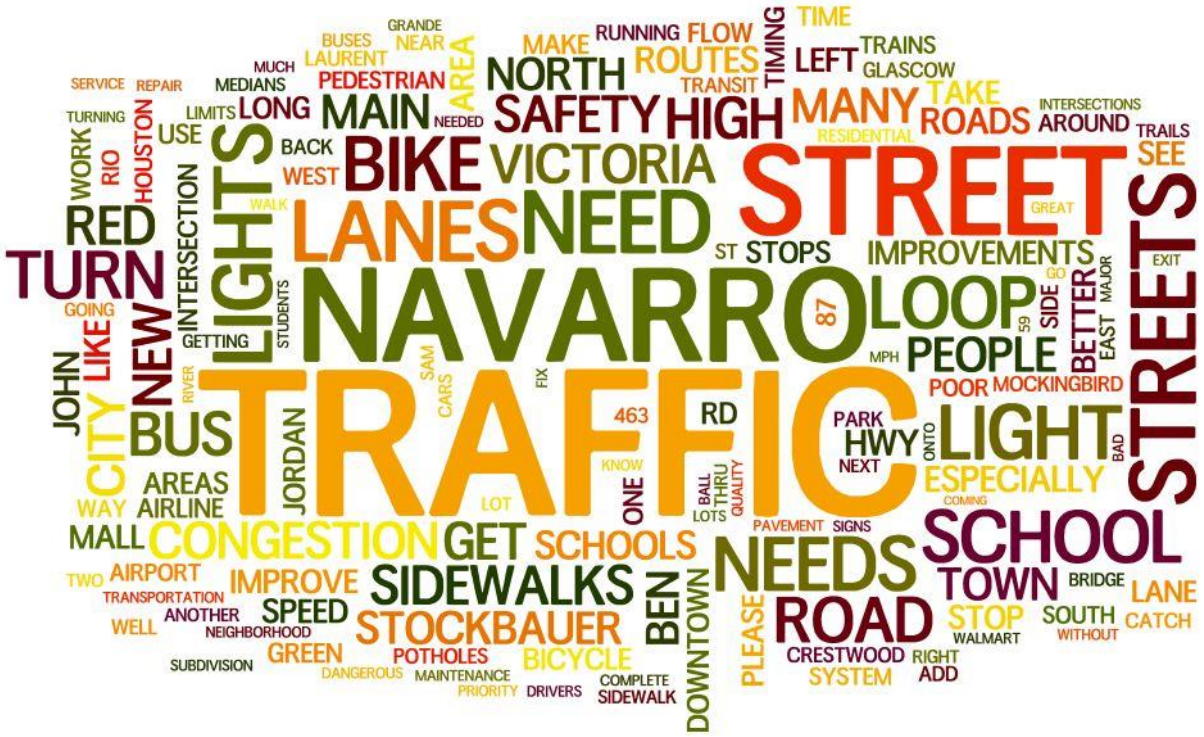
Existing Conditions 1=Poor & 3=Excellent			Future Projects 1=Not Important & 3=Important	
Pavement Quality	1.52		Maintenance	2.73
Signal Timing	1.84		Economic Development	2.54
Sidewalks & Trails	1.86		Signal Timing	2.51
Traffic Congestion	1.88		Pedestrian Systems	2.43
Traffic Safety	1.92		Traffic Safety	2.42
Bus Operations	2.01		Adding Lanes	2.35
Railroad Crossings	2.21		Bicycle Routes	2.34
			Bus Service	2.23
			Neighborhood Streets	2.18
			Railroad Crossings	2.15

The third question on the general transportation survey asks participants to describe any specific transportation projects, issues, or ideas they may have. While charts based on the rankings of conditions and priorities are helpful in determining the opinions and needs of the public, the comments are able to achieve a level of specificity not possible in the previous sections of the survey. All comments were divided into 15 categories for review, with some responses split into several categories and others duplicated across several appropriate categories. The sorted comments can be seen in **Table 4.4** and all comments are listed in Appendix B.

Table 4.4: Tabulation of General Survey Comments by Category

Category	Number
Congestion & Expansion	43
Navarro St.	31
Street Maintenance	30
Pedestrian Systems	30
Traffic Signals & Signal Timing	29
Traffic Safety & Operations	24
Bicycle Routes	22
Bus Service	20
Miscellaneous Comments	19
School Access & Safety	16
Speeds & Speed Limits	11
Railroad Crossings	9
Economic Development	7
Mall Area	7
Medians	6
Slowing Traffic on Neighborhood Streets	3

As shown below, a word cloud was generated to illustrate frequently used words in the public comments; larger words indicate that the word was used more frequently. While this is not a technical analysis, it does depict the topics that were important to survey participants.



The comment categories reflect congestion, Navarro Street, and pedestrian facilities as important topics. The tabulation of comments is reasonably close to responses to questions 1 and 2. The street maintenance, signal timing, pedestrian systems, and traffic safety categories all ranked high in the responses to all three questions, but the economic development category had fewer comments than its rankings in questions 1 and 2.

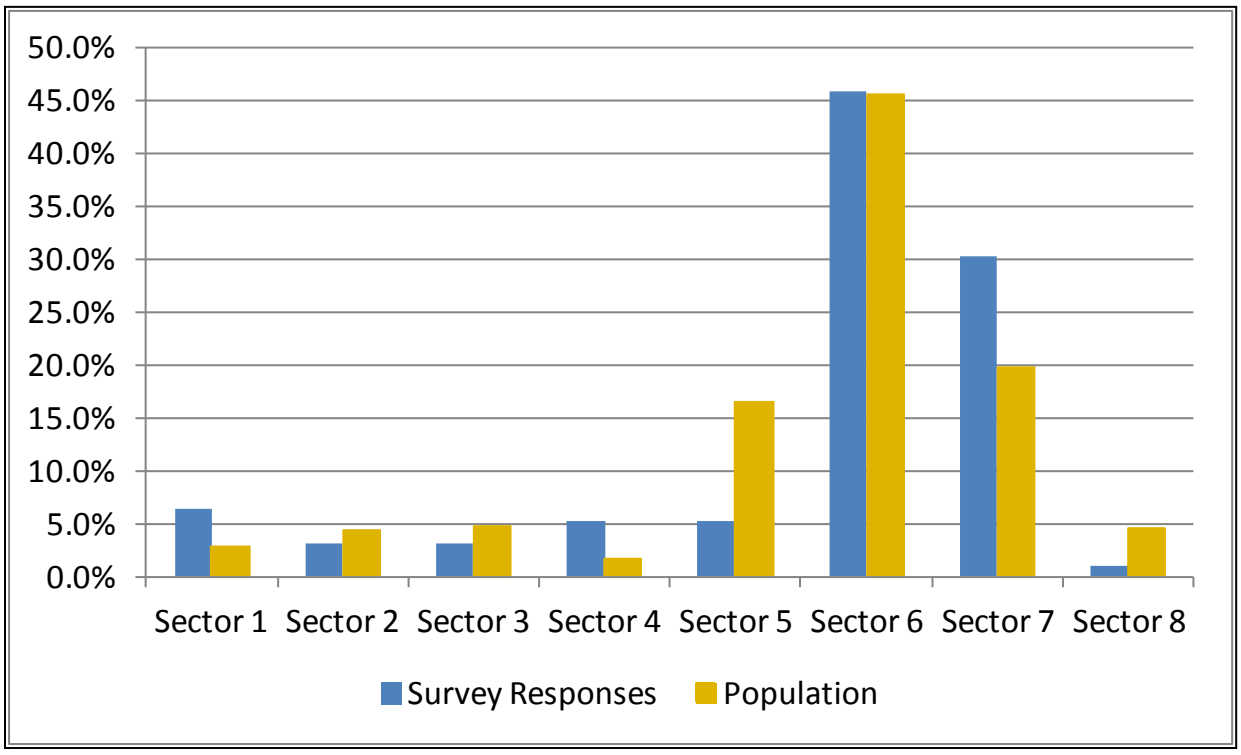
Transit Survey Results

While all general survey participants represent various transportation markets, transit issues are generally considered a separate market. The transit survey was administered to enable the responses from transit riders and from the general public to be distinguished for separate review.

Geographic Distribution of Responses

Of the 127 general survey responses, 96 participants provided their geographic sector of residence. As seen in **Figure 4.3**, transit survey responses by sector do not mirror the general population as well as the general transportation survey responses. However, the fixed-route transit routes operate primarily in Sectors 6 and 7, and branches slightly into Sectors 1 and 5; it can be assumed that the majority of transit users reside in those sectors. With the exception of Sector 5, the majority of responses was collected in these sectors and appropriately represents the population.

Figure 4.3: Percent of Transit Survey Responses and Total Population by Sector



Survey Results

Although transit riders make up a small proportion of Victoria County's total population, 69% of all responses to the Transit Survey came from actual transit users. A total of 87 participants indicated that they regularly use transit, with 75 indicating they use it at least once a week. This success was due not only to distributing the surveys on board transit buses, but also due to the survey's online presence.

The transit survey included a series of four questions about the existing transit services, including route, stop, and transfer locations and frequency of service. **Table 4.5** summarizes average ratings from all survey responses for each category. Results are also divided by all surveys, those who indicated they are a transit user (only transit users), and those who indicated they are not a transit user (only non-transit users).

Table 4.5: Average ratings for Existing Transit Services by Type of User

Existing Conditions 1=Poor & 3=Excellent	All Surveys	Only Transit Users	Only Non-Transit Users
Bus Stop Placement	2.07	2.14	1.86
Destinations Served	2.12	2.24	1.75
Transfer Locations	2.16	2.26	1.86
Frequency of Service	2.17	2.25	1.93

Transit users consistently rated the existing transit service higher than non-transit users. Bus stop placement had the lowest rating among only transit users and all surveys. The fact that this category is ranked worse than the destinations served category indicates that the physical conditions of the stops may be a larger issue than their placement at a desired destination. For every existing transit service category more people rated it as 'excellent' rather than 'neutral' or 'poor,' implying that most participants are satisfied with Victoria Transit's services.

The sixth question on the transit surveys asks whether there are additional bus stops, transfer locations, or other bus improvements that the responder desires. A total of 58 participants answered this question. All comments were divided into six categories for review, with some responses split into several categories and others duplicated across several appropriate categories. The sorted comments can be seen in **Table 4.6** and all comments are listed in Appendix C.

Table 4.6: Tabulation of Transit Survey Comments by Category

Category	Number
Additional Bus Stops and Routes	31
Timing and Schedule	14
Miscellaneous	12
Amenities at Bus Stops or Transfer Stations	10
Wal-Mart	6
Transfers	4

Similar to the General Transportation Survey, a word cloud was generated to show the most frequently used words; larger words indicate that the word was used more frequently. Again, this is not a scientific analysis, but does reflect important topics and concerns.

Overall, survey participants had a favorable view of the transit system. The comment categories reflect bus stops and routes, timing, and bus stop amenities as important topics. Providing benches with shade or shelter at bus stops was a notable comment.

Stakeholder Survey Results

The Stakeholder Survey was created to gain feedback from stakeholders in Victoria County's transportation system, such as major employers, transportation providers, public entities, community organizations, and other prominent groups. A total of 11 responses were received from a variety of organizations, as detailed in **Table 4.7**. While not a large sample, the 11 stakeholders who responded provide a reasoned and professional perspective to supplement the general transportation and transit surveys.

Table 4.7: Stakeholder Survey Responses

Category	Number	Percentage
Major Employer	5	45.45%
Public Agency	2	18.18%
Community Organization	0	0.00%
Transportation Provider	3	27.27%
Freight Transportation Provider	0	0.00%
Other (University)	1	9.09%
Total	11	

Similar to the General Transportation Survey, participants were asked to rate the quality of existing transportation systems and the favorability of future projects, as shown in **Table 4.8**. The general public rated every existing condition category lower than stakeholders, with the exception of railroad crossings. Both pavement quality and signal timing were poorly rated among existing conditions for the general and stakeholder surveys. The general public and stakeholders both ranked maintenance, economic development, and signal timing as the top three categories to consider when developing future projects. Pedestrian, bicycle, and bus projects ranked higher among the general public, whereas traffic safety, adding lanes, and railroad crossings ranked higher for stakeholders.

Table 4.8: Average Ratings from General and Stakeholder Surveys

Existing Conditions 1=Poor & 3=Excellent				**Future Projects** 1=Not Important & 3=Important		
	General	Stakeholder			General	Stakeholder
Pavement Quality	1.52	1.82		Maintenance	2.73	3.00
Signal Timing	1.84	2.00		Economic Development	2.54	2.64
Railroad Crossings	2.21	2.00		Signal Timing	2.51	2.55
Sidewalks & Trails	1.86	2.13		Traffic Safety	2.42	2.55
Bus Operations	2.01	2.13		Adding Lanes	2.35	2.36
Traffic Congestion	1.88	2.20		Railroad Crossings	2.15	2.36
Traffic Safety	1.92	2.30		Neighborhood Streets	2.18	2.27
				Pedestrian Systems	2.43	1.82
				Bus Service	2.23	1.70
				Bicycle Routes	2.34	1.50

The Stakeholder Survey asked two open-ended questions about barriers or constraints that impact the stakeholder and new transportation projects or ideas. Several comments were received for both questions and were divided into seven categories for review. The sorted comments are summarized in **Table 4.9** and all comments are listed in Appendix D.

Similar to the existing conditions ratings; railroad, maintenance, and pedestrian facilities categories received the most comments. Specific comments addressed trains interfering with access and street maintenance causing additional costs for businesses. Suggested new projects include a newly constructed loop around the City of Victoria and additional transportation options for Victoria College and the University of Houston – Victoria.

Table 4.9: Stakeholder Survey Comments by Category

	Barriers or Constraints	Proposed Projects
Railroad	3	
Maintenance	2	1
Pedestrian & Bicycles	2	1
Access to Businesses	1	1
School Traffic	1	
Signal Timing		1
New Road Construction		1

Voice of Victoria Outreach Phase II

Following the completion of the Draft MTP, phase II of the *Voice of Victoria* public participation process was completed. The public was encouraged to review and comment on the complete plan during Public Review and Comment Period that ran February 8, 2015 – March 9, 2010. Its purpose was to present the draft MTP to the public and to solicit comments on the plan, its processes, and its selected projects.

Outreach

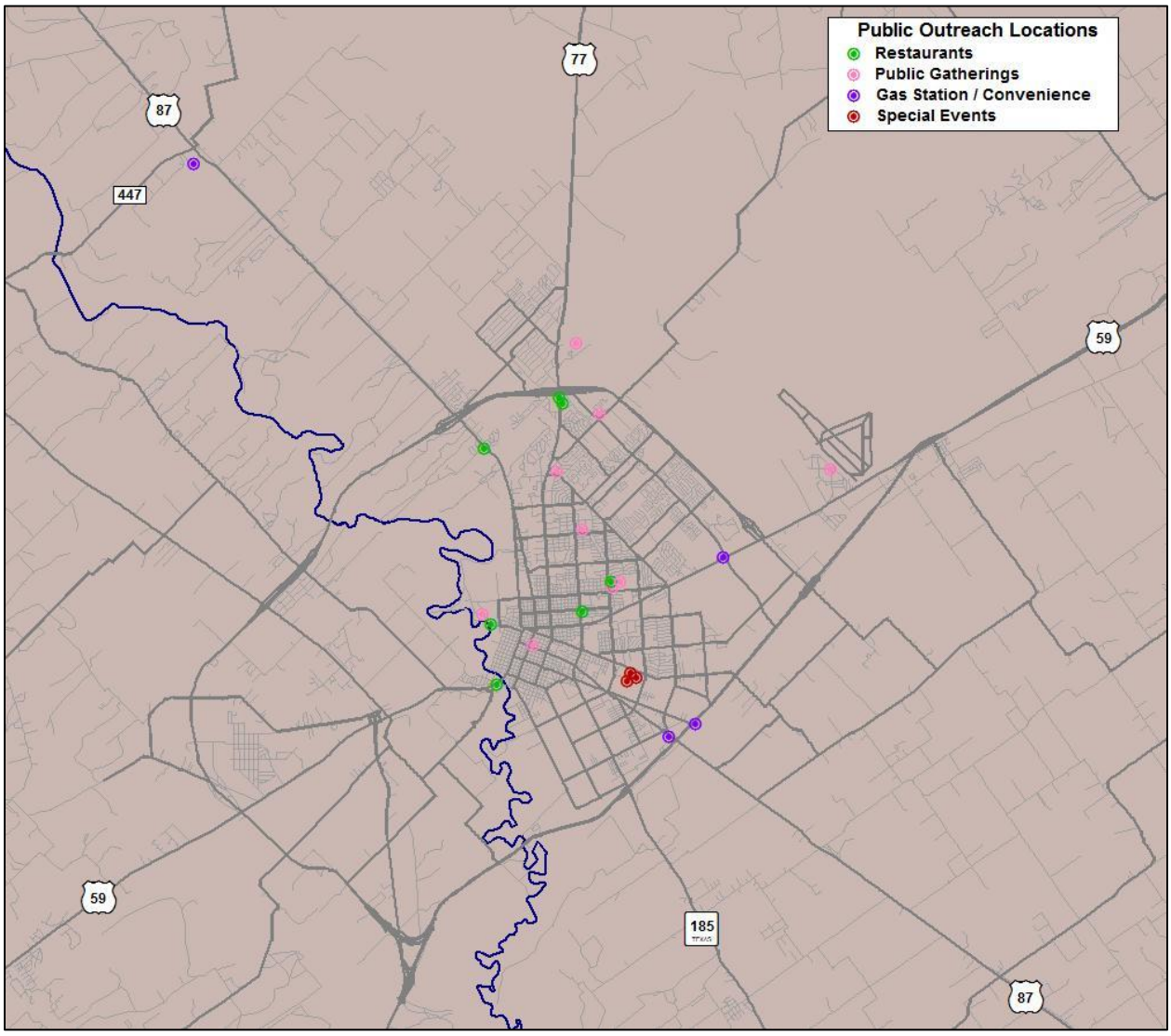
The Public Review and Comment Period also incorporated a Public Hearing and outreach and local events. Two instruments were developed to facilitate participation for the draft MTP. First, a flyer that summarized the MTP was handed out and posted in community spaces. Second, a comment card gave a brief description of the MTP and provided a means for the public to submit their thoughts on the plan. Both the flyer and the comment card can be found in **Appendix E**.

The Public Hearing was held in conjunction with the Victoria MPO Policy Advisory Committee meeting on February 10, 2015 and included a presentation to summarize the results of the plan. Printed copies of the Draft MTP were also available at the meeting, and a series of 10 posters were displayed to show the MTP process and results. No one wished to comment on the plan at this time.

Flyers and comment cards were passed out at three events at the annual Victoria Livestock Show and Carnival on Saturday, February 21, 2015. Flyers were also posted at various public and commercial locations throughout the city, as shown in **Figure 4.4**. Locations were selected for geographic coverage throughout the most populous areas of Victoria and include restaurants, gas stations, the Victoria Public Library, the Texas Zoo, Museum of the Coastal Bend, Victoria College, Victoria Regional Airport, and Victoria Transit. Approximately 60 flyers were distributed to 25 locations and events.

Public input was also solicited through a media release sent to local radio, news, and television outlets, including Victoria Radio Works, KIXS FM 108, Majic 95.9, the Victoria Advocate, Revista de Victoria, Voices United Publication of Victoria, Victoria connections, and KAVU TV 25.

Figure 4.4: Locations for Phase II of the Voice of Victoria



Draft MTP Outreach Results

Phase II of the *Voice of Victoria* public participation process provided multiple methods the public could review and comment on the MTP. Unfortunately, the number of citizens who accessed and reviewed the MTP cannot be measured. One person who received the flyer reached out by phone to provide comments. This shows that, regardless of the number of responses, that the distribution of flyers was effective in providing the public with the information and means necessary to review and comment on the MTP.

Summary

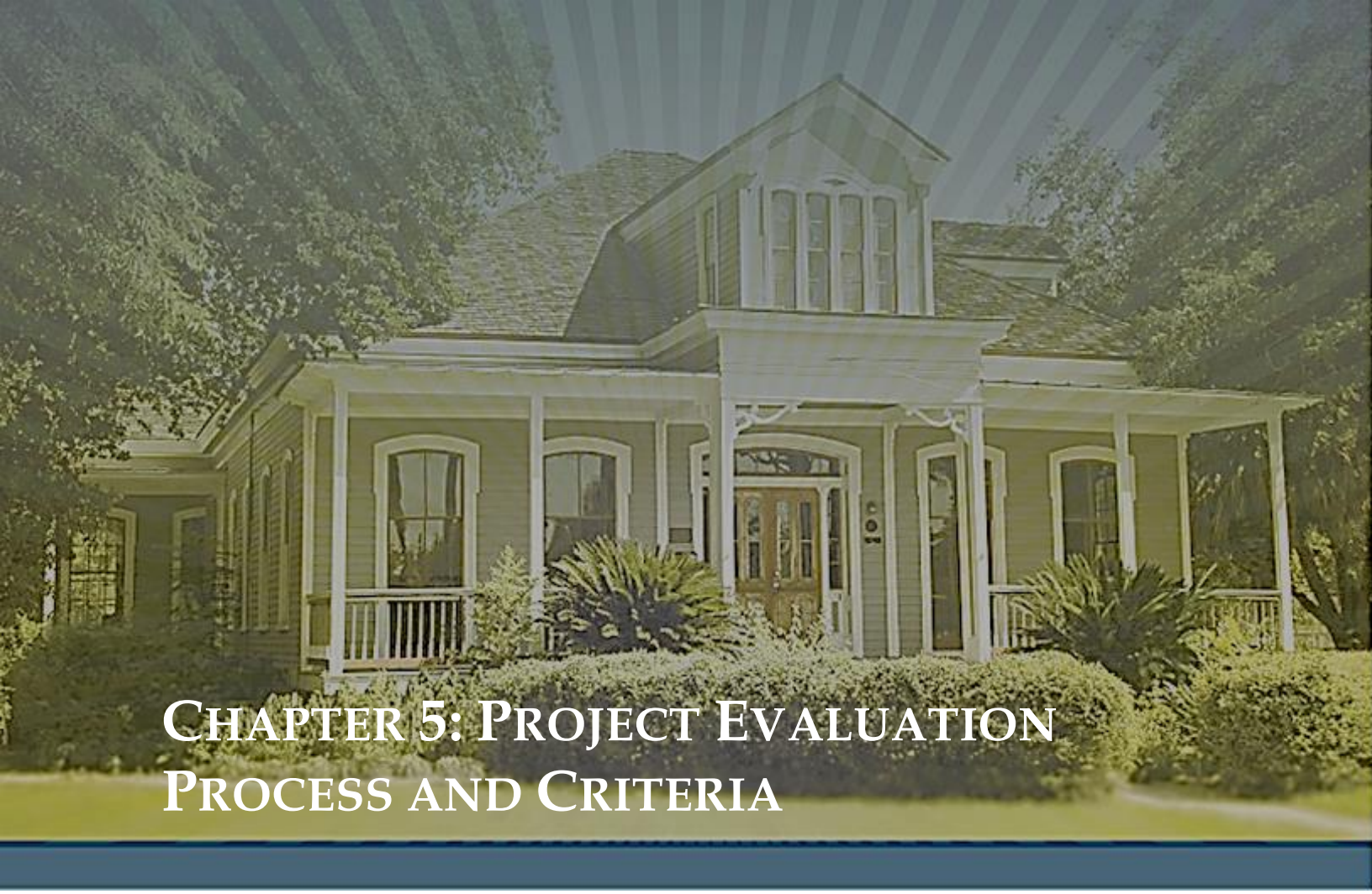
The *Voice of Victoria* survey program was developed specifically for the MTP to improve public participation; this approach was justified by the overall high response rate. It gave the public a more meaningful voice in the regional transportation planning process and gave regional planners a clearer picture of transportation issues and ideas from the public.

Victoria County was divided into eight geographic sectors in order to track responses and determine any under- or over-represented areas. This method was verified by comparing survey responses to population in each sector; both the general survey and the transit surveys were reasonably proportional to population by sector, indicating that the *Voice of Victoria* surveys represent an equitable sample of the population.

The results from the public participation process are summarized below:

- **Existing Conditions**: pavement quality and signal timing were rated as the most significant transportation issues facing Victoria; sidewalks & trails and traffic congestion should also be considered. Congestion and Navarro Street were the most popular topics mentioned.
- **Future Projects**: street maintenance, economic development, signal timing, traffic safety, and pedestrian systems were highly rated.
- **Transit**: all transit services were positively rated; route timing and bus stop placement and amenities can benefit from improvements.

Overall, the *Voice of Victoria* participation process has proven to be extremely successful. With a total of 452 survey responses in Phase I, this strategy has far exceeded past participation efforts and created a new method to employ for future planning efforts. Public input will be used in conjunction with other planning and analysis tools to appropriately plan for the future of Victoria County.



CHAPTER 5: PROJECT EVALUATION PROCESS AND CRITERIA

CHAPTER HIGHLIGHTS

- Project Inputs and Considerations
- Project Evaluation Criteria and Weights

The life cycle of a transportation project, as discussed in Chapter 1, begins and ends with a systematic evaluation of system performance. This analytical approach is the foundation of developing a set of regional transportation projects that help build a true system, rather than a set of individual, isolated projects.

Using an analytical approach ensures that projects for all transportation modes and all geographic areas are equitably and consistently evaluated. Additionally, the use of the travel demand model allows for an equitable and consistent evaluation of projects across time.

A key component of the analytical process is evaluating the project and providing a ranking system to support project selection. To be fair and rational, the project evaluation process must be open and consistent, and should be as objective as possible; to achieve this, a systematic project evaluation process has been developed and is described in the following chapter.

Project Evaluation Inputs and Considerations

The project evaluation process considers criteria for the evaluation of individual projects and weights applied to each criterion; together, these are utilized to arrive at the final evaluation score for each project. This process was developed while considering the following requirements and information.

MAP-21 Requirements

MAP- 21 is the current federal legislation governing transportation planning. An important feature of MAP-21 is the establishment of a performance- and outcome- based program. The purpose of this program is for states to invest in projects that collectively make progress towards the achievement of national goals. The seven national performance goals for federal-aid highway programs are:

- **Highway Safety**: to achieve a significant reduction in traffic fatalities and serious injuries on all public roads
- **Infrastructure Condition**: to maintain highway infrastructure in a state of good repair
- **Congestion Reduction**: to achieve a significant reduction in congestion on the National Highway System
- **System Reliability**: to improve the efficiency of the surface transportation system
- **Freight Movement and Economic Vitality**: to improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
- **Environmental Sustainability**: to enhance the performance of the transportation system while protecting and enhancing the natural environment
- **Reduced Project Delivery Delays**: to reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

In addition to the new seven national performance goals, there are eight planning factors required to be considered in the Metropolitan Transportation Plan (MTP) process. The seven performance goals and the eight planning factors have some overlap, and should be considered as complementary guidance.

- **Economic vitality:** The transportation network provides the region with access to jobs, shopping, education, and recreational activities. It also enables inter-regional travel and affects freight movement and international trade. Therefore, the transportation network must be planned for in such a way as to maintain mobility and increase system efficiency. The MTP provides recommendations for projects and strategies that should relieve congestion on key transportation corridors that provide access to primary activity centers such as jobs, schools, shopping, and other recreational activities. Further, improvements to infrastructure supporting freight movement and air travel are also considered in the MTP in order to increase regional and global competitiveness.

- **Safety:** Motorized and non-motorized users of the transportation system expect and deserve a safe experience while travelling. Strategies to improve safety include developing transportation system management techniques such as access management, system expansion projects within congested corridors to increase capacity, designing new facilities to meet current design standards, and addressing issues at at-grade intersections and railroad crossings.

- **Security:** Concerns for security have gained more prominence in transportation planning. The extensive port and oil infrastructure in Victoria County make it a potential security target.

- **Environment, energy conservation, planned growth:** Population growth, economic development, preservation of farmland, and the impacts of the oil boom are issues which impact the demands on the transportation networks. As growth and development occurs, travel and the demand for transportation infrastructure increase. Additionally, quality-of-life issues related to the environment also impact the transportation network.

- **Accessibility and mobility:** The MTP process is designed to increase the accessibility and mobility of both people and goods by developing a fair and balanced evaluation process for all transportation modes and projects.

- **Modal Integration and Connectivity:** The Victoria 2040 MTP development process was designed to provide a fair and balanced process to select the best projects to build a system where all transportation modes are integrated and perform efficiently in a balanced multimodal system.

- **System Management and Operation:** The annual Urban Mobility Report prepared by the Texas Transportation Institute classifies congestion as recurring (that is, normal congestion that happens every day) and non-recurring (that is, special congestion from unusual events such as traffic wrecks). The report consistently finds that non-recurring congestion is responsible for about half of the total congestion. Consequently, capital strategies such as building new lanes cannot address all congestion issues. Operational strategies such as efficient signal timing and promoting non-auto modes can also contribute to the solution and help to get the most out of the existing transportation infrastructure.

- **System Preservation:** While growth in the region certainly calls for increased transportation capacity, it is just as important to maintain the existing infrastructure in a state of good repair.

Texas Collaborative Approach to Performance Data Management

Working within the framework of the upcoming performance measures requirements of MAP-21, the Texas Department of Transportation (TxDOT) collaborated with the Association of Texas Metropolitan Planning Organizations (TEMPO) to develop a joint approach to data collection. This approach is designed for efficiency, consistency in data products, and to help the state and MPOs achieve their required deadlines. The process defined the following statewide performance measures for common use.

- Safety
- Pavement Condition
- Bridge Condition
- Transit Condition
- Freight
- NHS Performance
- Congestion Mitigation and Air Quality (CMAQ) Improvement Program performance

It is the intention to create common data sources for these measures to be utilized across all transportation planning organizations within the state. These measures will be adapted as necessary as the final rulemaking is published.

Previous Victoria Long-Range Metropolitan Transportation Plan

Table 5.1 shows the 14 project evaluation criteria used in the Victoria 2035 Metropolitan Transportation Plan. The weights for each of the criteria were adjusted to total 100 to easily compare them to the new criteria weights. These were formulated based on the public participation process and intended to reflect local priorities.

Table 5.1: Evaluation Criteria and Weights from Victoria 2035 MTP

Criteria	Weight
Supports Economic Development	8.50
Improve Quality of Live	8.40
Improve Security	7.50
Reduce Congestion	7.50
Improve Safety	7.25
Promote Efficiency	7.25
Protect Environment	7.10
Conserve Energy	7.10
Increase Connections	6.90
Improves Access	6.90
Support Land Use Goals	6.50
Preserve Right-of-Way	6.50
Increase Multimodal Options	6.40
Connect Modes of Travel	6.20
Total Score	100.00

Other Planning Documents

Several goals and objectives in the Victoria 2025 Comprehensive Plan, the Parks Master Plan, and other local plans detail the desire for pleasant urban streets, which are referred to as "complete streets," "great streets," or "context-sensitive solutions." These goals point to a desire to develop a road system that is both aesthetically pleasing and operationally efficient. A streetscape offering access, sidewalks, and landscaping can be as important as the travel way. Further, the Parks Master Plan and the Paseo de Victoria Master Plan for pedestrians and bicycles refer to connectivity and linkages to the street system.

These plans show a local concern for issues and can be grouped together as "quality of life" issues. They provide a balance for traffic efficiency and economic development issues; the engineering issues are important, but not at the expense of losing the friendly "small town feel" of Victoria.

Voice of Victoria Public Input

The newly developed project evaluation criteria have the advantage of utilizing a more robust public participation process than the 2035 MTP. As described in Chapter 4, the survey responses were tracked by their sector, and were found to reasonably reflect the distribution of the population in the County. Therefore, the information received from the surveys provides a better tool for setting the criteria and weights used in the project evaluation process.

Project Evaluation Criteria and Weights

Based on the previously detailed information, the following 8 project evaluation criteria were developed. **Table 5.2** details each criterion, its description, and their weights. The weights were established based on public input and comments received. They were set to total 100 points as a convenience to assist in ranking. These criteria will be utilized in the following chapters as projects are evaluated and rated.

Table 5.2: Evaluation Criteria and Weights for the Victoria 2040 MTP

Criterion	Description	Weight
Traffic Safety	Projects to improve general safety on streets, street safety at schools, slower traffic speeds within neighborhoods, and the safety aspect of railroad crossings.	20
System Preservation	Projects to improve pavement quality and bridge condition	17
Economic Development	Projects to support job growth, access to jobs, freight movements, and regional land use goals.	16
Efficient Operations	Projects relating to traffic flow and access. Categories include signal timing, consistent speeds throughout the network, access to schools, freight operations, railroad crossings, and multimodal system connectivity.	15
Congestion	Projects related to both existing congestion and the forecast congestion in the year 2040.	12
Multimodal Development	Projects to support non-vehicular modes of transportation and the provision of pleasant amenities of such modes as a quality of life issue. This criterion includes the sidewalk network, bicycle routes, trails, bus stops, bus stop amenities, and bus turnouts.	10
Local Priorities and Funding Efficiencies	Established to capture whether a project has been selected in previous plans, public comments, cost effectiveness, overmatch of the local share, and readiness for project letting to construction.	6
Local Impact	Incorporates general considerations of a project's impact on greenhouse gas, noise, water quality, and quality of life, as well as the separate types of impacts on historic structures. This criterion is also the vehicle for recognizing a project that contributes to reducing inequitable impacts of transportation on minority communities under the category of environmental justice.	4

Chapter 6: Review, Analysis, and Project Generation by Transportation Modes

CHAPTER HIGHLIGHTS

- Road Network
- Urban and Rural Transit
- Bicycle and Pedestrian
- Freight Rail
- Port of Victoria
- Truck
- Pipeline
- Airport

Victoria County already has a well-established multimodal transportation network that includes roadways, urban and rural transit systems, bicycle and pedestrian modes, railroads, the Port of Victoria, truck facilities, pipelines, and the Victoria Regional Airport. Some modes are entirely publicly owned and operated; some are publicly owned but charge user fees; and some are wholly privately owned and operated for profit. Each mode is unique with its own set of benefits and costs. While each mode can seem to operate independently, in truth, all of these modes function best in a mutually supportive and integrated transportation system.

You can do anything, but you can't do everything.

David Allen

Transportation planning in Victoria County must support this mutually-supportive and integrated transportation system. Since the transportation projects selected through this 2040 MTP are constrained by the available level of funding, the selection of projects must consider the needs of the full multimodal transportation system to select the best projects among all transportation modes.

> **If you can't measure what you're doing, then you don't know what you're doing.**
> ***Mary Peters***

This chapter examines every transportation mode in Victoria County. Existing conditions and anticipated future needs are analyzed to identify possible future projects. Additionally, possible performance measures and how they can be used in the future are identified to support the MAP-21 requirement; full implementation is still in progress as the US DOT and TxDOT prepare measures, targets, and the supporting data and programs. Anticipating the final rules for implementation of performance measures, the Victoria MPO can begin to set up a program to gather information.

Road Network

The road network is the backbone of the transportation system in Victoria County. According to the US Census Bureau American Community Survey for 2013, approximately 81% of the Victoria County working population drove themselves to work and 14% carpooled. When planning for the road network it is vital to consider both system preservation and maintenance and traffic operations, as detailed in the following section.

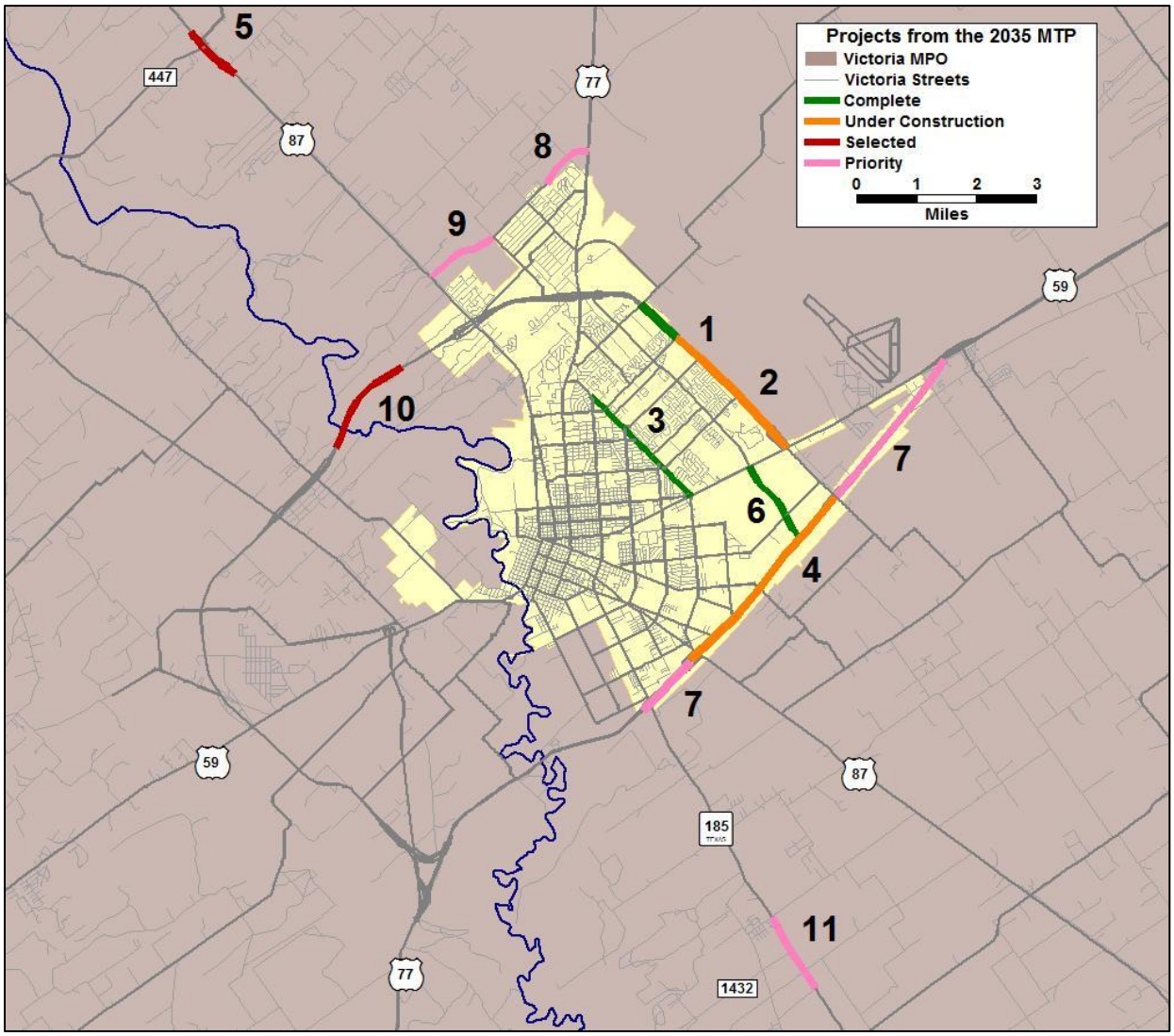
2035 MTP Progress

The Victoria MPO has made progress on several projects that were identified in the 2035 MTP; specifically, three have been completed, two are under construction, two are planned in the next two years, and five have been identified by the Victoria MPO and City of Victoria as needs. **Table 6.1** and **Figure 6.1** summarize the funded and unfunded projects.

Table 6.1: Status of 2035 MTP Projects

Source	ID	Road	Limits from	Limits to	Description	Status
2035 MTP Fiscally Constrained	1	Loop 463	Salem Rd. / FM 1315	Mockingbird Ln.	Construct 4 freeway lanes & interchanges	Complete
2035 MTP Fiscally Constrained	2	Loop 463	Mockingbird Ln.	Business US 59	Construct 4 freeway lanes & interchange	60% Complete
City of Victoria	3	Sam Houston Dr.	Laurent St.	Business	Reconstruct roadway	Complete
2035 MTP Fiscally Constrained	4	US 59	0.1 mi E of Loop 463	0.3 mi W of US 87	Construct frontage roads	80% Complete
2035 MTP Fiscally Constrained	5	US 87	FM 447		Construct grade separation	Scheduled to begin in FY 2016
City of Victoria	6	John Stockbauer Dr.	US 59 B	US 59	Add 2 lanes	Complete
Unfunded	7	US 59	SH 185	Business US 59	Construct continuous frontage roads	Split; portion under construction and the remaining sections are MPO priorities
Unfunded	8	Ball Airport Rd.	US 87	Mallette Dr.	Construct 2 lane facility	City of Victoria project in E+C Network
Unfunded	9	Ball Airport Rd.	Northside Rd.	US 77	Construct 4 lane facility	City of Victoria project in E+C Network
Propostion 1 Funding	10	US 77	US 87	FM 1685	Continue freeway section and bridge crossing	Scheduled to begin in FY 2015
Unfunded	11	SH 185	FM 1432		Construct grade separation	MPO priority

Figure 6.1: Status of Projects from the 2035 MTP



The Victoria MPO has also been active in performing studies to develop projects or refine a project's parameters. The following three studies were completed:

- **Traffic Signal Timing**: Traffic signal timing analyses were performed along Navarro Street, Main Street, and Business US 59. These are the highest-traffic volume streets in Victoria County and have the highest concentrations of vehicle crashes. Traffic signal timing is an effective strategy to improve both circulation and safety.
- **SH 185 and FM 1432 Intersection Study**: this intersection, which serves as the entrance to the Port of Victoria, was studied to address safety concerns. Both sight distance for drivers and the difference in speeds contributed to these issues. Truck traffic at the port has dramatically increased over the last two years and is expected to continue to do so, making this project a high priority for the region.

- **US 87 and FM 447 Corridor Alignment Study**: this study was completed to analyze alternatives to reduce the number of crashes. Grade separation, which is expected to significantly improve safety, is the preferred option. Construction for the project is planned to begin in FY 2016.

Network

A roadway network analysis encompasses both the physical design of a roadway and its operation. This includes functional classification, facility type, and number of lanes, all of which are detailed below.

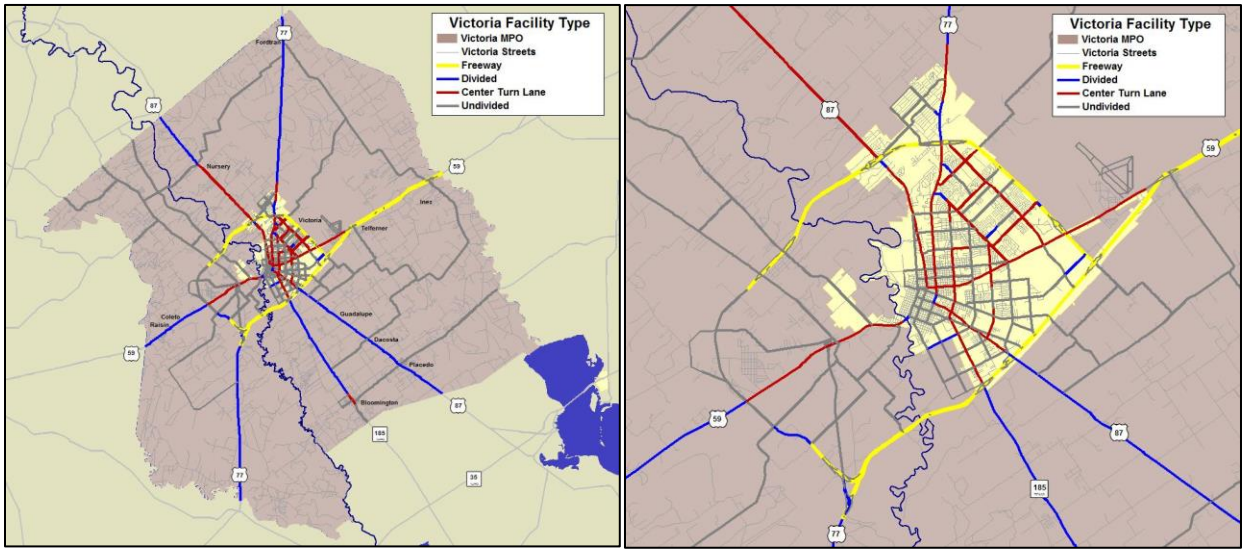
Functional Classification

Chapter 3: Changing Conditions illustrated functional class to analyze future roadway needs. Every roadway is classified as a freeway, principal arterial, minor arterial, collector, or local street as a way to group roadways by their relative function and purpose. Freeways and arterials are on one end of the spectrum and provide little access with high mobility; conversely, local streets and collectors provide high access to adjacent properties and lower mobility.

Facility Type

In contrast to functional class, which is a somewhat subjective description of a road's operating function, facility type is a definite description of the construction of a road as either freeway, divided, center turn lane, or undivided. Victoria's facility types are illustrated in **Figure 6.2**. Facility type is a subset of functional class: a functional class such as a principal arterial may be further described by its facility type as a divided principal arterial, principal arterial with center turn lane, or undivided principal arterial.

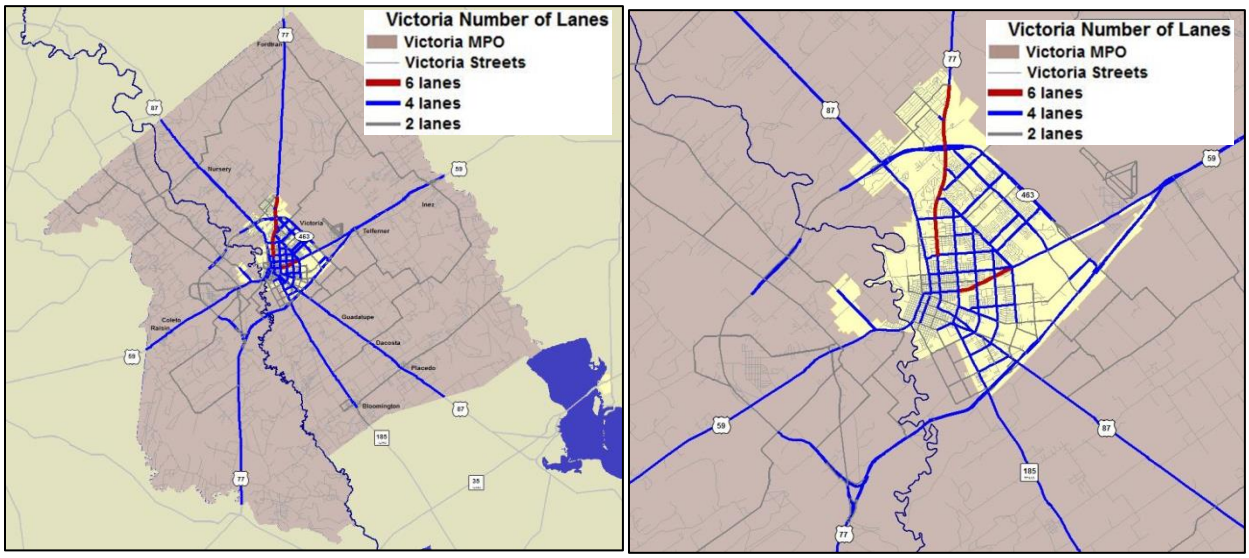
Figure 6.2: Network Facility Type



Number of Lanes

The number of lanes for roadways in Victoria is illustrated in **Figure 6.3**. Only through lanes are counted and a four-lane facility with a center turn lane is in these figures is considered a four-lane road.

Figure 6.3: Network Number of Lanes



Network Analysis

In reviewing these network features, it can be determined that there is an equitable and efficient distribution of network attributes throughout the Victoria region. The freeway functional class and facility type have been established on Zac Lentz Parkway / Loop 463 / US 77 and on US 59 in the appropriate high-traffic volume areas. The network of principal arterials and minor arterials are well-spaced and complementary, and are well-served by the collector system. There is no apparent geographic inequity in the distribution of facilities by functional class or facility type.

Major roads leading to Victoria, including US 59, US 77, and US 87, are four-lane divided facilities; the only exception is SH 185 which is only two lanes between Bloomington and the county line. Furthermore, center turn lanes are present on the heavily trafficked streets, including Main Street, Navarro Street, and Business US 59, and the more heavily trafficked portions of Navarro Street and Business US 59 have been upgraded to six lanes. Overall, there is no apparent geographic inequity in the distribution of four-lane streets; they are well-concentrated on the higher populated areas.

System Preservation and Maintenance

Street Conditions

The condition of streets is considered an important quality-of-life issue to a community's citizens. It is also an important engineering and financial issue, since deferred maintenance can lead to premature failure of streets. Proper and timely maintenance can preserve the useful life of pavement.

The citizens of Victoria County have expressed their dissatisfaction with street maintenance in both previous and more recent planning efforts. Among the 19 services cited in the survey conducted for the last Comprehensive Plan, the condition of the streets received the lowest ranking for satisfaction. The survey also presented the open-ended question, "What do you dislike about your neighborhood?" The most common response was the condition of the streets. More recently, the *Voice of Victoria* surveys conducted for this plan in the summer of 2014 further emphasizes the importance of street conditions. The condition of the streets was one of the top categories of comments received. Potholes and bumpy roads were frequently mentioned, and many of the comments referenced specific thoroughfares or local neighborhood streets.

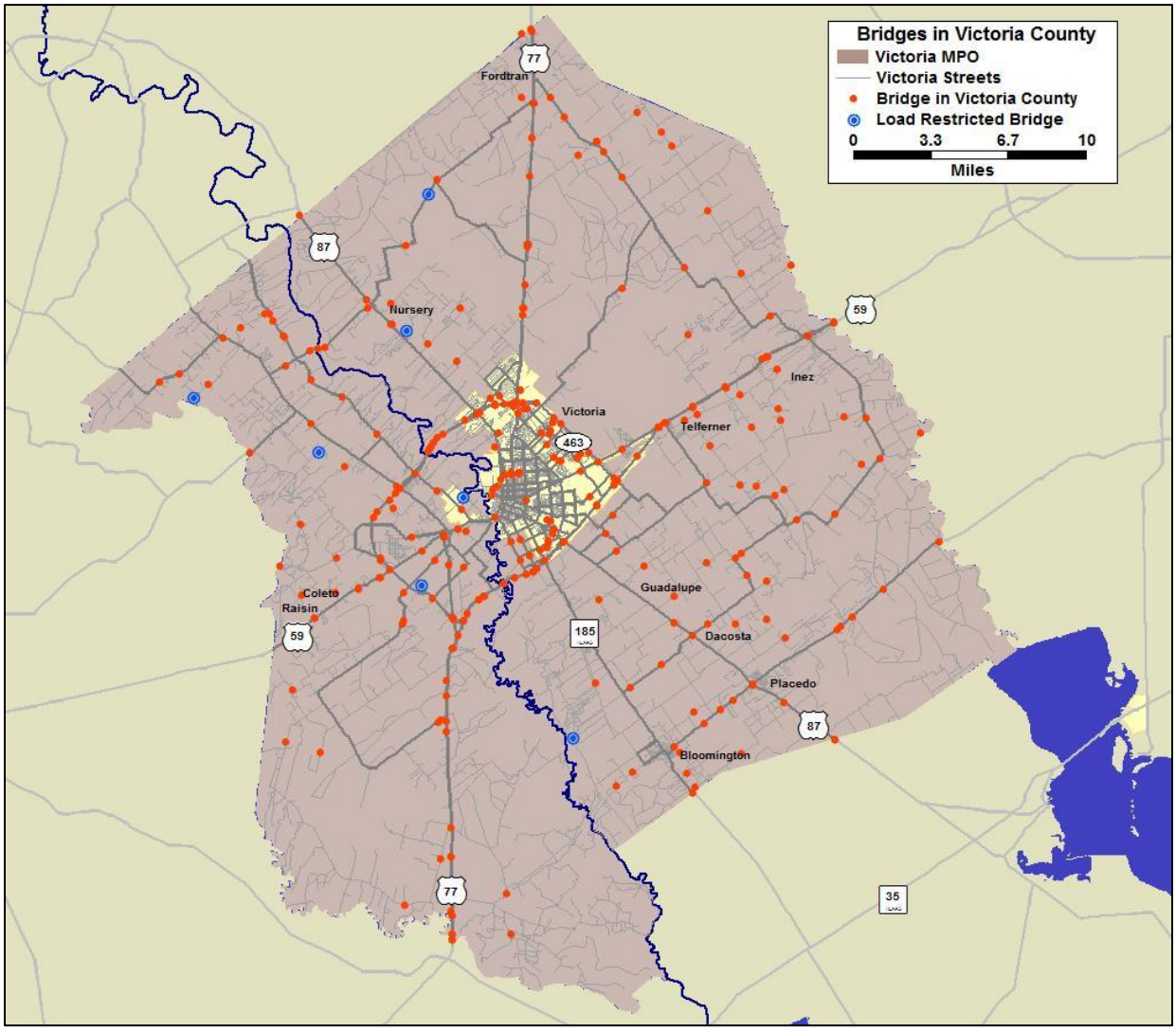
A pavement management system to evaluate pavement condition and set priorities for road reconstruction is a required component for state-maintained roads. The City of Victoria maintains a similar system that develops a street inventory each year; the report assigns a rating to each of the City's street segments based on 13 criteria, including cracking, rutting, raveling, shoving, potholes, street width, and overall ride quality.

The importance of pavement management is recognized in the Victoria region, as is shown by the fact that 7 of the 14 projects in the Transportation Improvement Program (TIP) for 2015-2018 are to rehabilitate, overlay, or sealcoat a road.

Bridges

Bridges form a special category of road maintenance, as they receive a special planning focus and a dedicated funding stream in the Surface Transportation Program. **Figure 6.4** illustrates the 330 on-system and off-system bridges in Victoria County and shows the seven bridges posted with load limits. Maintaining bridges and updating them to current functional standards is an important component of total system maintenance. TxDOT selects bridge maintenance projects using a dedicated bridge management system. Of the 14 projects in the Transportation Improvement Program (TIP) for 2015-2018, five are bridge projects.

Figure 6.4: Bridges and Load Posted Bridges in Victoria County



Traffic Operations

Level of Service

Level of Service (LOS) was illustrated in Chapter 3 to examine the operation of a roadway in the future. Roadways with a low LOS experience congestion and, conversely, roadways with a high LOS are relatively easy to drive on. As previously described, LOS is broken into three ranges: LOS A-B is "desirable," LOS C-D is "acceptable," and LOS E-F is "undesirable." In 2012, 97% of Victoria's roadways were operating at LOS A-D and that amount is expected to decrease to 90% in 2040.

The projected demographic growth in the region from 2012 to 2040 is expected to have moderate impact on the degraded LOS throughout the Victoria region. Notable areas include US 87 North, US 59 East, US 77 South, US 59 West, and FM 236 West. Aggregate statistics show that a more significant effect of demographic growth in Victoria is that the road segments which are already congested will become more congested in 2040.

Signal Timing

The traffic signal timing analyses performed for Navarro Street, Main Street, and Business US 59 was implemented in 2014. The new timing plans coordinated signals in the hope of improving the number of stops and overall delay.

While traffic signal coordination and delay can be directly measured and compared to previous signal performance, the public perception of the new plans is more subjective. Comments received from the *Voice of Victoria* surveys, listed in **Appendix B**, indicate that the public still perceives signal timing to be an issue. Several comments referenced the signals at West High School and along major corridors such as Navarro Street, Main Street, Business US 59, John Stockbauer Drive, and Ben Jordan Street.

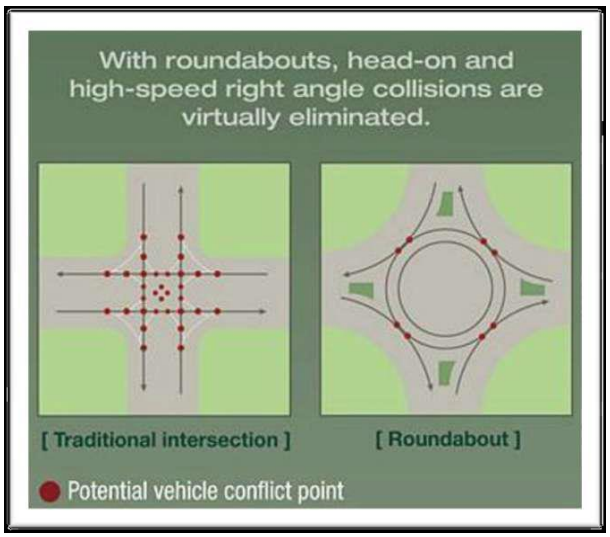
Several of the *Voice of Victoria* comments received regarding traffic signal timing noted that vehicles wait at a red light when there is little or no cross traffic. A potential solution to this phenomenon also appeared as a *Voice of Victoria* comment:

> "I recently traveled to Bend, Oregon, and was very impressed with their street system. They rely on roundabouts at most intersections, thus eliminating the needs for traffic lights and keeping the flow of traffic moving. It was great! In each roundabout, they had landscape features and a sculpture of some sort. Very forward thinking. I saw this in England a few years back and it seems to work very well."

The great advantage of a roundabout is that it accommodates traffic at an intersection without the need for stopping the opposing traffic flows with a signal or a light. They can therefore improve traffic flows and eliminate the issue of a vehicle waiting at a light while there is no cross traffic.

In addition to their role in smoothing traffic flow, roundabouts have fewer potential conflict points than standard four-way intersections. **Figure 6.5** shows that a standard four-way intersection has 32 potential conflict points from vehicles crossing each others' paths. In contrast, a roundabout only has eight, which greatly reduces the potential for head-on and T-bone crashes. A recent study of 332 converted intersections in Denmark found an overall 27% reduction in crashes and a 60% reduction in injuries. Fatal crashes decreased by 85%. The reduction in injuries and fatalities shows that the crashes which did occur were less severe.

Figure 6.5: Standard Intersection and Roundabout



Railroad Crossings

Railroad crossings impact the road network by creating travel time delay, unreliable travel time, and safety issues. There are 187 at-grade railroad crossings in Victoria County. With the exception of the crossing at the railroad spur on western Business US 59, all at-grade crossings on streets with functional classifications of minor arterial or above are controlled with the safety feature of gates, crossbucks, and flashing lights. Other at-grade crossings without gates are controlled only by crossbucks or stop signs and are on lower volume two-lane roadways.

There are 16 grade-separated rail crossings in Victoria, three of which have functional issues due to low overhead and side-to-side clearance; these include a concrete overpass on Spring Creek Road with a 10' 5" overhead clearance, a wooden trestle overpass on South Wheeler Street with a 9' 6" clearance, and a similar wooden trestle overpass on South De Leon Street with a clearance of only 7'5". All are on two-lane undivided roads and have supporting piers in the middle of the street and minimal side clearance to the piers on either side. No crashes are reported at these sites in the latest TxDOT data, but the safety and operational issues are obvious.

Forecast Conditions & Deficiency Analysis

Chapter 3 summarized the results of the travel demand model (TDM) used in analyzing traffic flows for a base year 2012 and 2040 forecast year. The LOS was analyzed for overall network mileage and vehicle miles travelled (VMT), as summarized in **Table 6.2**. Because the worsening LOS is more apparent for VMT, it can be concluded that congestion is expected to worsen on the roads that are already congested and spread slightly to new areas.

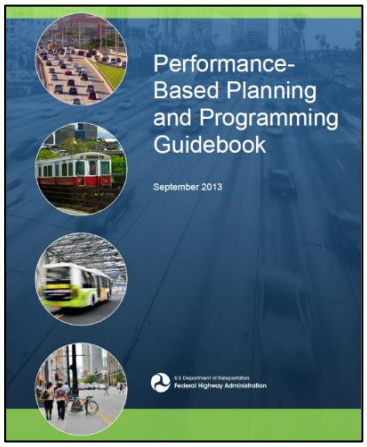
Table 6.2: LOS of System Mileage and Vehicle Miles Travelled

Measure	LOS	2012	2040
System Mileage	A-B	69%	60%
	A-D	97%	90%
Vehicle Miles Travelled (VMT)	A-B	34%	24%
	A-D	93%	70%

Performance Measures

Performance measures for the road network should follow the TxDOT transportation systems approach to treat all transportation modes as an integrated, mutually supportive system. The need to develop performance measures for the full transportation system is specified in the MAP-21 Surface Transportation Program, but the specific measures and the necessary data sources are currently in the process of being implemented. MPOs are required to have their performance measures in place within 180 days of when the State DOT establishes their performance measures. The state adopted measures are to be compatible with the seven national performance goals:

- **Safety**: to achieve a "significant reduction" in traffic fatalities and serious injuries
- **System Preservation**: to maintain the system in "good repair"
- **Congestion**: to achieve a "significant reduction" in congestion
- **System Reliability**: to "improve the efficiency" of the transportation system
- **Freight Movement**: to "improve the freight network"
- **Sustainability**: to "enhance" the transportation system while simultaneously promoting the goal to "enhance and protect" the natural environment
- **Reduce Project Delivery Delays**: to "accelerate" project development and construction



Guidance in establishing performance-based planning is available from FHWA's Performance-Based Planning and Programming Guidebook. This document is designed to help planning agencies understand the key elements of performance measures and how they integrate with the whole planning process. It also presents some of the best practices which have been implemented by various transportation planning agencies. Potential performance measures for the road system are shown in **Table 6.3**.

Table 6.3: Potential Road Performance Measures

Category	Data Field	Data Source
Safety	Reduction in crashes	TxDOT, DPS
	Reduction in injuries	TxDOT, DPS
	Reduction in number of fatalities	TxDOT, DPS
System Preservation	% of system mileage in good condition	TxDOT, MPO
Bridge Preservation	% of bridges in good condition	TxDOT, MPO
System Reliability	Ratio of peak period to off-peak period travel time	MPO
	% of mileage at LOS E-F	MPO
	Number of traffic signals with coordinated timing plan	MPO
	Total system delay at railroad crossings	MPO, Railroad
Freight Movements	% of NHS and National Freight Network in good condition	TxDOT, MPO
Sustainability	Number of days exceeding air quality standards	TNRCC

Project Generation

Following the review of current and future demographics and road performance and a review of the projects previously proposed in the 2035 MTP, a list of candidate roadway projects has been generated for further evaluation. These candidate projects are listed in **Table 6.4**, showing the categories of deficiencies that they were designed to address and an estimate of total project cost.

Table 6.4: List of Candidate Road Projects

Table 6.4 List of Candidate Road Projects

Category	Road	Limits from	Limits to	Description	Project Cost
Capacity	FM 236	US 77	FM 622	Add 2 lanes	$14,926,700
Capacity	Loop 463	North of Business US 59	Lone Tree Rd	Add 2 lanes	$ 1,783,000
Capacity	US 59	FM 1686	FM 444	Add 2 lanes	$17,640,646
Capacity	US 77	FM 236	FM 446	Add 2 lanes	$ 8,472,800
Capacity	US 77	0.42 mi east of FM 1685	1.04 mi west of US 87	Add 2 lanes	$25,000,000
Capacity	US 77 S	US 77 / US 59 interchange	Refugio County Line	Add 2 lanes	$46,410,900
Capacity	US 87	Zac Lentz Pkwy.	FM 447	Add 2 lanes	$24,505,000
Connectivity, Capacity	Loop 463	Mockingbird Ln	BU 59T	New construction of one-way, two-lane frontage road, EB	$ 5,077,864
Connectivity, Capacity	US 59	Loop 463	US 59 / Business US 59	Construct frontage roads	$11,500,000
Connectivity, Capacity	US 59	Hanselman Rd		Construct overpass	$11,000,000
Connectivity, Capacity	US 59	SH 185	US 87	Construct frontage roads	$ 1,500,000
Safety	FM 444	US 77	US 59	Safety treat fixed objects	$ 724,887
Safety, Capacity	Business US 77	Loop 463	Airline Rd	Construct center median	$ 3,500,000
Safety, Capacity	SH 185	FM 1432		Construct overpass	$10,750,000
Safety, Capacity	US 87	FM 447		Construct overpass	$13,356,461
Operations	Business US 59	Loop 463		Add traffic signal	$ 340,812
System Preservation	FM 1090	US 87	Calhoun County Line	Seal coat	$ 226,860
System Preservation	FM 1432	SH 185	End of State Maintenance	Rehabilitate roadway	$ 1,532,025
System Preservation	FM 237	Dewitt County Line	FM 236	Seal coat	$ 218,251
System Preservation	FM 2615	US 87	FM 1686	Seal coat	$ 204,842
System Preservation	US 59	0.5 mi W of SP 91	BU 59-T	Seal coat	$ 417,552
System Preservation	US 59	Jackson County Line	BU 59-T	ACP overlay	$ 7,776,735
System Preservation	US 59	LP 463	US 77	ACP overlay	$ 4,800,318
Bridge Preservation	CR	CR 169	Kohutek Rd	Replace bridge & approaches	$ 331,526
Bridge Preservation	CR	Arenosa Creek CR 130	J2 Ranch Road	Replace bridge & approaches	$ 334,712
Bridge Preservation	CR	At Spring Creek CR 46	Oliver Road	Replace bridge & approaches	$ 936,681
Bridge Preservation	CR	At Dry Creek CR 134	Old Goliad Rd	Widen bridge & approaches	$ 1,230,403
Bridge Preservation	CR	Victoria Barge Canal	Dupont Road	Replace bridge & approaches	$ 2,899,252
Bridge Preservation	FM 616	At Chocolate Bayou		Replace bridge & approaches	$ 760,529

Capacity

While the majority of Victoria streets currently operate and are forecast to continue operating within LOS A-D, congestion is still an issue along heavily-trafficked corridors, particularly Navarro St, Main St, and Business US 59. As is typical for built-out areas, the ability to construct new lanes for heavily-trafficked corridors is constrained by the available right-of-way. Alternate ways to increase capacity include installing medians to limit the number of left turns, other methods of access management, and improving operational efficiencies.

Connectivity

Connectivity improves total system efficiency and reduces the Vehicle Miles Travelled (VMT) by making the travel paths shorter and more convenient. In the presence of one-way frontage

roads and limited access highways, such as the US 59 / I-69 corridor, connectivity must be balanced with safety and with the cost of construction.

Traffic Operations

Traffic signal timing coordination can increase the effective capacity of a corridor by reducing the delay and number of stops. Public perception of traffic signals often generates numerous comments, and the *Voice of Victoria* survey program was no exception as several participants expressed the need for improved signal timing. While anecdotal evidence and public comments on signal timing are important considerations, efficient signal timing must be part of a regional scheme and must consider cross-streets, turning movements, and vehicle platoons.

The implementation of a program to replace traditional four-way intersections with roundabouts is another efficient way to improve both traffic operations and safety.

Safety

Safety is the top-weighted evaluation criteria for projects outlined within the 2040 MTP, as shown in Chapter 5: Project Evaluation. It can be addressed in several ways. Most relevant to this MTP are safety projects related to treating fixed objects such as guardrail ends and roadside signs to reduce injuries in the event of a crash. Roadway design also has a safety component, with curvature and line-of-sight designed relative to vehicle speeds and the relative volumes of cross traffic. Most operational issues, such as signal timing, speed, and facility type (divided, center turn lane, undivided), also have a safety component.

Railroad Crossings

At-grade and grade-separated railroad crossings in Victoria are generally well-controlled and safe. As reported in the Rail section of this chapter, the Texas Rail Plan has identified two at-grade crossings in Victoria as recommended projects. Additionally, three grade-separated crossings have been noted as possibly functionally obsolescent, and may be considered for reconstruction.

System Preservation and Bridge Preservation

Maintaining good pavement condition and the reconstruction of existing roads is an ongoing task throughout Victoria County, with TxDOT, the City of Victoria, Victoria County, and the MPO sharing responsibilities. Both TxDOT and the City of Victoria should continue to use their pavement management systems to appropriately identify the roads that require the most maintenance as priorities.

Urban and Rural Transit

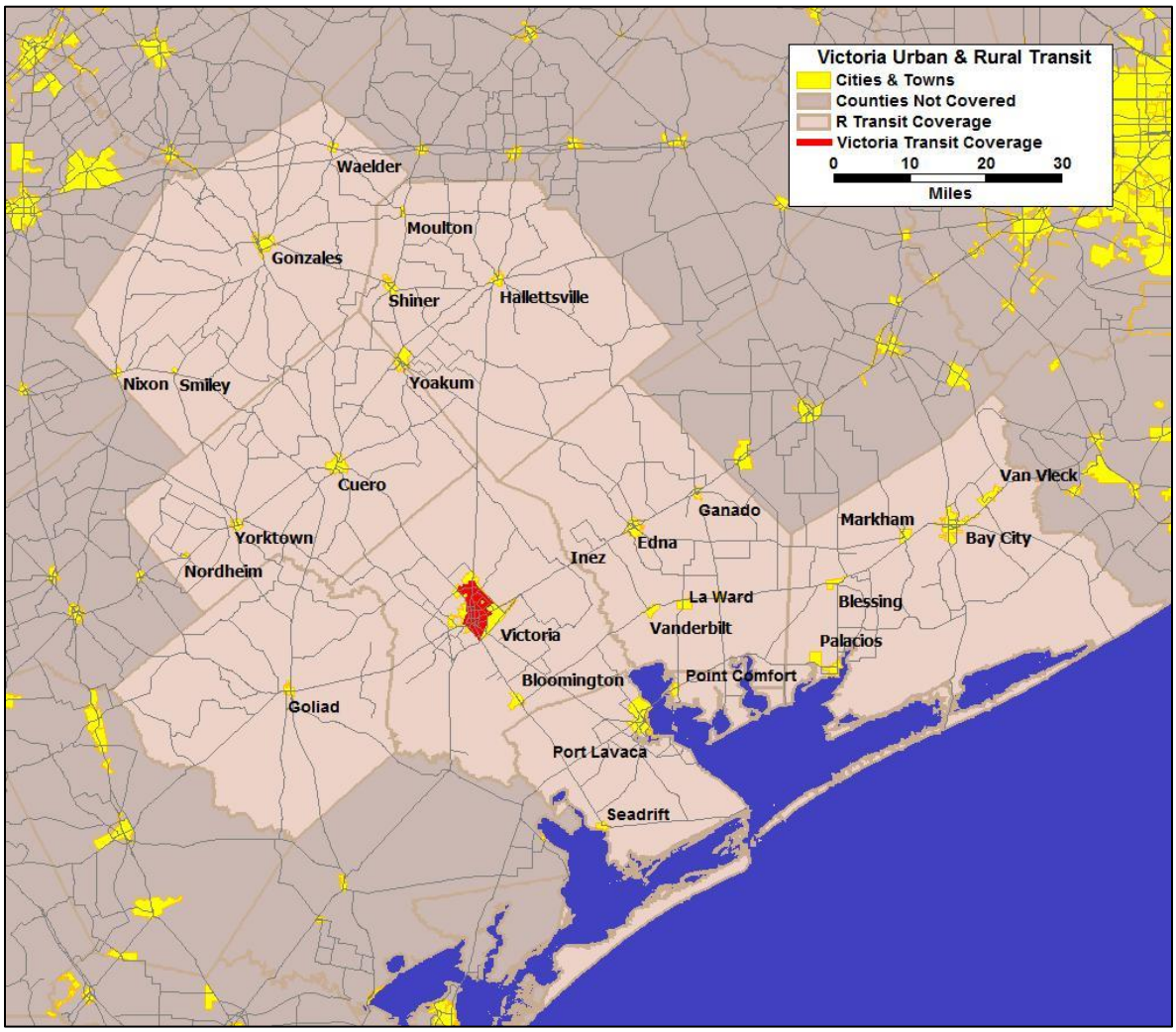
Transit plays an important role in providing transportation in the Victoria region. Regardless of whether a person has access to a vehicle, transit is an important transportation option for people who choose not to drive due to disability, age, or comfort with driving. Conversely, transit is not

a reasonable option for people working shift work or non-traditional hours; those requiring a higher trip frequency; and those who do not live or work in areas served by transit, with a service area typically considered being within a quarter mile of a route.

Existing Conditions

Victoria County is fortunate in having a single agency provide both rural and urban transit services, allowing for easier coordination of transit services. The Golden Crescent Regional Planning Commission (GCRPC) operates both the RTRANSIT system in rural Victoria County and the seven surrounding counties and the Victoria Transit system within the census-defined urbanized area of the City of Victoria. The service areas for RTRANSIT and Victoria Transit are shown in **Figure 6.6**.

Figure 6.6: Rural and Urban Transit Service in Victoria



RTRANSIT

Since many of the rural communities in the Golden Crescent Region do not have access to medical care in their

communities, they depend on health care facilities located in other non-urban cities in their county or in the City of Victoria. GCRPC has been providing the rural transportation service known as RTRANSIT since November 1986. It provides curb-to-curb transportation services for rural residents with required advance reservations.

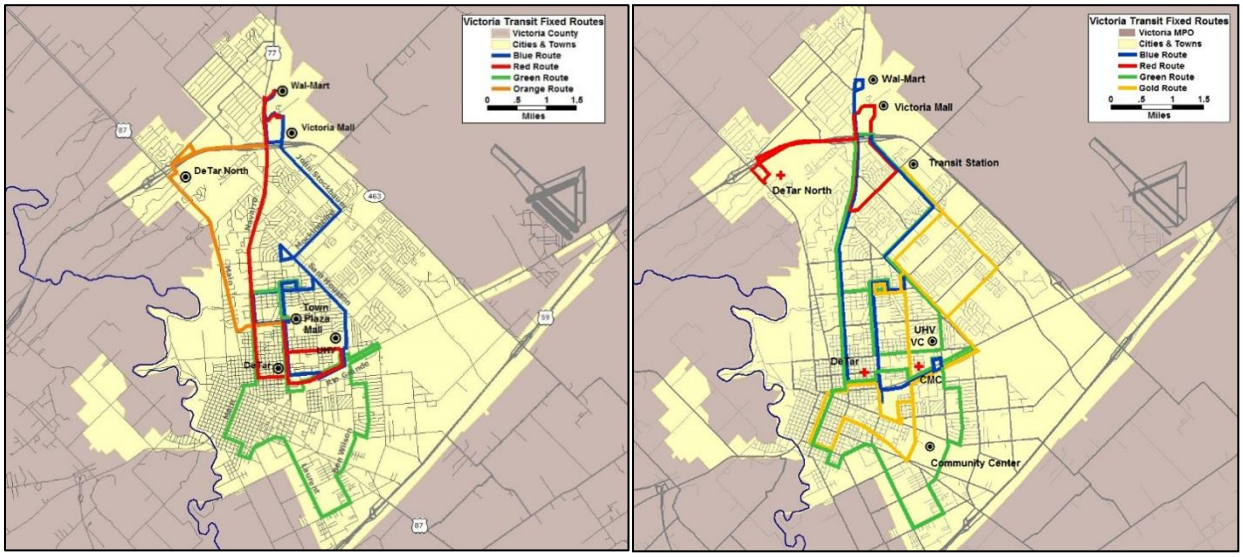
Major operating funding for this program is provided by the Federal Transit Administration (FTA) Section 5311 grant program for public transportation in rural areas. Additional funding is provided by the Texas Department on Aging and Texas Department of Health to supply transportation to their eligible clients. Data from the National Transit Database (NTD) shows that fare revenue makes up another 5% of total funding, while local sources contribute 4%.

Victoria Transit Fixed Route

Victoria Transit provides a fixed route system Monday through Friday from 7:00 am to 6:00 pm for all City of Victoria residents. Wheelchair accessible vehicles are available and all buses are equipped with bicycle racks. Victoria Transit's fixed route service consists of four routes: red, blue, green, and gold. The red, blue, and green routes run 7:00 AM to 6:00 PM Monday through Friday, with 30 minute headways between buses. The new gold route operates 8:00 AM to 5:00 PM Monday through Friday, with 60 minute headways.

This four-route system is the latest in a set of route updates designed to integrate the new transit station on John Stockbauer Drive into the system and provide better coverage to the region. **Figure 6.7** shows the recent changes to the fixed route system.

Figure 6.7: Changes to Victoria Transit Fixed Routes



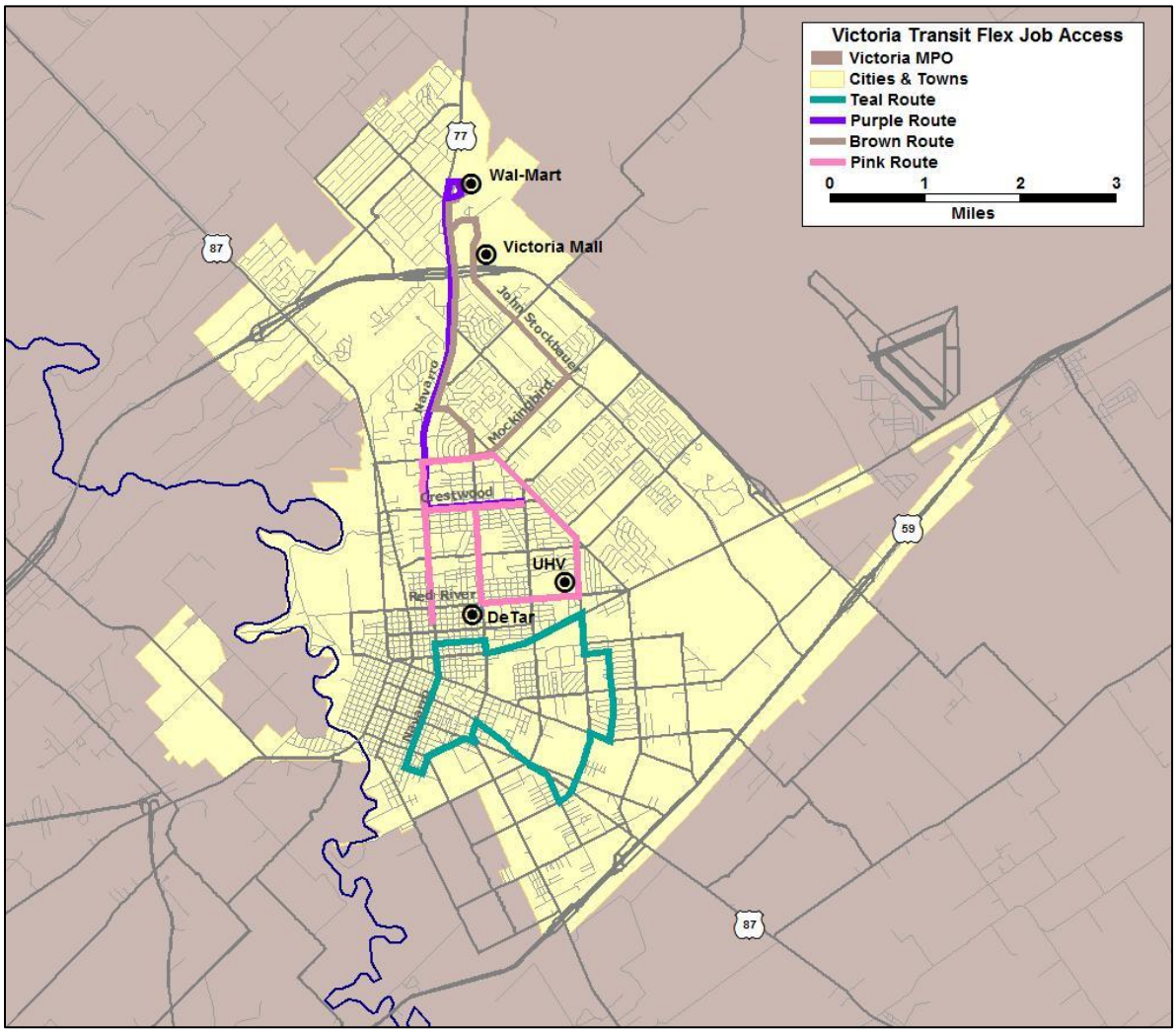
Victoria Transit previously operated with the four routes shown on the left: red, blue, green, and orange. The orange route ceased service in October 2014 and the remaining routes were realigned. The system returned to four-routes when the Gold line opened in December 2014,

which included several additional stops like the Health and Human Services Department and the Lone Tree Shopping Center. The new route configuration was designed after several meetings with the public, with GCRPC reaching out to heavily used areas to solicit public comments to help design a system that serves an increased number of people.

Victoria Transit Flex Route

Victoria Transit also operates Flex Route services providing weekend and evening services designed to support job access within the Victoria city limits. Similar to the standard fixed route, the four flex routes are designated by colors: teal, green, purple, and brown. All routes operate 6:00 PM to 10:00 PM Monday through Friday; 7:00 AM to 10:00 PM on Saturday; and 11:00 AM to 7:00 PM on Sunday. Buses arrive every 30 minutes for all four routes. **Figure 6.8** shows the flex routes.

Figure 6.8: Victoria Transit Flex Job Access Routes



Victoria Transit Complementary Paratransit

Federal regulations require that any transit service offered to the general public must also provide complementary accessible services for people with disabilities. To meet this need, Victoria Transit operates a paratransit service, a demand-response curb-to-curb service, with required pre-qualifications and advance reservations. The paratransit services operate 7:00 AM to 6:00 PM Monday through Friday.

Population and Employment Coverage of Victoria Transit Fixed Route

The commonly accepted distance a person will walk to a transit route is a quarter- to half-mile. In considering these distances, the fixed route transit system can be analyzed to determine how well its routes serve the population of Victoria. **Figure 6.9** shows the merged fixed route system (combining the standard fixed routes and the flex routes) in relation to the median household income per geographic Traffic Analysis Zone (TAZ). Buffers around the fixed routes show the areas within a quarter and a half mile of the routes. Complementing the view of geographic access, **Figure 6.10** shows the same buffers around the merged fixed route system and total employment by TAZ.

Figure 6.9: Victoria Transit Fixed Routes and Household Median Income, 2012

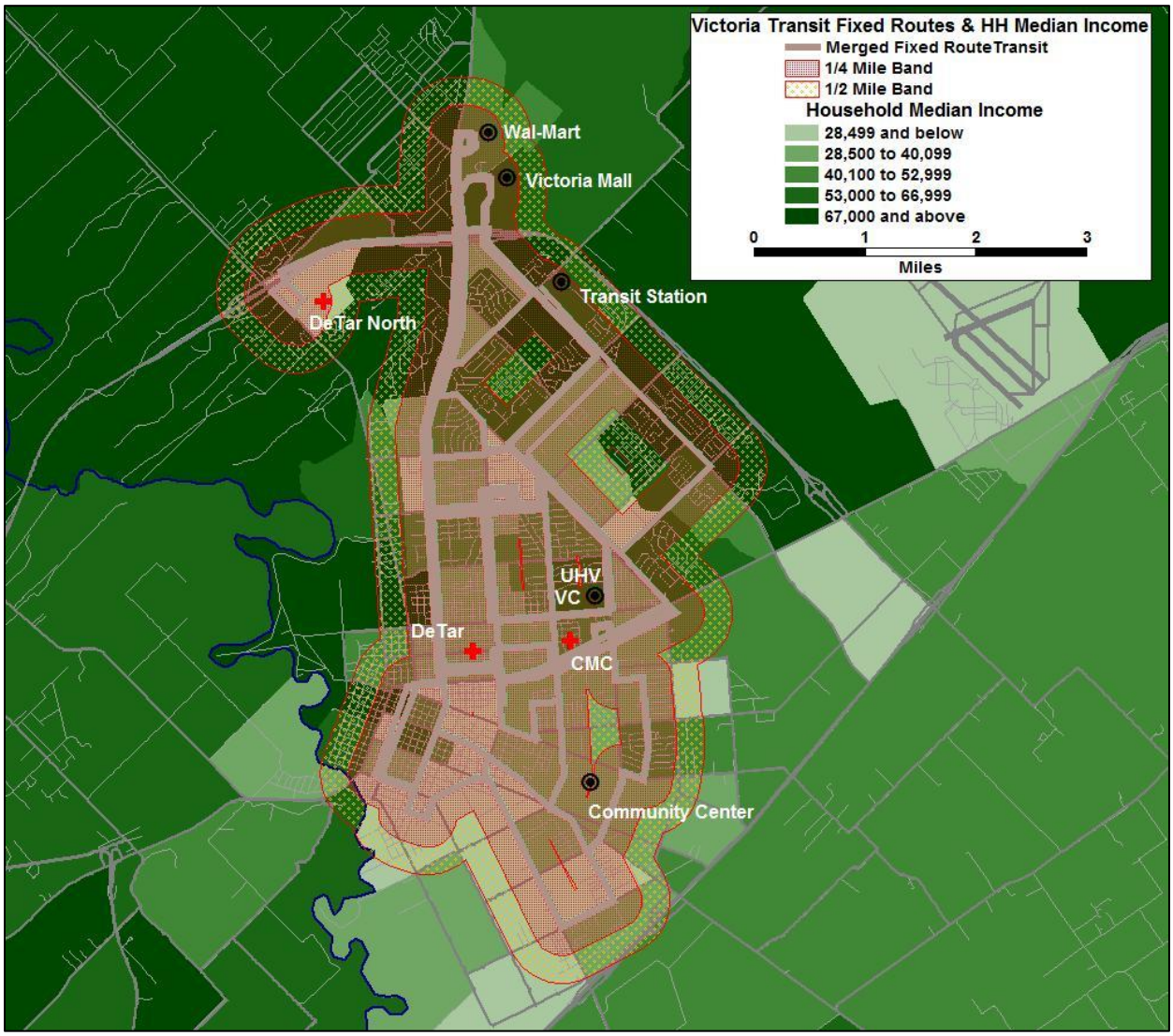
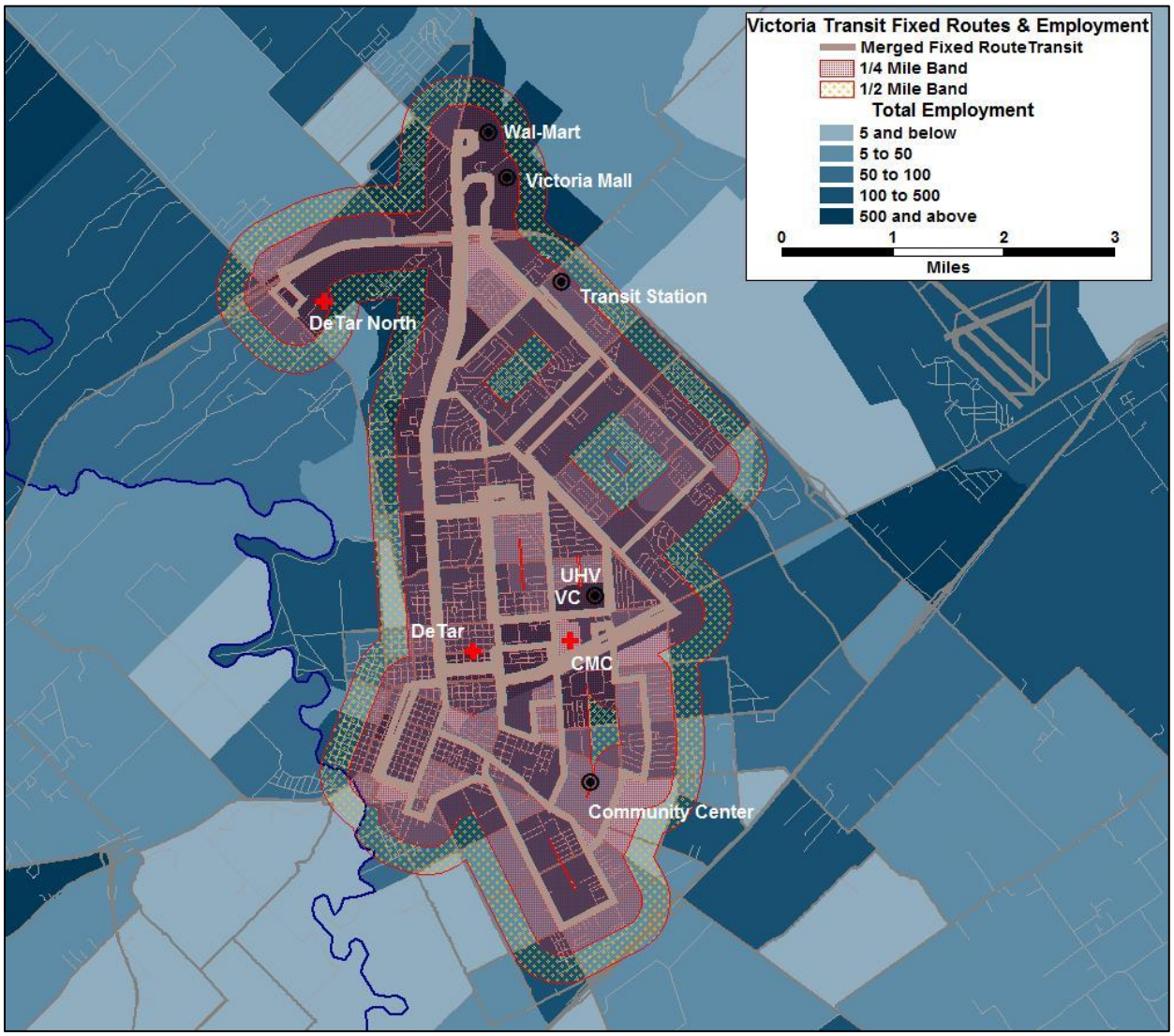

Victoria Transit Fixed Routes & HH Median Income
Merged Fixed RouteTransit
1/4 Mile Band
1/2 Mile Band
Household Median Income
28,499 and below
28,500 to 40,099
40,100 to 52,999
53,000 to 66,999
67,000 and above
0
1
2
3
Miles
Wal-Mart
Victoria Mall
Transit Station
DeTar North
UHV
VC
DeTar
CMC
Community Center

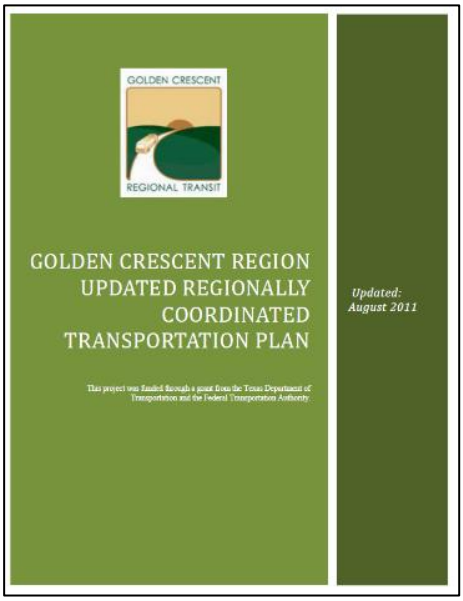
Figure 6.10: Victoria Transit Fixed Routes and Total Employment, 2012



The two figures show that the fixed route system has excellent geographic coverage within the City of Victoria. The population centers within the defined urbanized area are generally within the buffer areas. In the northeast portion of the city, there are only two notable gaps that do not achieve the quarter mile coverage, both of which lie in relatively high-income areas that have less demand for transit services. On the south side, there is a small gap north of the Community Center that is centered on a small residential area and Stroman Middle School.

The triangle of land between Business US 59 and US 59, leading to the Caterpillar plant and the airport, is the only sizable area within the urbanized boundary that is not within the standard buffer areas of reasonable distance to Victoria Transit fixed routes. The Caterpillar site is approximately three miles from the closest fixed route. Since this is a significant employment site and has room for future expansion that may increase the job opportunities, it should be considered a candidate destination for future Flex Job Access service.

Forecast Conditions & Deficiency Analysis



The 2011 Golden Crescent Region Updated Regionally Coordinated Transportation Plan provides a basis for forecast conditions and a deficiency analysis. The plan identifies opportunities to coordinate transit services and reduce duplication, and is a guide to future transit projects. A survey of the general public, including transit users and transit non-users, informed the results of the plan.

The survey results indicated that work, medical trips, and shopping are the primary reasons to use Victoria Transit, and those three uses make-up the majority of total transit trips. Conversely, the reasoning to not use the transit system focused on the performance of the system rather than trip purposes; 22% of respondents indicated that the system was inconvenient or too slow and 18% expressed that they were unaware of transit services. Survey respondents also frequently cited the need for expanded hours of service and weekend service.

Supplementing the Regionally Coordinated Transportation Plan's survey, the *Voice of Victoria* public participation effort included a survey dedicated to transit which sampled both the general public and on-board transit riders. The results of the two surveys are consistent, with the *Voice of Victoria* surveys providing more detailed questions and responses, as summarized in Chapter 4: Public Participation and in **Appendix C**. Specific comments and requested projects from the *Voice of Victoria* surveys include: additional bus stops at specific locations; enhanced amenities, in particular benches and shelters; timing at transfer points; and more frequent headways, specifically in the range of 15 to 20 minutes.

Overall, the plan found no significant gaps in transit service in Victoria County. The populations that have the greatest need for transit have reasonable access to services. The plan also recognized that the areas of off-hour services and reverse commute service to rural employment as areas for improvement.

Performance Measures

Based on survey results and meetings with transportation providers, the Golden Crescent Region Updated Regionally Coordinated Transportation Plan developed a set of four goals and associated objectives and performance measures. The four broad goals for transit are to: provide better connections to destinations; increase public awareness of transit services; better integrate transit into economic development; and provide safe, effective, and efficient operations. The plan also developed 36 specific performance measures to support those goals.

Project Generation

With its recent redesign of the fixed route system, Victoria Transit has amply demonstrated its commitment to short-to medium-term planning. To complement this effort, additional planning for the long-term out to the year 2040 should be considered. Some general long-term projects for the transit system identified by Victoria Transit relate to coordinating the needs of the transit system with the road system.

Roadway Operations

Improving the on-time performance and speed of bus operations is seen as specifically dependent on the operations of the road system. Traffic congestion on Navarro Street and Laurent Street make it difficult for buses to maintain their speeds and reliably keep to their schedules. Traffic signal timing and railroad crossings both impact the transit system. Bus pullouts along high-volume roads were also cited by Victoria Transit as helpful to speed boarding times and to ease merging the buses back into the traffic stream.

Sidewalk System

The sidewalk system has a greater proportional impact on the transit system than on the road system. The lack of sidewalks in some locations and issues of compliance with the Americans with Disabilities Act (ADA) increase bus boarding times and thus impact the ability to keep to schedule. Improved crosswalks throughout the City are perceived as a need, both from an operations and safety stance. Several locations with mid-block bus stops on both sides of the street were cited as places with high frequencies of jaywalking, with the resulting safety issues.

Additional Services

Additional transit route coverage to reach rural employment areas, such as Caterpillar, the Victoria Regional Airport, the Port of Victoria, Invista, and Aloe Field, extended service hours, improved headways, and improved amenities would improve the transit system in the future.

GCRPC 2015 Project List

Projects are grouped by category rather than called out for specific locations, and include cost allocations for standard daily operations. The GCRPC projects are shown in **Table 6.5**, with the project costs for FY 2015 shown to illustrate the relative magnitude of each project category.

Table 6.5: GCRPC Urban Transit System Projects for FY 2015

Project Description	Cost
Operating assistance	$ 1,740,190
Capital bus replacements	$ 196,800
Other capital items	$ 154,310
Bus stations: route signage and	$ 32,000
Bus stations: transfer stations / operations center and vehicle yard	$ 24,369
Safety & security	$ 15,431
Preventative maintenance	$ 342,022

Bicycle and Pedestrian

Planning for bicycle and pedestrian systems has a broader context reach than planning for most other modes of transportation because they are used for both recreation and basic transportation. An analysis of the existing conditions and potential planning tools provides a comprehensive picture of the bicycle and pedestrian system in Victoria.

Existing Conditions

Existing Facilities

The State of Texas legally recognizes bicycles as vehicles, meaning they can use the roadway system like any other vehicle and must acknowledge the same rules of the road. Even though cyclists can legally travel on any roadway, with the exception of controlled access highways, some roadways are more bicycle friendly than others. Local and collector streets that have lower speeds are suitable for most bicyclists, and arterial roadways with higher traffic volumes and higher speeds are typically safer for more experienced bicyclists. Rural arterials are commonly used by experienced and sport bicyclists seeking long-distance travel.

Pedestrian facilities in Victoria primarily include sidewalks and the Lone Tree hike and bike trail. While all new development within the City of Victoria requires the construction of sidewalks, previous development regulations did not have this requirement, leading to gaps in the pedestrian system. The Lone Tree hike and bike trail is a two-mile paved path used for recreation and for access to East High School and nearby neighborhoods.

Relevant Agencies

The bicycle and pedestrian system has a broad audience among local, state, and non-municipal agencies and the general public. The City of Victoria Parks & Recreation, Development Services, and Public Works Departments all play a role in developing and maintaining the bicycle and pedestrian system. Non-municipal agencies, like the Golden Crescent Regional Planning Commission (GCRPC) and local school districts, are also stakeholders in planning for bicycle and pedestrian systems, particularly in the linkages that provide access to transit routes and school campuses. Lastly, public opinion captured in the *Voice of Victoria* surveys strongly supported the completion of the sidewalk network and establishing bike lanes throughout the City of Victoria.

Complementing this public response, an editorial in the Victoria Advocate dated January 3, 2015 was published shortly after the death of a pedestrian struck by a car in the crosswalk of the Lone Tree Creek trail at Ben Jordan. The paper's position is that a livable city should be accessible, pedestrian-friendly and beautiful. Their opinion is that city plans should specifically consider bicyclists' and pedestrians' needs. They specifically mentioned the need to connect the Lone Tree Creek trail to Riverside Park, downtown Victoria, and the Victoria College-University of Houston-Victoria campus.

Current Plans

The Paseo de Victoria plan was developed to carry out the recommendations of the Victoria 2025 Comprehensive Plan and the 2025 Parks Master Plan, to define trail options and locations, and to promote a "palette of non-motorized facilities – on-street bike routes, sidewalks, multi-use and hiking trails – in the citywide system." While the overall goal of the plan focuses on recreational uses, it does recognize a network of trails as providing a viable alternative transportation system. The existing and proposed trails of all types recommended in the Paseo de Victoria plan are shown in **Figure 6.12** on the following page.

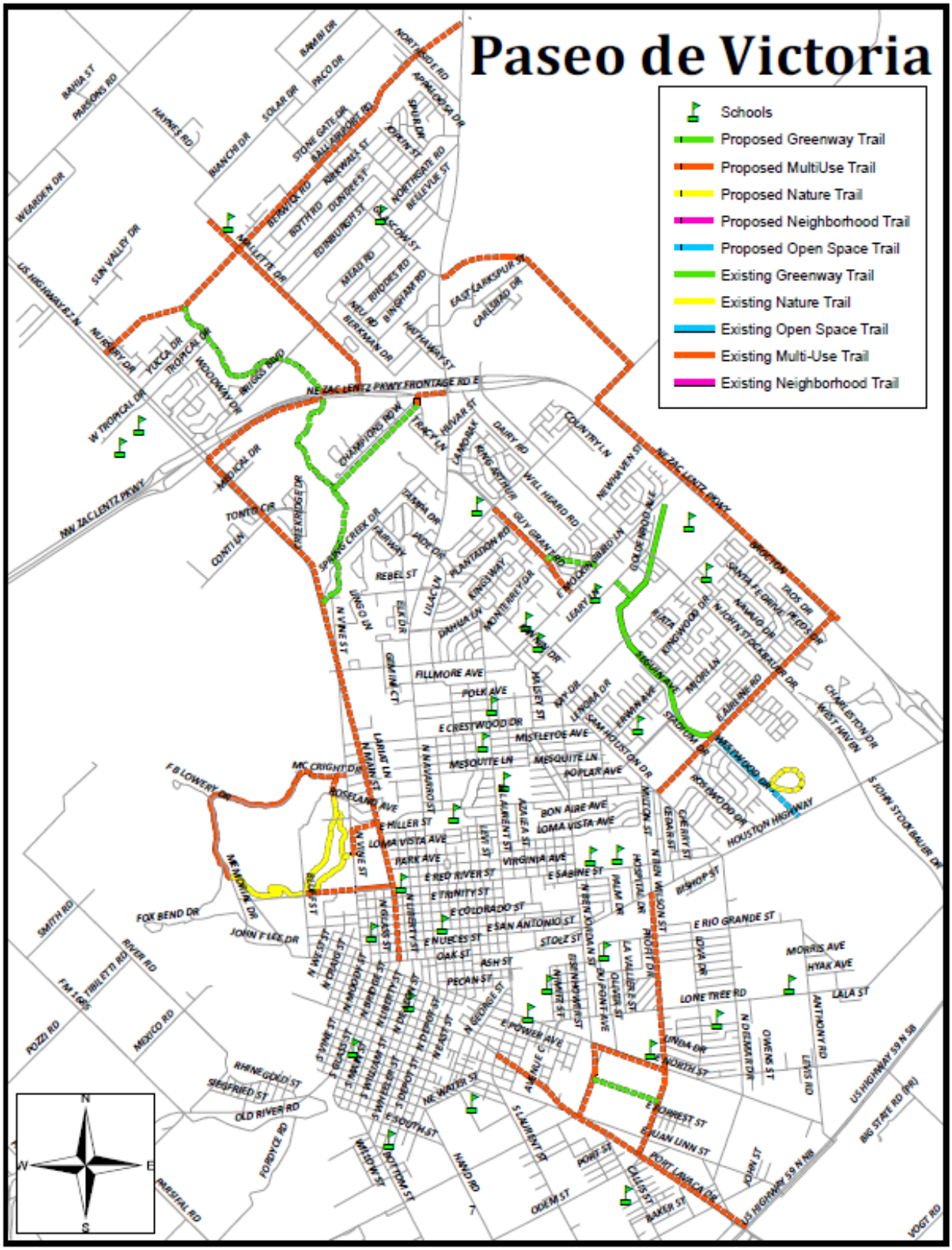
The 2025 Parks Master Plan lists a city-wide network of trails as its fourth goal. Objectives under that goal include incorporating bike lanes in future thoroughfare construction projects, identifying trail sites along streams and outfalls and in other places with sufficient right-of-way, and to use trails to link parks, schools, and neighborhoods. A survey which was conducted as part of the plan asked respondents to rank 29 different facilities. Three different trail types ranked as the 5th, 7th, and 9th priorities. If the three types were aggregated together, trails would be the highest ranked response.

The 2025 Victoria Comprehensive Plan highlighted the City's ongoing efforts to improve its sidewalk system and recognized the tremendous potential for providing greenbelts and trails along drainage ways. The Lone Tree Creek Channel Improvement Project, which has been described as "wildly successful" in providing a trail with a public works project, is the prime example of this potential in Victoria. The plan also cites the need to coordinate future street and bridge designs to accommodate bicycle and pedestrian travel without adding unnecessary barriers or obstacles.

Figure 6.11: Concept Project of Downtown Victoria from the Comprehensive Plan

The comprehensive plan also references a 2004 downtown study that generated ideas for downtown improvement projects, one of which is illustrated in **Figure 6.11**. It found that the downtown has a pleasing scale and texture, but it cannot be considered pedestrian-friendly because of its lack of amenities.

Figure 6.12: Current and Proposed Trails from the Paseo De Victoria Plan



Potential Planning Tools

A full-featured and balanced transportation system has a mix of different types of facilities for bicyclists and pedestrians, both on-road and off-road. The following planning tools are potential ideas to improve the pedestrian and bicycle system in Victoria.

Shared Road

The most common approach to accommodate bicycles in the transportation network is simply to share the road. This is required by law, as bicycles have the legal status of vehicles and are entitled to use the road in all cases where they are not specifically prohibited for safety issues. Since existing roads often are the most direct paths to desired destinations, they are frequently the first choice of paths for the more advanced riders.

Figure 6.13: Example of Sharrow Road Marking

Shared roads can be marked with "sharrows" to alert drivers to the presence of bicyclists. **Figure 6.13** shows a pavement marking typically used in shared roads. The optimum width of this lane is often cited as 15 feet, which allows room for bicyclists to maneuver and avoid parked cars and other obstacles. Lanes which are wider than 15 feet are not recommended, as motorists tend to double up in the lane and cause safety issues to bicyclists and to other motorists.

A shared road that is heavily used by bicyclists may be signed as a "Bicycle Route", while still being a shared road system with no discrete bike lanes. The Manual of Uniform Traffic Control Devices (MUTCD) describes standard Bicycle Route signage.

Bike Lanes

Bike lanes provide striping on roadways to establish an area exclusively for the use of bikes. An example of roadway striping can be seen in **Figure 6.14**. A designated bike lane makes drivers more aware of the rights of bicycles to the road, which increases the safety for bicyclists and also for pedestrians walking on the sidewalk adjacent to the street. Studies in New York City have shown that a striped bike lane is typically 40% safer for pedestrians using the adjacent sidewalks.

Guidelines for bike lanes call for a minimum width of 4 feet on city streets and 5 feet on TxDOT roads. Bike lanes may be considered along roads that have adequate right-of-way, including roads that are candidates for a "road diet" to convert existing travel lanes to bike lanes, medians, wider sidewalks, on-street parking, or landscaping. Bike lanes may not be established on limited-access highways.

Figure 6.14: Examples of Bike Line Roadway Markings

Multi-Use Trails

Multi-use trails are separated from traffic, either running alongside the road like a sidewalk or completely separated from a road except for crossings. They are wider than sidewalks, and can include amenities like benches and landscaping. Multi-use trails are designed to provide space for pedestrians, bicyclists, and skaters, which each travel at different speeds and have different needs.

The isolation of multi-use trails from the road is designed to improve safety. However, motorists have had issues being aware of bicyclists and pedestrians at crossings. Even with the advanced crosswalk markings and warning systems employed in the Lone Tree hike and bike trail, crashes and fatalities have occurred due to inattentive drivers. **Figure 6.15** shows a view of the well-marked crosswalk of the Lone Tree Creek trail at Ben Jordan, which includes warning lights.

Figure 6.15: Lone Tree Creek Trail Crossing at Ben Jordan

Complete Streets

Complete streets are designed to allow safe transportation for all modes of transportation, including pedestrians, bicyclists, motorists, and transit users. A complete street may include sidewalks, bike lanes, special transit lanes or stops, frequent and safe pedestrian crossing opportunities, pedestrian signals, narrower lanes, or roundabouts. An example of a complete street is shown in **Figure 6.16.**

Figure 6.16: Complete Street Example, Charlotte, NC

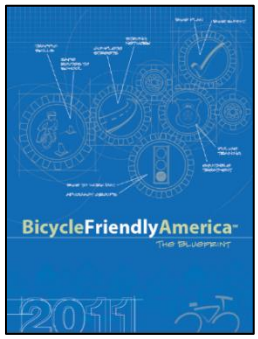
Source: Smart Growth America

Victoria Representative Geannie Morrison co-sponsored House Bill 1102 in the 2013 legislative session, which would have required TxDOT to consider the concept of Complete Streets and the best practices for Context Sensitive Solutions in developing future roadway projects. TxDOT itself recognizes the need, and in its Project Development Process Manual recognizes the "Complete Streets" concept and cites Context Sensitive Solutions design processes and criteria for street systems.

A complete street policy is a way for communities to establish standards to promote this strategy in street development. Over 70 communities in the United States passed complete street policies in 2014 and over 700 local, regional, and state level jurisdictions have enacted complete streets policies.

Performance Measures

The League of American Bicyclists has developed a program called "Bicycle Friendly Community" that has standards, a process for evaluation, performance measures, and a certification program. The certification process is based on 18 quantifiable performance measures for five certification levels, making this program more advanced than the requirements of MAP-21.



The "Bicycle Friendly Community" certification program is intended to help communities develop a bicycle-friendly culture and the supporting physical environment. The program has been employed throughout the country, with 158 cities currently certified as Bicycle-Friendly Communities. In Texas, the cities of Arlington, Austin, El Paso, Hollywood Park, Plano, and San Antonio have been certified at some level or have received Honorable Mention status.

The Bicycle Friendly Community program establishes "5 E's" to promote their concept:

- **Engineering**: to include "Complete Streets" concepts in building and designing streets;
- **Education**: to educate bicyclists in traffic skills and planners and engineers who develop the roadway system;
- **Encouragement**: to create a positive and helpful attitude towards bicycling, develop advocacies, and create a wayfinding system to make bicycling more pleasant and efficient;
- **Enforcement**: to target how safety issues are approached. This may include issuing tickets to bicyclists who break traffic laws and offering defensive driving classes to promote traffic skills;
- **Evaluation**: to develop a bicycle master plan and advisory committee, and administer data collection.

Forecast Conditions & Deficiency Analysis

At present, there are several recreational trails within parks, but there are no marked bicycle routes or bike lanes within Victoria County. Public comments from the *Voice of Victoria* surveys, public opinion expressed in *Victoria Advocate* newspaper articles, and institutional support shown in numerous city plans all point to the desire for support for the bicycle and pedestrian systems in Victoria.

Project Generation

Goals and projects for bicycles and pedestrians are mentioned in the Paseo de Victoria bicycle and pedestrian plan, the 2025 Comprehensive Plan, and the Victoria 2025 Parks Master Plan.

Paseo de Victoria Bicycle and Pedestrian Plan

As previously illustrated, this plan describes potential types of trails and their locations.

2025 Comprehensive Plan

The Comprehensive Plan highlighted continuing efforts to improve the City's sidewalk system. It also references the need for alternative modes of transportation, including bicycle and pedestrian systems, and specifically recommends additional hike and bike trails. Lastly, the plan recommends the development of a corridor enhancement plan to address improvement to aesthetic features of major corridors leading into Victoria.

2025 Parks Master Plan

This plan includes a ranked list of recommended projects, of which trails are prominently mentioned. A total of 10 trail related projects were mentioned out of a total of 30 projects; these projects are listed in **Table 6.6**.

Table 6.6: Trail Projects from the Parks Master Plan

Rank	Project	Year	Cost
2	Develop Fox's Bend into trail	2012	$ 80,000
3	Rebuild Red River St from Vine to Riverside Park	2012	$1,700,000
4	Develop mountain bike route in Riverside Park	2012	$ 10,000
7	Renovate trail at Reed Park	2013	$ 135,000
10	Develop Grover's Bend into multi-use trail	2014	$ 90,000
11	Develop trail along the Jim Branch Outfall	2014	$ 400,000
15	Develop nature trail at Lone Tree Creek Park	2016	$ 200,000
18	Develop trail along US 87 connecting to North Outfall trail	2017	$1,000,000
23	Develop trail along North Outfall	2020	$1,225,000
28	Develop trail along West Outfall	2023	$ 600,000

Streetscape Guidelines

The City of Waco developed Master Thoroughfare Plan Roadway Design Guidelines that define four land use densities and details types of streetscape amenities and beautification projects to be considered. An example is shown in **Table 6.7**. A tool similar to this can help guide the appropriate and desired features along roadways in Victoria.

Table 6.7: Streetscape Elements by Land Use Densities

Element	City Center	Urban	Suburban	Rural
Completing sidewalk network	Desirable	Desirable	Appropriate	May be Appropriate
Sidewalks on both sides of the street	Desirable	Desirable	Desirable	May be Appropriate
Sidewalks wider than 6'	Desirable	Appropriate	May be Appropriate	Not Appropriate
Sidewalks set back from edge of pavement	Desirable	Desirable	Desirable	Desirable
Pedestrian signals	Desirable	Desirable	Desirable	Appropriate
Countdown pedestrian signals	Desirable	Desirable	Appropriate	May be Appropriate
Median refuge areas	Appropriate	Appropriate	Appropriate	Not Appropriate
Reduced corner radius	Desirable	Appropriate	May be Appropriate	Not Appropriate
Curb extensions	May be Appropriate	May be Appropriate	Not Appropriate	Not Appropriate
Right-turn channelized islands	Not Appropriate	Not Appropriate	May be Appropriate	May be Appropriate
Mid-block crossings	May be Appropriate	May be Appropriate	Appropriate	May be Appropriate
Mid-block pedestrian signals	May be Appropriate	May be Appropriate	Not Appropriate	Not Appropriate
Illuminated pedestrian crossings	May be Appropriate	May be Appropriate	Not Appropriate	Not Appropriate
Bicycle lanes	Desirable	Desirable	Appropriate	May be Appropriate
Paved shoulders	Not Appropriate	Not Appropriate	May be Appropriate	Desirable
Expanded shared lanes	May be Appropriate	May be Appropriate	May be Appropriate	May be Appropriate
Signed bicycle routes	Appropriate	Appropriate	Appropriate	May be Appropriate
Independent shared use path	Not Appropriate	May be Appropriate	Appropriate	Appropriate
Bicycle parking	Desirable	Desirable	May be Appropriate	May be Appropriate

Freight Rail

Existing Conditions

Freight rail operations play a significant role within Victoria. Not only is it an economic driver that supports heavy industry in the region, it plays a part in the national and international rail network. **Figure 6.17** illustrates the regional rail routes surrounding Victoria.

Victoria is served primarily by two railroads: Union Pacific (UP) and Kansas City Southern (KCS). The UP owns most of the trackage in Victoria County, but has granted "trackage rights" to other railroads. KCS is the second major railroad in the region; it owns and indirectly operates Kansas City Southern de México (KCSM) in the central and northeastern states of México, making Victoria a direct link between Mexican and North American markets. In 2009, KCS completed the restoration of 85 miles of an old Southern Pacific Railroad line between Victoria and Rosenberg in a project which illustrates Victoria's important position as a link between international markets. **Figure 6.18** shows the rail network within Victoria County.

Figure 6.17: Regional Rail Routes

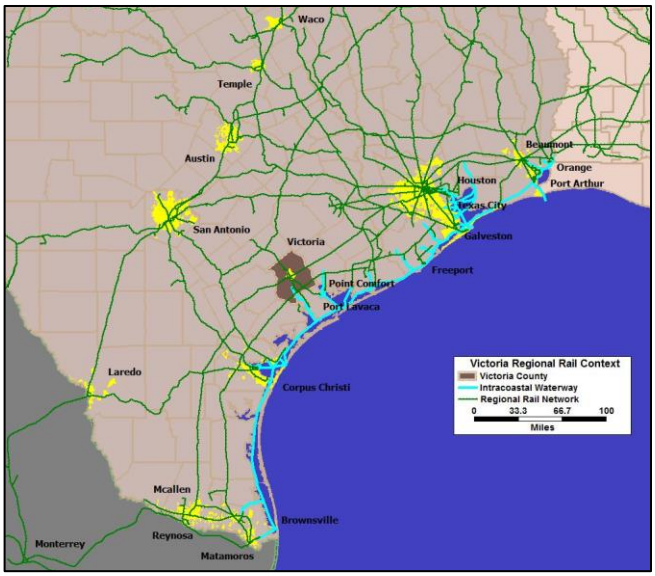
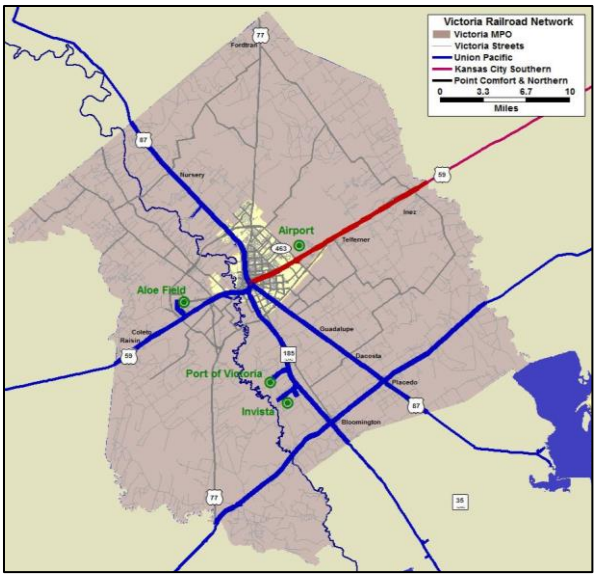


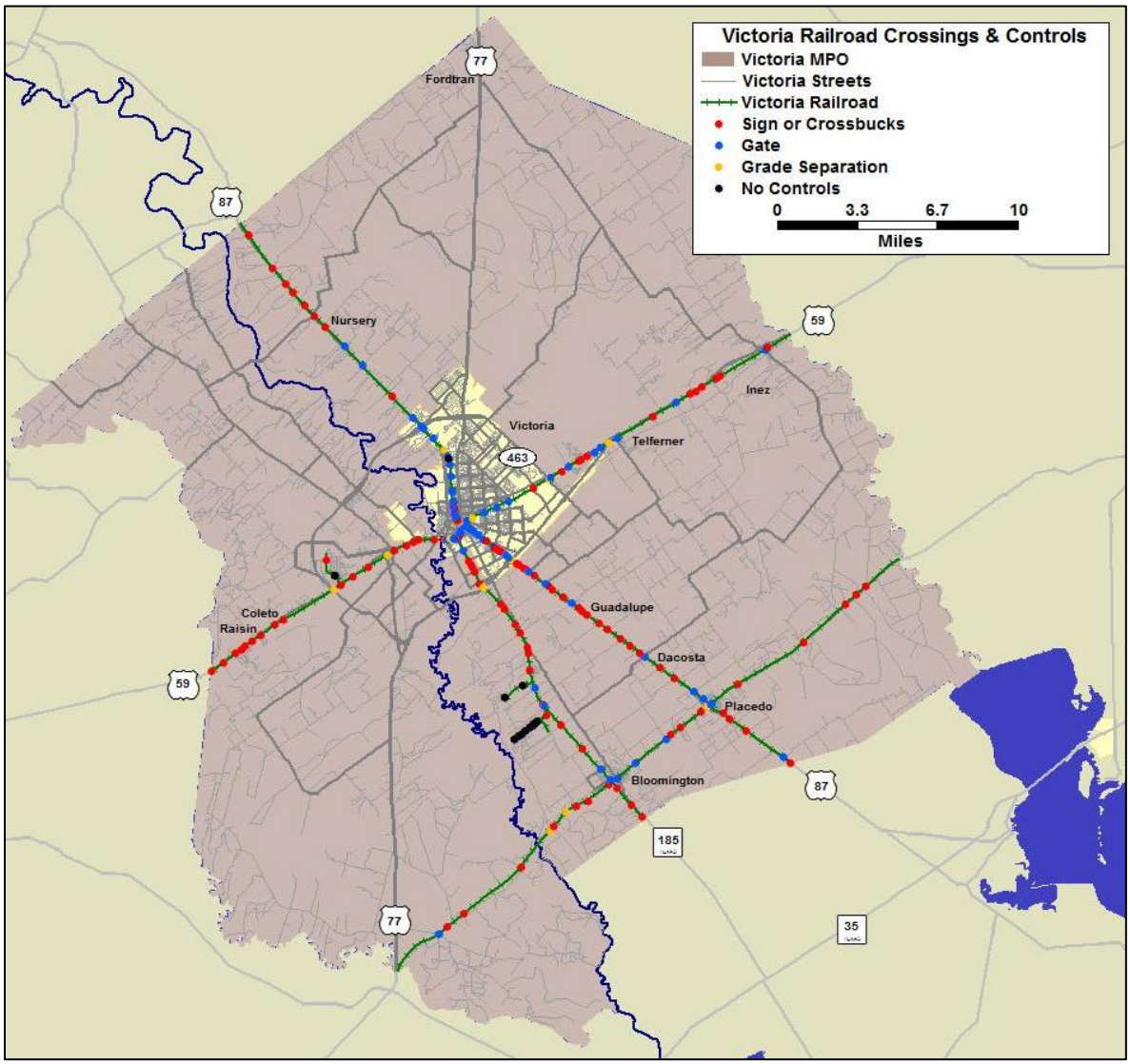
Figure 6.18: Railroads in Victoria County



Railroad Crossings

Crossings not only impact operations on both the railroad and roadway networks, they also create safety and noise issues. There are a total of 203 railroad crossings in Victoria County, including 16 grade-separated and 187 at-grade, as shown in **Figure 6.19.** Crossings that do not have gates are particular safety issues. With one exception, all at-grade crossings on streets with a functional classification of minor arterial or higher have gates; similarly, all roads with a US, SH, or FM designation use gates, with the exception of one. Furthermore, safety is a larger issue at crossings that cross more than one track, which includes 10 locations in Victoria.

Figure 6.19: Railroad Crossings and Controls



Quiet Zones

The Federal Railroad Administration requires trains to sound their horns at all public at-grade crossings. Provided certain safety provisions are in place, a Quiet Zone may be established to curtail some train noise. One quiet zone is currently in place at the crossings at Ben Wilson Street and Delmar Drive, and the John Stockbauer Drive crossing will be in place soon.

Performance Measures

Analyzing railroad crossings should be the primary performance measure for the railroad. A geographic file was developed for the development of this plan and includes valuable data that can be built on for future performance measures. It allows for analysis between railroad features and other roadway features such as traffic volume. The platform also allows for the addition of new fields as data becomes available. Potential data fields that will aid in the analysis of railroad crossings and their data sources are summarized in **Table 6.8**.

Table 6.8: Potential Data for Rail Performance Measures

Data Field	Data Source
Crossing street name	MPO
Number of lanes on the crossing street	MPO
Rail line operator	MPO
Description of all the controls at the crossing	MPO
Miscellaneous notes on the crossing	MPO
Traffic Volumes	TxDOT, MPO
Average number of trains per day	TxDOT
Flag if crossing is on a transit route	Victoria Transit
Flag if crossing is on a school bus route	VISD
Flag if crossing is on designated bicycle route	COV
Flag if crossing is on designated hazardous materials route	LEPC
Flag if crossing is in a Quiet Zone	COV

A variety of organizations, including TxDOT, Victoria Transit, Victoria Independent School District (VISD), the City of Victoria (COV), and the Local Emergency Planning Committee (LEPC) will be valuable resources. With this data, every railroad crossing can be evaluated to maintain safety.

Potential Projects

The Texas Rail Plan published by the Texas Department of Transportation (TxDOT) in November 2010 provides an analysis of current and forecast rail capacities, deficiencies, and potential projects. The plan studies freight rail conditions in defined districts covering the entire state.

For the combined Corpus Christi – Victoria district, the analysis found that there is no need for freight rail capacity expansion to meet current needs in Victoria, but anticipated growth suggests future capacity projects are needed to mitigate potential bottlenecks. Additionally, the Texas Rail Plan reviewed and evaluated at-grade crossings and two improvements were recommended in Victoria. **Table 6.9** summarizes the four projects suggested in this TxDOT plan.

Table 6.9: TxDOT Texas Rail Plan Suggested Projects for Victoria County

Type	Location	Description	Cost
Added Capacity	Bloomington to Industrial spur	Add second track	$ 6,250,000
Added Capacity	Bloomington to Placedo	Add second track	$16,520,000
Crossing	Business US 59 / E Rio Grande St.	Grade seperation	$ 7,200,000
Crossing	US 77 / Zac Lentz Pkwy. westbound frontage road near US 87	Suggests additional analysis and closure as an option	-

Quiet Zone Projects

Additional projects to aid in establishing additional Quiet Zones may also be considered, particularly where the rail line passes through residential areas. Where a standard Quiet Zone may not be possible, the FRA regulations provide for Partial Quiet Zones, which are quiet only for particular times, such as at night. This can be implemented by completely closing specific street crossings at night and installing Supplementary Safety Measures (SSMs) only on those crossings which need to stay open.

FRA regulations also allow for wayside horns, which are mounted at the intersection rather than on the train. This strategy allows the horn to be pointed down the street rather than broadcast throughout the neighborhood. Since FRA regulations stipulate that the train horn be sounded ¼ mile before the intersection, the alternative wayside horn aimed down the street dramatically reduces the area which is disturbed by the noise.

Rural Rail Transportation Districts

Rural Rail Transportation Districts (RRTD) may be a valuable partner in planning the multimodal transportation network in Victoria County. They have the power of eminent domain and the authority to issue bonds to finance plans to acquire lines that have been abandoned, rehabilitate existing lines, or construct new lines. They can also develop new rail lines to serve facilities such as industrial parks, ports and intermodal terminals. RRTDs can be established in one or more counties, and a county can simultaneously be a member of multiple RRTDs. The application process is routed through the TxDOT Rail Division.

Port of Victoria

The Port of Victoria is connected to both the Gulf of Mexico and world markets through the Gulf Intracoastal Waterway (GIWW). TxDOT views the GIWW as part of the entire transportation system in Texas and a means to manage congestion and reduce truck traffic on roadways. Consequently, freight activity at the Port is an important issue for roadway planning.

Recent trends due to Eagle Ford shale oil and gas production have a large impact on freight movement. Products from Eagle Ford are estimated to reach over 2 million barrels per day in 2020 and may still produce over 1 million barrels per day in 2040. The increase in crude oil transported by barge could result in the need to transport an additional 1.2 million tons or 445 barges annually on the GIWW by 2022. **Figure 6.20** shows the dramatic rise in oil and gas exports in recent years.

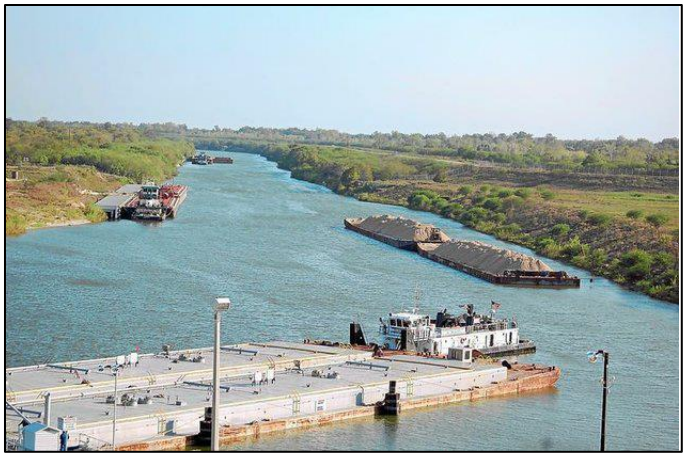
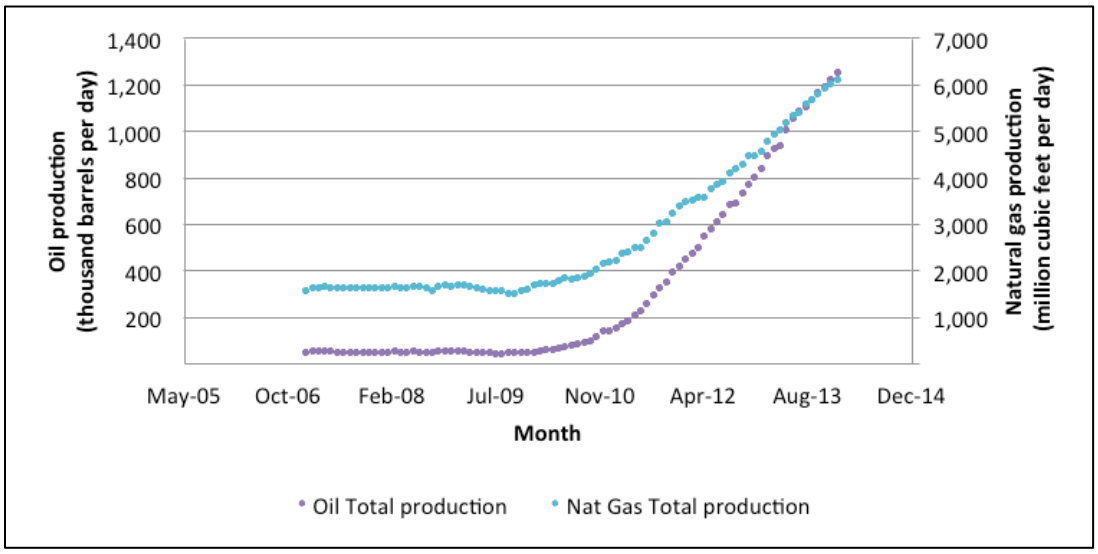


Figure 6.20: Trends of Oil & Gas Production in Texas

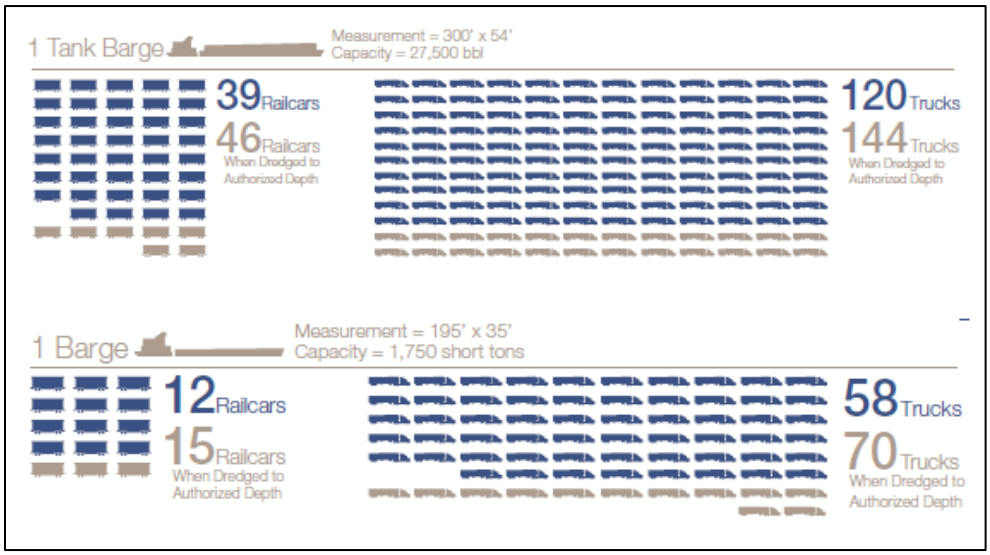


Source: TxDOT Master Plan for the Gulf Intracoastal Waterway in Texas

This remarkable increase in current and projected freight can have dramatic impacts on the road network. If this freight were moved by truck, the roadway system would be burdened with increased heavy truck traffic, accelerated roadway wear, and intensified safety issues. Diverting some of the new freight volume to barges on the GIWW is an obvious benefit for the roadway system.

The inherent efficiency of the barge mode over the truck mode is a further benefit of this strategy. The cargo carrying capacities of standard barges and tank barges are markedly greater than trucks. As seen in **Figure 6.21**, it would take 58 trucks to carry the same amount of general cargo freight as is carried by a single barge.

Figure 6.21: Infrastructure Efficiencies by Freight Mode



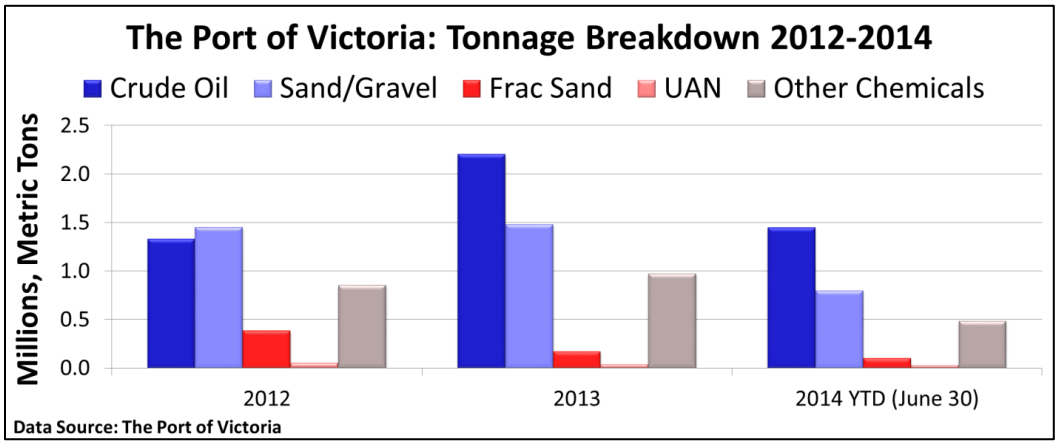
Existing Conditions

The Port of Victoria lies 35 miles from the GIWW. Major cargoes include crude oil, other liquid and dry bulk, and general cargoes. The port and its associated business park are served by a Union Pacific railroad spur, with track agreements with KCS/Tex-Mex, Canadian National Railway, and BNSF.

The Eagle Ford shale has impacted the Port of Victoria, as it is one of the closest ports to the activity. Specifically, the amount of petroleum cargo has tripled since 2010. Eagle Ford shale products were approximately 54% of the total bulk cargo tonnage at the Port of Victoria in the six month period between January and June in 2014. Oil is currently trucked to the port from the Eagle Ford field about 30 miles south of Victoria, and major destinations from Victoria include refineries in Houston and Corpus Christi. Liquid handling docks at the Port of Victoria are currently operating at capacity, with cargoes from the Eagle Ford shale projected to continue their dramatic increases.

Figure 6.22 illustrates the predominance of oil-related cargo at the port. Crude oil shipments grew from about 1.4 million tons in 2012 to about 2.2 million tons in 2013, and are on track to total to 3 million tons for 2014.

Figure 6.22: Components of Freight Moved at the Port of Victoria



Recent expansion at the Port is aimed to address the capacity issues with handling liquid and bulk cargoes. A new multi-purpose dock for continued expansion of liquid cargo shipping and a new pipeline were recently completed. Furthermore, a general purpose and container dock is currently under construction. One of the general capacity issues faced by GIWW shippers is the need for "fleeting areas," or space to park empty barges between loads. The Port of Victoria constructed a new fleeting area with a holding capacity of 50 barges.

The industrial park at the Port of Victoria is a designated Foreign Trade Zone and a Texas Enterprise Zone. It contains about 1,800 acres of property available for development. **Figure 6.23** shows the layout of the port and the industrial park. While the port and industrial park property are served by rail lines and pipelines, increases in activity can be expected to also increase the truck traffic to the area.

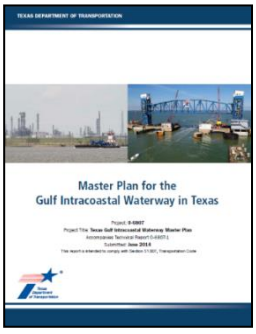
Figure 6.23: Port of Victoria and Industrial Park

A Memorandum of Understanding (MOU) was signed by the Port of Victoria and the Port of Houston to increase the use of container-on-barge traffic on the GIWW, providing an alternative to trucks. Increasing the number of containers transported on barges can improve traffic congestion, wear on the roadway, and air quality. This agreement may enhance the role of the Port of Victoria as a midpoint freight transfer station.

Forecast Conditions & Deficiency Analysis

Water transportation planning in Texas is guided by two TxDOT documents that review forecast conditions facing water-borne freight and defines deficiencies and proposes projects.

The Texas Ports Capital Program is a planning process designed to develop and select port projects for funding under the state Port Access Account Fund (PAAF). The PAAF was established by the Texas legislature to fund expansions and upgrades for Texas public port facilities. While the planning side of the program is active, the account itself has not been funded. However, the planning process is useful in that it defines capacity and operational issues and then develops potential projects to address the deficiencies.



State planning for the GIWW is guided by the Master Plan for the Gulf Intracoastal Waterway in Texas. Similar to the Texas Ports Capital Program, this plan focuses on the GIWW to analyze existing and forecast conditions, define system deficiencies and needs, and develop potential projects for funding. Key deficiency issues identified by the Master Plan include the need to modernize the Brazos River floodgates downstream from Freeport, which lies between the Port of Victoria and the Port of Houston, and the need for barge fleeting areas.

Performance Measures

Performance measures for the Port of Victoria should relate to its relationship to the total transportation system, following the TxDOT transportation systems approach to focus on how the water mode can divert freight from trucks to barges to relieve the roadway system. Potential performance measures for the port are listed in **Table 6.10**, with the freight volumes on the barge mode converted into Trailer Equivalent Units (TEU) to show the number of trucks removed from the road system.

Table 6.10: Potential Port Performance Measures

Data Field	Data Source
Pipeline volume	Port of Victoria
Barge volume	Port of Victoria
Container-on-barge	Port of Victoria
Overweight permits	Port of Victoria, TxDOT

Project Generation

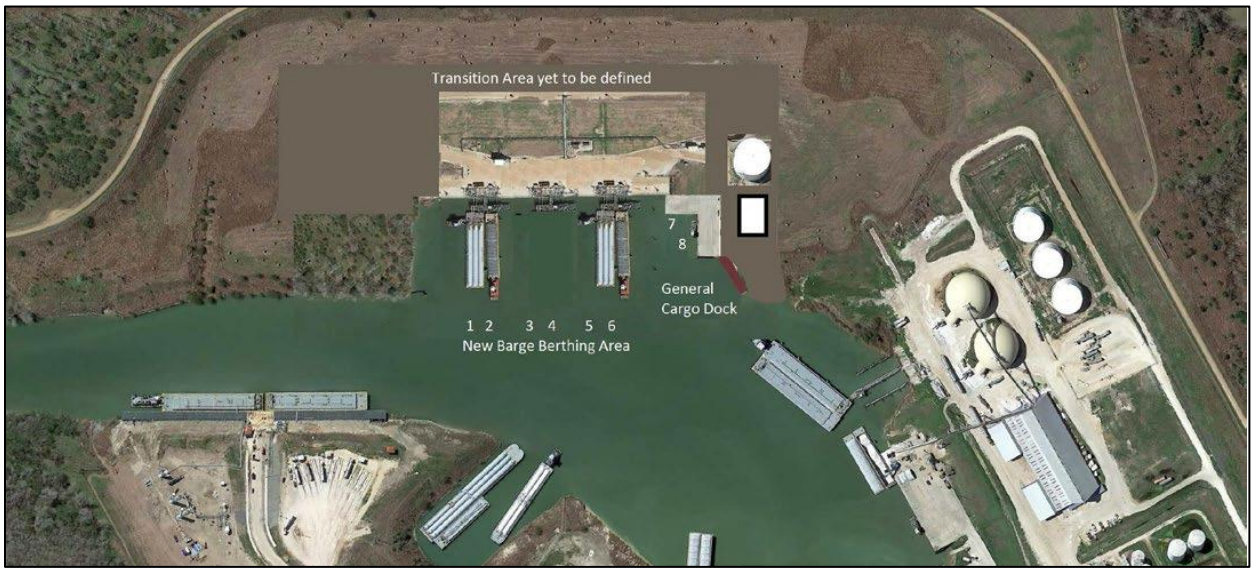
Dock No. 4

The Texas Ports Capital Program report for the 2015-2016 biennium identified a Victoria project to address the current and forecast capacity issues at the port. The proposed project will construct Dock No. 4, a multipurpose dock, with liquid loading and general cargo capabilities and room to dock eight barges. The proposed new dock would be located in the western portion of the turning basin, as shown in **Figure 6.24**. The additional facilities at the proposed dock will allow for direct barge-to-rail and rail-to-barge transfers and truck access to both modes. Total project cost is estimated at $7.5 million.

The need for this project is well established as existing facilities are operating at capacity. Several oil production and transport firms have already stated their intentions to use the new barge docks and facilities. The project has been put forward in the Texas Ports Capital Program report as a viable candidate for Port Access Account Fund (PAAF) funding. Without PAAF funding, it is unlikely that this project will be implemented in the near-term.

When completed, the new Dock No. 4 project is estimated to provide sufficient new capacity to meet the needs of the port in the near- to mid-term. Long-term capacity is forecast to remain an issue at the dock.

Figure 6.24: Proposed Dock No. 4 Location



SH 185 and FM 1432

The construction of an overpass at SH 185 and FM 1432 was studied by the MPO Policy Advisory Committee in 2012 and was identified in the 2035 MTP. This intersection is the entrance to the Port of Victoria and recent Port activities has increased traffic at this location. The project addresses safety issues caused by high volumes of truck traffic, high speed traffic on SH 185, and poor sight distance for drivers. It has been placed in the list of unfunded projects in this 2040 MTP. Although this project has been considered a high priority, a funding source has not been identified.

Texas Ports Capital Program Projects

To address the anticipated long-term needs at the port, the Texas Ports Capital Program proposed the additional projects listed in **Table 6.11** for the Port of Victoria. The funding source for the $41 million cost of these projects was not identified.

Table 6.11: Port of Victoria Long-Term Projects in the Texas Ports Capital Program

Project Description	Project Cost
Enlarge staging area	$ 6,500,000
Liquid cargo dock additions	$ 3,500,000
Inner harbor erosion control	$ 1,500,000
Rail line extension	$ 5,500,000
Road improvements	$ 6,000,000
Construct container dock	$ 12,550,000
RORO facility	$ 5,500,000

Freight Truck

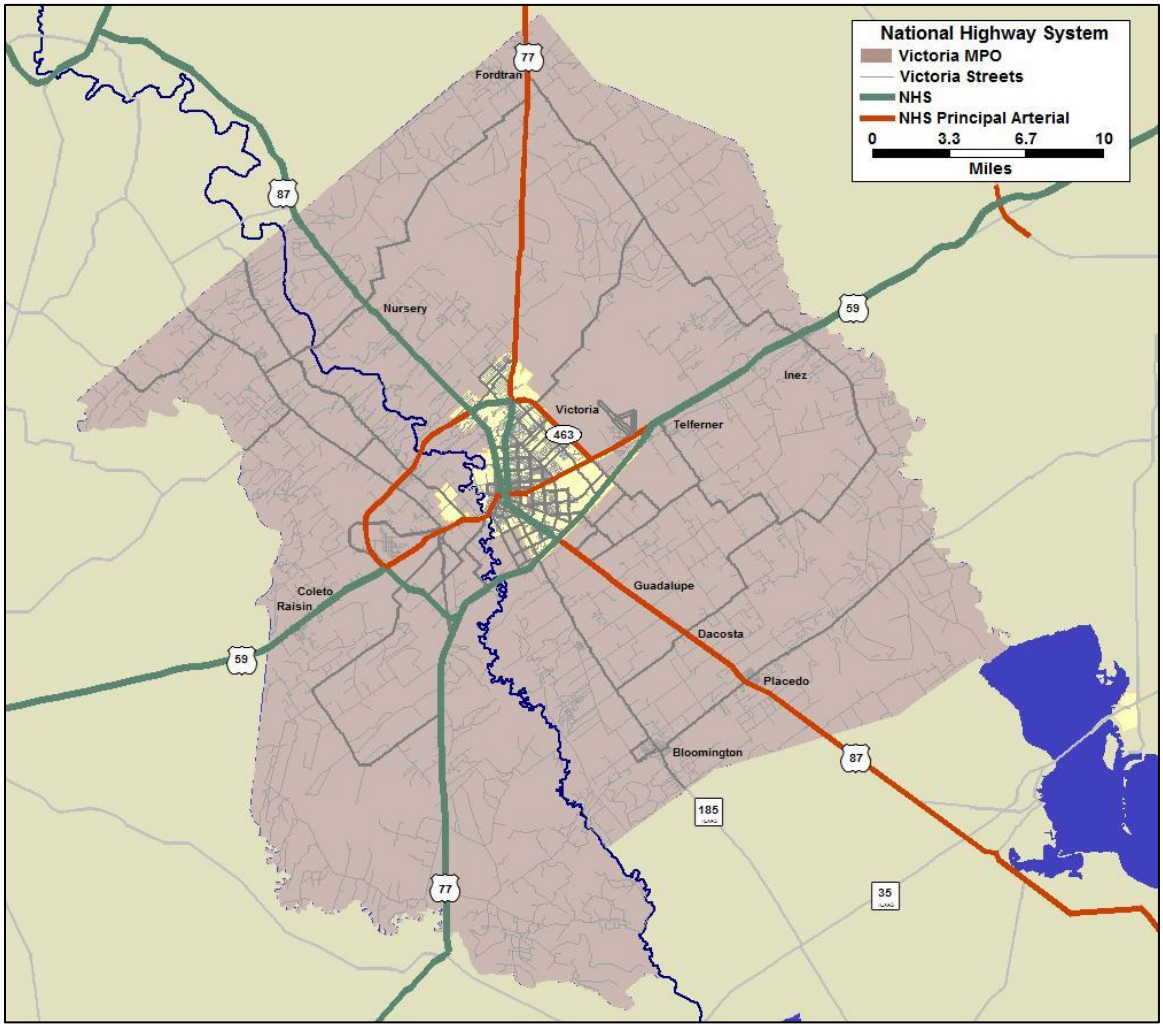
Existing Conditions

Defined Truck Networks

Three distinct truck networks have been defined and implemented in Victoria County: the National Highway System, the National Freight Network, and the Texas Trunk System. In addition, specific hazardous materials routes within the urban area of Victoria have been defined to guide trucks away from population areas. These routes are designated in part for physical reasons, such as a sufficient road surface, pavement wear standards, and bridges that have adequate overhead, side-to side clearance, and load capacity. They are also designed to help isolate truck traffic from automobile traffic to promote safety.

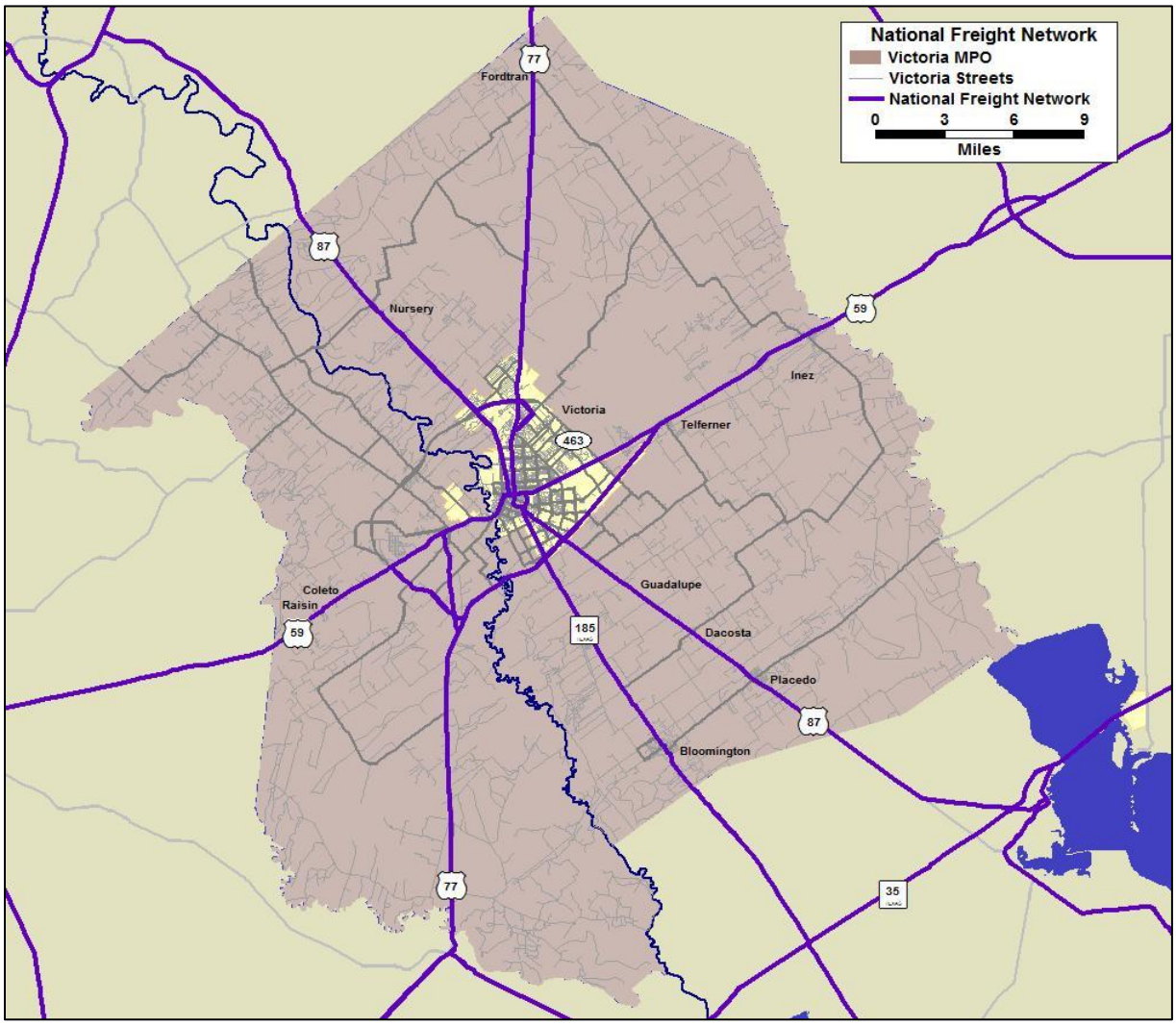
Figure 6.25 shows the National Highway System (NHS) in Victoria County. The NHS is a planning network which is defined at the Federal level to guide investment in nationally significant infrastructure.

Figure 6.25: National Highway System



The National Freight Network, shown in **Figure 6.26**, is a similar federally-defined planning network that specifically designated routes for heavier truck usage. The NHS focuses on passenger traffic as well as freight traffic and includes the full extent of Zac Lentz Parkway, whereas the National Freight Network only includes a small portion on the north side and the US 59 and US 77 portion in the south. The National Freight Network also includes SH 185, which provides access to the Port of Victoria.

Figure 6.26: National Freight Network



The Texas Trunk System, shown in **Figure 6.27**, is a state initiative to connect population centers with four-lane, high speed roadways. Priority corridors in the Texas Trunk System have been defined as Phase I, with secondary corridors designated as "Other Trunk Highways." The system is defined for the roads connecting, but not within, population centers, so the system is not continuous within Victoria. In particular, portions of the US 59 / proposed I-69 corridor and of Zac Lentz Parkway, which appear in the other planning networks, have not been included in the Texas Trunk System.

Figure 6.27: Texas Trunk System

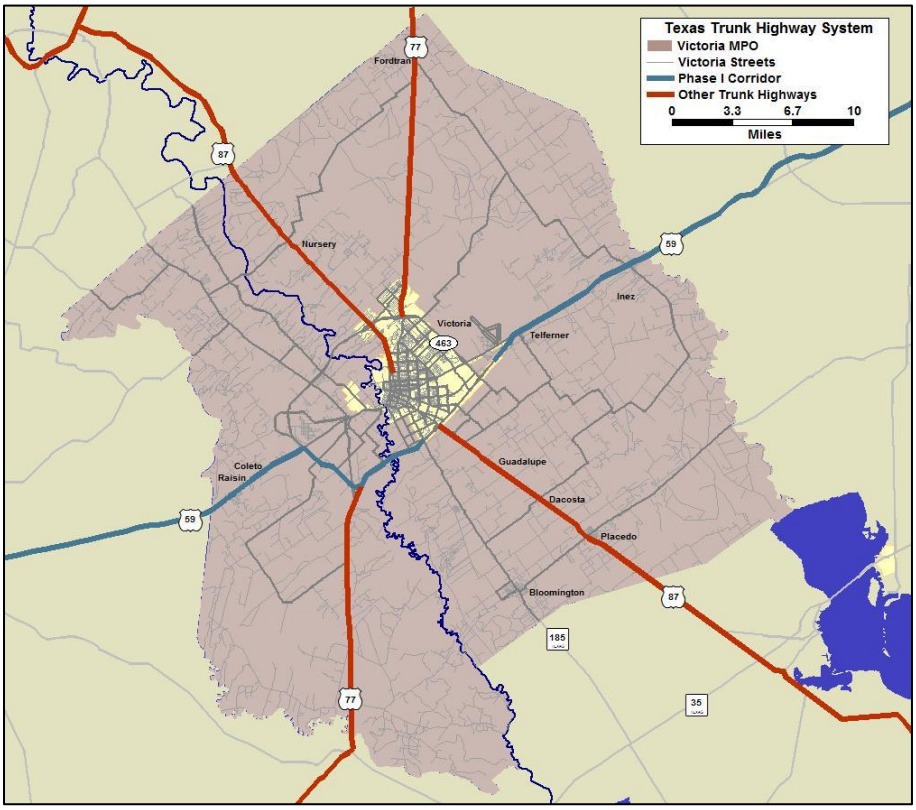
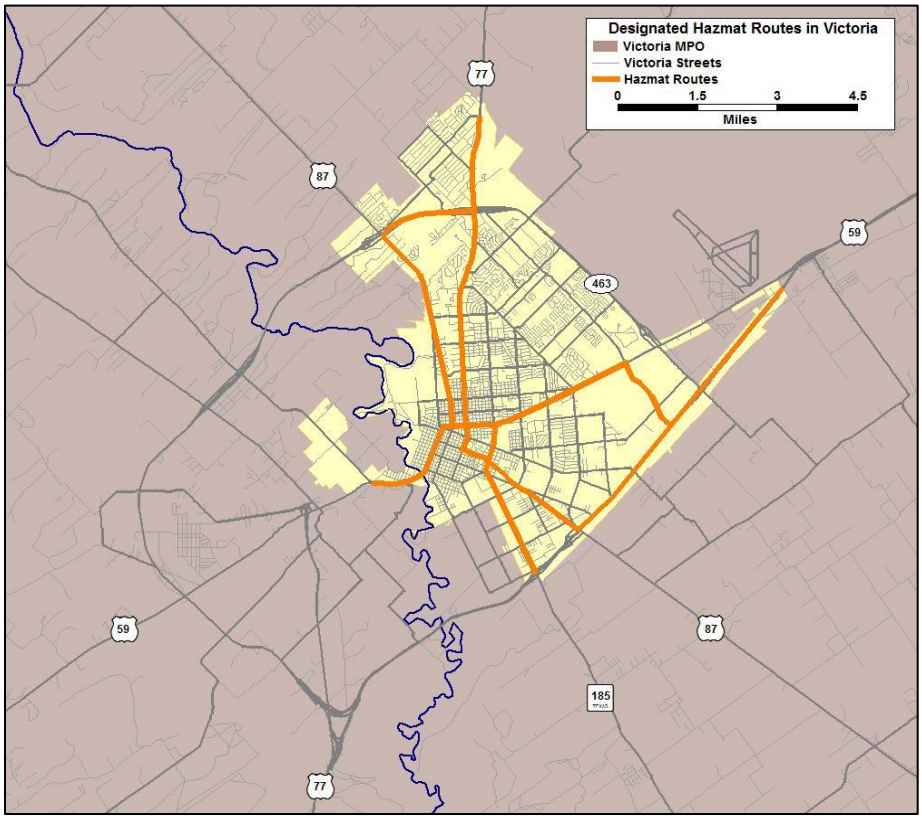


Figure 6.28: Non-Nuclear Hazardous Materials Routes



In contrast to the Texas Trunk System's focus on roads outside of population centers, hazardous materials routes have been defined for corridors within them. They aim to protect the populated areas from hazardous materials as much as practical. For Victoria, the non-nuclear hazardous materials routes are shown in **Figure 6.28**.

Port of Victoria

Truck routes are also an issue at the Port of Victoria. Representative Geanie Morrison co-sponsored SB 524, effective on Sept 1, 2014, which allows the Port of Victoria to quickly issue permits for oversized, overweight vehicles to haul materials from the port to the Caterpillar manufacturing site. The greater local authority delegated to the port streamlines the permitting process. The specified path from the Port to the Caterpillar plant is all on the designated National Freight Network, with the addition of FM 1432 connecting the Port to SH 185.

The Port of Victoria is also actively pursuing the container-on-barge market in partnership with the Port of Houston. This will divert trucks from the US 59 path from Victoria to Houston and re-route them to the port for loading onto barges.

The new pipeline connecting the Eagle Ford shale terminal in Cuero to the existing barge loading facility at the Port of Victoria was seen to immediately reduce truck traffic at the Port by 30%. However, this is a private pipeline and not all shippers have access. Additionally, oil shipments are expected to continue to increase. As a result, truck traffic to the port is expected to continue increase in spite of the new pipeline.

Trucks and Pavement Wear

Pavement wear is directly proportional to the weight of the vehicle. A fully-loaded truck at the legal limit of 80,000 pounds causes the same amount of pavement wear as 9,600 cars and overweight trucks wear the pavement even more. The presence of heavy trucks therefore makes an immense difference in the amount of wear a road receives and in the subsequent life of the pavement. Therefore, designated truck routes are significant, not only in terms of congestion and safety, but also for pavement wear and the standards a road should be built to.

Performance Measures

Performance measures for trucks can be considered in two categories: those directly related to trucks on the road and those for other freight modes that can divert trucks off the road system. Truck-related performance measures for the rail, Port of Victoria, pipeline, and airport modes are shown under their respective sections within this chapter.

Performance measures and supporting data which are directly related to trucks on the road are shown in **Table 6.12**. These performance measures are meant to track the current and forecast locations of truck traffic generators. This data would also support the development of a travel demand model upgrade to specifically model trucks and track truck traffic throughout the road network.

Table 6.12: Potential Truck Performance Measures

Data Field	Data Source
Truck counts	TxDOT
Forecast truck volumes	MPO
Basic employment by sector	MPO
Truck overweight / overside permits	TxDOT
Illegal overweight trucks ticketed	DPS

Forecast Conditions & Deficiency Analysis

Existing trends and TxDOT truck counts indicate that truck traffic will continue to be greatest on the defined planning networks of the NHS, the National Freight Network, the Texas Trunk System, and the designated hazardous materials routes. Additionally, increased truck traffic may be expected at the Port of Victoria and the roadways connecting it to the Eagle Ford shale plays.

Project Generation

An upgrade to the standard TxDOT travel demand model that incorporates trucks should be considered. The Quick Response Freight Model (QRFM) platform developed through the Federal Highway Administration may be considered for the upgrade. Additionally, TxDOT's Statewide Analysis Model (SAM) features a freight model with truck and rail modeling capabilities and a water network. The SAM is designed to model higher-level flows at the county level, and would need to be supplemented with QRFM modeling to support specific local-level planning.

Pipeline

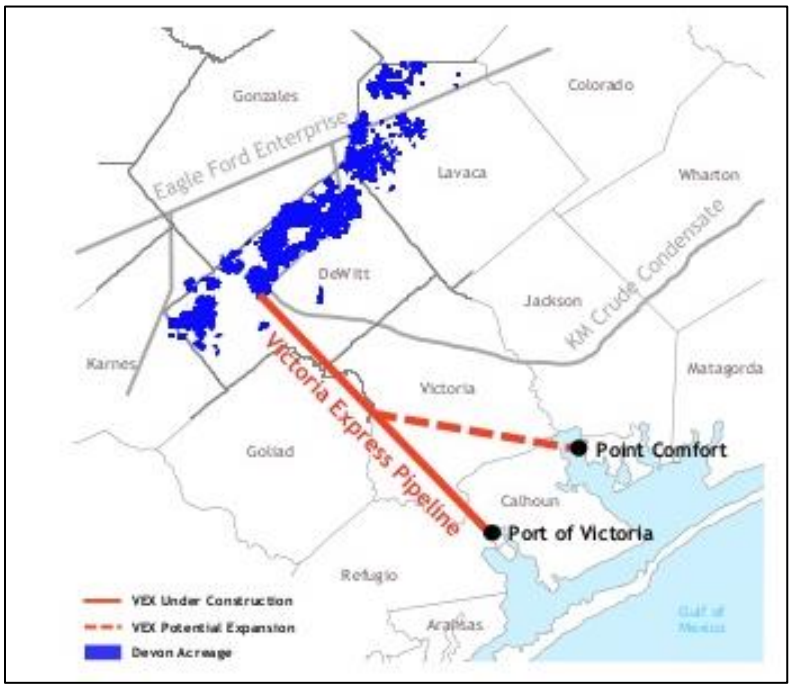
Large volumes of petroleum are demanded throughout America and pipelines are the only feasible method of transportation to move these volumes over long-distances. Pipelines are also useful for short-distances to provide transportation from oil field collection sites to terminals.

Existing Conditions

The new Victoria Express Pipeline connects the Blackhawk central delivery point near Cuero, TX to the existing Devon Gas Services terminal at the Port of Victoria. Similar to barge traffic, pipelines can reduce the number of trucks on the roadway network, thus reducing their impacts on traffic congestion, pavement wear, and air quality. The Port of Victoria has reported a 30% decrease in truck traffic since the opening of the pipeline for operation in July 2014.

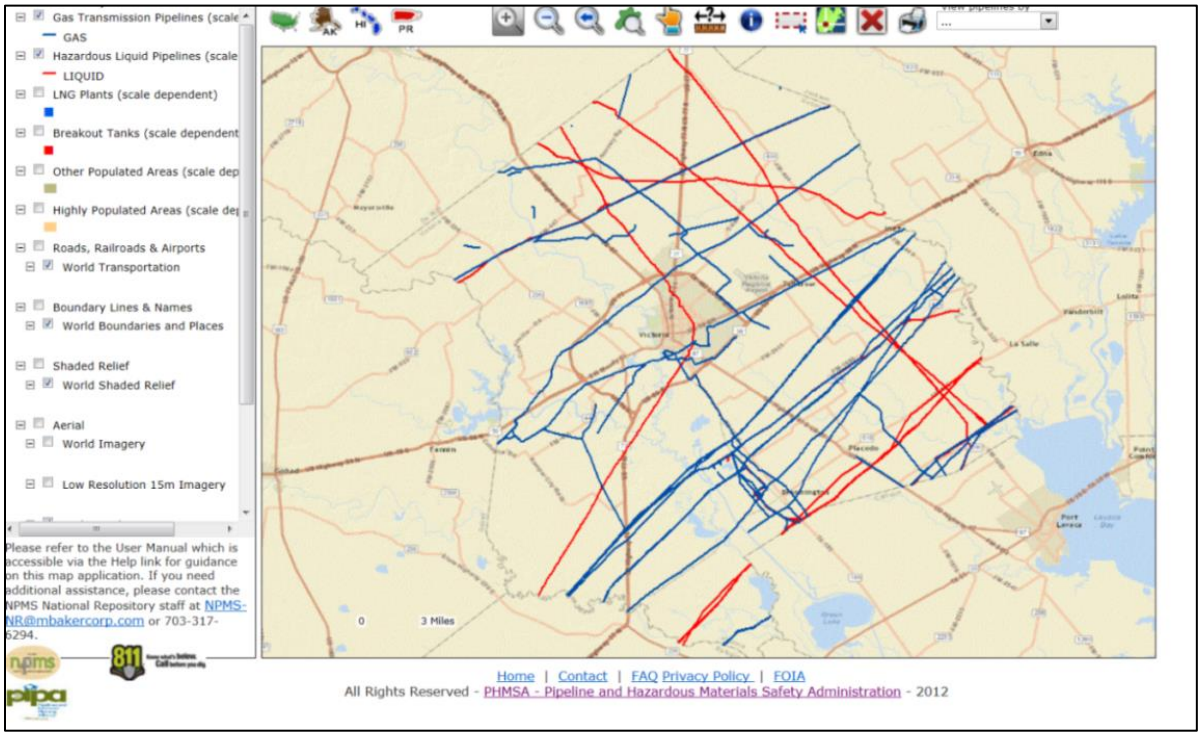
The Victoria Express Pipeline was completed and became operational in July 2014 and is depicted in **Figure 6.29**. Its connection to the Devon Gas Services terminal at the Port allows for direct loading onto barges. The 12-inch pipeline has an ultimate capacity of 100,000 barrels per day, compared to the Port's existing export capacity of 90,000 barrels per day. The pipeline is expected to decrease the number of trucks entering the Port of Victoria by 500 per day.

Figure 6.29: Victoria Express Pipeline



The high-level map of underground pipelines in Victoria County in **Figure 6.30** was prepared by the US DOT's National Pipeline Mapping System (NPMS). The precise locations of pipelines are redacted for security reasons. The map shows only the long-distance transmission pipelines and does not include local distribution pipelines or gathering pipelines at production sites.

Figure 6.30: High-Level Map of Pipelines in Victoria County



Performance Measures

The volumes that pipelines carry, which can divert trucks from the road network, make the pipeline directly applicable to the MPO's planning process.

Project Generation

Victoria Express Pipeline Extension

Complementing this new 56-mile long pipeline, the Victoria Express Pipeline company is constructing an additional receiving terminal near US 77 about 8 miles north of Victoria. An additional destination point is also being considered at the deep water port at Point Comfort.

Pipeline Mapping

Although pipelines have a lower spill rate than trucks or barges, the larger volumes of product carried raise safety issues. These issues are guided by the US DOT's Pipeline and Hazardous Materials Safety Administration (PHMSA); the agency uses its mapping system and each state's required "one-call center" to track underground pipeline locations and posts above-ground warning markers in the pipeline ROW where it intersects roads, rail lines, or waterways. The markers indicate the presence of a pipeline, but do not show its exact location. The exact location of the pipeline may vary along the width of the ROW and more than one pipeline may be present. The exact tracking of pipelines is a safety issue which impacts transportation planning and road construction. The development and maintenance of a precise GIS layer to locate underground pipelines is therefore a planning project which should be considered.

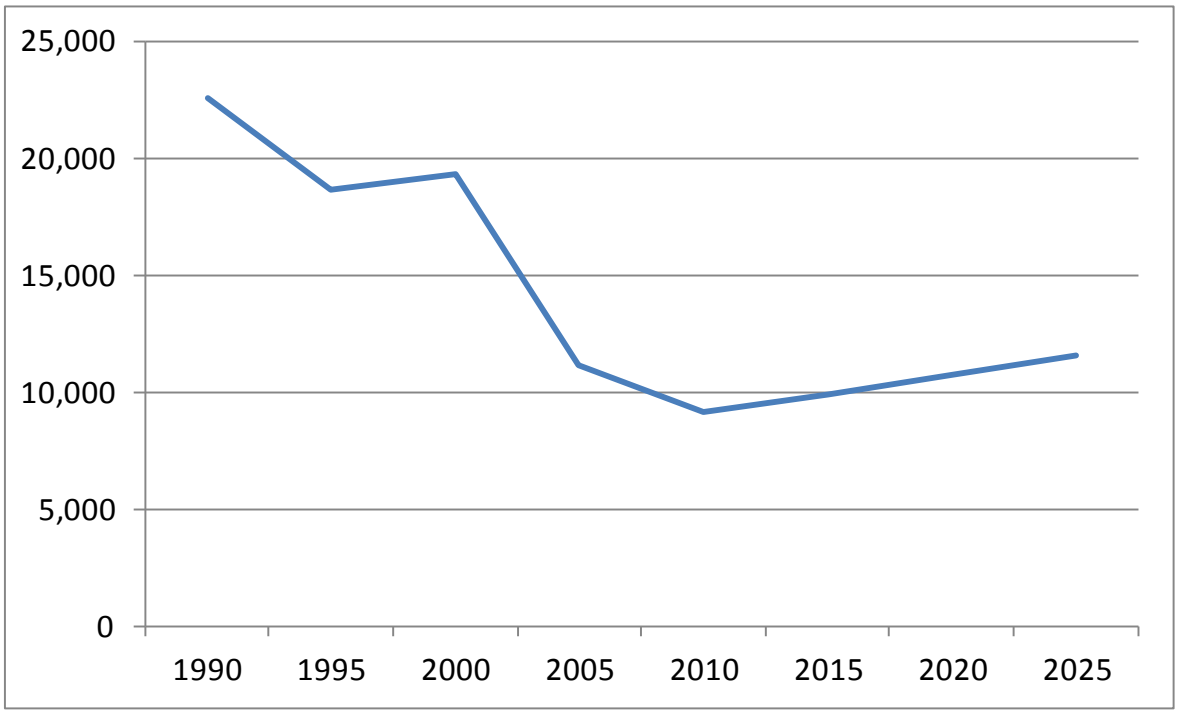
Airport

The Victoria Regional Airport is owned by Victoria County and operated by the private contractor Prautes Corporation. The airport has the opportunity to expand in the future with acreage available for industrial parks. The current business plan for the airport envisions its development for aviation and non-aviation uses, and includes the concept of selling off surplus land for development. Future development will impact the road network, as traffic volumes and potentially heavy truck volumes will increase.

Existing Conditions

The competitiveness of the Victoria Regional Airport has been hampered in recent years by the frequency and reliability of the available air service and the fare structure at the connecting George Bush Intercontinental Airport in Houston. Passenger volumes at the Victoria Regional Airport have dropped dramatically since 1990, as shown in **Figure 6.31**. The FAA projections for passenger volume through the year 2025 show an expected increase starting in 2010, but volumes are still significantly below previous levels. While the Texas Airport System Plan cites an average of an 8.5% increase in passengers for all Texas commercial service airports, passenger volumes in Victoria have actually declined. Volumes have dropped so low that subsidies under the US DOT's Essential Air Service (EAS) program have been necessary and have been provided to the operator since 2012.

Figure 6.31: Historic and Forecast Air Traffic in Victoria, 1990-2025



After dissatisfaction with the previous air carrier was expressed, the Victoria Regional Airport accepted a proposal for air passenger service under the Alternate Essential Air Service pilot program presented by Public Charters Inc. New service commenced in November 2014 with flights servicing Austin and Dallas-Fort Worth. Thirty flights are provided each week using a Jetstream 19-passenger turboprop aircraft, shown in **Figure 6.32**. The enhanced and refocused service is forecast to increase enplanements by 71% above 2012 levels within the first year.

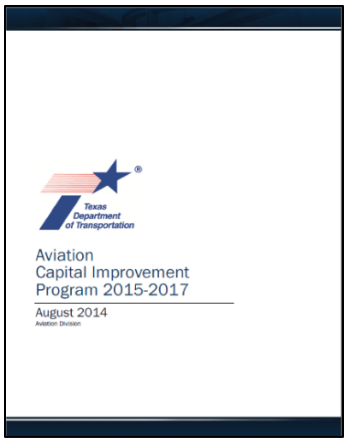
Figure 6.32: Public Charters Jetstream Aircraft

Forecast Conditions & Deficiency Analysis

The planning process for the Victoria Regional Airport is guided by two planning documents that detail state and local level requirements and future initiatives.

The Texas Airport System Plan (TASP) of 2010 provides the basis for coordinated airport planning in Texas. It classifies airports, sets rules and standards for each class, and determines requirements for eligibility of federal funding under the National Plan of Integrated Airport Systems (NPIAS).

The objective of the plan is to ensure that population centers in Texas have access to scheduled commercial air service within a 60-minute drive and provide for appropriate development and maintenance of the airport system. To meet these objectives, the plan developed a Development Worksheet for each classified airport. The Development Worksheet indicates the improvements required to accomplish and maintain the Victoria Regional Airport's role as a commercial service airport for the 20-year planning period. The FAA is responsible for supporting the development of commercial service airports, and these costs are not included in the TASP.



The TxDOT 2015-2017 Aviation Capital Improvement Plan develops the costs for specific projects in the immediate timeframe. For Victoria, the plan lists an Airport Master Plan Update for FY 2015. The plan is to include short-, intermediate-, and long-term development programs; it will focus on pavement management and a business plan for landside development. At the time of writing, the Request for Proposals (RFP) for the Victoria Airport Master Plan update had been published, so work to develop the new airport master plan is imminent.

Performance Measures

The number of flights and industrial development at the Victoria Regional Airport only impact roadway performance by the amount of traffic generated by the activities. Data needs to support potential airport performance measures are shown in **Table 6.13**.

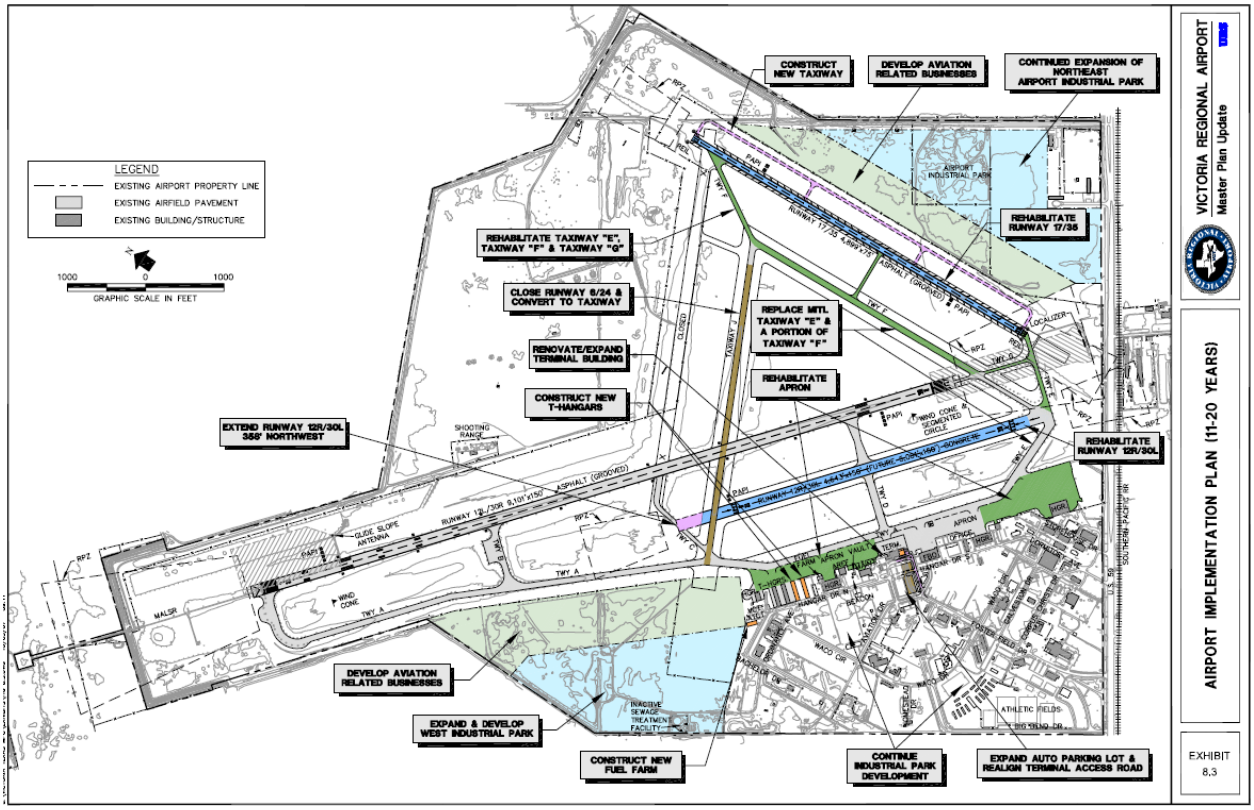
Table 6.13: Potential Airport Performance Measures

Data Field	Data Source
Number of passengers	Victoria Regional Airport
Volume of air freight	Victoria Regional Airport
Industrial park use	Victoria Regional Airport

Project Generation

The 2007 Victoria airport master plan lists specific projects and costs for aviation, non-aviation, and industrial park uses, as seen in **Figure 6.33**. One goal of the new master plan is defining aviation and non-aviation uses for airport land, and specifically determining if significant parcels of airport land may be declared as surplus and leased for industrial uses.

Figure 6.33: Airport Projects from 2007Victoria Airport Master Plan



Selling surplus airport property is only allowable with FAA approval following a process that formally finds no aviation uses for the property. The approval process can take two or more years, which imposes restrictions on the sale; a buyer must be fully committed and the parcel of land must be large enough to begin the process. Prautes Corp is using the master plan's designation of industrial park sites to define land for pre-application development to shorten the approval process.

Successful industrial park development at the airport may generate new transportation needs. Specifically, increased traffic volumes in the future may require upgrades to the airport access road, including the provision of a signal for the left turn into the property. Access to new development may also require the construction of new roads.

If required by a new tenant of the industrial park, a rail line that was in place when the Foster Field Air Force Base was operational could be reactivated. Doing so would require a railroad crossing at Business US 59, which has sizable traffic volumes and are anticipated to continue growing. Consequently, reactivation of a rail line at the airport may create additional roadway projects.

Projects and costs listed in the 2007 airport master plan are shown in **Table 6.14**. This does not include any costs or revenue from developing the industrial parks, but provides feasible project ideas.

Table 6.14: Airport Rehab and Development Projects

Project Description	Project Cost
Rehab runway 17/35	$ 1,200,000
Rehab taxiway E & F sections	$ 600,000
Replace MITL and taxiways	$ 325,000
Close runway 6/24	$ 300,000
Renovate terminal building	$ 1,900,000
Expand terminal parking lot	$ 700,000
Relocate fuel farm	$ 1,000,000
Construct T-hangers	$ 750,000
Rehab apron	$ 500,000
Rehab runway 12R/30L	$ 1,500,000
Extend runway 12R phase 1	$ 150,000
Extend runway 12R phase 2	$ 500,000

CHAPTER 7: SAFETY & SECURITY

CHAPTER HIGHLIGHTS

- Federal Agencies and Programs
- Texas State Agencies and Programs
- Private Railroad Companies
- Victoria Safety Data
- Eagle Ford Shale
- Potential Projects

Safety may be defined as the freedom from unintentional harm. Security, on the other hand, may be defined as the freedom from intentional harm or natural phenomena, such as extreme weather events.

Safety planning considers ways that the transportation system can operate efficiently while still maintaining safety for users from crashes and other injury or damage causing events. This includes safety programs, plans, and improvements at high-crash locations. Security is designated as a separate planning factor in the development of long-range MTPs in the MAP-21 planning legislation. Planning for security goes beyond safety to manage threats from natural disasters and man-made risks. While safety and security are distinct issues, planning is typically carried out jointly.

For both safety and security, a goal of planning is to help make the public response efficient, organized, and timely through coordinated approaches among the various stakeholder agencies. An even more important goal is to use planning to help prevent the safety or security incidents. The following chapter summarizes relevant safety and security data to aid in planning.

Federal Agencies and Programs

Planning for safety and security on the transportation network is a joint effort, with the MPO operating under relevant Federal and State regulations and programs from several different agencies. **Table 7.1** summarizes the relevant federal agencies.

Table 7.1: Relevant Federal Agencies

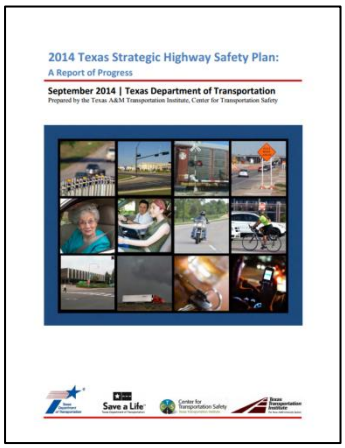
Agency	Description
Federal Highway Administration (FHWA)	Ensures the nation's roads and highways are safe, efficient, and technologically current; a variety of planning efforts are used, including a national-level Highway Safety Improvement Program (HSIP) and the requirement that states develop their own highway safety plans.
Federal Transit Administration (FTA)	Supports safety and security planning through its Office of Safety and Security. A Safety Management System (SMS) is currently under development and will define safety concerns, monitor safety performance, develop programs to address issues, and evaluate hte performance of safety programs.
Federal Railroad Administration (FRA)	Works through its Office of Railroad Safety to promote and regulate safety in the railroad industry through its federal safety inspectors. The agency also collects and analyzes data on rail incidents.
Federal Aviation Administration (FAA)	Enhances air safety through their Aviation Safety Reporting System (ASRS) and the FAA Safety Team, which promotes safety principles and practicies through training, outreach, and education. The agency works closely with the Transportation Security Administration (TSA), which is responsible for screening passengers, air cargo, and baggage at airports.
National Highway Traffic Safety Administration (NHTSA)	Maintains education programs, research, safety standards, and enforcement activities to reduce the number and effects of traffic wrecks. The National Center for Statistics and Analysis (NCSA) is administered by NHTSA and provides data for safety and security planning.
Federal Motor Carrier Safety Administration (FMCSA)	Develops and enforces regulations to reduce crashes and injuries involving trucks and buses; the agency also developes education programs and establishes partnerships with various transportation stakeholders.
Pipeline and Hazardous Materials Safety Administration (PHMS)	Administers rules and programs to regulate the transportation of hazardous materials and the operation of pipelines. The National Response Center (NRC) is a data source for incidents involving hazardous materials.
Federal Emergency Management Agency (FEMA)	Prepares for hazards and disasters. A risk-based comprehensive management system has been developed with the goal of reducing the loss of life and property. FEMA manages the National Response Framework (NRF) and National Incident Management System (NIMS), which provide guidance and protocols for the coordination of disaster responses and a template and approach to the management of disaster response. To receive federal preparedness assistance and grants, local organizations must adopt NIMS guidelines.

Texas State Agencies and Programs

Texas Department of Transportation

The TxDOT Yoakum District works on behalf of the State in the Victoria region; it coordinates with the Victoria MPO to carry out transportation planning tasks and activities, including the planning of transportation safety and security. TxDOT works to ensure the safety of Texas roadways through partnerships with other state, federal, and local entities and a traffic safety program that includes 13 targeted program areas. The agency also collects crash data from law enforcement agencies and evaluates the cause of crashes to focus efforts in making roadways safer. TxDOT maintains designated hazardous materials routes and works with the Texas Department of Public Safety to develop contra-flow plans for major hurricane evacuation routes. The designated hurricane evacuation routes include the full loop around Victoria for access, and US 77 and US 87 for evacuation routes out of the Victoria region.

Strategic Highway Safety Plan (SHSP)



The Texas Strategic Highway Safety Plan (SHSP) identifies safety needs and directs investment decisions to reduce highway fatalities and serious injuries on public roads. This plan is required for all states to receive federal funding for roadway improvement projects. The plan was formulated by reviewing national crash initiatives and emphasis areas from key publications and professional organizations, examining Fatal Analysis Reporting System (FARS) crash data, and consulting with various stakeholders throughout Texas. MAP-21 requires states to regularly evaluate and update their SHSP. The most recent version of the SHSP was published in September 2014. The updated plan notes the trend of a gradual decline in traffic deaths and injuries, and proposes goals and plans for further reductions.

The plan defines four safety emphasis areas to guide the development of data, standards, and activities:

- **Crash Type & Location** concentrates on the physical characteristics of the road related to a crash, including intersections, railroad crossings, and head-on collisions;
- **System Users** considers the characteristics of the driver as they relate to safety, including special needs of older and younger drivers and of nonmotorized travelers;
- **Driver Behavior** focuses on how safety is affected by people's driving habits, including speeding, districted driving, and driving under the influence.
- **System Administration** establishes a plan to collect traffic data, coordinate with 911 systems, and promote the awareness of safety issues to policymakers and the public.

The guiding principle of the plan is the continued reduction in the number and rate of traffic crashes, injuries, and deaths. The plan supports the national strategy "toward zero deaths" with goals and benchmarks to measure Texas' performance against the nation's.

Texas Division on Emergency Management

The mission of the Texas Division on Emergency Management (TDEM) is to carry out a "comprehensive all-hazard emergency management program for the State and for assisting cities, counties, and state agencies in planning and implementing their emergency management programs." This comprehensive approach includes preparation, protection, response, recovery, and mitigation efforts of known hazards.

TDEM develops and maintains state-level emergency plans, distributes state standards for local emergency management plans, assists local jurisdiction in developing emergency plans, and reviews those plans for conformance with state planning standards. Also, TDEM provides training to state and local emergency responders for emergency management, and administers numerous state and federal grants for emergency management.

The State of Texas and all local jurisdictions conform to the federal NRF and NIMS standards for the management of incidents and emergencies. In the event of an incident, emergency management activities begin at the local level and then continue in a hierarchical structure to include state and federal assistance, depending on whether the situation exceeds the capabilities and resources of lower levels of government. In regard to the transportation system, emergency management activities include traffic management and transportation services for evacuees.

Victoria City & County Emergency Management

The City and County of Victoria have a joint Office of Emergency Management Plan that is administered by the City. It outlines the general approach to emergency operations and provides guidance for emergency management activities. The plan provides for organization and designated responsibilities to respond to emergency situations. Victoria's Emergency Management Plan follows the template of the basic plan produced by TDEM, with 22 annexes that provide details on evacuation, transportation, shelter, warning, direction & control, and recovery for local areas.

Private Railroad Companies

Railroad companies and government agencies coordinate to ensure the safety of railroads and motorists. Typical features in place include standard crossbucks signs, advanced warning signs, and active warning devices or signals to warn motorists of crossing at railroad and roadway intersections. In the Victoria region, Union Pacific (UP) and Kansas City Southern (KCS) coordinate with local, state, and federal agencies to ensure the safety and security of the railroad. These companies have their own public safety departments dedicated to advancing public safety, as well as police departments which deal with hazardous materials releases, personal injuries, criminal activities, illegal dumping, or other safety and security incidents.

KCS and UP are active in public awareness organizations and campaigns to educate the public on transportation safety and security issues to enhance safety at railroad crossings. Operation Lifesaver is a public education program established to end crashes at railroad crossings. The Transportation Community Awareness and Emergency Response (TRANSCAER) is another public awareness effort that focuses on assisting communities to prepare for and respond to potential hazardous material transportation incidents. TRANSCAER is comprised of volunteer representatives from a variety of organizations, including UP and KCS. UP, for instance, has hazardous material special agents and personnel from their Hazardous Material Management department present at emergency planning and response training classes offered to local emergency management coordinators and committees.

Victoria Safety Data

According to the National Highway Traffic Safety Administration Traffic Safety Facts for Texas, between 2006 and 2010 Victoria County had statistically fewer vehicle crashes than the average county. The data places all U.S. counties into three groups based on their crash rates. A grouping in the highest third group indicates that a county has higher crash rates; and ranking in the lowest third group indicates that a county has lower crash rates than is typical for U. S. counties. Victoria County ranked in the lowest third group for four out of five categories: total fatal crash rate, alcohol-related fatal crashes, speed-related fatal crashes, and single- vehicle fatal crashes. For the remaining category of fatal crashes at intersections, Victoria County was placed in the middle group, indicating that its crash rates were typical compared to all U.S. counties.

Even though the number of people killed each year in traffic crashes in Texas has decreased by about 21 percent since 2003, in 2011 an average of 250 people were killed each month. While statistics show clear trends of improvements to crash fatality rates, even one life lost is too many, making traffic safety always an issue.

Crash Data

TxDOT's Crash Records Inventory System indicates that 4,539 crashes occurred in Victoria County between 2010 and 2012. Out of these, 35 were fatal, 10 involved pedestrians, and 11 involved bicyclists. **Figure 7.1** shows the fatal crash locations in Victoria County.

Figure 7.1: Fatal Crash Locations in Victoria County

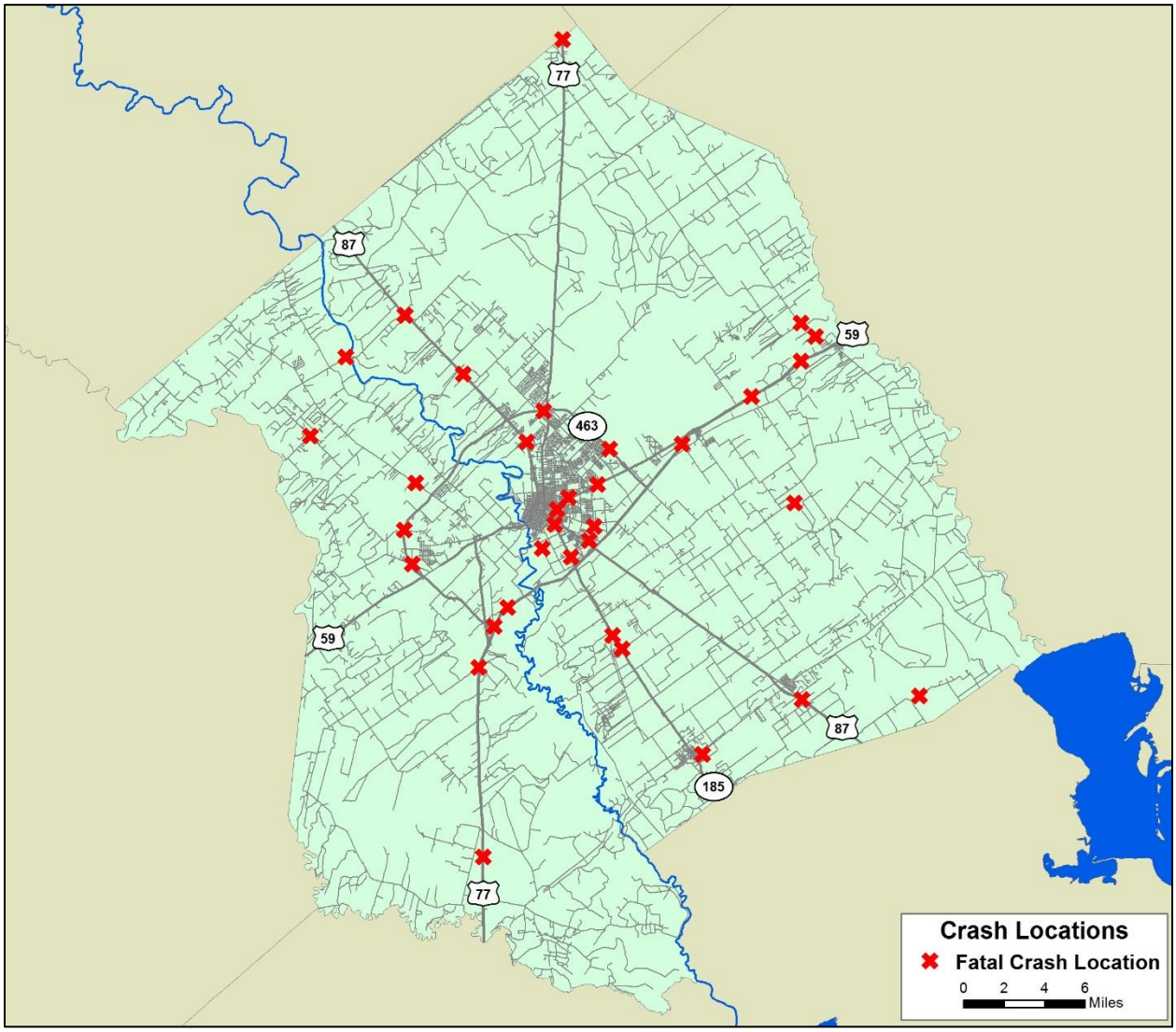


Table 7.2 and **Figure 7.2** provide a more detailed analysis by ranking the top 20 intersections with the most crash occurrences (a total of 22 intersections including a three-way tie for the 20th place).

As seen in **Figure 7.2**, 11 of the top 20 crash locations are on Navarro Street. Navarro Street accounts for 506 of the 893, or 57.7%, of total crashes at the list of the top 20 locations. Business US 59 and Zac Lentz Parkway also account for a large portion of total top 20 crashes at 26% and 22%, respectively. Considering Mockingbird Lane has relatively lower traffic volumes, it is interesting that it accounts for four of the top 20 intersections and 14% of total top 20 accidents.

Figure 7.2: Top 20 Intersections and Fatal Crash Locations, 2010 to 2012

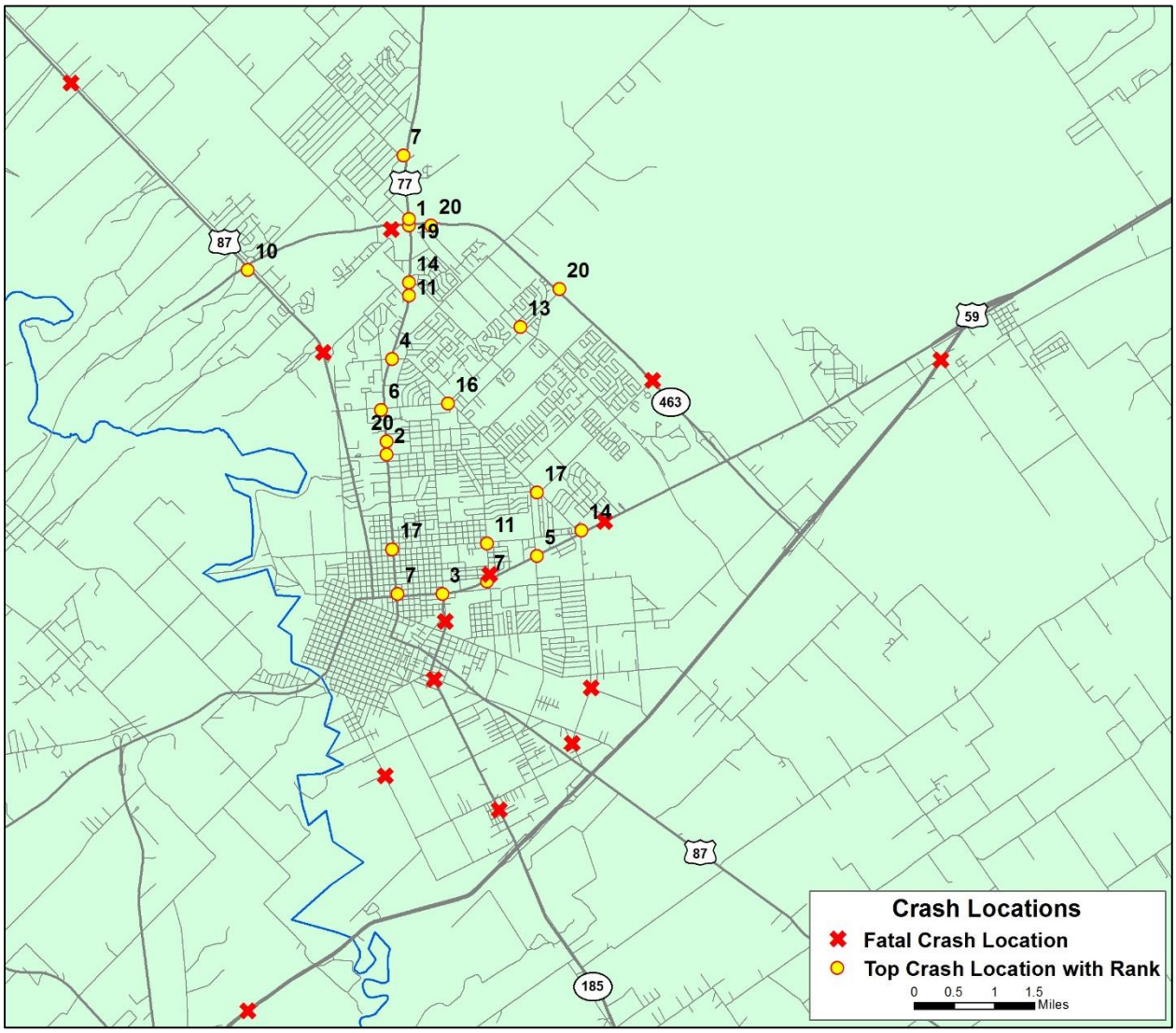


Table 7.2: Top 20 Crash Locations, 2010 to 2012

Rank	Intersection		Crashes
1	Navarro St.	Loop 463 / Zac Lentz Pkwy.	110
2	Navarro St.	Crestwood Dr.	73
3	SH 185 / Laurent St.	Business US 59	65
4	Navarro St.	Magruder Dr. / Sam Houston Dr.	60
5	Business US 59	Ben Wilson St.	51
6	Navarro St.	Mockingbird Ln.	47
7	Navarro St.	Business US 59	42
7	Business US 59	Ben Jordan St.	42
7	Navarro St.	Glascow St.	42
10	US 77 / Zac Lentz Pkwy.	Main St.	40
11	Ben Jordan St.	Red River St.	31
11	Navarro St.	Whispering Creek Dr.	31
13	Jock Stockbauer Dr.	Mockingbird Ln.	30
14	Business US 59	Sam Houston Dr. / Delmar Dr.	29
14	Navarro St.	Guy Grant Rd.	29
16	Sam Houston Dr.	Mockingbird Ln.	28
17	Navarro St.	Red River St.	25
17	Sam Houston Dr.	Airline Rd. / Cypress St.	25
19	Navarro St.	Hathaway St.	24
20	Navarro St.	Lawndale Ave.	23
20	Loop 463 / Zac Lentz Pkwy.	Mockingbird Ln.	23
20	Loop 463 / Zac Lentz Pkwy.	John Stockbauer Dr.	23

To identify the density of the crash distribution in Victoria County, two analyses, intersection-level density and kernel density, were performed and are illustrated in **Figures 7.3 and 7.4**. The Kernel density analysis presented in **Figure 7.4** is a complementary display to more clearly identify the traffic crash hot spots. It shows crashes weighted by proximity to each other, with nearby crashes contributing more and distant crashes contributing less to the aggregated score. This allows for the display of clusters of crashes, or kernels.

These two figures merge the intersection-level crash data to show corridors with higher crash rates. They more clearly illustrate that Navarro Street and Business US 59 are prime areas for consideration. In particular, Navarro Street at Zac Lentz Parkway and downtown at the convergence of Navarro Street, Main Street, and Business US 59 stand out as the areas with the highest number of crashes.

Figure 7.3: Intersection Crash Density, 2010 to 2012

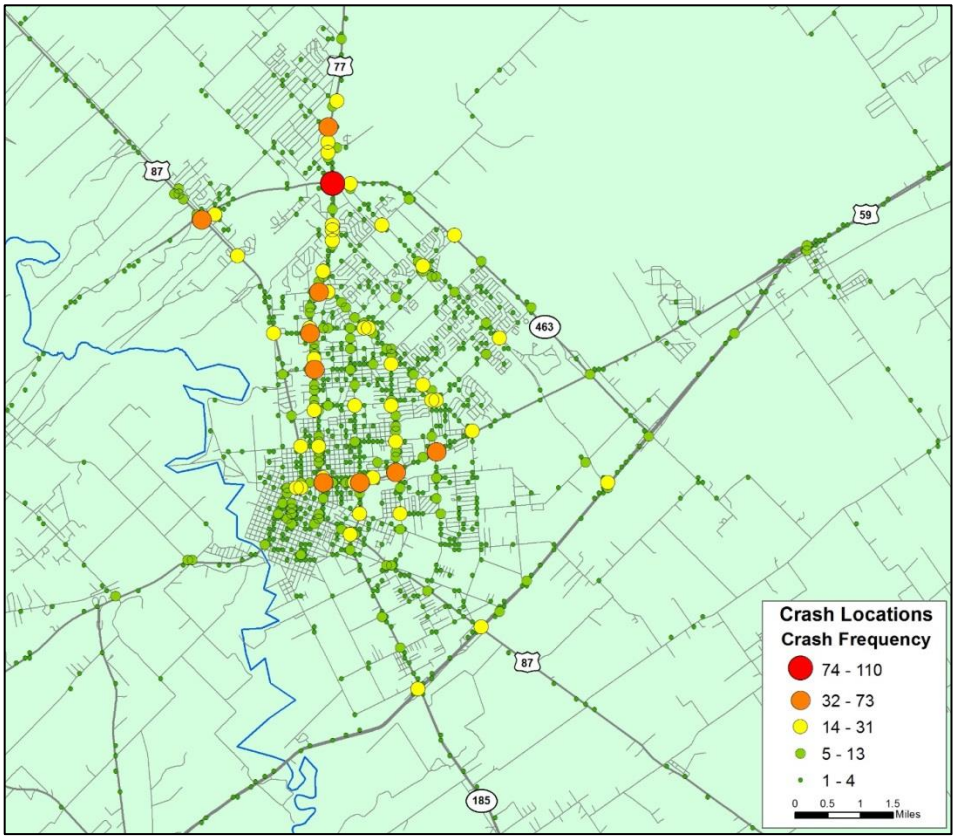
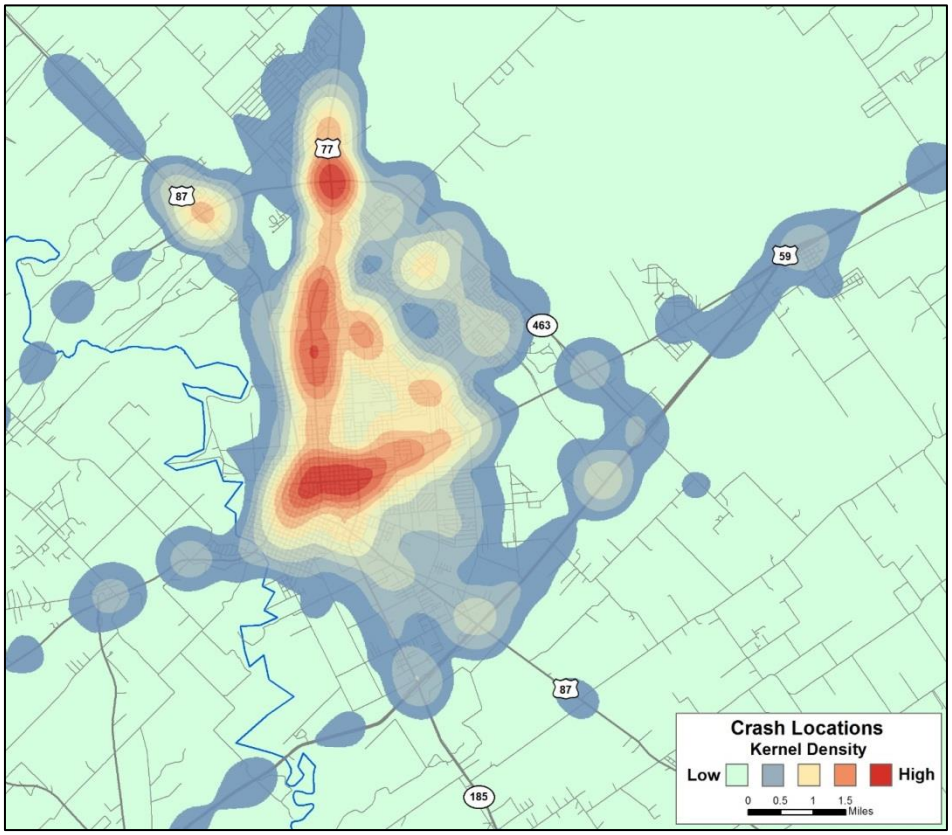


Figure 7.4: Kernel Density of Crashes, 2010 to 2012

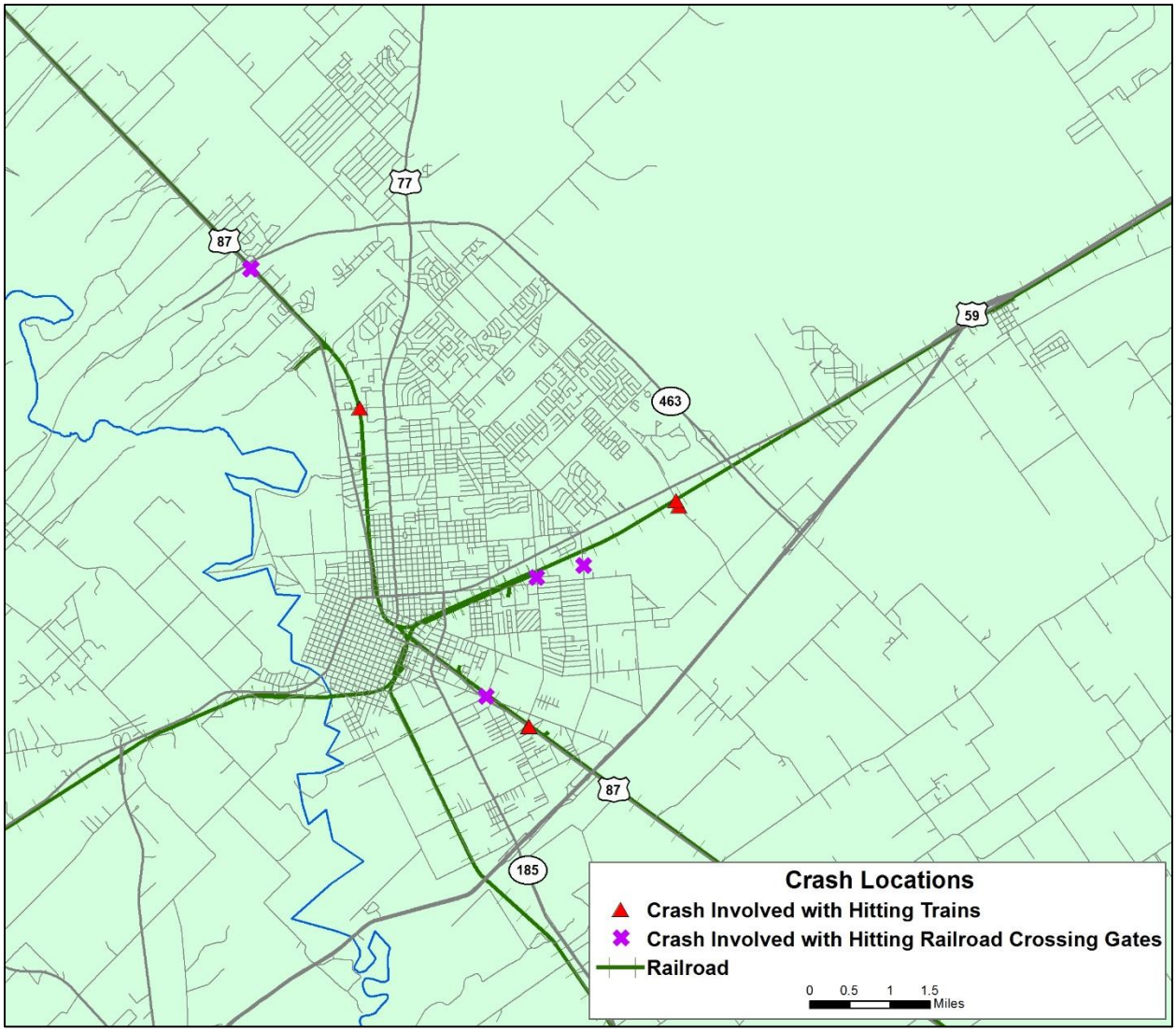


Railroad Crossing Crash Data

The TxDOT data indicates ten crashes at railroad crossings, with drivers either impacting a train or the railroad crossing gates, as shown in **Figure 7.5**. Crashes that involve a driver impacting a train are at Mockingbird Lane, Odem Street, and John Stockbauer Drive. The crossing at Mockingbird Lane is controlled with crossbucks, warning lights, and gates. Mockingbird has four lanes at this location, so it is possible for a person to circumvent the lowered crossing gates.

At the time of this data, the lower-volume traffic crossing at John Stockbauer Drive was controlled only with crossbucks; since this time, it has been upgraded with warning lights and gates. Odem Street still only has crossbucks.

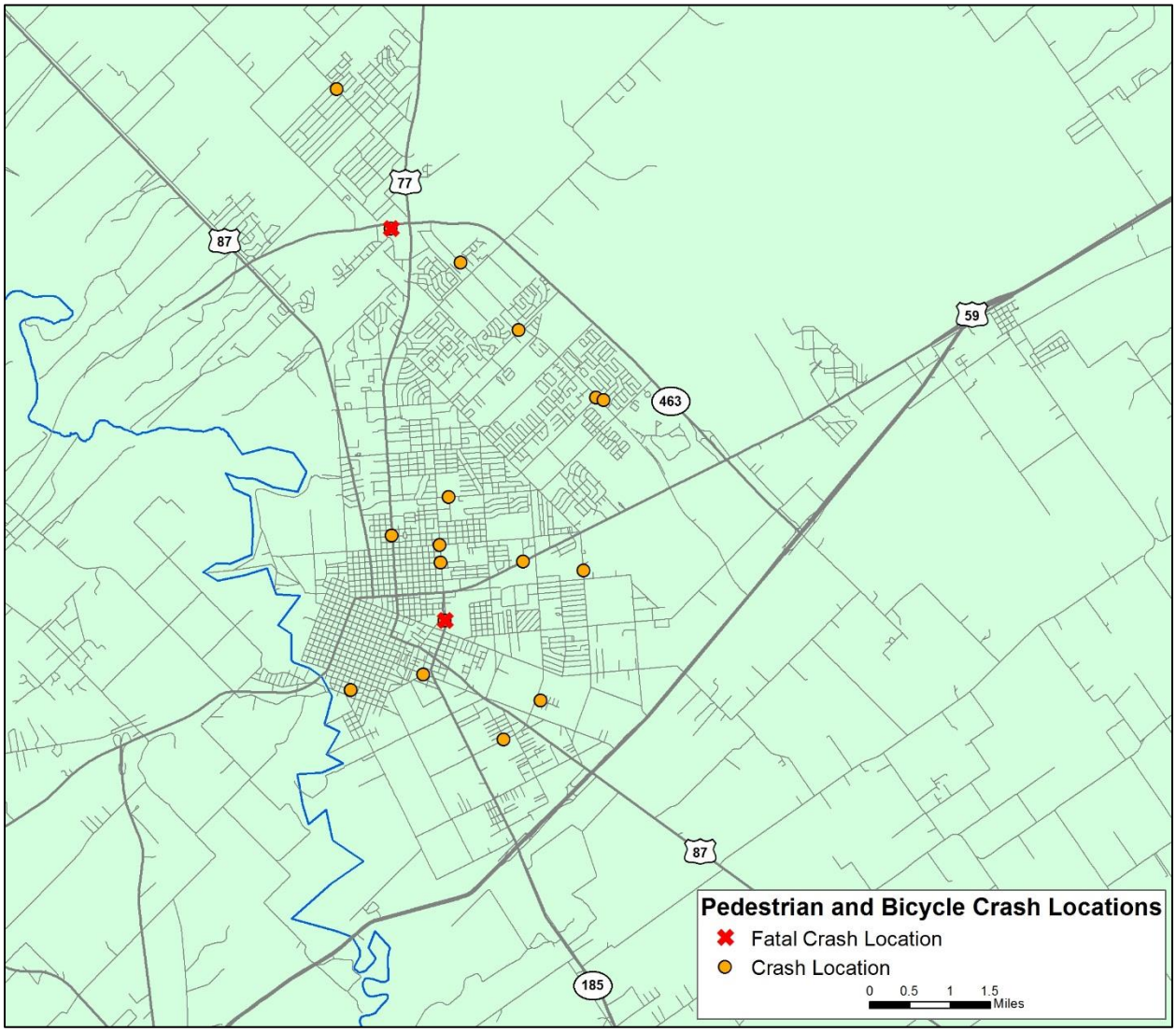
Figure 7.5: Railroad Crossing Related Crash Locations, 2010 to 2012



Bicycle and Pedestrian Crash Data

Twenty-one vehicular crashes involved pedestrians or bicycles in Victoria County between 2010 and 2012, as illustrated in **Figure 7.6**. Two crashes were fatal and both fatalities were the pedestrians. Corridors of concern are John Stockbauer Drive, with four crashes, and Laurent Street, which had three pedestrian or bicycle crashes.

Figure 7.6: Pedestrian and Bicycle Crash Locations, 2010-2012



Eagle Ford Shale

The extraordinary traffic increases that occurred with the development of the Eagle Ford shale in South Texas impacted the Victoria region, particularly at the Port of Victoria. In addition to increased traffic and pavement wear concerns, there is an associated issue with traffic safety and heavy trucks.

TxDOT crash data shows that heavy vehicle crashes are increasing at a higher rate in the Eagle Ford shale region than in the rest of the state. This is to be expected, since truck traffic itself is increasing at a higher rate, but still illustrates a looming safety issue.

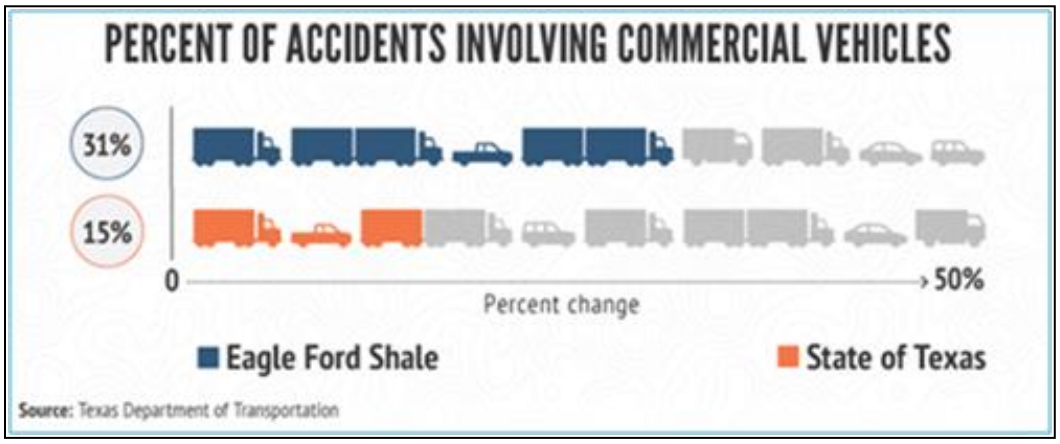
As shown in **Table 7.3** and **Figure 7.7**, the difference in the statewide and the regional trends are significant. From 2009 to 2013, total traffic wrecks in the Eagle Ford shale region grew at over 3 times the rate as the state. Crashes involving trucks increased 16.8% for the state, but in the region grew by 105%. Fatal wrecks with trucks increased by 246.7% in the region, compared with a 50.2% increase for the state as a whole.

While the number of traffic crashes is an issue, wrecks with heavy trucks tend to be more serious and cause more fatalities. Along with the planning for the economic development and the pavement wear associated with the Eagle Ford shale, the issue of safety in a traffic stream with increasing percentages of trucks should also be considered.

Table 7.3: Traffic Safety Trends in Texas and in the Eagle Ford Shale Region

	State of Texas			Eagle Ford Shale Region		
	2009	2013	Percent Change	2009	2013	Percent Change
Total Traffic Crashes	428,310	441,682	3.1%	15,016	16,643	10.8%
Crashes Involving Trucks	25,000	29,198	16.8%	987	2,023	105.0%
Fatal Crashes	2,821	3,038	7.7%	140	170	21.4%
Fatal Crashes Involving Trucks	301	452	50.2%	15	52	246.7%

Figure 7.7: Percent of Crashes Involving Trucks in Texas and the Eagle Ford Shale Region



Potential Projects

A review of overall crash data in addition to specific railroad, bicycle and pedestrian, and Eagle Ford Shale data reveals particular safety areas of concern. The results of the safety and security analysis and the primary areas of concern are summarized below.

- **Overall Safety**: the TxDOT crash data clearly depicts safety issues along the Navarro corridor, and in particular at Navarro Street at Zac Lentz Parkway and downtown at the confluence of Navarro Street, Main Street, and the Business US 59. Furthermore, the Voice of Victoria public participation process revealed that numerous citizens have concerns about safety along Navarro Street.
- **Bicycle and Pedestrian**: data on pedestrian incidents reveals pedestrian and bicycle incidents particularly along John Stockbauer Drive and Laurent Street. Public opinion also indicates a perception among respondents that the pedestrian and bicycle network is unsafe. The need to slow traffic, enforce traffic laws, provide well-marked crosswalks, and focus on safe access to schools was cited as safety needs.
- **Eagle Ford Shale**: data indicates a significant rise in truck-related safety issues due to Eagle Ford Shale activity. The Port of Victoria and its entrance at SH 185 and FM 1432 is of particular interest.

While Victoria County consistently ranks in the bottom third of all US counties for crash rates, safety and security issues can never be overemphasized. Coordinated planning by Federal, State, and regional agencies is ongoing in the Victoria area to address these issues.

Table 7.4 lists safety projects that were defined in the 2015-2018 Transportation Improvement Program (TIP) or are considered potential future projects.

Table 7.4 Potential Traffic Safety Projects

Road	Limits From	Limits To	Description	Cost	Notes
US 77	0.42 mi east of FM 1685	1.04 mi west of US 87	Add 2 lanes for 4-lane divided facility	$ 25,000,000	Listed in TIP for FY 2015
FM 444	US 77	US 59	Safety treat fixed objects	$ 713,324	Listed in TIP for FY 2016
US 87	FM 447		Construct overpass	$ 13,356,461	Listed in TIP for FY 2016
Navarro St / Business US 77	Loop 463	Airline Road	Convert center turn lane to median	$ 3,500,000	Unfunded
SH 185	FM 1432		Construct overpass	$ 10,750,000	Unfunded
US 59	Loop 463	East US 59 / Business US 59 split	Construct frontage roads	$ 11,500,000	Unfunded
Business US 59	SH 185	Sam Houston Drive/ Delmar Drive	Convert center turn lane to median		Unfunded

Chapter 8: Environment and Air Quality

CHAPTER HIGHLIGHTS

- Air Quality
- Environmental Justice
- Environmentally Sensitive Areas
- Summary

The environment is a crucial variable to build a sustainable and vibrant future for the community. A sound environment can lead to cleaner air and water, healthier people, reduced vulnerability to natural disasters, and healthier land and ecosystems.

The transportation system and the environment can be easily impacted by each other. Minimizing the affect a transportation project has on the natural and human environment is a crucial aspect of transportation planning. The protection of the community's natural and cultural features should always be considered throughout the planning process.

The following chapter details three significant environmental concerns in Victoria County: air quality, environmental justice, and environmentally sensitive areas. By analyzing these topics, they can be considered in future transportation projects to aid in avoiding, minimizing, or mitigating any issue.

Air Quality

Air Quality Standards

The Environmental Protection Agency (EPA) is required to set national air quality standards as defined in the Clean Air Act, most recently amended in 1990. The National Ambient Air Quality Standards (NAAQS) define six common air pollutants and corresponding levels that are deemed acceptable for human health, called primary standards. **Table 8.1** summarizes these six pollutants and their current standards; units of measure are in parts per million (ppm) by volume, parts per billion (ppb) by volume, and micrograms per cubic meter of air ($\mu g/m^3$). Based on monitoring data, the EPA determines whether an area is in compliance with the NAAQS; if the acceptable level is exceeded, that region may be classified as a nonattainment area.

Table 8.1: NAAQS Primary Standards

Pollutant	Level	Averaging Time
Carbon Monoxide (CO)	9 ppm	8-hour
	35 ppm	1-hour
Lead (Pb)	0.15 $\mu g/m^3$	Rolling 3-month
Nitrogen Dioxide (NO_2)	0.053 ppm	Annual
	0.100 ppm	1-hour
Particulate Matter (PM_{10})	150 $\mu g/m^3$	24-4our
Particulate Matter ($PM_{2.5}$)	12.0 $\mu g/m^3$	Annual
	35 $\mu g/m^3$	24-hour
Ozone (O_3) 2008	75 ppb	8-hour
Sulfur Dioxide (SO_2)	75 ppb	1-hour

Of the six pollutants, ground-level ozone and particulate matter are the most prevalent health threats; the EPA classifies them as "criteria" air pollutants because they are regulated by developing human health based and/or environmentally based criteria to set allowable levels.

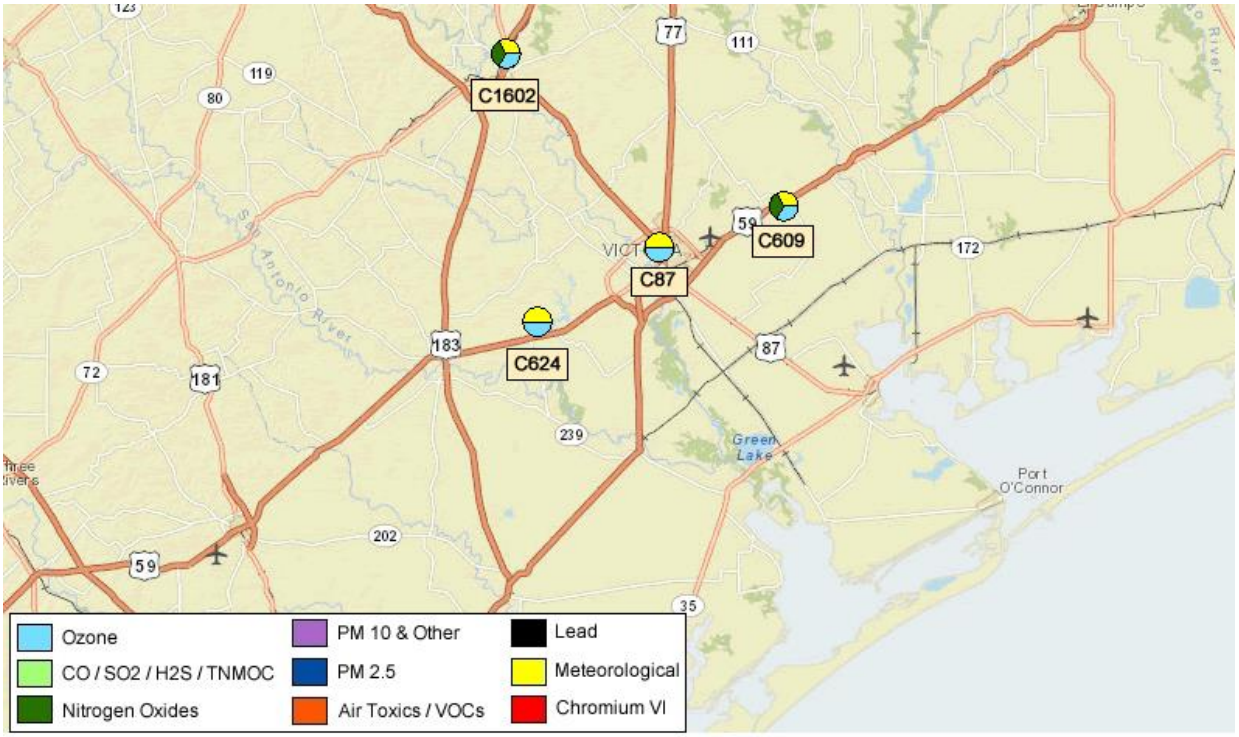
In November 2014 the EPA proposed a new 8-hour NAAQS for ground-level ozone between 60 and 70 ppb. Public comments were received and a final decision is anticipated by October 1, 2015. New attainment and nonattainment classifications for this standard would occur in October 2017, and states with nonattainment areas would have until 2020 to late 2037 to meet the proposed standard.

Air Quality in Victoria

In 1978 Victoria County was designated a nonattainment area because it did not meet the NAAQS for 1-hour ozone, which was the standard reporting value at that date. The nonattainment status remained until 1995, when the region was re-designated to attainment under the 1-hour ozone NAAQS.

Victoria County uses four air monitoring sites maintained by the Texas Commission on Environmental Quality (TCEQ) in Inez, Coleto, Cuero, and the National Guard in Victoria. The monitoring site at the National Guard is the official collection point that determines attainment. **Figure 8.1** shows the locations and data collected at each site.

Figure 8.1: TCEQ Air Monitoring Sites



Source: Texas Commission on Environmental Quality

The NAAQS for ozone concentrations currently operates in an 8-hour reporting period, and Victoria County is in attainment. These values are collected hourly and averaged over 8-hour blocks. At the end of each calendar year, the highest values are documented and the fourth highest daily maximum 8-hour concentration is used for compliance calculations. Once three full years of data are available, the four highest values from each year are averaged to determine conformity. The current ozone value for Victoria is 67, which is one of the lowest historical values in the region, as shown in **Figure 8.2.**

Figure 8.3 illustrates the number of days each year that Victoria County's ozone level exceeded 70 ppb. In the last six years, only one year had more than two days above the 70 ppb level. If this trend continues, Victoria County should remain in attainment if the ozone NAAQS is lowered to 70 ppb, which, as previously mentioned, is one new possible value being discussed by the EPA; if the standard is tightened to 65 ppb the county will be at risk of being declared non-attainment for air quality.

Figure 8.2: Historic Ozone Values, Victoria County

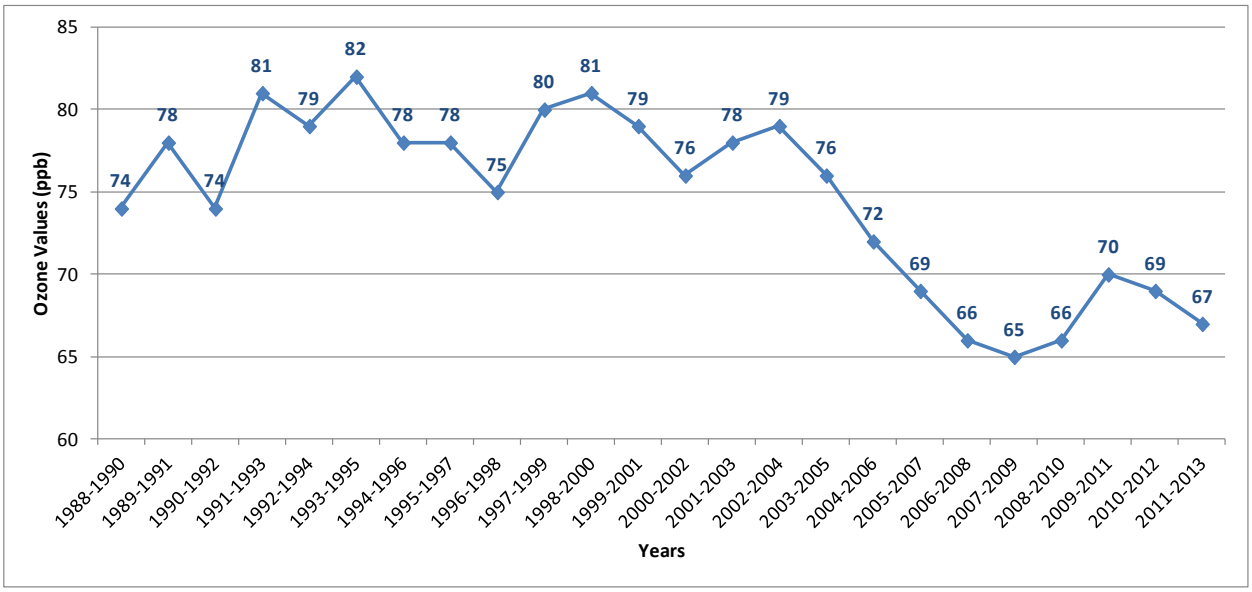
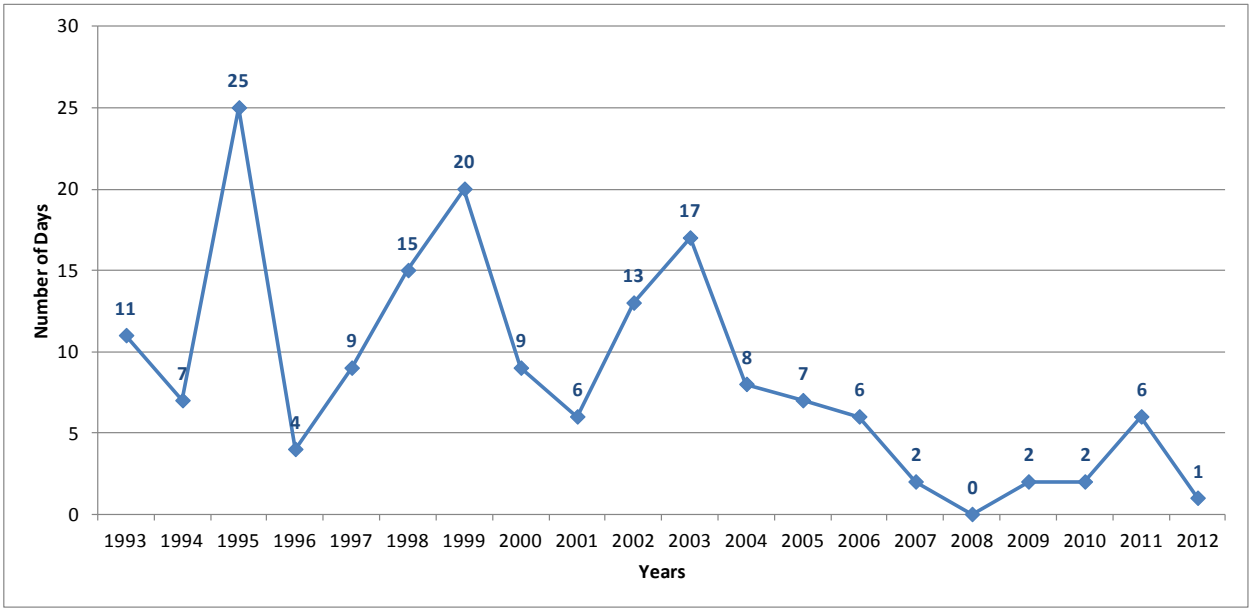


Figure 8.3: Number of Days Ozone Levles Greater than or Equal to 70 ppb, Victoria County



Air Quality and Transportation

Ground-level ozone is primarily created by nitrogen oxides (NOx) and volatile organic compounds (VOC) emissions from industrial facilities, electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents. Motor vehicle emissions are impacted by future traffic volumes and congestion levels. In developing transportation plans and policies, air quality should be taken into account to ensure Victoria County remains in compliance with federal and state air quality requirements.

Several methods and resources may be utilized to help the MPO maintain air quality conformity and monitor future air quality policies.

- **Transportation Projects and Policies**
  Traffic congestion and delay impact vehicle emissions. Future projects and policies that reduce travel delay, promote alternative transportation modes, like transit and pedestrian and bicycle facilities, and support different travel methods, like carpooling, will encourage improved air quality.

- **Public Awareness Programs**
  Educating the public on air quality issues is vital to promote change in the region. The City of Victoria Environmental Services Department conducts a significant air quality education program throughout Victoria. They direct a Community Advisory Panel, provide curriculum at local schools, manage two large events (Earth Day and Idle Free Jamboree,) and complete various print and media advertisements to educate and involve the public on air quality. The MPO will continue to assist and support their efforts.

- **Technical Working Group for Mobile Source Emissions (TWG)**
  The Victoria MPO is a member of TWG, which was formed by TxDOT in the early 1990s. It is currently managed by TxDOT and is facilitated by the Texas A&M Transportation Institute (TTI) to conduct meetings on current air quality policy and data sources. TWG has proven to be a valuable resource for the MPO to remain up-to-date on air quality issues.

Environmental Justice

Environmental Justice aims to ensure the equitable treatment of all throughout the transportation planning process. Title VI of the 1964 Civil Rights Act (42 U.S.C. 200d-1) states, "No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to the discrimination under any program or activity receiving federal financial assistance." The Executive Order issued on Environmental Justice in 1999 further amplified Title VI by providing that, "each federal agency shall make achieving Environmental Justice part of its mission by identifying, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

The MPO's Public Participation Plan (PPP) states that it is policy to ensure fair and full participation throughout the development of any plan. The 2040 MTP ensures a meaningful public participation process and identifies minority and low-income populations throughout Victoria County to complete the Environmental Justice analysis.

Public Participation

As described in Chapter 4, a new public participation strategy was specifically developed for the 2040 MTP. It resulted in a significantly higher number of responses than past plans and the responses represented a fair representation of the community. Surveys were distributed and collected at events within the Environmental Justice Areas, in addition to on-board Victoria Transit routes. A transit survey was developed to address the needs of transit riders, which includes low-income and minority populations. Furthermore, all surveys were available in both English and Spanish.

Environmental Justice Populations

2010 Census Block Groups, as defined by the U.S. Census Bureau, are used to determine minority and low-income areas for an Environmental Justice analysis.

- **Minority census block groups:** include areas in which the minority population is at least 50 percent of the total population. Minority populations include Hispanic and non-white populations.
- **Low-income census block groups:** include areas in which 50 percent or more of the population is considered low-income. Low-income is defined as a family with an annual income that does not exceed 80 percent of the median income for that area. As defined by the 5-year American Community Survey by the U.S. Census Bureau, the median income in 2010 for Victoria County was $48,767; consequently, a low-income family would have a median income at or below $39,013.60.

This data is illustrated in **Figures 8.4 and 8.5**. It is obvious that the majority of minority and low-income areas are within the City of Victoria. In fact, a large proportion of the City of Victoria is considered an Environmental Justice Area; this is understandable given that almost 50 percent of the entire population of the City of Victoria in 2010 was Hispanic. The southeast portion of Victoria County is also considered an Environmental Justice Area due to the presence of minority populations.

The Victoria MPO is committed to ensuring fair treatment for all people and both the Environmental Justice Areas and public participation results are considered throughout the planning process. This data is available to staff during the development of any transportation project and the 2040 MTP will utilize these results when evaluating projects.

Figure 8.4: Environmental Justice Areas, City of Victoria

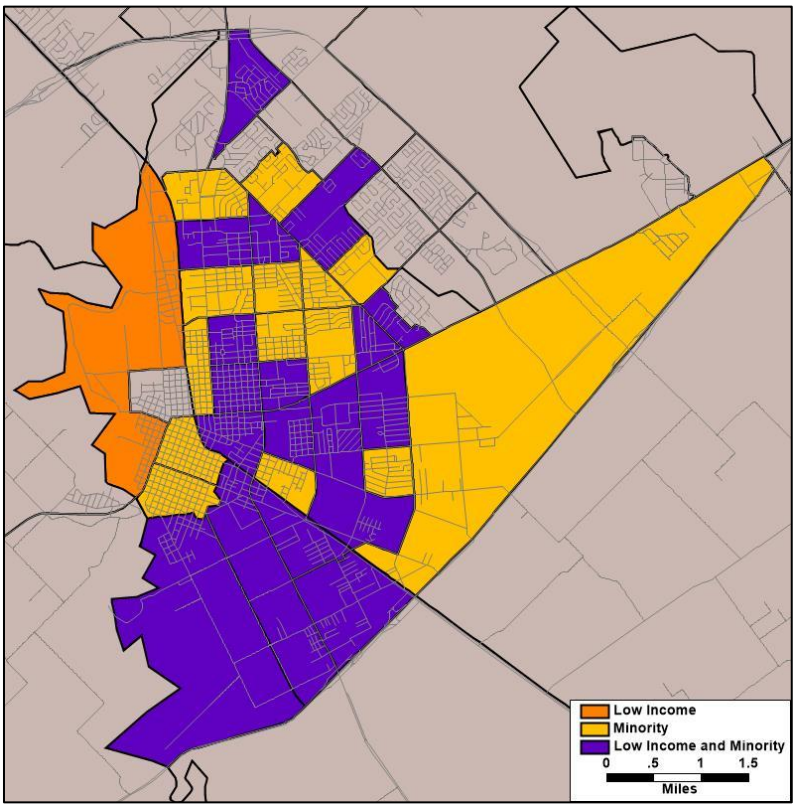
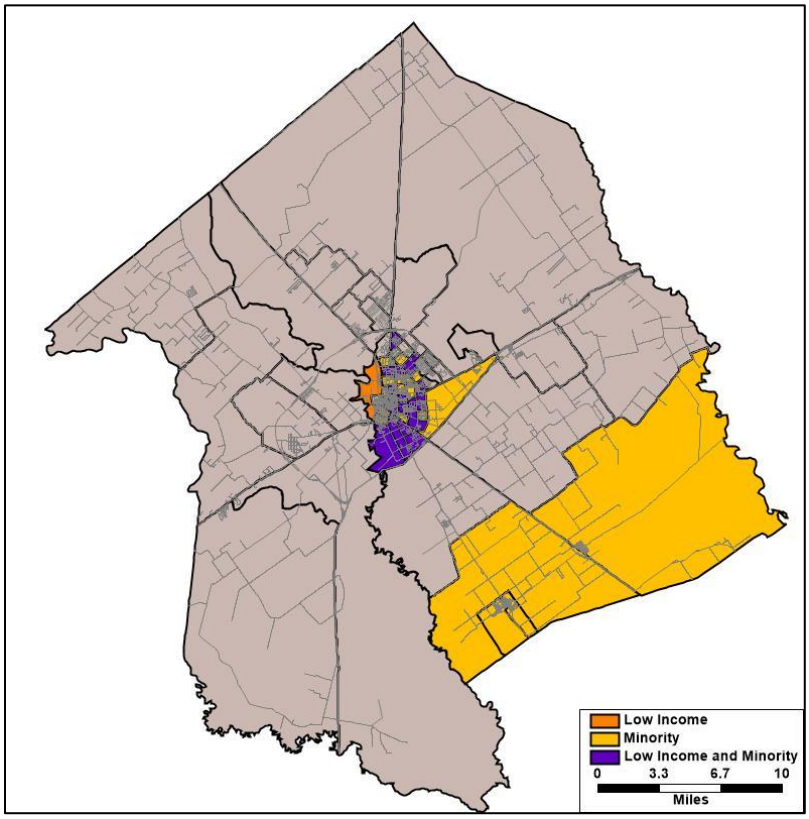


Figure 8.5: Environmental Justice Populations, Victoria County



Environmentally Sensitive Areas

The Victoria MPO actively examines local environmentally sensitive areas to consider when planning transportation projects. If environmental issues are taken into account early in the transportation planning process then different measures can often be taken. When possible, alternative actions should be pursued to avoid an environmentally sensitive area; if an issue is unavoidable, efforts should be made to minimize the negative effects on the environment. The following section details several environmentally sensitive areas that were considered in the development of this plan and should continue to be considered in the development of future transportation projects.

Parks and Recreation

Parks and open spaces are important features appreciated by the Victoria population. The City of Victoria's Parks and Recreation Department maintains and operates 16 parks and 888 acres of parkland, which contain walking trails, a youth sports complex, a splash-pad, and a variety of other amenities. The City's park facilities are summarized in **Table 8.2**.

Table 8.2: City of Victoria Parks Facilities

Facility	Location	Amenities
Boulevard Park	2204 Rose St.	Children's play equipment, basketball court
Brownson Park	202 N Laurent St.	Children's play equipment, basketball goals, picnic tables
DeLeon Plaza	101 N. Main St.	Gazebo, benches, historical features
Ethel Lee Tracy Park	701 E. Larkspur St.	Children's play equipment, amphitheater, pavilian, fishing lake, sports courts
Green Belt Park	E. Mockingbird Ln. & Vicksburg St.	Open space
Hopkins Park	505 S. Laurent St.	Children's playground, pavilion, picnic tables
Lone Tree Creek Park	4009 E. Airline Rd.	Splash pad, practice fileds, hike and bike trail
Martin Luther King, Jr. Park	3808 Callis St.	Children's playground, pavilion, basketball court
Meadowlane Park	3202 Meadowlane Ave.	Children's play equipment, basketball courts, picnic tables
Memorial Park	402 N. DeLeon St.	Historic features
Pine Street Community Park	802 E. Pine St.	Children's play equipment, basketball court, picnic tables
Queen City Park	2202 N. Cameron St.	Playground equipment, picnic tables
Riverside Park	West of Vine St., between Magnolia Ave. & Stayton St.	Children's park, boat ramp, riverside golf course, trails, disc golf, texas zoo, rose garden, paddling trail, Grover's Bend, duck pond, Riverside Stadium
Ted B. Reed Park	2101 Salem Rd.	Children's playground, pavilion, walking trail, picnic tables, sports courts
Will Rogers Park	1108 E. Warren Ave.	Children's play equipment, basketball goals

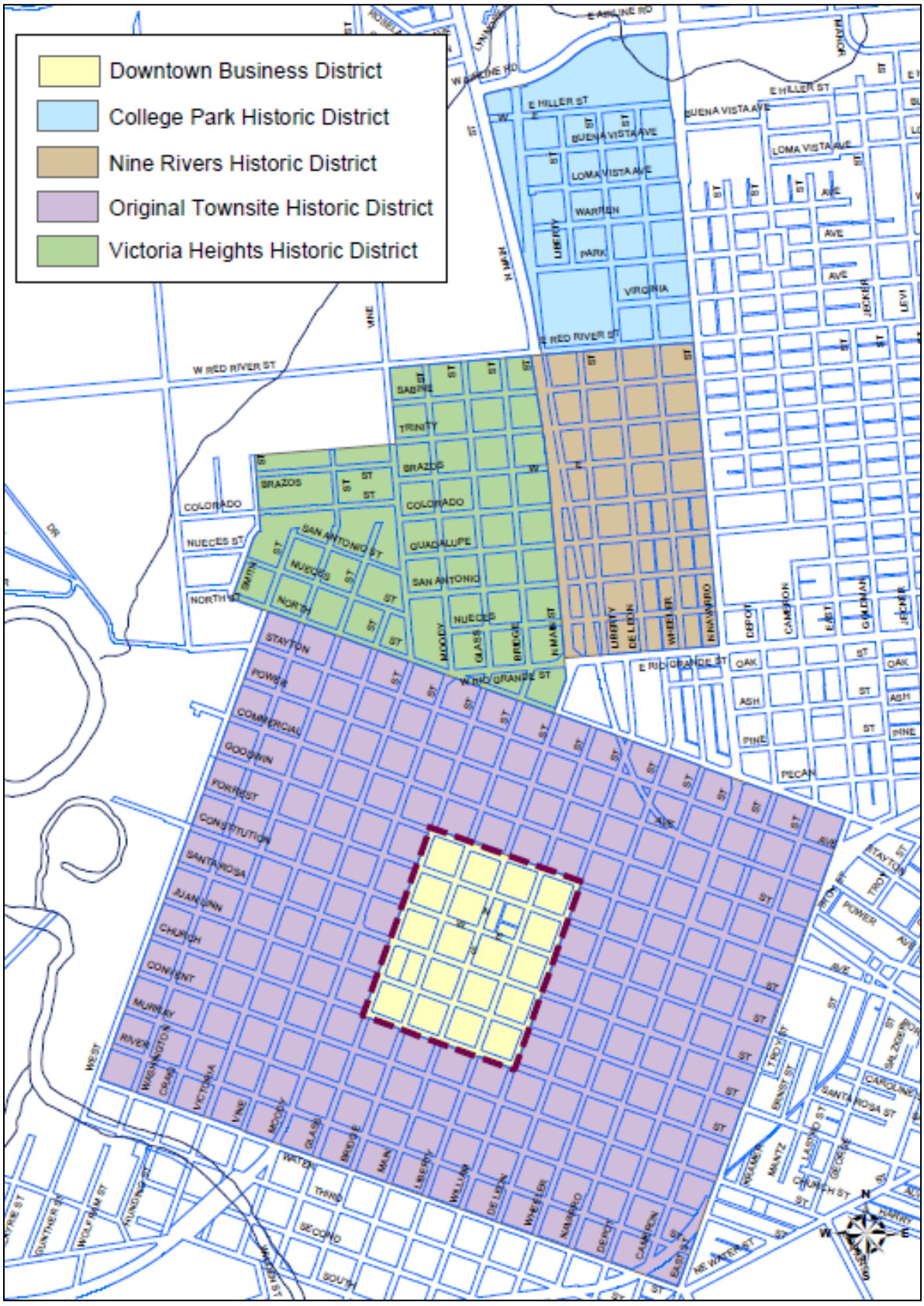
Historical Structures

Victoria is home to an abundance of historical structures and several historic districts. **Figure 8.6** illustrates Texas Historical Commission data, which includes a total of 124 nationally recognized locations in Victoria County. Most sites are located in Downtown Victoria. Also located in downtown Victoria are four historical districts designated by the City of Victoria between 2007 and 2013, shown in **Figure 8.7**.

Figure 8.6: Historic Sites, Victoria County

Source: Texas Historical Commission

Figure 8.7: City of Victoria Historic Districts



Rare, Threatened, and Endangered Species

Victoria County is home to several rare, threatened, and endangered species, however the U.S. Fish and Wildlife Service has not identified any critical habitats in the area; consequently, there are no specific areas assigned for endangered species. Texas Parks and Wildlife maintains a county level inventory of species of special concern and is summarized in **Table 8.3**.

Table 8.3: Rare, Threatened, and Endangered Species in Victoria County

Group	Common Name	Federal Status	State Status
Amphibians	Black-spotted newt	R	T
Birds	American Peregrine Falcon	DL	T
	Arctic Peregrine Falcon	DL	R
	Attwater's Greater Prairie-Chicken	E	E
	Bald Eagle	DL	T
	Brown Pelican	DL	R
	Henslow's Sparrow	R	R
	Interior Least Tern	E	E
	Mountain Plover	R	R
	Peregrine Falcon	DL	T
	Reddish Egret	R	T
	Sprague's Pipit	C	R
	Western Burrowing Owl	R	R
	White-faced Ibis	R	T
	White-tailed Hawk	R	T
	Whooping Crane	E	E
	Wood Stork	R	T
Fish	American eel	R	R
Insects	A mayfly	R	R
	Texas asaphomyian tabanid fly	R	R
Mammals	Louisiana black bear	T	T
	Plains spotted skunk	R	R
	Red wolf	E	E
	White-nosed coati	R	T
Mollusks	Creeper (squawfoot)	R	R
	False spike mussel	R	T
	Golden orb	C	T
	Texas pimpleback	C	T
Reptiles	Cagle's map turtle	R	T
	Texas diamondback terrapin	R	R
	Texas horned lizard	R	T
	Texas tortoise	R	T
	Timber rattlesnake	R	T
Plants	Shinner's sunflower	R	R
	Welder machaeranthera	R	R
E: Endangered	**T: Threatened**	**DL: Delisted**	**C: Candidate** **R: Rare**

Water Environments

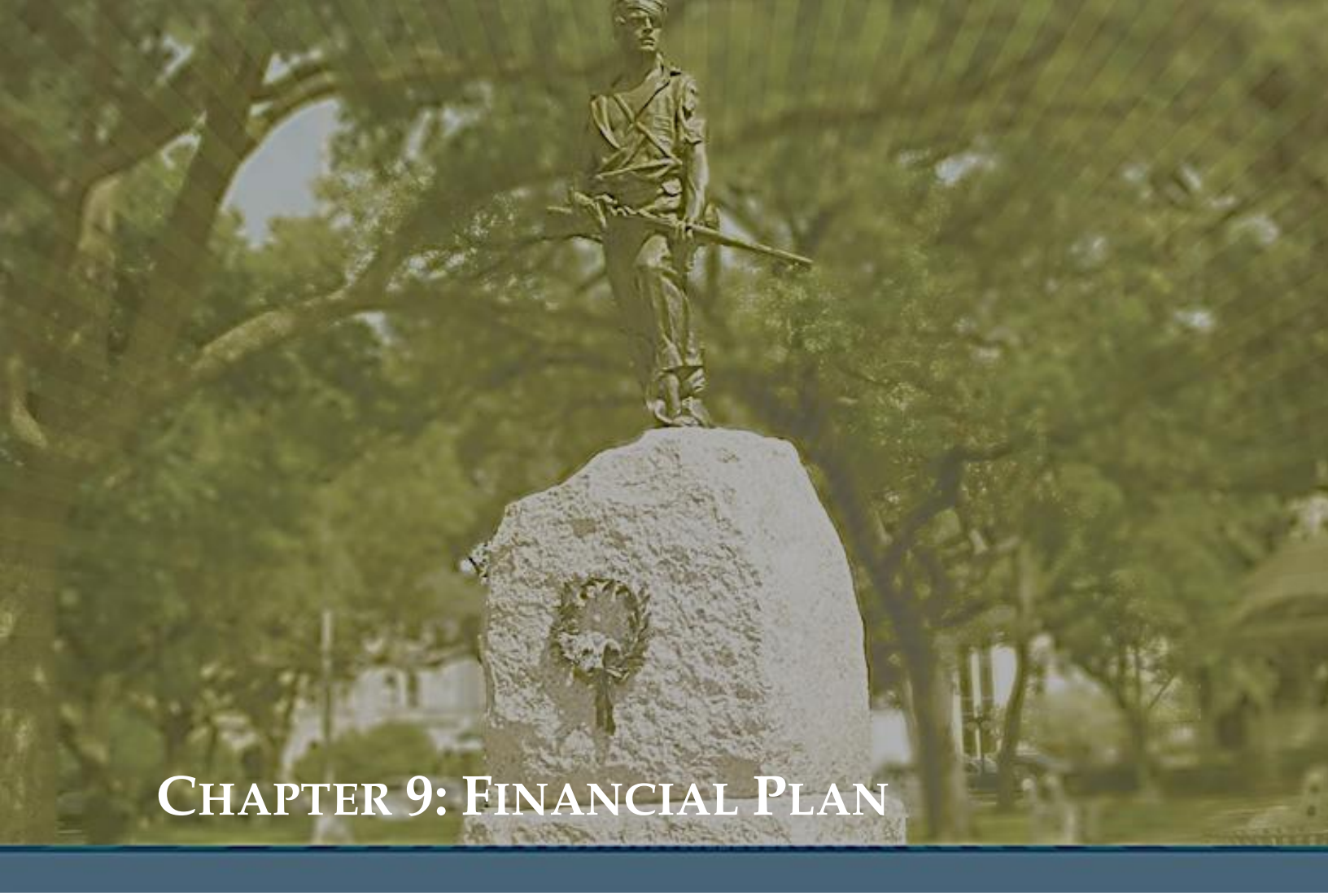
Victoria County is home to several water environments, including:

- **Guadalupe River:** the County is intersected by the river, which empties into the San Antonio Bay approximately 12 miles south of the County.
- **Watersheds:** Victoria County crosses six watersheds, including the Lavaca, Lower Guadalupe, Lower San Antonio, West Matagorda Bay, East San Antonio Bay, and West San Antonio Bay.
- **Other Water Features:** the southeast portion of the County sits on Lavaca Bay and the southwest portion of the County is home to the Coleto Creek Park and Reservoir and Saxet Lake Park.

Both pollution and flooding should be considered when evaluating future transportation projects. Storm water pollution can impact watersheds and the quality of the water. Additionally, several of these areas are susceptible to flooding and storm surge by a hurricane.

Summary

It is vital to incorporate an environmental analysis when completing transportation plans. Air quality, environmental justice, and environmentally sensitive areas were taken into account in the development of the 2040 MTP project list. They are specifically included in the "Local Impact" evaluation criteria used to rate potential projects. Furthermore, prior to the construction of any transportation project using federal funds, the National Environmental Policy Act (NEPA) requires a detailed environmental analysis.



Chapter 9: Financial Plan

CHAPTER HIGHLIGHTS

- Funding Sources
- Revenue Projections

The financial plan is an examination of the Victoria MPO's ability to fund needed projects in the 25-year planning period. The Victoria MPO, in cooperation with TxDOT staff, conducted a careful analysis to determine which funds can be reasonably expected, how those funds may be allocated, and how and when the projects will be financed. The actual funding availability over the 25 years of this plan will depend largely upon future actions and public policy directives initiated at the Federal and State levels. This chapter details the funding sources and projected revenues; the following chapter details project evaluation and selection and the fiscal constraint of the plan.

Funding Sources

The framework for funding much of the area's transportation program is largely defined by MAP-21, the current federal transportation authorization bill. Transit improvements are funded by the Federal Transit Administration and all other transportation improvements are funded through Federal Highway Administration, which are appropriated by TxDOT. Most regional roadway projects are financed through federal and state funds derived from fuel taxes and vehicle registration fees. Transit projects are also funded through federal, state, and local sources, in addition to fare revenues.

The nation's transportation funding is currently at a crossroads; revenues from the gas tax have grown stagnant in recent years, largely due to improved fuel efficiency and the decreased purchasing power of the gas tax. Furthermore, the current MAP-21 extension will expire in May 2015 and the next long range transportation bill is still under development. Regardless of final changes, this new bill is not likely to adequately fund all of the nation's transportation needs. However, when new funding from this bill becomes available, the Victoria MPO will be prepared with a prioritized list of transportation improvement projects.

Roadway and Transit

The Texas Administrative Code specifies 12 funding categories for highway related projects, as detailed in **Table 9.1**. The six Federal Transit Administration (FTA) funding programs are described in **Table 9.2**.

Proposition 1

On Nov. 4, 2014, Texas voters overwhelmingly approved the Proposition 1 ballot measure authorizing a constitutional amendment for transportation funding. Under the amendment, a portion of oil and gas tax revenues formerly reserved for the Economic Stabilization Fund are instead reserved for the State Highway Fund every year.

Funding amounts can vary greatly between years due to the volatility in the oil and gas prices. Consequently, a reasonable revenue projection for this source of funding cannot be made through the year 2040. Approximate funding amounts and anticipated projects were determined for fiscal years 2015-2017 by working closely with the TxDOT Yoakum District. The MPO will update the MTP's fiscal constraint and subsequent list of funded projects in the future to address future changes in this revenue source.

Table 9.1: TxDOT Funding Categories

Funding Category	Description
1 - Preventive Maintenance and Rehabilitation	Provides for preventive maintenance and pavement rehabilitation on the existing state highway system, including installation and rehabilitation of traffic control devices and the rehabilitation and maintenance of operational traffic management systems.
2 - Metropolitan and Urban Area Corridor Projects	Addresses mobility needs in all metropolitan areas throughout the state.
3- Non-Traditionally Funded Transportation Projects	Addresses mobility needs throughout the state using funding sources not traditionally part of the state highway fund. The projects in this category include Proposition 12, Propostion 14, Pass through Toll Financing, Texas Mobility Fund, Concession, Regional Toll Revenue, Comprehensive Development Agreement, Local Participation, and unique federal funding.
4- Statewide Connectivity Corridor Projects	Addresses mobility and added capacity project needs on major state highway system corridors which provide statewide connectivity between urban areas and corridors which serve mobility needs throughout the state. The highway connectivity network is composed of the: Texas Trunk System; National Highway System (NHS); and connections from the Texas Trunk System or NHS to major ports on internatioanl borders or Texas waterports.
5 - Congestion Mitigation and Air Quality Improvement	Addresses the attainment of national ambient air quality standards in the non-attainment areas of the state. Projects are for congestion mitigation and air quality improvement.
6 - Structures Replacement and Rehabilitation Bridge Program; Railroad Grade Separation Program	Addresses the replacement or rehabilitation of deficient bridges existing on public highways, roads, and streets in the state; the construction of grade separations at existing highway railroad grade crossings; and the rehabilitation of deficient railroad underpasses on the state highway system.
7 - Metropolitan Mobility / Rehabilitation	Addresses transportation needs within the metropolitan area boundaries of Metropolitan Planning Organizations having urbanized areas with populations of 200,000 or greater.
8 - Safety	Addresses safety needs on and off the state highway system, and includes the High Risk Rural Roads program, and the Rail-way Highway Safety program.
9 - Transportation Enhancements and Transportation Alternatives	Addresses projects that are above and beyond what is normally expected in the way of enhancements to the transportaiton system, including the cultural, historic, aesthetic, and environmental aspects of transportation infrastructure.
10 - Supplemental Transportation Projects	Addresses projects that do not qualify for funding in other categories, such as state park roads, landscaping, and handicap accessible curb ramps at on-system intersections.
11 - District Discretionary	Addresses projects selected at the District Engineer's discretion.
12 - Strategic Priority	Addresses needs related to statewide economic development, military deployment routes, and manmade and natural emergencies.

Table 9.2: FTA Funding Categories

Funding Category	Description
5307 - Urbanized Area Formula Grant Program	Program subsidizes the operating and capital cost of transit services. Eligible expenses include planning, engineering, most administration, preventive maintenance, fuel, parts, and operating costs.
5310 - Transportation for Elderly Persons and Persons with Disabilities	Capital expenses that support transportation to meet the special needs of older adults and persons with disabilities.
5311 - Rural Transit and Intercity Bus	Capital, planning, and operating expenses for public transit in non-urbanized areas with a population under 50,000 as designated by the Census Bureau.
5316 - Job Access and Reverse Commute Program	Capital, planning, and operating expenses for projects that transport low income individuals to and from jobs and activities related to employment and for reverse commute projects.
5317 - New Freedom Program	Capital and operating expenses for new public transportaiton services and new public transportation alternatives beyond those required by the Americans with Disabilities Act (ADA) that are designed to assist individuals with disabilities.
5339 - Capital Improvement Program	Divided into three categories: modernization of existing rail systems, new rail systems, and new replacement buses and facilities. These funds are used to subsidize the purchase of buses, bus-related equipment and paratransit vehicles, and for the construction of bus-related facilities.

Revenue Projections

Roadway

The MPO consulted the TxDOT Yoakum District when developing the expected levels of funding included in this plan. The Transportation Revenue Estimator and Needs Determination System (TRENDS) was utilized to project reasonable revenue. TRENDS is a scenario planning model managed by the Texas A&M Transportation Institute (TTI) that forecasts revenues and expenses for TxDOT by considering a number of variables related to statewide transportation needs, population growth rates, fuel efficiency, taxes, fees, and other elements. **Table 9.3** summarizes the funding amounts by category for Victoria between fiscal years 2015 and 2040.

Table 9.3: Victoria Roadway Funding Revenue, FY 2015-2040

Category	Category Description	Average Annual	Total
1	Preventative Maintenance and Rehabilitation	$ 767,798	$19,962,754
2	Metropolitan and Urban Area Corridor Projects	$ 571,804	$14,866,900
3	Non-Traditionally Funded Transportation Projects	$ -	
4	Statewide Connectivity Corridor Projects	$ -	$ -
5	Congestion Mitigation and Air Quality Improvement	$ -	$ -
6	Structures Replacement and Rehabilitation Bridge Program; Railroad Grade Separation Program	$ 191,043	$ 4,967,126
7	Metropolitan Mobility / Rehabilitation	$ -	$ -
8	Safety	$ 23,766	$ 617,924
9	Transportation Enhancements and Transportation Alternatives	$ -	$ -
10	Supplemental Transportation Projects	$ -	$ -
11	District Discretionary	$ 546,400	$14,206,400
12	Strategic Priority	$ -	$ -
Prop 1	Combined Categories 1, 2M, & 11 for 3 years	*	$ 40,027,000
* Propostion 1 funding varies greatly on an annual basis, thus making an average annual inconsequential			

Transit

Victoria Transit was consulted in developing the forecast transit revenues. The anticipated transit funding is shown in **Table 9.4**.

Table 9.4: Victoria Transit Funding Revenues, FY 2015-2040

Category	Funding Category	Average Annual	Total
5307	Urbanized Area Formula Grant Program	$ 3,386,856	$ 88,058,257
5310	Transportation for Elderly Persons and Persons with Disabilities	$ -	$ -
5311	Rural Transit and Intercity Bus	$ -	$ -
5316	Job Access and Reverse Commute Program	$ -	$ -
5317	New Freedom Program	$ -	$ -
5339	Capital Improvement Program	$ 164,000	$ 4,264,000

CHAPTER 10: PROJECT SELECTION

CHAPTER HIGHLIGHTS

- Candidate Projects
- Project Evaluation
- Projects by Score and Rank

This chapter is the culmination of the MTP planning process designed to guide fair project selection. This process supports a fully integrated multimodal transportation system, an efficient use of available funding, and meets all federal and state regulations. The end result is the selection of a set of transportation system projects within the given limits of available and reasonably anticipated funding through the year 2040.

This planning process has followed a logical and sequential process:

- **Chapters 1 & 2**: introduced the planning context and regulations the process follows;
- **Chapter 3**: detailed 2012 and 2040 conditions and issues facing the transportation system;
- **Chapters 4 & 5**: described the public outreach efforts that built the locally-focused set of evaluation criteria used to rate system performance and to evaluate potential projects;
- **Chapter 6**: reviewed the performance of the different transportation modes and listed potential projects to address deficiencies;

- **Chapters 7 & 8**: reviewed related safety & security and environment issues to evaluate their performance and determine their influence on the transportation system;
- **Chapter 9**: developed the financial plan to determine available funding through the year 2040 and identified specific funding categories;
- **Chapter 10**: brings together all previous work to select the list of funded and unfunded projects through 2040.

> **You can do anything, but you can't do everything.**
> *David Allen*

Candidate Projects

Roadway

The complete list of candidate roadway projects evaluated in this MTP is shown in **Table 10.1**. Projects were generated from a variety of sources: the MPO's 2035 MTP and FY 2015-2018 TIP; MPO Policy Advisory Committee recommendations; and projects generated as a result of analysis for this plan that revealed system deficiencies.

Table 10.1: List of Candidate Roadway Projects

Table 10.1 - first amendment changes

ID	Timeframe	Category	Road	Limits from	Limits to	Description	Project Cost
1	Near-term	Capacity	US 77	0.42 mi east of FM 1685	1.04 mi west of US 87	Add 2 lanes	$ 25,000,000
2	Near-term	Connectivity, Capacity	Loop 463	Mockingbird Ln	BU 59T	New construction of one-way, two-lane frontage road, EB	$ 5,077,864
3	Near-term	Connectivity, Capacity	US 59	Loop 463	US 59 / Business US 59	Construct frontage roads and overpa	$ 25,000,000
4	Near-term	Connectivity, Capacity	US 59	Hanselman Rd		Add overpass	$ 12,000,000
5	Near-term	Connectivity, Capacity	US 59	SH 185	US 87	Construct frontage roads	$ 1,500,000
6	Near-term	Safety, Capacity	Business US 77	Loop 463	Airline Rd	Construct center median	$ 3,500,000
7	Near-term	Safety, Capacity	SH 185	FM 1432		Construct overpass	$ 10,750,000
8	Near-term	Safety, Capacity	US 87	FM 447		Construct overpass	$ 13,356,461
9	Long-term	Capacity	FM 236	US 77	FM 622	Add 2 lanes	$ 14,926,700
10	Long-term	Capacity	Loop 463	North of Business US 59	Lone Tree Rd	Add 2 lanes	$ 1,783,000
11	Long-term	Capacity	US 59	FM 1686	FM 444	Add 2 lanes	$ 17,640,646
12	Long-term	Capacity	US 77	FM 236	FM 446	Add 2 lanes	$ 8,472,800
13	Long-term	Capacity	US 77 S	US 77 / US 59 interchange	Refugio County Line	Add 2 lanes	$ 46,410,900
14	Long-term	Capacity	US 87	Zac Lentz Pkwy.	FM 447	Add 2 lanes	$ 24,505,000
15	Near-term	Safety	FM 444	US 77	US 59	Safety treat fixed objects	$ 724,887
16	Near-term	System Preservation	FM 1090	US 87	Calhoun County Line	Seal coat	$ 226,860
17	Near-term	System Preservation	FM 1432	SH 185	End of State Maintenanc	Rehabilitate roadway	$ 1,532,025
18	Near-term	System Preservation	FM 237	Dewitt County Line	FM 236	Seal coat	$ 218,251
19	Near-term	System Preservation	FM 2615	US 87	FM 1686	Seal coat	$ 204,842
20	Near-term	System Preservation	US 59	0.5 mi W of SP 91	BU 59-T	Seal coat	$ 417,552
21	Near-term	System Preservation	US 59	Jackson County Line	BU 59-T	ACP overlay	$ 7,776,735
22	Near-term	System Preservation	US 59	LP 463	US 77	ACP overlay	$ 4,800,318
23	Near-term	Bridge Preservation	CR	CR 169	Kohutek Rd	Replace bridge & approaches	$ 331,526
24	Near-term	Bridge Preservation	CR	Arenosa Creek CR 130	J2 Ranch Road	Replace bridge & approaches	$ 334,712
25	Near-term	Bridge Preservation	CR	At Spring Creek CR 46	Oliver Road	Replace bridge & approaches	$ 936,681
26	Near-term	Bridge Preservation	CR	At Dry Creek CR 134	Old Goliad Rd	Widen bridge & approaches	$ 1,230,403
27	Near-term	Bridge Preservation	CR	Victoria Barge Canal	Dupont Road	Replace bridge & approaches	$ 2,899,252
28	Near-term	Bridge Preservation	FM 616	At Chocolate Bayou		Replace bridge & approaches	$ 760,529

For the sake of completeness, this list includes projects with dedicated funding categories outside this MTP process. Specifically, projects 15-28 and are selected by the TxDOT Yoakum District. These projects will not be evaluated. Projects 1-14 are free-standing projects that will be evaluated below.

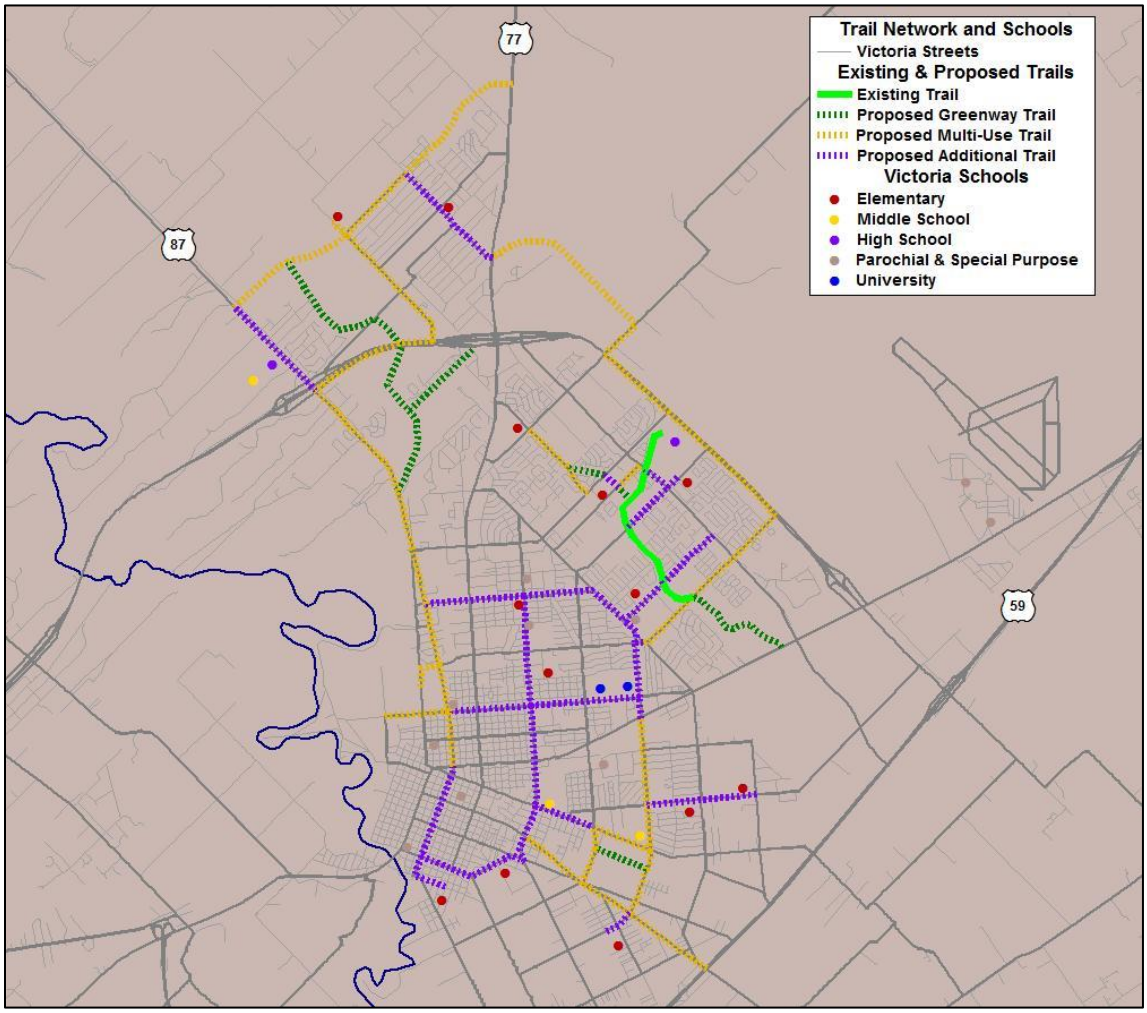
Transit

Transit projects are selected through a separate evaluation process done by Victoria Transit. They will not be evaluated, but anticipated future projects are listed in the following section.

Bicycle and Pedestrian Projects

Potential bicycle and pedestrian projects are displayed in **Figure 10.1**. Projects were generated from the City of Victoria's Paseo de Victoria hike and bike master plan and as a result of analysis for this MTP. While these projects are not evaluated in this plan due to unavailable funding, this map creates a starting point to aid in the future development of an alternative transportation system that links schools, residences, and businesses.

Figure 10.1: Potential Bicycle and Pedestrian Projects



Project Evaluation

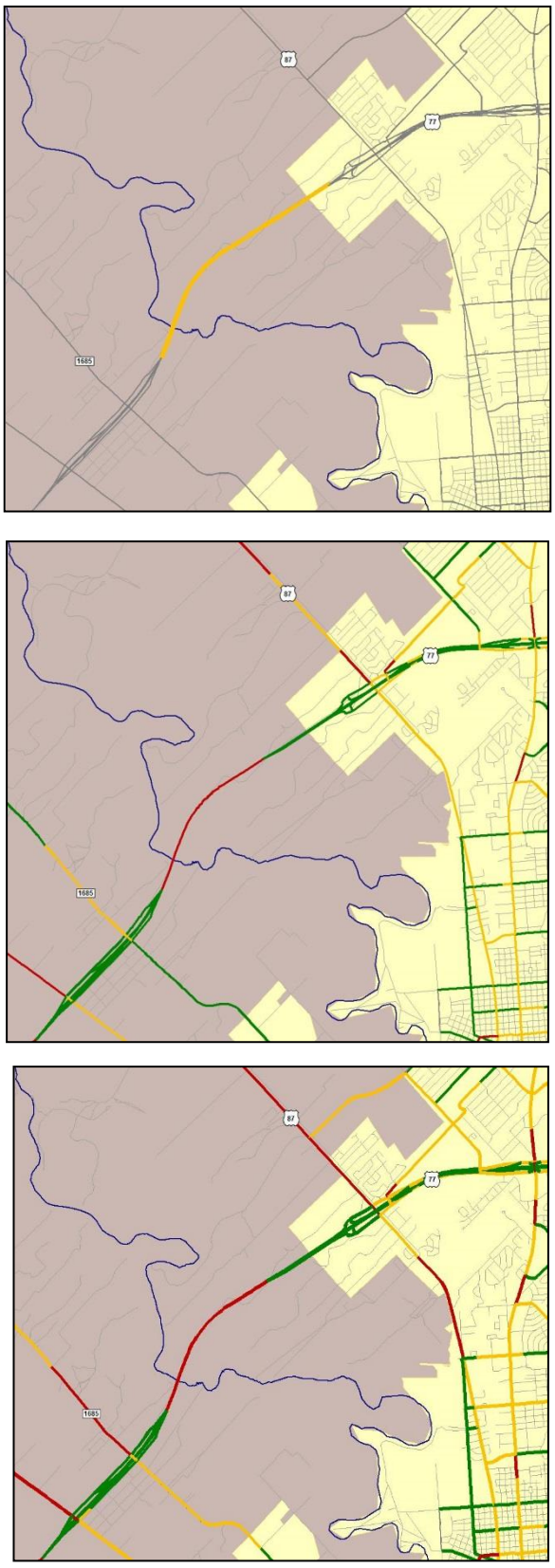
The criteria used to evaluate each project are shown in **Table 10.4**. The development of these criteria is documented in Chapter 5. The criteria were used as a "scorecard" to rank the need for each candidate project and to also evaluate how well it can address those needs.

Table 10.2: Project Evaluation Criteria

Criterion	Description	Weight
Traffic Safety	Projects to improve general safety on streets, street safety at schools, slower traffic speeds within neighborhoods, and the safety aspect of railroad crossings.	20
System Preservation	Projects to improve pavement quality and bridge condition	17
Economic Development	Projects to support job growth, access to jobs, freight movements, and regional land use goals.	16
Efficient Operations	Projects relating to traffic flow and access. Categories include signal timing, consistent speeds throughout the network, access to schools, freight operations, railroad crossings, and multimodal system connectivity.	15
Congestion	Projects related to both existing congestion and the forecast congestion in the year 2040.	12
Multimodal Development	Projects to support non-vehicular modes of transportation and the provision of pleasant amenities of such modes as a quality of life issue. This criterion includes the sidewalk network, bicycle routes, trails, bus stops, bus stop amenities, and bus turnouts.	10
Local Priorities and Funding Efficiencies	Established to capture whether a project has been selected in previous plans, public comments, cost effectiveness, overmatch of the local share, and readiness for project letting to construction.	6
Local Impact	Incorporates general considerations of a project's impact on greenhouse gas, noise, water quality, and quality of life, as well as the separate types of impacts on historic structures. This criterion is also the vehicle for recognizing a project that contributes to reducing inequitable impacts of transportation on minority communities under the category of environmental justice.	4

Project 1: US 77 between FM 1685 and US 87

Figure 10.6: US 77 Project Limits, 2012 LOS, and 2040 LOS



Several projects that upgrade Zac Lentz Parkway to a consistent four-lane freeway have been proposed. This project upgrades US 77 to a four-lane highway as it crosses the Guadalupe River. As shown in **Figure 10.6**, this portion lies between two previously upgraded sections.

The 2012 LOS is E-F and would remain in that range without the upgrade; however, by constructing this project LOS will improve to the C-D range.

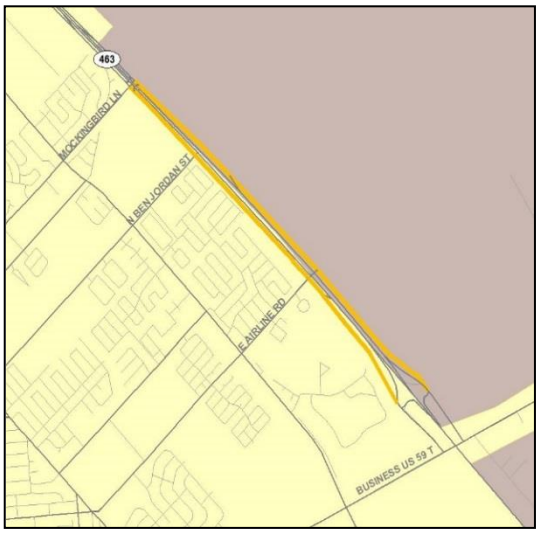
Safety is always an issue when merging between four-lane and two-lane highways; while 2012 TxDOT crash data indicated no fatal injuries, a head-on fatal crash in 2014 was thought to be caused by a driver swerving into oncoming traffic to avoid debris on this two-lane undivided road. This project will make this currently high speed, high traffic roadway significantly safer.

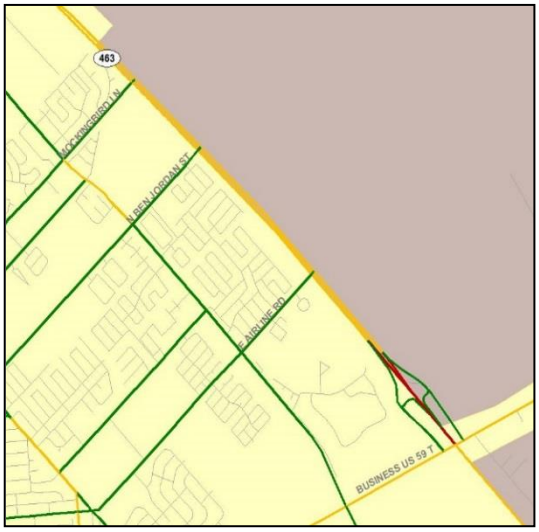
The total score for this project is 71.

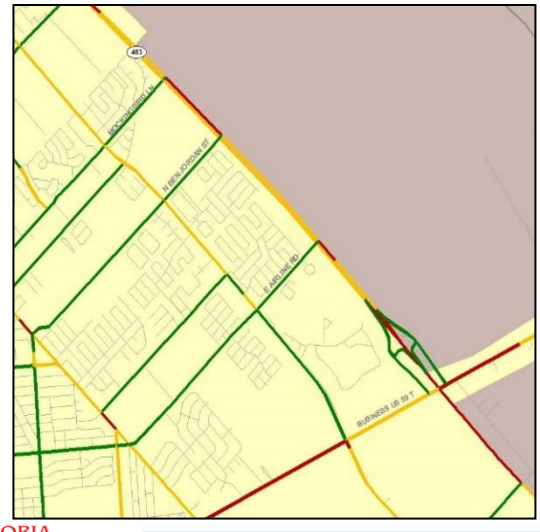
US 77: Guadalupe River Bridges	
Criteria	**Weight**
Traffic Safety	20
System Preservation	10
Economic Development	8
Efficient Operations	12
Address Congestion	12
Multimodal Development	0
Local Priorities & Funding Efficiencies	6
Local Impact	3
Total Score	71

Project 2: Loop 463 between Mockingbird and Business US 59/New Construction of One-way, Two-lane Frontage Road, EB

Figure 10.9: Loop 463 Project Limits, 2012 LOS, and 2040 LOS







With new overpasses recently constructed at Mockingbird, Salem, and Airline Roads, frontage roads will be completed along the northeast portion of Loop 463. This project would complete frontage roads along the southwest side of Loop 463 and move direct access to the main lanes from Ben Jordan Street to the frontage roads.

This project serves the Caterpillar plant, industrial growth areas, the Victoria Regional Airport, and Victoria East High School. It contributes to economic development, access to jobs, efficient movements, and safety due to its proximity to these land uses.

Current performance of the main lanes is in the range of LOS C-D, with forecast performance dropping to LOS E-F in certain areas. Frontage roads would relieve some traffic from the main lanes, particularly shorter trips. Frontage roads with overpasses and turnarounds would also increase convenient flows and safety for turning movements.

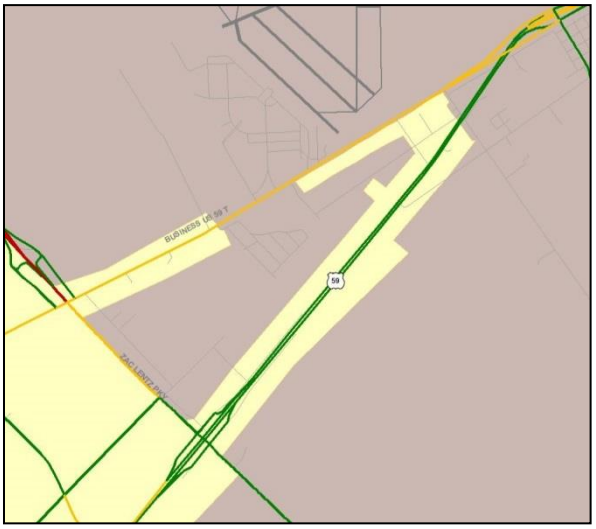
Due to its geographic locations and its role in completing paths of the Zac Lentz Parkway, this project would contribute to economic development, job access, connectivity, and safety. Continuous frontage roads are also more amenable to bicyclists, contributing to multimodal connectivity.

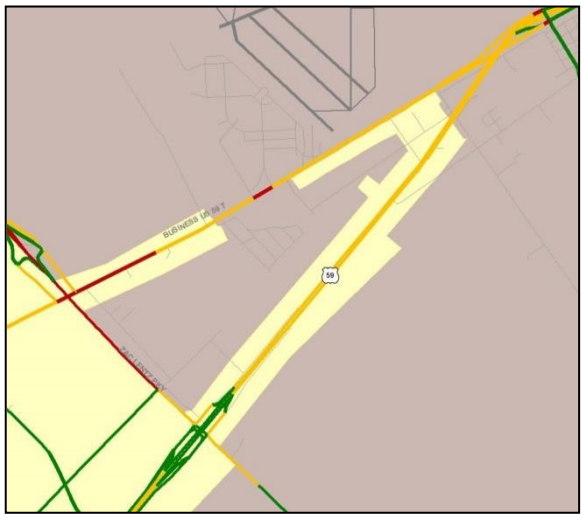
The total score for this project is 52.

Lp 463: Frntg Rds Mockingbird to BU 59	
Criteria	Weight
Traffic Safety	10
System Preservation	3
Economic Development	12
Efficient Operations	10
Address Congestion	6
Multimodal Development	5
Local Priorities & Funding Efficiencies	4
Local Impact	2
Total Score	52

Project 3: US 59 between Loop 463 and Business US 59/US 59 Split

Figure 10.10: US 59 Project Limits, 2012 LOS, and 2040 LOS





This project includes the construction of one-way frontage roads along both sides of this stretch of US 59. It would continue the frontage road project currently under construction and is one piece of completing frontage roads along US 59 in the Victoria City Limits.

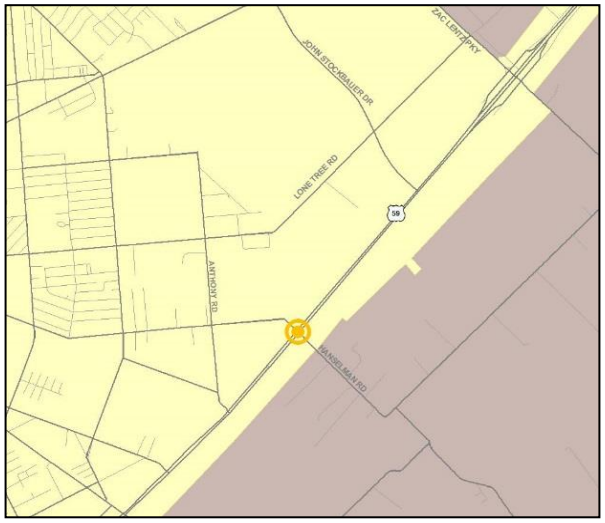
The segment in this project directly serves potential industrial growth areas in Victoria. **Figure 10.9** shows that without the project, the US 59 mainlanes are forecast to degrade from LOS A-B in 2012 to LOS C-D in 2040. Constructing frontage roads will relieve the mainlanes by removing some trips, and also contributing to accessibility, connectivity, and safety in the area.

The total score for this project is 64.

US 59: Frontage Rd Loop 463 to US 59	
Criteria	Weight
Traffic Safety	20
System Preservation	3
Economic Development	12
Efficient Operations	10
Address Congestion	6
Multimodal Development	5
Local Priorities & Funding Efficiencies	6
Local Impact	2
Total Score	64

Project 4: US 59 at Hanselman Road

Figure 10.11: US 59 Project Limits and Aerial Photo of Existing Development



Frontage roads are currently under construction along US 59 between Loop 463 and US 87; the project is 3.446 miles long and employs one way frontage roads on both sides of US 59. This project was developed as a way to improve access to businesses adjacent to the one-way frontage roads.

Figure 10.11 shows the existing businesses along US 59. As the frontage roads are built without a crossover, access to these businesses will only be available from off ramps located some distance away. If a person misses a business, they will have to circle a considerable distance to the next turnaround.

Performance of this portion of US 59 is projected to be in the LOS C-D range for both 2012 and 2040. With the frontage roads in place, LOS is expected to remain at LOS C-D for the mainlanes, and is projected at LOS A-B for the frontage roads.

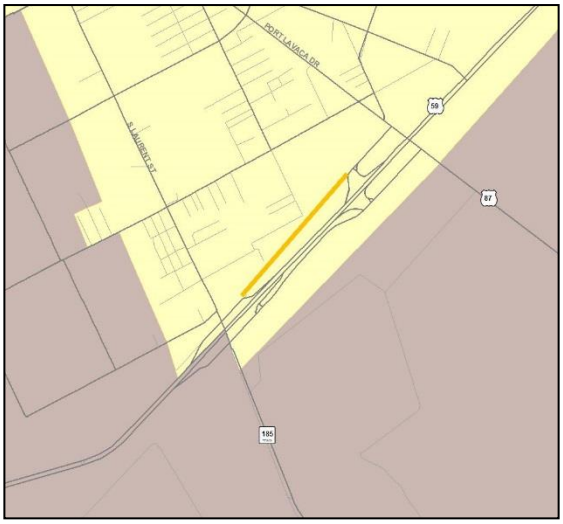
The primary purpose of this crossover project is to improve connectivity.

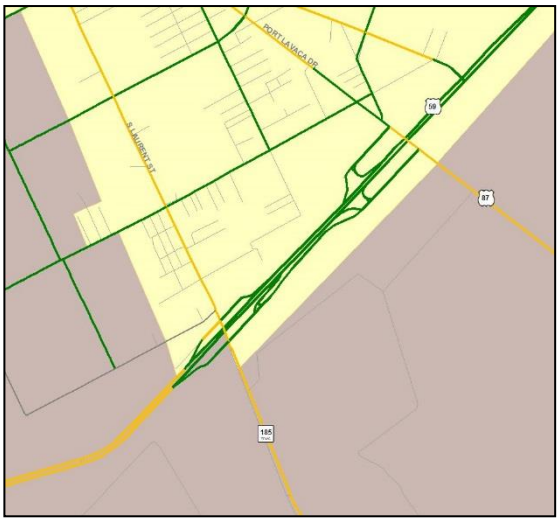
The total score for this project is 47.

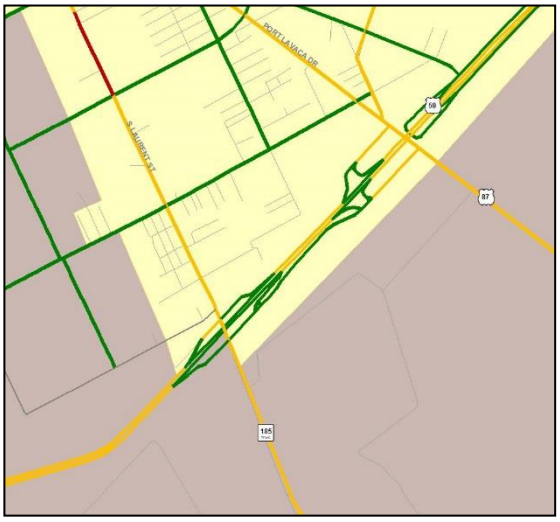
US 59: Overpass at Hanselman Rd	
Criteria	Weight
Traffic Safety	2
System Preservation	0
Economic Development	16
Efficient Operations	15
Address Congestion	2
Multimodal Development	3
Local Priorities & Funding Efficiencies	6
Local Impact	3
Total Score	47

Project 5: US 59 between SH 185 and US 87

Figure 10.12: US 59 Project Limits, 2012 LOS, and 2040 LOS







This project constructs one-way frontage roads along both sides of this stretch of US 59. It would continue the frontage road project currently under construction and is one piece of completing frontage roads along US 59 in the Victoria City Limits.

The performance of US 59 in this location is shown in **Figure 10.12**. Congestion is in the range of LOS A-B in 2012, but the volume-to-capacity ratios underlying the definition of LOS are near the dividing line between categories. In 2040, performance remains at LOS A-B travelling northbound, but decreases to LOS C-D travelling southbound. The construction of frontage roads would keep the southbound mainlanes at LOS A-B.

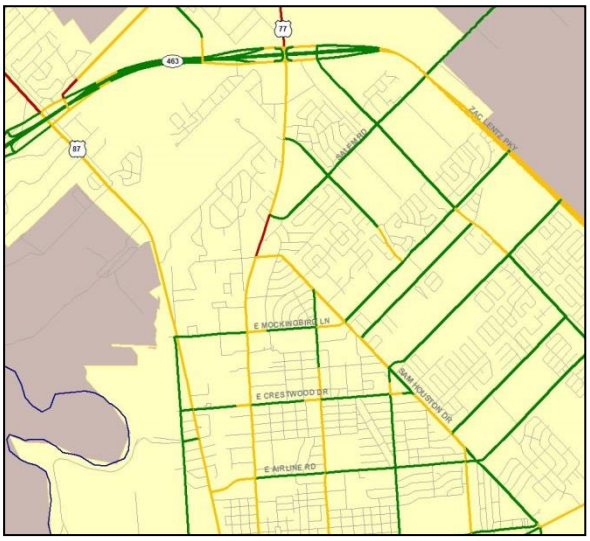
These segments of existing frontage roads are two-way. Building continuous one-way frontage roads may create access issues, but the short distance between overpasses at SH 185 and US 87 would minimize the issues. This project would also open land for new development.

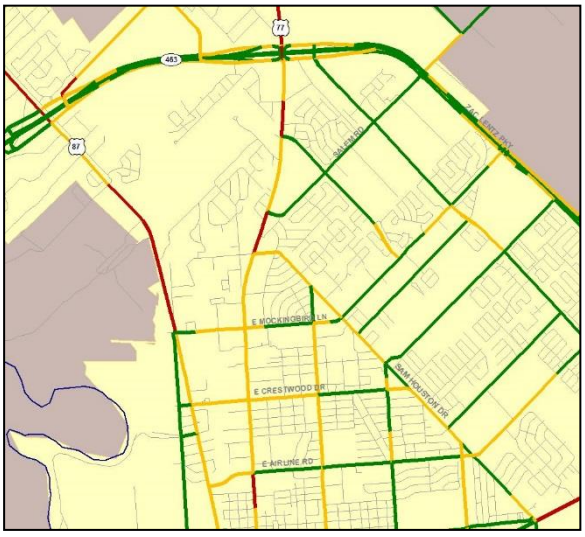
Total score for this project is 45.

US 59: Frontage Rd SH 185 to US 87 Criteria	Weight
Traffic Safety	2
System Preservation	3
Economic Development	16
Efficient Operations	10
Address Congestion	3
Multimodal Development	3
Local Priorities & Funding Efficiencies	6
Local Impact	2
Total Score	45

Project 6: Business US 77 between Loop 463 and Airline Road

Figure 10.13: US 77 Project Limits, 2012 LOS. and 2040 LOS





Navarro Street / US 77 is the most heavily trafficked corridor in Victoria, and also experiences the most traffic crashes and fatalities. Chapter 7 shows that Navarro Street, with 11 of the top 20 crash locations in Victoria, accounts for almost 60% of vehicle crashes in the top 20 crash locations.

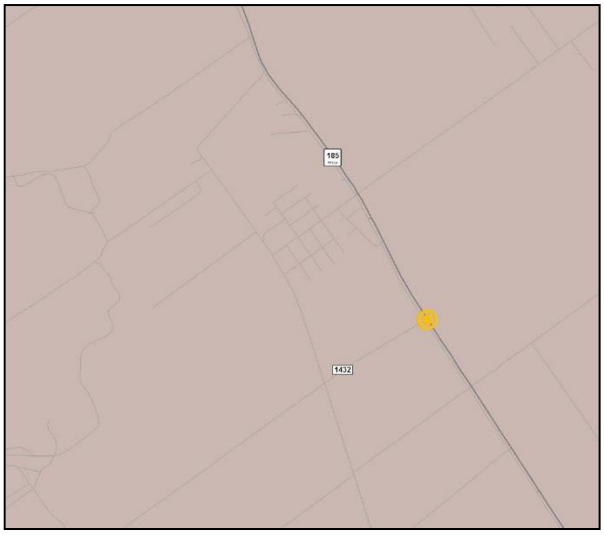
This project includes the upgrade of a center turn lane to a raised median with discrete turn bays at selected locations. This is a strategy to improve safety by regulating left-turn movements and reducing the potential for head-on collisions. Divided facilities also have greater capacity for through traffic than facilities with center turn lanes. Therefore, with limited right-of-way available, this project can improve capacity without additional lanes. Limiting left turns with a divided facility also has the potential for improved traffic flow and signal timing. This would increase the efficient operation of this important corridor.

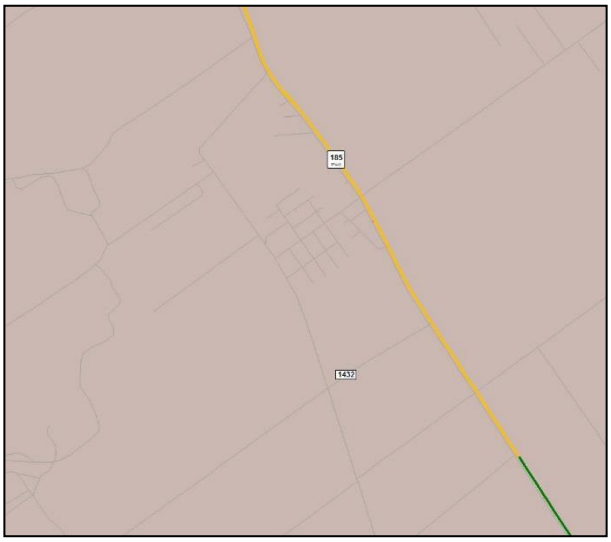
Total score for this project is 66.

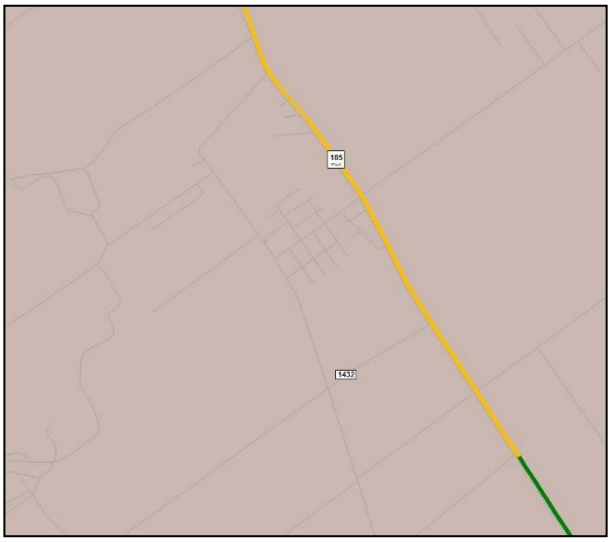
BU 77: Median Loop 463 to Airline	
Criteria	Weight
Traffic Safety	20
System Preservation	8
Economic Development	8
Efficient Operations	10
Address Congestion	6
Multimodal Development	5
Local Priorities & Funding Efficiencies	6
Local Impact	3
Total Score	66

Project 7: SH 185 at FM 1432

Figure 10.14: SH 185 Project Limits, 2012 LOS, and 2040 LOS







FM 1432 leads to the entrance of the Port of Victoria, which is experiencing significantly increased truck traffic compared to previous years. This project would construct an overpass at the intersection of US 87 and FM 1432 to address safety issues.

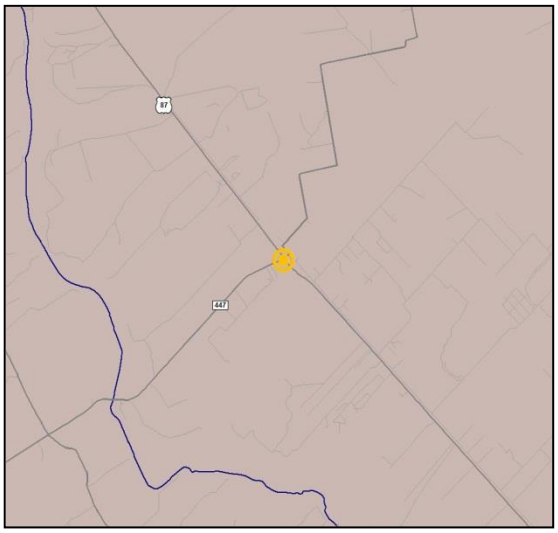
Continued oil-related shipments from the Eagle Ford shale at the port will continue to contribute to the large quantity of heavy trucks using this intersection; this can lead to future safety issues as heavy trucks and their slow turning movements interact with high-speed vehicles on SH 185.

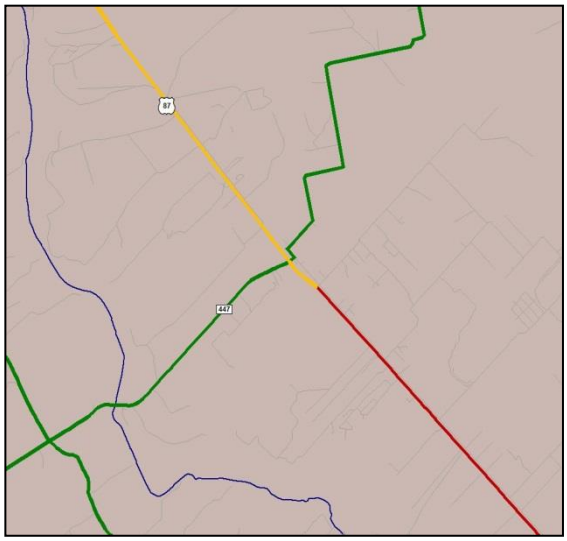
Total score for this project is 66.

SH 185: Overpass at FM 1432	
Criteria	Weight
Traffic Safety	20
System Preservation	7
Economic Development	14
Efficient Operations	11
Address Congestion	5
Multimodal Development	0
Local Priorities & Funding Efficiencies	6
Local Impact	3
Total Score	66

Project 8: US 87 at FM 447

Figure 10.15: US 87 Project Limits, 2012 LOS, and 2040 LOS





Safety at the intersection of US 87 and FM 447 has been a concern for TxDOT and the Victoria MPO for several years. This project will construct an overpass to reduce conflicts and improve safety.

This project was developed and selected for funding in the 2035 MTP. It is currently listed in the MPO's FY 2015-2018 Transportation Improvement Program (TIP) and is scheduled for construction in 2016.

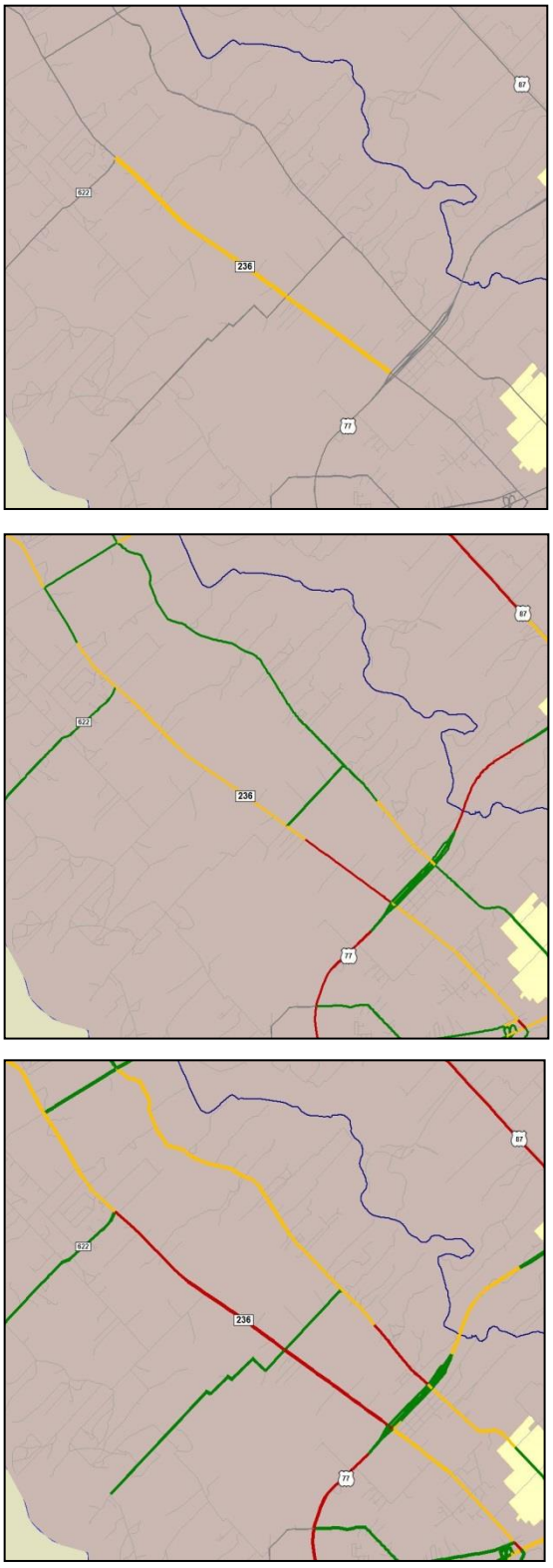
This project will reduce congestion, making traffic flow at the intersection smoother and more efficient.

The total score for this project is 67.

US 87: Overpass at FM 447 Criteria	Weight
Traffic Safety	20
System Preservation	8
Economic Development	10
Efficient Operations	12
Address Congestion	8
Multimodal Development	0
Local Priorities & Funding Efficiencies	6
Local Impact	3
Total Score	67

Project 9: FM 236 between US 77 and FM 622

Figure 10.2: FM 236 Project Limits, 2012 LOS, and 2040 LOS



This new capacity project, spanning 5.5 miles along FM 236, was generated based on degraded LOS observed between 2012 and 2040 in the travel demand model; this project's limit and LOS for 2012 and 2040 are shown in **Figure 10.2**. The existing area of LOS E-F is projected to expand to FM 622, with the links beyond degrading from LOS A-B and C-D to entirely LOS C-D.

Expanding the capacity of FM 236 by two lanes will create a four-lane undivided minor arterial, with a daily capacity of 16,000. This increased capacity will bring the projected 2040 LOS to level C.

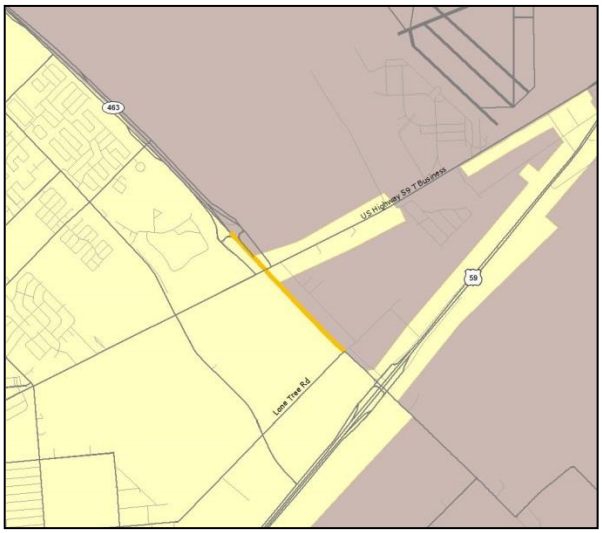
This project addresses the impacts of the anticipated demographic growth in the northwest area of the county. By improving the path into Victoria, the project contributes to economic development, job access, and access to schools.

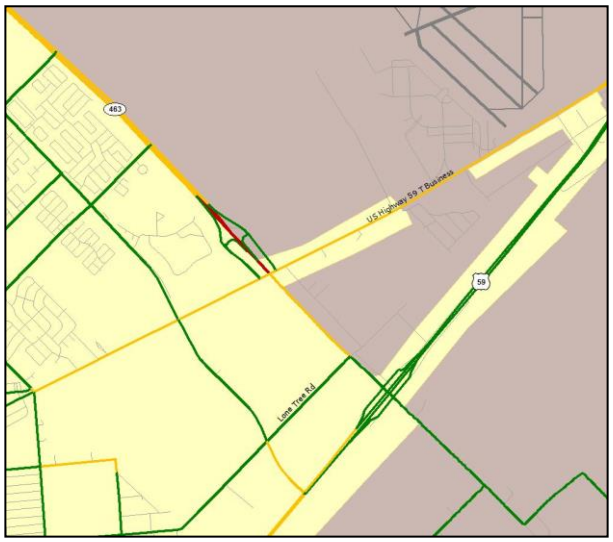
The total score for this project is 52.

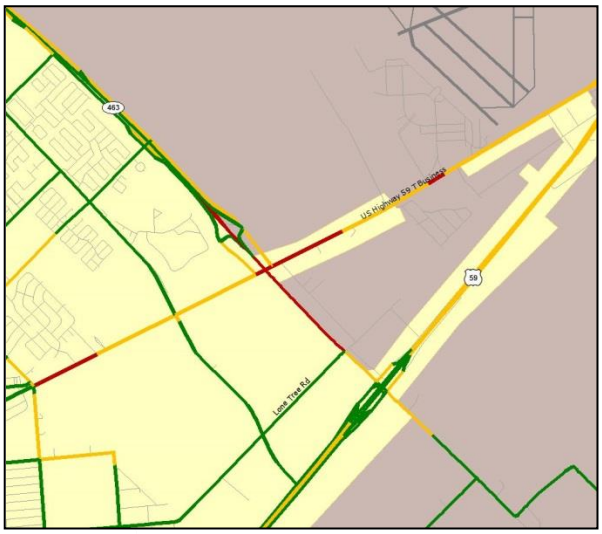
FM 236: Add Lanes US 77 to FM 622	
Criteria	**Weight**
Traffic Safety	10
System Preservation	10
Economic Development	12
Efficient Operations	5
Address Congestion	12
Multimodal Development	3
Local Priorities & Funding Efficiencies	0
Local Impact	0
Total Score	52

Project 10: Loop 463 between Business US 59 and Lone Tree Road

Figure 10.3: Loop 463 Project Limits, 2012 LOS, and 2040 LOS







This project adds two lanes to Loop 463 as it crosses Business US 59 in the eastern portion of Victoria; this 1.1 mile project will help complete an entirely four-lane Zac Lentz Parkway. Several recent projects that upgraded Loop 463 addressed the economic and demographic development in northeast Victoria and this project will continue improvements to serve the Catepillar plant and possible industrial development.

The project addresses a forecasted drop in LOS from LOS A-B and C-D in 2012 to LOS C-D and E-F in 2040. Implementing the project will improve the projected 2040 LOS to LOS C.

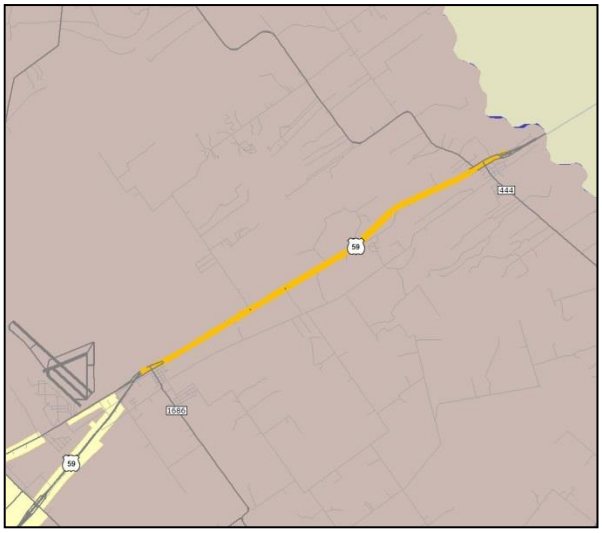
With current and projected industrial activity in the area, this project will promote economic development and access to jobs. It also forms a high-quality connection between Loop 463 and US 59, promoting efficient operations.

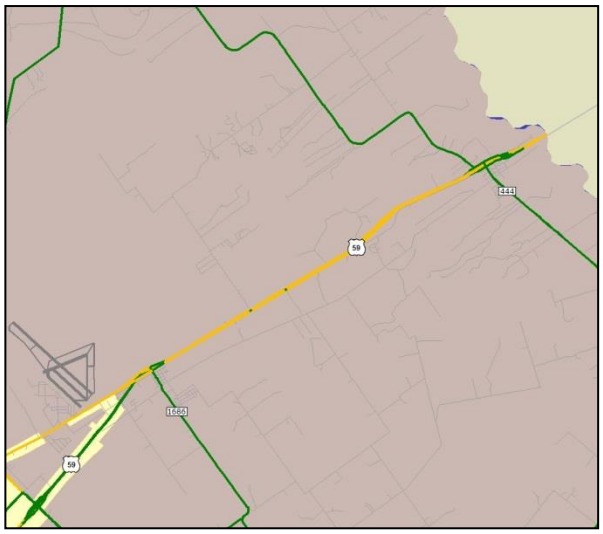
The total score for this project is 60.

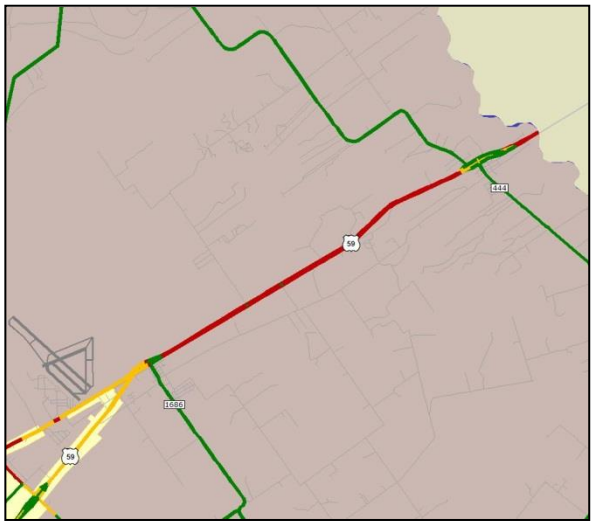
Lp 463: Add Lanes US 59 to Lone Tree Rd Criteria	Weight
Traffic Safety	10
System Preservation	10
Economic Development	16
Efficient Operations	7
Address Congestion	12
Multimodal Development	3
Local Priorities & Funding Efficiencies	0
Local Impact	2
Total Score	60

Project 11: US 59 between FM 1686 and FM 444

Figure 10.4: FM 1686 Project Limits, 2012 LOS, and 2040 LOS







This project addresses the projected degradation of LOS for this segment of US 59 between 2012 and 2040. Within the limits of this project, US 59 is currently a four-lane divided freeway with a daily capacity of 44,000. Traffic is projected to reach averages of 38,300 in 2040.

Adding two lanes to upgrade this segment to a six-lane divided freeway will bring the projected LOS to level C in 2040. This is also designated the future I-69 corridor and any upgrades will likely bring the road to interstate standards, further increasing capacity.

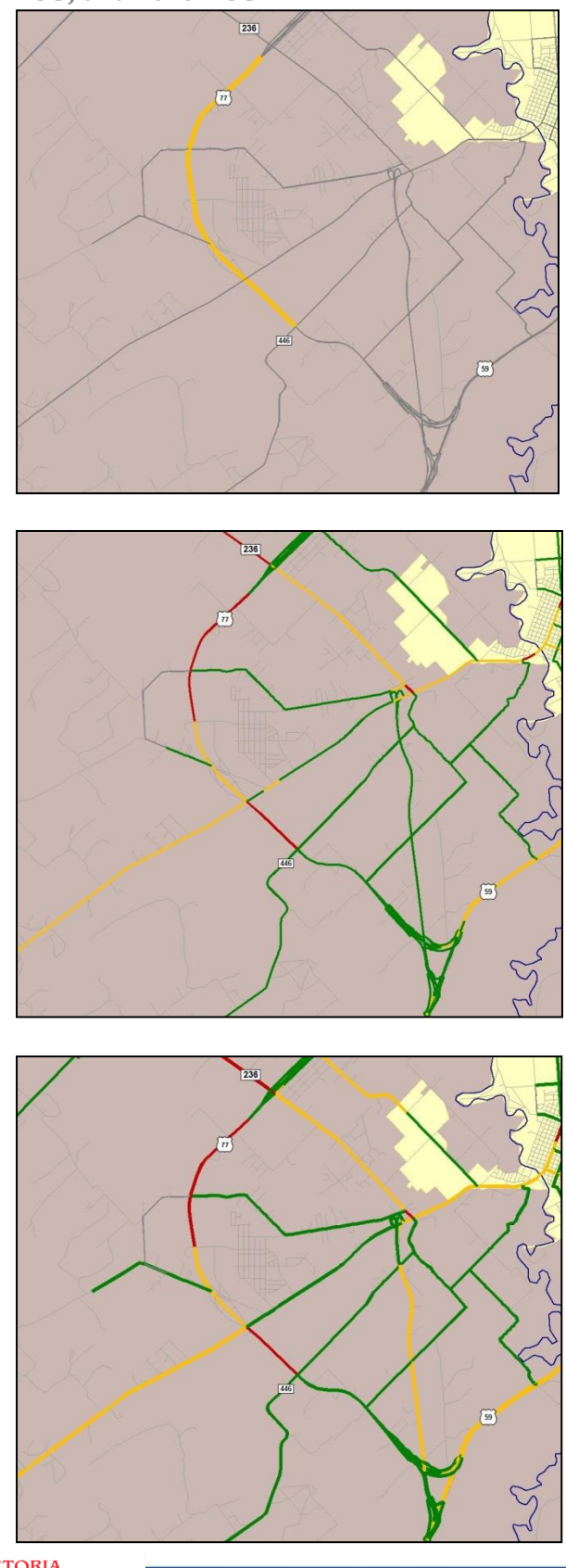
As this segment serves both industrial growth areas and the Victoria Regional Airport, it contributes to economic development and job access. It also improves the route between Victoria and Houston.

The total score for this project is 58.

US 59: Add lanes FM 1686 to FM 444	
Criteria	**Weight**
Traffic Safety	10
System Preservation	10
Economic Development	16
Efficient Operations	5
Address Congestion	12
Multimodal Development	3
Local Priorities & Funding Efficiencies	0
Local Impact	2
Total Score	58

Project 12: US 77 between FM 236 and FM 446

Figure 10.5: US 77 Project Limits, 2012 LOS, and 2040 LOS



This project constructs two additional lanes on this segment of US 77, bringing most of Zac Lentz Parkway to a four-lane highway. This 5.1 mile stretch of roadway is operating at LOS C-F in 2012 and is expected to remain at those levels in 2040 without improvements.

All added capacity projects that improve LOS also generally improve safety; because this project also upgrades the facility from undivided to divided, it has a strong safety impact.

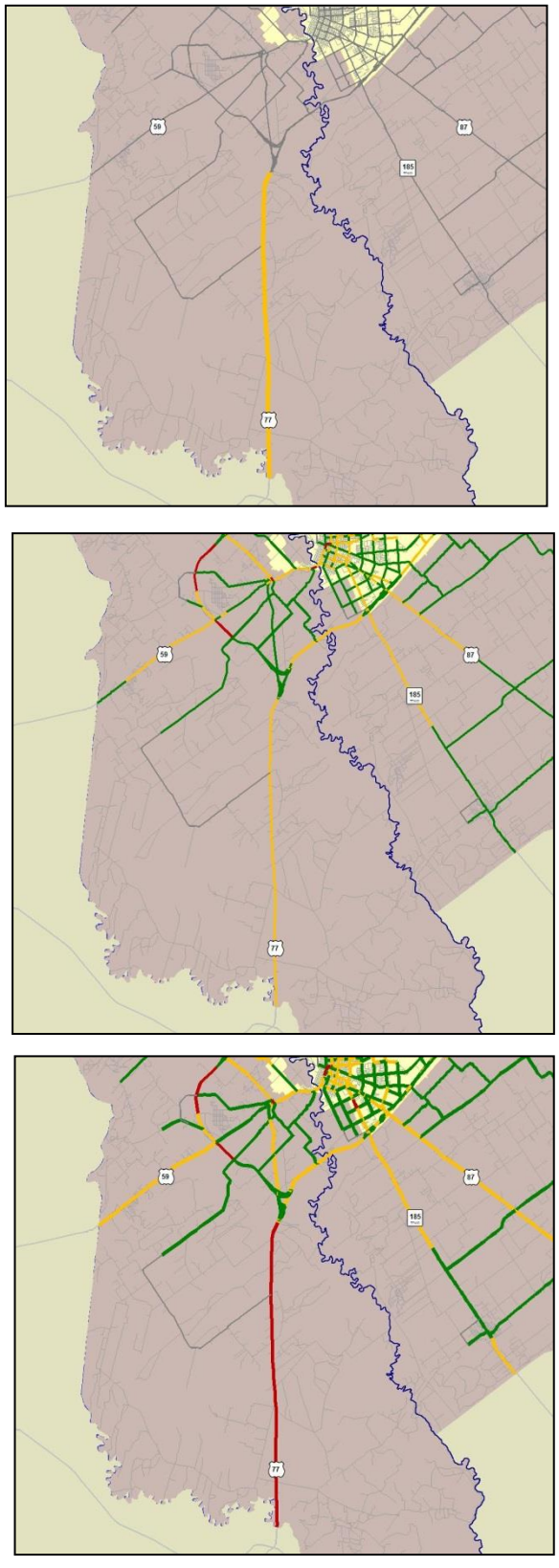
This project may also progress economic development by improving paths in the western and northern portions of Victoria County, which are predicted to be higher-growth areas.

The total score for this project is 48.

US 77: Add Lanes FM 236 to FM 446	
Criteria	Weight
Traffic Safety	10
System Preservation	10
Economic Development	7
Efficient Operations	5
Address Congestion	12
Multimodal Development	0
Local Priorities & Funding Efficiencies	4
Local Impact	0
Total Score	48

Project 13: US 77 between US 59 and the Refugio County Line

Figure 10.7: US 59 Project Limits, 2012 LOS, and 2040 LOS



This project addresses the forecast degradation of LOS on US 59 south of Zac Lentz Parkway.

In 2012, this roadway experienced LOS C-D, with a projected LOS E-F in 2040. Adding two lanes to this four-lane divided principal arterial would supply enough capacity to raise its performance to LOS C-D.

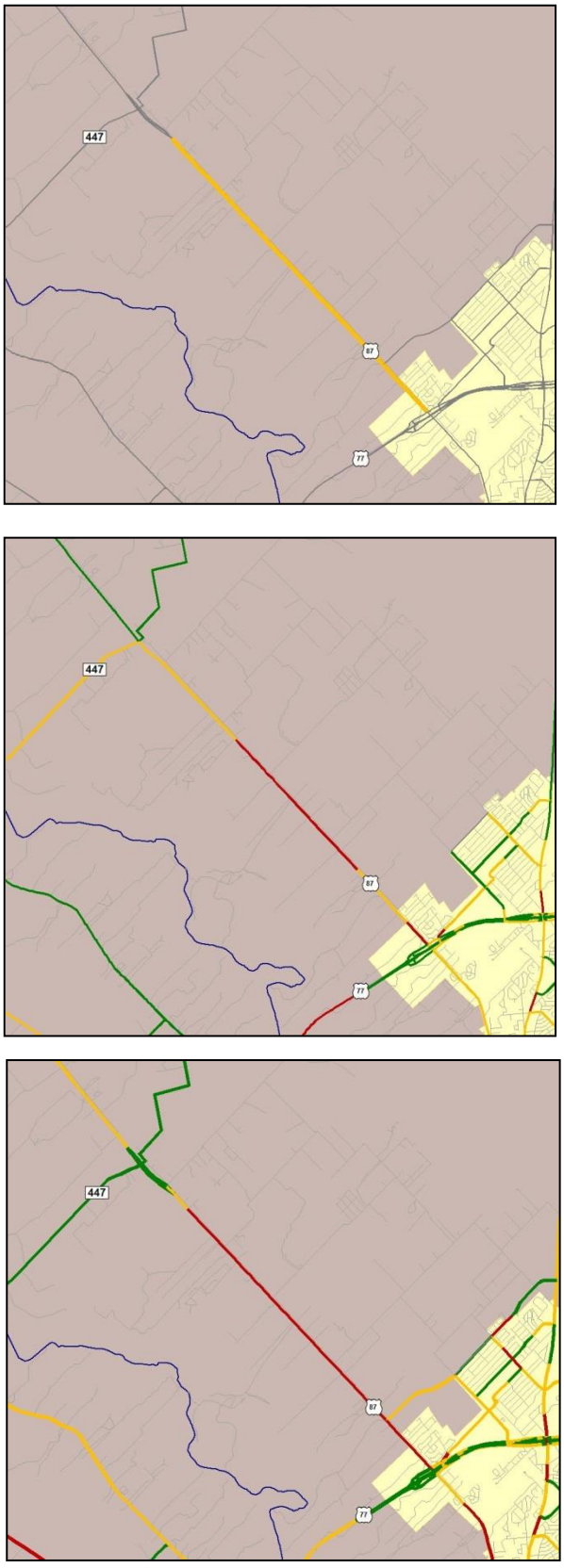
US 77 is the most direct route connecting Victoria to Corpus Christi and to I-10; consequently, it plays an important role in economic development for the region.

The total score for this project is 55.

US 77: Add Lanes US 59 to Refugio County	
Criteria	**Weight**
Traffic Safety	10
System Preservation	10
Economic Development	11
Efficient Operations	7
Address Congestion	12
Multimodal Development	5
Local Priorities & Funding Efficiencies	0
Local Impact	0
Total Score	55

Project 14: US 87 between Zac Lentz Parkway and FM 447

Figure 10.8: US 87 Project Limits, 2012 LOS, and 2040 LOS



This project addresses the anticipated decrease LOS on the northwest portion of US 87; the demographic analysis previously completed indicated that this portion of Victoria County will experience a large amount of growth by 2040.

This roadway shows LOS C-D and E-F in 2012, with a projected LOS E-F for most of the roadway in 2040. The current cross-section of the road is a four-lane principal arterial with a center turn lane. Victoria West High School, Cade Middle School, DeTar North Hospital, and other medical facilities are all located near the intersection of US 87 and Zac Lentz Parkway; this intersection is also has the highest volume of traffic in the City of Victoria. Adding two lanes to this arterial would provide enough capacity to raise its performance to LOS C-D.

The total score for this project is 53.

US 87: Add Lanes Zac Lentz to FM 447	
Criteria	**Weight**
Traffic Safety	10
System Preservation	10
Economic Development	11
Efficient Operations	5
Address Congestion	12
Multimodal Development	3
Local Priorities & Funding Efficiencies	0
Local Impact	2
Total Score	53

Projects by Score and Rank

Following project evaluation, roadway projects with the highest scores that can be fiscally constrained are selected, if possible. The cases in which the highest ranked projects are not selected are due to project timeframes and funding source requirements. Near-term projects will generally be selected above long-term projects. Concerning funding source requirements, Proposition 1 funding must be used in the year that it is awarded; therefore only projects that have plans under development and are within the funds awarded in a year are eligible. Projects 2 and 4, are defined by their ID numbers, are both anticipated to be funded using Proposition 1 funding.

Table 10.5 shows the complete list of projects with their evaluation score and ranking and **Table 10.6** shows the selected projects. The TxDOT selected preventative maintenance or rehabilitation and safety projects are shown for the sake of completion, but are selected without the ranking process.

Selected transit projects are shown separately in **Table 10.7**. Transit projects are grouped by category rather than shown individually and are chosen at the discretion of Victoria Transit.

Unfunded Needs

Through analysis completed for the development of this plan projects listed in **Table 10.8** were identified as needs for congestion relief, economic development, and improved safety. Due to funding constraints they were not selected and are considered "unfunded needs." They are only included for illustrative purposes as they are outside the financial constraint of this plan. If additional federal, state, or local funding becomes available, these projects will advance accordingly.

Fiscal Constraint

This section compares the expected revenues and the total costs of selected projects. **Table 10.3** details funding for roadway projects and summarizes the total funding and project costs by TxDOT selected categories, MPO selected categories, and Proposition 1 funding. **Table 10.4** shows a similar funding summary for transit projects. Both roadway and transit project costs do not exceed projected revenue, making this a fiscally constrained plan.

Table 10.3: Roadway Fiscal Constraint, FY 2015-2040

Category	Category Description	Total Funding	Total Project Costs
1	Preventative Maintenance and Rehabilitation	$ 19,962,754	
2	Metropolitan and Urban Area Corridor Projects	$ 14,866,900	
3	Non-Traditionally Funded Transportation Projects	$ -	
4	Statewide Connectivity Corridor Projects	$ -	
5	Congestion Mitigation and Air Quality Improveme	$ -	
6	Sturctures Replacement and Rehabilitation Bridge Program; Railroad Grade Separation	$ 4,967,126	
7	Metropolitan Mobility / Rehabilitation	$ -	
8	Safety	$ 617,924	
9	Transportation Enhancements and Transportation Alternatives	$ -	
10	Supplemental Transportation Projects	$ -	
11	District Discretionary	$ 14,206,400	
12	Strategic Priority	$ -	
Prop 1	Combined categories for Fiscal Years 2015-2017	$ 40,027,000	$ 40,027,000
Total	Total of TxDOT-selected categories	$ 39,754,204	$ 22,394,573
Total	Total of MPO-selected category 2	$ 14,866,900	$ 13,356,461
Total		$ 94,648,104	$ 75,778,034

Table 10.4: Transit Fiscal Constraint, FY 2015-2040

Category	Category Description	Projected Revenue	Total Project Costs
5307	Urbanized Area Formula Grant Program	$88,058,257	$88,058,257
5339	Capital Improvement Program	$ 4,264,000	$ 4,264,000

Table 10.5: Candidate Roadway Projects, Score, and Rank

Table 10.5 - first amendment changes

Rank	Score	ID	Timeframe	Category	Road	Limits from	Limits to	Description	Project Cost
1	71	1	Near-term	Capacity	US 77	0.42 mi east of FM 1685	1.04 mi west of US 87	Add 2 lanes	$ 25,000,000
2	67	8	Near-term	Safety, Capacity	US 87	FM 447		Construct overpass	$ 13,356,461
3	66	7	Near-term	Safety, Capacity	SH 185	FM 1432		Construct overpass	$ 10,750,000
4	66	6	Near-term	Safety, Capacity	Business US 77	Loop 463	Airline Rd	Construct center median	$ 3,500,000
5	64	3	Near-term	Connectivity, Capacity	US 59	Loop 463	US 59 / Business US 59	Construct frontage roads and overpass	$ 25,000,000
6	60	10	Long-term	Capacity	Loop 463	North of Business US 59	Lone Tree Rd	Add 2 lanes	$ 1,783,000
7	58	11	Long-term	Capacity	US 59	FM 1686	FM 444	Add 2 lanes	$ 17,640,646
8	55	13	Long-term	Capacity	US 77 S	US 77 / US 59 interchange	Refugio County Line	Add 2 lanes	$ 46,410,900
9	53	14	Long-term	Capacity	US 87	Zac Lentz Pkwy.	FM 447	Add 2 lanes	$ 24,505,000
10	52	9	Long-term	Capacity	FM 236	US 77	FM 622	Add 2 lanes	$ 14,926,700
11	52	2	Near-term	Connectivity, Capacity	Loop 463	Mockingbird Ln	BU 59T	New construction of one-way, two-lane frontage road, EB	$ 5,077,864
12	48	12	Long-term	Capacity	US 77	FM 236	FM 446	Add 2 lanes	$ 8,472,800
13	47	4	Near-term	Connectivity, Capacity	US 59	Hanselman Rd		Add overpass	$ 12,000,000
14	45	5	Near-term	Connectivity, Capacity	US 59	SH 185	US 87	Construct frontage roads	$ 1,500,000
TxDOT		15	Near-term	Safety	FM 444	US 77	US 59	Safety treat fixed objects	$ 724,887
TxDOT		16	Near-term	System Preservation	FM 1090	US 87	Calhoun County Line	Seal coat	$ 226,860
TxDOT		17	Near-term	System Preservation	FM 1432	SH 185	End of State Maintenanc	Rehabilitate roadway	$ 1,532,025
TxDOT		18	Near-term	System Preservation	FM 237	Dewitt County Line	FM 236	Seal coat	$ 218,251
TxDOT		19	Near-term	System Preservation	FM 2615	US 87	FM 1686	Seal coat	$ 204,842
TxDOT		20	Near-term	System Preservation	US 59	0.5 mi W of SP 91	BU 59-T	Seal coat	$ 417,552
TxDOT		21	Near-term	System Preservation	US 59	Jackson County Line	BU 59-T	ACP overlay	$ 7,776,735
TxDOT		22	Near-term	System Preservation	US 59	LP 463	US 77	ACP overlay	$ 4,800,318
TxDOT		23	Near-term	Bridge Preservation	CR	CR 169	Kohutek Rd	Replace bridge & approaches	$ 331,526
TxDOT		24	Near-term	Bridge Preservation	CR	Arenosa Creek CR 130	J2 Ranch Road	Replace bridge & approaches	$ 334,712
TxDOT		25	Near-term	Bridge Preservation	CR	At Spring Creek CR 46	Oliver Road	Replace bridge & approaches	$ 936,681
TxDOT		26	Near-term	Bridge Preservation	CR	At Dry Creek CR 134	Old Goliad Rd	Widen bridge & approaches	$ 1,230,403
TxDOT		27	Near-term	Bridge Preservation	CR	Victoria Barge Canal	Dupont Road	Replace bridge & approaches	$ 2,899,252
TxDOT		28	Near-term	Bridge Preservation	FM 616	At Chocolate Bayou		Replace bridge & approaches	$ 760,529

Table 10.6: Selected Roadway Projects Through 2040

Table 10.6 - first amendment changes

Rank	Score	ID	Category	Road	Limits from	Limits to	Description	Project Cost
1	71	1	Capacity	US 77	0.42 mi east of FM 1685	1.04 mi west of US 87	Add 2 lanes	$ 25,000,000
2	67	8	Safety, Capacity	US 87	FM 447		Construct overpass	$ 13,356,461
11	52	2	Connectivity, Capacity	Loop 463	Mockingbird Ln	BU 59T	New construction of one-way, two-lane frontage road, EB	$ 5,077,864
13	47	4	Connectivity, Capacity	US 59	Hanselman Rd		Add overpass	$ 12,000,000
TxDOT		15	Safety	FM 444	US 77	US 59	Safety treat fixed objects	$ 724,887
TxDOT		16	System Preservation	FM 1090	US 87	Calhoun County Line	Seal coat	$ 226,860
TxDOT		17	System Preservation	FM 1432	SH 185	End of State Maintenance	Rehabilitate roadway	$ 1,532,025
TxDOT		18	System Preservation	FM 237	Dewitt County Line	FM 236	Seal coat	$ 218,251
TxDOT		19	System Preservation	FM 2615	US 87	FM 1686	Seal coat	$ 204,842
TxDOT		20	System Preservation	US 59	0.5 mi W of SP 91	BU 59-T	Seal coat	$ 417,552
TxDOT		21	System Preservation	US 59	Jackson County Line	BU 59-T	ACP overlay	$ 7,776,735
TxDOT		22	System Preservation	US 59	LP 463	US 77	ACP overlay	$ 4,800,318
TxDOT		23	Bridge Preservation	CR	CR 169	Kohutek Rd	Replace bridge & approaches	$ 331,526
TxDOT		24	Bridge Preservation	CR	Arenosa Creek CR 130	J2 Ranch Road	Replace bridge & approaches	$ 334,712
TxDOT		25	Bridge Preservation	CR	At Spring Creek CR 46	Oliver Road	Replace bridge & approaches	$ 936,681
TxDOT		26	Bridge Preservation	CR	At Dry Creek CR 134	Old Goliad Rd	Widen bridge & approaches	$ 1,230,403
TxDOT		27	Bridge Preservation	CR	Victoria Barge Canal	Dupont Road	Replace bridge & approaches	$ 2,899,252
TxDOT		28	Bridge Preservation	FM 616	At Chocolate Bayou		Replace bridge & approaches	$ 760,529

Table 10.7: Selected Transit Projects Through 2040

Category	Description	Federal	State	Other	Total
5307	Acquisition bus shelters	$ 944,553	$ -	$ 236,073	$1,180,626
	Lease bus station	$ 758,613	$ 189,671	$ -	$948,284
	Preventative maintenance	$ 7,860,119	$ 2,715,882	$ 3,131,469	$13,707,469
	Non-fixed route ADA paratransit	$ 4,759,278	$ 588,878	$ 605,296	$5,953,453
	Security training	$ 472,460	$ -	$ 118,127	$590,587
	Operating assistance	$ 32,797,749	$ 7,265,866	$ 25,614,222	$65,677,838
	5307 Total	**$ 47,592,772**	**$ 10,760,298**	**$ 29,705,187**	**$88,058,257**
5339	Bus replacements	$ 4,264,000	$ -	$ -	$4,264,000
	5339 Total	**$ 4,264,000**	**$ -**	**$ -**	**$4,264,000**

Table 10.8: Unfunded Roadway Projects

Rank	Score	ID	Category	Road	Limits from	Limits to	Description	Project Cost
3	66	7	Safety, Capacity	SH 185	FM 1432		Construct overpass	$ 10,750,000
4	66	6	Safety, Capacity	Business US 77	Loop 463	Airline Rd	Construct center median	$ 3,500,000
5	64	3	Connectivity, Capacity	US 59	Loop 463	US 59 / Business US 59	Construct frontage roads and overpass	$ 25,000,000
6	60	10	Capacity	Loop 463	North of Business US 59	Lone Tree Rd	Add 2 lanes	$ 1,783,000
7	58	11	Capacity	US 59	FM 1686	FM 444	Add 2 lanes	$ 17,640,646
8	55	13	Capacity	US 77 S	US 77 / US 59 interchange	Refugio County Line	Add 2 lanes	$46,410,900
9	53	14	Capacity	US 87	Zac Lentz Pkwy.	FM 447	Add 2 lanes	$24,505,000
10	52	9	Capacity	FM 236	US 77	FM 622	Add 2 lanes	$ 14,926,700
12	48	12	Capacity	US 77	FM 236	FM 446	Add 2 lanes	$ 8,472,800
14	45	5	Connectivity, Capacity	US 59	SH 185	US 87	Construct frontage roads	$ 1,500,000

CHAPTER 11: SUMMARY OF BENEFITS & NEXT STEPS

CHAPTER HIGHLIGHTS

- "Report Cards" by Mode
- Next Steps: Performance Measures and Funding Strategies

This plan used a quantitative and sequential process to select a specific group of transportation projects. As a way to summarize the condition of each transportation mode in Victoria, a complementary and subjective process is presented in this chapter where every mode is evaluated in the form of a "report card." Each report card details the strengths and weaknesses of each mode by assigning a score, given as letter grades from A to F; this system emphasizes the subjective nature of the evaluation and establishes a distinction between this process and the quantitative ranking process previously defined in the plan.

The section following the modal report cards presents next steps suggested to maintain the transportation planning process in Victoria County. In particular, the timeline for the implementation of performance measures required by MAP-21 is proceeding and will impose new requirements on the planning process during the life of this MTP.

The level of funding available through the life of the MTP is another topic considered. This is particularly important for Victoria, since future Category 2 funding is committed to selected projects and Proposition 1 is a volatile funding source. While Victoria cannot alter the stream of Federal and State transportation funding, steps can be taken to pursue new funding sources, stimulate local funding, and improve the efficient use of available funds.

Summary of Transportation System Performance by Mode

For consistency, the evaluation criteria established in Chapter 5 is used as the basis for this evaluation. The criteria were modified slightly to maintain relevance while evaluating general transportation modes as opposed to specific projects. The weights are retained intact so that the "final grade" for each mode is the weighted sum of the individual grades in the report card. **Table 11.1** presents the modified scoring criteria used for the modal report cards.

Table 11.1: Modal Report Card Evaluation Criteria & Weights

Criterion	Description	Weight
Traffic Safety	Safety on streets, at schools, slower speeds within neighborhoods, and the safety aspect of railroad crossings	20
System Preservation	Quality of pavement and bridges	17
Supports Economic Development	Support for job growth, access to jobs, freight movements, and regional land use goals	16
Efficient Operations	Traffic flow and access, signal timing, consistent speeds, freight operations, railroad crossings, and multimodal connectivity	15
Congestion	Existing 2012 and forecast 2040 congestion and LOS	12
Multimodal Operations	Support for non-vehicular modes and their infrastructure and connectivity to the road network	10
Local Priorities	History of public support and planning	6
Local Impact	Quality of life issues, and environmental justice	4

Road Network

Road Network Criteria	Grade
Traffic Safety	B
System Condition	C
Supports Economic Development	B
Efficient Operations	B
Congestion	B+
Multimodal Operations	C+
Local Priorities	A
Local Impact	A
Total Score	C+

Traffic Safety

National statistics signify that Victoria County has generally low crash rates compared to other counties. TxDOT crash data signifies that crashes in Victoria are concentrated on the highest-volume roadways, indicating that crashes are proportional to traffic volume and there are no inherently unsafe locations in the county. Complementing this data, the MPO is actively defining and addressing roadway safety issues

by conducting studies and developing and choosing projects with strong safety components. There is still room for improvement, as the SH 185 / FM 1432 project is unfunded and several sections of high-speed US 77 remain two-lane undivided.

System Condition

System Condition is actively evaluated by TxDOT, the City of Victoria, and Victoria County to develop logical strategies for street maintenance and repair. With a significant amount of negative public opinion on system condition this category can see improvements; furthermore, anticipated damage due to increased Eagle Ford shale trucks contributes to a mediocre grade.

Supports Economic Development

The road network in Victoria County supports economic development by providing high-quality access to jobs and industrial facilities. Convenient access is available for the Port of Victoria, the Victoria Regional Airport, industrial land use areas, and the high concentration of employment downtown. Roadway projects have been developed to create a four-lane divided roadway around Victoria and upgrade US 59 to interstate standards. Access and the reliability of access are hindered throughout Victoria County by the many at-grade railroad crossings.

Efficient Operations

Efficient operations rates traffic flow, signal timing, consistent speeds, and intermodal connectivity. While a recent signal timing study on high-volume corridors has been implemented, the *Voice of Victoria* surveys still indicate negative public perceptions.

Congestion

The travel demand model indicates that 97% of roadways are at an acceptable Level of Service (LOS) in 2012, and decrease to 90% in 2040. Vehicle Miles Travelled (VMT) indicates travel is concentrated on 93% of acceptable roads in 2012, but drops to only 70% in 2040. Consequently, while congestion will spread in 2040, most is anticipated on roads that are currently congested.

Multimodal Operations

Intermodal connectivity to existing freight modes at the Port of Victoria and the former Aloe Field industrial site is a bright spot for the Victoria County road network. This support for freight modes is balanced against the lack of support for and connectivity to the pedestrian and bicycle modes.

Local Priorities

The history of planning in Victoria County shows active support for the road network and a complete approach to identify and address the full range of issues related to its performance.

Local Impact

The road network supports access to amenities and generally retains its pleasant character. A review of the distribution of network attributes, benefits, and costs did not show any obvious issues with Environmental Justice.

Urban and Rural Transit

Urban & Rural Transit Criteria	Grade
Traffic Safety	A
System Condition	B
Supports Economic Development	A
Efficient Operations	B
Congestion	B
Multimodal Operations	A
Local Priorities	A
Local Impact	A
Total Score	B+

Traffic Safety

No issues were identified related to the safety of the transit system operating in traffic.

System Condition

The overall transit system is perceived in a positive light; buses are regarded as clean and in good condition. Bus stop locations are appropriately placed; however, amenities at the stops are lacking, particularly the provision of seating and shade.

Supports Economic Development

Access to employment is a critical focus area for Victoria Transit. In addition to its recent re-alignment of the fixed route system, they have established four separate late-night and weekend jobs access routes to provide the necessary access at the needed times. The only significant urban area of employment concentration not within a half mile of the Victoria Transit system is the industrial area surrounding the Caterpillar plant.

Efficient Operations

The transit system must operate in the general flow of traffic and while conditions are generally good, buses face additional hurdles related to roadway traffic. Buses are required to merge into traffic after a stop and face timing and uncertainty issues at railroad crossings.

Congestion

The *Voice of Victoria* transit surveys did not contain any comments concerning congestion on board the fixed route buses. However, full buses were noted during peak periods in informal observations.

Multimodal Operations

Multimodal connectivity is supported with bicycle racks on buses and connection to sidewalks. While these efforts can be expanded and while the need for bicycle parking facilities at bus stops is evident, this criterion was graded with an A.

Local Priorities

The recent fixed route changes indicate a commitment to providing excellent service.

Local Impact

An analysis of jobs and population within quarter and half mile buffers of the fixed routes in Victoria shows that the transit system is well-designed and has no serious gaps in geographic coverage. All areas of Victoria are equally served.

Bicycle and Pedestrian

Bicycle & Pedestrian Criteria	Grade
Traffic Safety	C
System Condition	D
Supports Economic Development	D
Efficient Operations	D
Congestion	A
Multimodal Operations	B
Local Priorities	B
Local Impact	B
Total Score	C-

Traffic Safety

Survey responses from the *Voice of Victoria* and local newspaper articles and editorials show the perception that Victoria streets are not safe for bicyclists and pedestrians. Conditions surrounding the elementary, middle, and high schools, the University of Houston-Victoria and Victoria College, and the Lone Tree Hike and Bike Trail are particular areas of concern.

System Condition

The Lone Tree Hike and Bike Trail is a successful example of bicycle and pedestrian facilities. Planning for future multi-use trails is evident in the Parks Master Plan and Paseo de Victoria. However, there are no on-street bike lanes or designated bike routes and several sidewalk gaps throughout Victoria.

Supports Economic Development

The bicycle and pedestrian network supports economic development and access to jobs primarily through its sidewalk network for non-recreational trips. As the completeness, connectivity, and condition of the sidewalk network is seen to have issues, this criterion was graded with a D.

Efficient Operations

Connectivity and multimodal connectivity are important measures within the consideration of efficient operations. The sidewalk network, and particularly how they serve the transit system, is an issue for this criterion.

Congestion

While there are issues with the connectivity and condition of the bicycle and pedestrian system, its capacity is sufficient to avoid any congestion issues.

Multimodal Operations

The support that the bicycle and pedestrian network provides for the transit system is ubiquitous, though its condition does have issues as noted above.

Local Priorities

Individual components of the bicycle and pedestrian network, such as sidewalks and multi-use trails, are well-considered in local planning, but the implementation of plans is less evident.

Local Impact

The local commitment to provide bicycle and pedestrian systems to improve quality-of-life issues is evident but incipient.

Freight Rail

Freight Rail Criteria	Grade
Traffic Safety	A
System Condition	B
Supports Economic Development	A
Efficient Operations	C
Congestion	C
Multimodal Operations	B
Local Priorities	A
Local Impact	A
Total Score	B

Traffic Safety

Safety for the rail network relates to at-grade rail crossings. The higher-volume crossings are adequately controlled with gates and flashing lights. Crossings without gates are those which have low traffic volumes.

System Condition

The rail network itself is well-maintained within Victoria County, with some sections of old track recently rehabilitated and reactivated by the Kansas City Southern Line. There is no longer any rail access to the Victoria Regional Airport, but the right-of-way has been preserved and the line can be re-established if needed.

Supports Economic Development

Economic development is the prime consideration for the privately-owned and operated rail lines in Victoria County.

Efficient Operations

As railroad crossings are included in this criterion, the grade was lowered to account for the number of crossings in Victoria. The at-grade crossing near Main St and Business US Highway 59 are of particular interest.

Congestion

The Texas State Rail Plan noted the need for double-tracking or sidings in Victoria County, specifically surrounding the Port of Victoria and leading to Port Lavaca, TX.

Multimodal Operations

Track at industrial parks and the Port of Victoria support the transfer of freight from trains to trucks and barges, yet there are no dedicated intermodal transfer centers outside the port.

Local Priorities

The establishment of a Railroad Quiet Zone in the corridor along Business US 59 shows the local interest in addressing rail issues.

Local Impact

A geographic review of at-grade rail crossings did not indicate any issues with Environmental Justice. Several rail overpasses were seen to be functionally obsolete with low vertical and horizontal clearances, but these are located in north as well as south Victoria and are all on low-volume roads.

Port of Victoria

Port of Victoria Criteria	Grade
Traffic Safety	B
System Condition	A
Supports Economic Development	A
Efficient Operations	B+
Congestion	D
Multimodal Operations	A
Local Priorities	A
Local Impact	A
Total Score	B

Traffic Safety

The intersection at SH 185 and FM 1432, which serves as the entrance to the Port of Victoria, is the most significant safety issue. This issue has been recognized by the MPO and an overpass project has been developed. While the project was not funded in this MTP, it remains a high priority.

System Condition

The port facilities have been recently improved and expanded, with the completion of a new fleeting area, dock, and pipeline allowing direct loading to barges.

Supports Economic Development

Economic development is the principal driver for the port. It directly supports jobs through its own operation and the other freight operations it sustains.

Efficient Operations

Recent construction at the Port of Victoria supports direct pipeline-to-barge loading and establishes space for barges to park when not in use.

Congestion

With the recent dramatic increase in oil-related cargo, the Port of Victoria is operating at full capacity 24 hours per day, 7 days per week. This level of operation leads to a grade of D.

Multimodal Operations

The Port of Victoria currently supports load transfers between modes and future container-on-barge projects are being pursued.

Local Priorities

TxDOT and the MPO fully appreciate the operations of the Port of Victoria and support it in their planning; specifically, the TxDOT Texas Ports Capital Program identified a project to develop a new dock in Victoria. No funding has been identified for the project, but preliminary planning and engineering work has been completed.

Local Impact

The Port of Victoria is located in a rural area of the county leading to minimal Environmental Justice issues.

Truck

Freight Truck Criteria	Grade
Traffic Safety	B
System Condition	C
Supports Economic Development	A
Efficient Operations	A
Congestion	B+
Multimodal Operations	B
Local Priorities	B
Local Impact	A
Total Score	B

Traffic Safety

While the road network in Victoria County is generally safe, the percentage of trucks sharing the road with general traffic is an important issue. The accelerated economic development and heavy truck traffic associated with the oil industry therefore leads to safety concerns. This is in part reduced by the designation of specific preferred freight routes and required hazardous materials routing.

System Condition

Heavy trucks cause significantly more pavement wear than automobiles. The increase in truck traffic is forecast to continue, leading to increased pavement wear in the future.

Supports Economic Development

The truck mode exists primarily to support economic development.

Efficient Operations

The roadway network in Victoria County supports trucks by providing access to destinations with high-quality routes, particularly on the designated National Highway System and designated freight routes.

Congestion

Trucks operate on the road network with other vehicles. With the current and forecast LOS for Victoria County, congestion was graded a B+.

Multimodal Operations

An agreement with the Port of Victoria to develop a container-on-barge mode and recent legislature allowing a streamlined permitting process between the port and the Caterpillar plant both support truck multimodal operations. However, there is no specific intermodal terminal located in Victoria County.

Local Priorities

Freight movements are an important component of the Victoria economy, yet aside from the SH 185 / FM 1432 overpass project truck needs are seldom mentioned in local planning. Efficiencies at the port may reduce the need for direct planning efforts related to the truck mode.

Local Impact

Trucks are present throughout the county, however specific intermodal or freight handling facilities are not found outside industrial areas. Therefore, Environmental Justice is graded with an A.

Pipeline

Pipeline Criteria	Grade
Traffic Safety	A
System Condition	A
Supports Economic Development	A
Efficient Operations	A-
Congestion	A
Multimodal Operations	A
Local Priorities	A
Local Impact	A
Total Score	A-

Traffic Safety

The new Victoria Express Pipeline supports the removal of heavy trucks from Victoria roadways and the SH 185 / FM 1432 intersection, resulting in a safer roadway system.

System Condition

As the pipeline opened in July 2014 it is in excellent condition.

Supports Economic Development

The Victoria Express Pipeline was specifically constructed to support the development of Eagle Ford Shale activity, thus supporting local economic development.

Efficient Operations

The pipeline reduced the number of oil-related trucks at the Port of Victoria by approximately 500 each day. Because the pipeline is privately owned, it is not available to all shippers.

Congestion

The capacity of the pipeline is projected to be adequate for its purpose, although it will not eliminate the use of trucks. The proposed extension of the pipeline to Point Comfort is intended to open another market that further addresses capacity.

Multimodal Operations

The pipeline was constructed to directly interface with the Port of Victoria and allows the direct loading of barges. Use of the pipeline instead of tanker trucks directly reduces the number of trucks on the road.

Local Priorities

The pipeline is privately owned and operated; consequently, it does not appear in local transportation plans. The US DOT supports a GIS mapping system that determines the presence of underground pipelines to avoid issues with utilities and road construction.

Local Impact

There are no Environmental Justice issues associated with the pipeline.

Airport

Airport Criteria	Grade
Traffic Safety	A
System Condition	B
Supports Economic Development	A
Efficient Operations	B
Congestion	A
Multimodal Operations	A
Local Priorities	A
Local Impact	A
Total Score	A-

Traffic Safety

TxDOT crash data indicates no incidents at the airport, although planned development of surplus land will undoubtedly increase future traffic and may result in a need for safety measures.

System Condition

The existing Airport Master Plan reviewed runway, taxiway, and parking apron pavement conditions and recommended the closure of one runway. A new Airport Master Plan is expected to feature a pavement analysis process that evaluates the system condition, focusing on observed asphalt bleeding between joints in runway 12L / 30R.

Supports Economic Development

A new Airport Master Plan will include a business plan to address the development of surplus land. The planned increased activity at the airport will directly support economic development, resulting in a grade of A.

Efficient Operations

Existing roadway access may not be adequate for projected development. Additional access roads or upgrades to existing access may become necessary. The old rail connection to the airport has been abandoned and torn up, but the right-of-way has been preserved.

Congestion

Airport operations for scheduled commercial air service, private planes, and military flights are at a reasonable level for the capacity of the runways and other facilities.

Multimodal Operations

The airport is itself an intermodal terminal. Anticipated industrial development may include air freight shipments of high-value, low-weight cargo.

Local Priorities

Planning for the Victoria Regional Airport is active with an updated Airport Master Plan in its early stages. The recent establishment of Alternative Essential Air Service shows the commitment of the region and the airport to maintain scheduled commercial service.

Local Impact

A review of Environmental Justice did not show any obvious issues.

Next Steps

Performance Measures

Performance measures are a new requirement under the MAP-21 Surface Transportation Program, however the specific measures and necessary data sources are currently under development. When developed, state and local goals will correspond to the national goals that have already been set. The seven national performance goals include:

- **Safety** – to achieve a "significant reduction" in traffic fatalities and serious injuries
- **System Preservation** – to maintain the system in "good repair"
- **Congestion** – to achieve a "significant reduction" in congestion
- **System Reliability** – to "improve the efficiency" of the transportation system
- **Freight Movement** – to "improve the freight network"
- **Sustainability** – to "enhance" the transportation system while simultaneously promoting the goal to "enhance and protect" the natural environment
- **Reduce Project Delivery Delays** – to "Accelerate" project development and construction

The first six goals can be directly addressed in the roadway planning process; the last goal is more relevant to project engineering and construction. Performance measures and monitoring data can be implemented for other modes in the transportation system to help address these national goals and other local goals like economic development.

Potential performance measures and data sources were outlined by mode in Chapter 6. This was a beneficial step to prepare the Victoria MPO to develop their own performance measures in accordance with federal and state guidelines. As rulemaking is released, the MPO can utilize the information gathered and analyzed in this plan to finalize Victoria's performance measures.

Funding Strategies

Limited funding is faced by every agency. Two general strategies can be utilized to address this issue: increase the amount of funding or decrease expenses. Both approaches are viable next steps for the Victoria MPO.

Increase the Available Funding

The funding levels described in Chapter 9 are based on reasonable future funding assumptions from federal and state sources. The TxDOT Transportation Revenue Estimator and Needs Determination System (TRENDS) was used to project reasonable revenue using conservative assumptions.

More innovative or dramatic assumptions can be implemented by the local government to increase its revenue; these might include county-level add-on fees for vehicle registration and increases in the local sales tax dedicated to transportation. Partnerships with private businesses

are another option to produce additional funds, particularly in terms of transit projects which can directly serve a business.

Special districts, such as Public Improvement Districts (PID) or Tax Increment Reinvestment Zones (TIRZ), can increase local funding to improve transportation improvements tied to economic development in a specific geographic region.

Funding not tied to road construction, such as streetscapes, complete streets strategies, and the bicycle and pedestrian networks, may be eligible for funding from additional Federal and State sources. These may include the US Department of Housing and Urban Development (HUD) for the Community Development Block Grant and the US DOT/HUD/EPA joint Partnership for Sustainable Communities program. Even the National Endowment for the Arts is a potential funding source through their Our Town program, which is a competitive grant focused on "creative placemaking."

At the state level, Texas Parks & Wildlife offers an Outdoor Recreation grant program and multi-use trails in parkland are eligible projects. Additionally, TxDOT offers a Transportation Alternatives Program that supports bicycle and pedestrian projects.

Specifically related to the rail network, Rural Rail Transportation Districts (RRTD) can be established in Texas counties. RRTDs in Texas have the power of eminent domain and the authority to issue bonds that can finance plans to acquire abandoned lines, rehabilitate existing lines, or construct new lines. The application process for forming RRTDs is routed through the TxDOT Rail Division.

Decrease Necessary Expenses

Coordination among different project phases and agencies can aid in reducing project costs. The development of Victoria's Lone Tree Hike and Bike Trail was completed with coordination between the development of a drainage project and a multi-use trail; the inter-departmental cooperation between two seemingly different projects created an asset for the community. A Victoria County Commissioner also utilized this strategy by purchasing left-over material from a road project at a lower cost to support another project. These types of coordination, along with coordinated data collection and planning programs, have the potential to reduce project costs for all agencies.

APPENDIX A: *VOICE OF VICTORIA* SURVEY INSTRUMENTS

Figure A.1: *Voice of Victoria* General Survey Instrument

Voice of Victoria

The Victoria Metropolitan Planning Organization (VMPO) develops transportation plans for Victoria County. Public involvement is an important part of the planning process to ensure that our plans and programs match up with what the people of the county say they want and need.

Rather than develop separate surveys for every plan, VMPO is establishing an on-going survey effort called *Voice of Victoria*. This is designed to gather public comments in a way that will help us:

- Increase public input by having surveys continuously available on-line and in various locations;
- Improve surveys through using responses to make revisions to future versions of our surveys; and
- Provide up-to-date information.

This general survey covers a range of issues to gather input for the update of the Metropolitan Transportation Plan through 2040. While we welcome your comments anytime, please complete and return this by **September 30, 2014** to have your voice heard in the update of this plan.

La organización de planificación metropolitana de Victoria (VMPO) desarrolla planes de transporte para el Condado de Victoria. La participación del publico es una parte importante del proceso de planificación para asegurar que nuestros planes y programas coinciden con lo que la gente del condado dice que desean y necesitan.

En lugar de desarrollar encuestas separadas para cada plan, VMPO está estableciendo un esfuerzo en curso encuesta llamado ***Voz de Victoria***. Esto está diseñado para reunir los comentarios públicos de una manera que nos ayudarán:

- Con aumento de comentarios del público por tener encuestas continuamente disponibles on-line y en varios lugares;
- Mejorar las encuestas a través de realizar revisiones a las futuras versiones de nuestras encuestas con respuestas; y
- Proporcionar información actualizada.

Esta encuesta general cubre una gama de temas para conseguir comentarios para la actualización del Plan Metropolitano de transporte a través de 2040. Mientras damos la bienvenida en cualquier momento sus comentarios, por favor complete y devuelva esta encuesta para **el 30 de septiembre de 2014** para participar en este plan.

Victoria MPO
Voice of Victoria MTP General Survey
P.O. BOX 1758
Victoria, TX 77902

STAMP

VICTORIA MPO
METROPOLITAN PLANNING ORGANIZATION

Victoria MTP Survey

- ***WHO WE ARE***: The Victoria Metropolitan Planning Organization (VMPO) is responsible for urban transportation planning processes that allows Victoria County to receive federal and state transportation funding. / • ***QUIÉNES SOMOS***: La organización de planificación metropolitana de Victoria (VMPO) es responsable del transporte urbano y los procesos de planificación que permite que el Condado de Victoria recibir fondos de transporte estatales y federales.
- ***WORK WE DO***: An important part of our work is to produce the long range Metropolitan Transportation Plan (MTP), which summarizes the needs for 25 years in the future. Every five years, the MTP is reviewed in depth and extended. We are now working on an update that will extend the current plan through 2040. / • ***EL TRABAJO QUE HACEMOS***: Una parte importante de nuestro trabajo es producir el plan de largo alcance concocido como plan de transporte metropolitana (MTP), que resume las necesidades durante 25 años en el futuro. Cada cinco años, el MTP se extiende. Ahora estamos trabajando una actualización que ampliará el plan actual a través de 2040.
- ***HOW YOU CAN HELP***: Your input will help set the transportation needs of the community and establish priorities for funding those improvements. Please fill out this survey and provide us with any additional feedback you may have. To have an impact in the current MTP long-rang plan effort, please return this survey by **September 30, 2014.** / • ***CÓMO PUEDES AYUDAR***: Tu aportación ayudará a establecer las necesidades de transporte de la comunidad y establecer prioridades para la financiación de esas mejoras. Por favor llene esta encuesta y denos cualquier información adicional que tenga. Para tener impacto en el esfuerzo de largo alcance del MTP por favor devuelva esta encuesta antes del **30 de septiembre de 2014**.

Want more information, visit/ Quiere más informacion, visite:
http://www.victoriampo.org/ or
http://www.facebook.com/voiceofvictoriampo

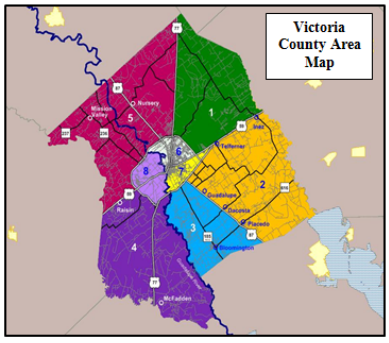
1. How would you rate the quality of the existing transportation conditions or services listed below? (1=poor and 3=excellent) / ¿Cómo calificaría la calidad de las condiciones de transporte o servicios enumerados a continuación (1=pobre y 3=excelente)

Traffic Congestion/ Congestión del tráfico	☐ 1	☐ 2	☐ 3
Pavement quality & condition of road/ Condiciones y calidad del pavimento de la carretera	☐ 1	☐ 2	☐ 3
Timing of traffic/ Sincronización del tráfico	☐ 1	☐ 2	☐ 3
Railroad crossings/ Cruces de ferrocarril	☐ 1	☐ 2	☐ 3
Traffic Safety/ Seguridad del tráfico	☐ 1	☐ 2	☐ 3
Bus operations/ Operaciones de autobuses	☐ 1	☐ 2	☐ 3
Sidewalks, Crosswalks, & Trails/ Aceras, pasos de peatones, y peatonales:	☐ 1	☐ 2	☐ 3

2. How would you rank these types of future transportation projects? (1= not important and 3=important) / ¿Cómo calificaría usted estos tipos de proyectos de transporte futuros? (1=no importante y 3=importante)

Adding lanes or center turn lanes to streets/Adición de carriles o carriles de centro turno a calles	☐ 1	☐ 2	☐ 3
Improvements to street maintenance/ Mejoras en mantenimiento de calles	☐ 1	☐ 2	☐ 3
Improvements to traffic signal timing/ Mejoras en la sincronización de las señales	☐ 1	☐ 2	☐ 3
Improvements at railroad crossings/ Mejoras en los cruces de ferrocarril	☐ 1	☐ 2	☐ 3
Improvements for traffic safety/ Mejoras a la seguridad del tráfico	☐ 1	☐ 2	☐ 3
Slowing traffic on neighborhood streets/ Frenar el tráfico en las calles del barrio	☐ 1	☐ 2	☐ 3
Improvements to pedestrian systems/ Mejoras en sistemas pestonal	☐ 1	☐ 2	☐ 3
Improvements to bicycle routes/ Mejoras en las rutas de bicicletas	☐ 1	☐ 2	☐ 3
Improvements to bus service/ Mejoras al servicio de autobus	☐ 1	☐ 2	☐ 3
Improvements to support economic development/ Mejoras para apoyar el desarrollo economic	☐ 1	☐ 2	☐ 3

3. Please describe any specific transportation projects, issues or ideas you have and if possible, mark locations on the map below. / Por favor describa proyectos de transporte específicos, temas o ideas que tiene y si es posible, marque las ubicaciones en el mapa de abajo.



If you would like to participate in further surveys to add your voice to Victoria's long-range planning efforts, or if you would like us to add you to our contact list, please provide your contact information. / Si te gustaría participar en otras encuestas o añadir su voz a los esfuerzos de planificación largo de Victoria, o si le gustaría ser incluyido en nuestra lista de contactos, por favor dénos su información de contacto de la mejor manera de contactarlo:

Name/Nombre _____

Mailing address/ Dirección postal

_____

_____

Phone Number/ Numero de teléfono

_____

Email/ Correro electronico

_____

PLEASE CIRCLE BELOW THE NUMBER OF THE AREA IN WHICH YOU LIVE. / POR FAVOR DE CIRCULAR EL NUMERO DE LA ZONA QUE VIVES DEBAJO.

1: **Northeast outside the Loop, between US 77 and US 59 / noreste afuera del Loop, entre US 77 y US 59.**
2: **Southeast outside the Loop, between US 59 and US 87 / sureste afuera del Loop, entre US 59 y US 87.**
3: **South outside the Loop, between US 87 and the river / sur afuera del Loop, entre US 87 y el río.**
4: **Southwest outside the loop, between the river and US 59 / sudoeste afuera del Loop, entre el río y US 59.**
5: **Northwest outside the Loop, between US 59 and US 77 / noroeste afuera del Loop, entre US 59 y US 77.**
6: **North inside the Loop, between the river and US 59 / norte dentro del Loop, entre el río y US 59.**
7: **South inside the Loop, between US 59 and the river / sur dentro del Loop, entre US 59 y el río.**
8: **West inside the Loop, west of the river / occidente dentro del Loop, al oeste del río**

Figure A.2: *Voice of Victoria* Transit Survey Instrument

Voice of Victoria

The Victoria Metropolitan Planning Organization (VMPO) develops transportation plans for Victoria County. Public involvement is an important part of the planning process to ensure that our plans and programs match up with what the people of the county say they want and need.

Rather than develop separate surveys for every plan, VMPO is establishing an on-going survey effort called *Voice of Victoria*. This is designed to gather public comments in a way that will help us:

- Increase public input by having surveys continuously available on-line and in various locations;
- Improve surveys information through using responses to make revisions to future versions of our surveys; and
- Provide up-to-date information.

This survey, focused on transit, has been developed to gather input for the update of the Metropolitan Transportation Plan through 2040. While we welcome your comments anytime, please complete and return this by **September 30, 2014** to have your voice heard in the update of this plan.

La organización de planificación metropolitana de Victoria (VMPO) desarrolla planes de transporte para el Condado de Victoria. La participación del publico es una parte importante del proceso de planificación para asegurar que nuestros planes y programas coinciden con lo que la gente del condado dice que desean y necesitan.

En lugar de desarrollar encuestas separadas para cada plan, VMPO está estableciendo un esfuerzo en curso encuesta llamado *Vos de Victoria*. Esto está diseñado para reunir los comentarios públicos de una manera que nos ayudarán:

- Con aumento de comentarios del público con encuestas continuamente disponibles en el internet y en varios lugares;
- Mejorar las encuestas a través de realizar revisiones a las futuras versiones de nuestras encuestas con respuestas; y
- Proporcionar información actualizada.

Esta encuesta, que se centró en tránsito, se ha desarrollado para conseguir comentarios para la actualización del Plan Metropolitano de transporte a través de 2040. Mientras damos la bienvenida en cualquier momento sus comentarios, por favor complete y devuelva esta encuesta para **el 30 de septiembre de 2014** para participar en este plan.

Victoria MPO
Voice of Victoria MTP Transit Survey
P.O. BOX 1758
Victoria, TX 77902

STAMP

VICTORIA MPO
METROPOLITAN PLANNING ORGANIZATION

Victoria MTP Transit Survey

- ***WHO WE ARE:*** The Victoria Metropolitan Planning Organization (VMPO) is responsible for urban transportation planning processes that allows Victoria County to receive federal and state transportation funding. / • ***QUIÉNES SOMOS:*** La organización de planificación metropolitana de Victoria (VMPO) es responsable del transporte urbano y los procesos de planificación que permite que el Condado de Victoria recibir fondos de transporte estatales y federales.
- ***WORK WE DO:*** An important part of our work is to produce the long range Metropolitan Transportation Plan (MTP), which summarizes the needs for 25 years in the future. Every five years, the MTP is reviewed in depth and extended. We are now working on an update that will extend the current plan through 2040. / • ***EL TRABAJO QUE HACEMOS:*** Una parte importante de nuestro trabajo es producir el plan de largo alcance concocido como plan de transporte metropolitana (MTP), que resume las necesidades durante 25 años en el futuro. Cada cinco años, el MTP se extiende. Ahora estamos trabajando una actualización que ampliará el plan actual a través de 2040.
- ***HOW YOU CAN HELP:*** Your input will help set the transportation needs of the community and establish priorities for funding those improvements. Please fill out this survey and provide us with any additional feedback you may have. To have an impact in the current MTP long-range plan effort, please return this survey by **September 30, 2014.** / • ***CÓMO PUEDES AYUDAR:*** Tu aportación ayudará a establecer las necesidades de transporte de la comunidad y establecer prioridades para la financiación de esas mejoras. Por favor llene esta encuesta y denos cualquier información adicional que tenga. Para tener impacto en el esfuerzo de largo alcance del MTP por favor devuelva esta encuesta antes del **30 de septiembre de 2014.**

Want more information, visit/ Quiere más informacion, visite:
http://www.victoriampo.org/ or
http://www.facebook.com/voiceofvictoriampo

1. How frequently do you use Victoria Transit fixed routes? / ¿Con qué frecuencia utilizas las fijas rutas de tránsito de Victoria?

☐ Never/Nunca
☐ Less than 1 time per week/Menos de 1 vez por semana
☐ 1-3 times per week/1 - 3 veces por semana
☐ 5 times per week/5 veces por semana
☐ 6 or more times per week/6 o más veces por semana

2. How well do the Victoria Transit fixed routes serve the destinations that you want to go to? (1=poor and 3=excellent) / ¿Que tal sirven las rutas fijas del transito de Victoria a los destinos que quieres ir? (1=pobre y 3=excelente):

☐1 ☐2 ☐3

3. How well does the fixed routes frequency of service (every 30 minutes) meet your needs? (1=poor and 3=excellent) / ¿Que tan bien satisficen sus necesidades las rutas de frecuencia de servicio de cada 30 minutos? (1=pobre y 3=excelente):

☐1 ☐2 ☐3

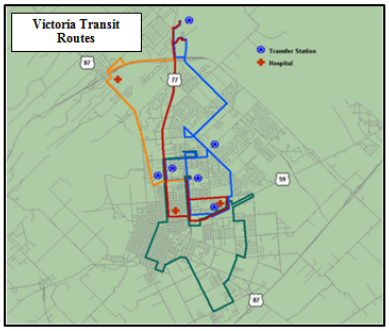
4. How well are the bus stops placed to meet your needs? (1=poor and 3=excellent) / ¿Qué tan bien se colocan las paradas de autobús para satisfacer sus necesidades? (1=pobre y 3=excelente):

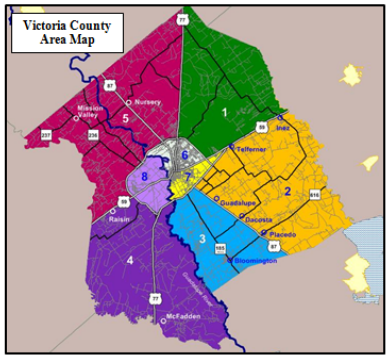
☐1 ☐2 ☐3

5. How well are the transfer locations placed to meet your needs? (1=poor and 3=excellent) / ¿Qué tan bien se colocan las ubicaciones de transferencia para satisfacer sus necesidades? (1=pobre y 3= excelente):

☐1 ☐2 ☐3

6. Are there any additional bus stops, transfer locations, or other bus improvements that you would like to have? Please describe or mark on the map. / ¿Hay paradas adicionales, puntos de transferencia o otras mejoras de autobús que te gustaría tener? Por favor describa o marca en el mapa.





If you would like to participate in further surveys to add your voice to Victoria's long-range planning efforts, or if you would like us to add you to our contact list, please provide your contact information. / Si te gustaría participar en otras encuestas o añadir su voz a los esfuerzos de planificación largo de Victoria, o si le gustaría ser incluyido en nuestra lista de contactos, por favor dénos su información de contacto:

Name/Nombre _____

Mailing address/ Dirección postal

_____

_____

Phone Number/ Numero de teléfono

_____

Email/ Correo electronico

_____

PLEASE CIRCLE BELOW THE NUMBER OF THE AREA IN WHICH YOU LIVE. / POR FAVOR DE CIRCULAR EL NÚMERO DE LA ZONA QUE VIVES DEBAJO.

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Figure A.3: *Voice of Victoria* Stakeholder Survey Instrument

Voice of Victoria

VICTORIA MPO
METROPOLITAN PLANNING ORGANIZATION

The Victoria Metropolitan Planning Organization (VMPO) is gathering information to help transportation planning in Victoria County. Please take a minute to help us plan by filling out this survey regarding your opinions. ***Thank you for your help.***

1. **Name of stakeholder and group**

   _____

2. **What category best describes the general group you represent?**

   - ☐ Major employer
   - ☐ Public agency
   - ☐ Community organization
   - ☐ Transportation provider
   - ☐ Freight transportation
   - ☐ Other _____

3. **How would you rate the quality of the existing transportation conditions listed below as they affect your group? (1=poor and 3=excellent)**

Traffic Congestion	☐1	☐2	☐3
Pavement Quality	☐1	☐2	☐3
Timing of Traffic Signals	☐1	☐2	☐3
Railroad Crossings	☐1	☐2	☐3
Traffic Safety	☐1	☐2	☐3
Bus Operations	☐1	☐2	☐3
Sidewalks, Crosswalks, & Trails	☐1	☐2	☐3

4. **Are there any particular transportation barriers or constraints that affect your group?**

   _____

   _____

   _____

   _____

   _____

   _____

5. **Does your group have any plans for expansion, relocation, or other projects that would impact transportation?**

   _____

   _____

   _____

   _____

   _____

   _____

6. **How would you rank these types of future transportation projects as they affect your group? (1=not important and 3=important)**

Adding lanes or center turn lanes to streets	☐1	☐2	☐3
Improvements to street maintenance	☐1	☐2	☐3
Improvements to traffic signal timing	☐1	☐2	☐3
Improvements at railroad crossings	☐1	☐2	☐3
Improvements for traffic safety	☐1	☐2	☐3
Slowing traffic on neighborhood streets	☐1	☐2	☐3
Improvements to pedestrian systems	☐1	☐2	☐3
Improvements to bicycle routes	☐1	☐2	☐3
Improvements to bus service	☐1	☐2	☐3
Improvements to support economic development	☐1	☐2	☐3

7. **Please describe any specific transportation projects, issues, or ideas you have. Please indicate their location if appropriate**

   _____

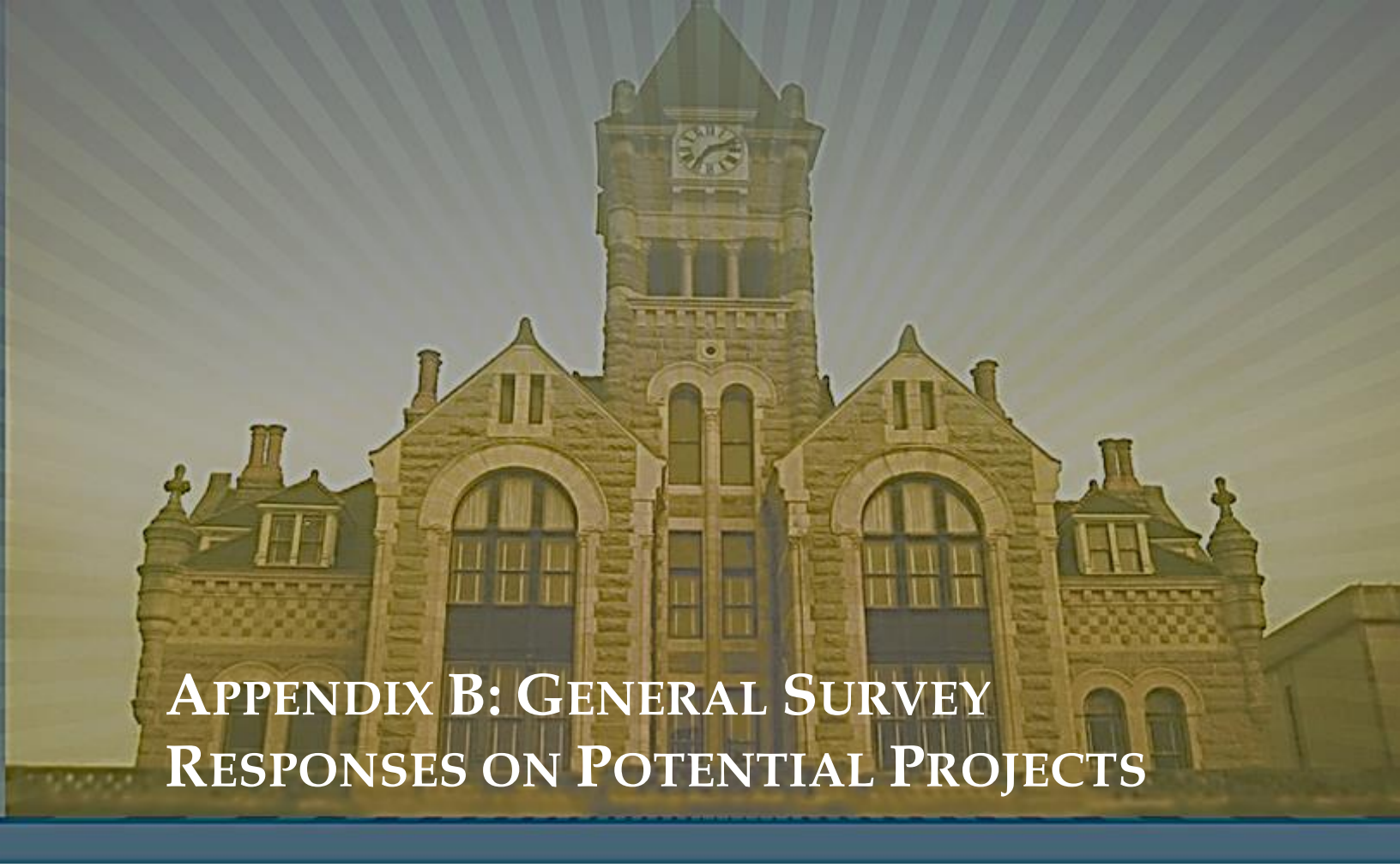
   _____

   _____

   _____

   _____

   _____



APPENDIX B: GENERAL SURVEY RESPONSES ON POTENTIAL PROJECTS

CONGESTION & ADDING LANES OR CENTER TURN LANES

1. Widening Navarro would be an excellent project!
2. Near West High School--work on congestion
3. On Navarro better traffic options
4. Rio Grande too crowded.
5. The traffic during school months around East High School is awful
6. Ben Jordan & Mockingbird constant traffic.
7. Navarro seems to have the congestion problems.
8. (Near Traffic Congestion) 87-463!
9. I am not sure how this can be accomplished (or if it is even feasible) Navarro is the primary north to south travel artery for Victoria. Main alleviates a little of that traffic, but it would be helpful to have an alternative to Navarro for north/south flow if you do not NEED to visit a location on Navarro.
10. Traffic at West High School.
11. Traffic at Glass and Rio Grande
12. Rebuild of Juan Linn as a thoroughfare to improve economic conditions in the area.
13. Dairy Rd needs to be widened and potholes fixed.
14. There is terrible traffic congestion there [at Springwood and Main] and at loop and Briggs Parkway during peak hours.
15. Congestion on Navarro.
16. Complete the Glascow/Benavides loop to ease congestion on North Navarro in the Mall area.
17. Complete Glascow extension.
18. Reduce congestion on north Navarro.
19. Widening Salem Road and connecting it to Glascow
20. Right turn lanes on multi-lane streets.
21. Loop to ease congestion on North Navarro from loop to Academy should be high on the priority list
22. Add protected left hand turn lights, and two right hand turns on more streets, specifically those around the loop and cross streets on Navarro and Main.
23. Right turn only lanes need to be placed at congested intersections (for instance where Loop 463 and Navarro meet).
24. Expansion of Magruder from Loop to Briggs Blvd.
25. Not enough through North-South streets
26. I feel we should also be concerned with building new streets in areas of town we want or expect to see growth.
27. Also, the two projects you mentioned this morning in the VEDC meeting in regards to Ball Airport Rd extension and Salem Rd extension are VERY important that need to be priority projects!! (Great job on the presentation too!!)
28. There needs to be a roadway coming in from the back of the Walmart on Navarro. Currently, there is only way to get to Walmart. That would relieve congestion along the entire stretch of Navarro from the loop to Walmart. Half of Victoria drives thru the back of the mall and the parking lots of Hobby Lobby and Lowes. Something that would connect Salem rd. to Walmart.
29. Opening another east/west connection by developing Ball Airport Road from Hwy 77 to Hwy 87.

30. Additional access to North Navarro area to alleviate congestion and improve safety.
31. Extend Glascow, Northside Rd, etc...
32. I see that they are extending Ball Airport. This is great! Please expedite this project ASAP!
33. Traffic congestion loop is awful.
34. Extend Stockbauer north of Dale's to Navarro Street to relieve traffic on Navarro and Loop 463. It would spur new growth in that area behind Walmart and Dale's.
35. And, hook Stockbauer up with the New Ball Airport Road extension to create a loop.
36. Make Delmar a straight 4 lane road from Hanselmann to Pleasant Green, the 2 lane road carries too much traffic and has that dangerous curve.
37. Make an overpass on Loop 463 over Ben Jordan to spur growth in that area.
38. Also add loop access further out on Hwy 77 N so don't have to go so far in on Navarro.
39. The north end of Navarro is usually always congested
40. Woodway traffic is a real problem in the morning as people use it as a shortcut
41. Dairy Rd needs to be widened and potholes fixed.
42. Mockingbird or Airline Road go directly to airport
43. Nursery Road should be restudy. Traffic is getting busier, because of new house developing & school.

NAVARRO ST.

1. Traffic lights at Navarro and Glascow.
2. New light at Navarro & Kovar goes red for Navarro traffic even though there is no side road traffic waiting. This adds to an already congested area.
3. Traffic lights on Navarro St are HORRIBLE.
4. Please improve the traffic signal timing at the Zac Lentz Intersections (Main, Navarro, and Stockbauer). Mainly after about 8 o'clock when traffic dies down and your stuck at a red light for almost 15 minutes sometimes.
5. Navarro pedestrian crossings :)
6. Complete sidewalks on Navarro near old HEB.
7. Safety improvements on Navarro, i.e.…warning for upcoming stop lights, like is on Main Street near Las Palmas.
8. I really feel Navarro is still unsafe in areas. Adding medians would help.
9. Left turn lanes need to line up. You cant see past other cars on unprotected left turns. (Ex.. Airline at Sundance. In front of mall on Navarro left turn lanes.) Fixing this will cut down on accidents and near misses.
10. Traveling Navarro, north to south is a nightmare! If I catch a red light at Academy/Walmart entrance, 98% of he time I will catch the light at Glascow, RED light that is. From Glascow I am 99% assured I will catch the RED light at East Larkspur or LaSalle Crossing, maybe 99.5% of the time. Traffic does not flow at all. I will not catch the green light at the Loop for sure. I understand the City of Victoria spent $$Millions on having an engineering company come in and time the lights. Now if I was turn left to get on to the loop toward the airport I will catch the red light on John Stockbauer! Please take time to come out here to Bridle Ridge and travel from Bridle Ridge down Navarro(south) to Crestwood you will understand.
11. Additional access to North Navarro area to alleviate congestion and improve safety.

12. Navarro--more police control.
13. Navarro is getting too congested and the speed limits don't match what traffic is actually doing.
14. Too fast on Navarro
15. Widening Navarro would be an excellent project!
16. On Navarro better traffic options
17. Navarro seems to have the congestion problems.
18. I am not sure how this can be accomplished (or if it is even feasible) Navarro is the primary north to south travel artery for Victoria. Main alleviates a little of that traffic, but it would be helpful to have an alternative to Navarro for north/south flow if you do not NEED to visit a location on Navarro.
19. Congestion on Navarro.
20. Complete the Glascow/Benavides loop to ease congestion on North Navarro in the Mall area.
21. Reduce congestion on north Navarro.
22. Loop to ease congestion on North Navarro from loop to Academy should be high on the priority list
23. Add protected left hand turn lights, and two right hand turns on more streets, specifically those around the loop and cross streets on Navarro and Main.
24. Right turn only lanes need to be placed at congested intersections (for instance where Loop 463 and Navarro meet).
25. There needs to be a roadway coming in from the back of the Walmart on Navarro. Currently, there is only way to get to Walmart. That would relieve congestion along the entire stretch of Navarro from the loop to Walmart. Half of Victoria drives thru the back of the mall and the parking lots of Hobby Lobby and Lowes. Something that would connect Salem rd. to Walmart.
26. The cut through to get to other businesses needs to be addressed. Getting to Wal-Mart from John Stockbauer without cutting through Mall, Hobby Lobby & Lowe's needs to be addressed. Drivers want to avoid Navarro so a street needs to be developed to the east of the mall or behind the mall to get better traffic flow.
27. Additional access to North Navarro area to alleviate congestion and improve safety.
28. Extend Stockbauer north of Dale's to Navarro Street to relieve traffic on Navarro and Loop 463. It would spur new growth in that area behind Walmart and Dale's.
29. Also add loop access further out on Hwy 77 N so don't have to go so far in on Navarro.
30. The north end of Navarro is usually always congested
31. Navarro. Get pass thru traffic up and out.

STREET MAINTENANCE

1. There are a lot of potholes on older streets.
2. Fix the rough crumbly streets by bonds.
3. (Pavement Quality) Woodway!
4. The streets are bad.
5. Crestwood's condition is horrendous. It needs more work than any street I can think of off the top of my head.
6. (Pavement Quality) Red River (bad)

7. Dairy Rd needs to be widened and potholes fixed.
8. Pot hole "patches" don't work and are washed away every time it rains.
9. (pavement quality) Like a rodeo!!!! SO MANY BUMPY ROADS!!!
10. Potholes need to be fixed, especially on Dairy Rd.
11. Priority One: Repair deteriorating streets
12. Roadways in neighborhoods are horrible... in the neighborhood behind Sam Houston and Mockingbird LN. Very horrible streets!
13. Whatever the city is filling the potholes with, especially on Guy Grant and on Dairy Rd, is obviously not quality material. Every time it rains, they get worse and worse. I suggest fixing this issue before one of these holes damages a car and it's the city's fault for not keeping up with the conditions of the roads.
14. South side of town has very bad street maintenance. So many pothole cover ups and existing potholes. Yet north side of town has pristine streets...why such a difference? We all pay taxes and should have the same safe streets to travel on. The 1400 East block of Stayton Street is horrible....never been re-laid only patched and patched again and again. The street in front of Patti Welder...North street is also horrible....most of the south is severely lacking in proper street maintenance. I was fortunate to have lived in WA state for several years and never once encountered one pothole. The streets were fantastic everywhere you went. They had pride in their city/state and cared about public safety. Maybe someone needs to go to Mill Creek and study their habits and standards of roads because they obviously know what they are doing and how. The city should be sectioned off in quadrants and assessments of each street done and the worst off should be first in being redone. Once the quadrant is done ..off to the next starting in the South and mid Victoria. All the drug money and possessions should be dedicated towards funds for new streets and improvements. If we are short on workers...prisoners should work on patching up streets and keeping them clean. TY for your considerations.
15. The City should establish concrete as their minimum standard for all new or rebuilt streets. The long term maintenance cost of theses streets will free maintenance dollars to repair existing streets in need of maintenance.
16. Resurfacing of residential roads is needed.
17. Ben Wilson & Crestwood
18. The Crestwood road and Ben Wilson need to be redone!
19. Crestwood is in need of resurface East St. Navarro.
20. Pot holes wear and tear. Dunbar Dr. in Belltower is in poor shape because too many people have used Belltower as a cut-through street to the loop. Subdivision street not surfaced to take that many cars.
21. Streets are in piss poor condition . One of the most unattractive things of Victoria is street conditions everywhere
22. Railroad crossings will scrape the bottom of any vehicle and the potholes and cracks in pavement will only lead to more expensive repairs down the road.
23. Crestwood St., Red River and Water Street has been neglected for years and is in need for much repair.
24. Glascow badly need repairs. The road is not level in many parts. Especially between Ball Airport and Stone Gate. Also there are "speed bumps" that should not be there as you turn off Navarro and onto Glascow where the road connects. There is another "speed bump" on Glascow right after Academy.

25. Hwy 185 is in bad condition
26. Improvements of the downtown roads and Vine Street is much needed, lots of pot holes.
27. I would like to see Water Street and Moody Street resurfaced. Grass is growing in the middle of the Water Street. Moody Street is our City's first impression of our city from those coming from Goliad.
28. Start repaving and smoothing major thorough fares , i.e. RED RIVER, Crestmont, Ben Jorden and Ben Wilson just to name a few
29. Part of Dairy road was recently redone, but the parts that weren't are in terrible shape. Fix the road, don't put a band aid on it by filling potholes every time it rains.
30. Red River St is rough, and we are pushing Victoria college to get students to come to college ??

PEDESTRIAN SYSTEMS

1. Sidewalks!!! We need a proper sidewalk and pedestrian friendly system BADLY.
2. Near West High School--add a sidewalk
3. More sidewalks on main roads for runners & cyclists
4. Make continuous sidewalks and not putting utility poles in middle of sidewalks for bikes w/ trailers or put in bike lanes in roads a lot of riders use the streets.
5. Need more sidewalks
6. I'd like to see friendlier pedestrian and biking routes.
7. Exclamation points after the "3" on Improvements to Pedestrian Systems
8. New trails are great but sidewalks need improvement badly.
9. Downtown sidewalks are non-existent in residential areas or are difficult to use in the business area with cracks and split-level concrete slabs.
10. Please focus on walkability and connecting the city in meandering drives that make getting out around town enjoyable.
11. Add sidewalks down Airline.
12. Security on bike/hike trails.
13. Security cameras on running trail.
14. Navarro pedestrian crossings :)
15. Cameras on running trails.
16. In our neighborhood it is so frustrating to take a walk or ride bike because none of the corners have sloping curbs. Being new to Victoria I'm very frustrated with the lack of accessible sidewalks and trails for exercise.
17. Graduated sidewalks everywhere, sidewalks added. Having lived elsewhere, Victoria is below par regarding these issues
18. Need complete sidewalks.
19. Improved pedestrian crossing areas & signals.
20. Please add sidewalk on Guy Grant between Salem and Mockingbird so kids can safely walk to school.
21. Complete sidewalks on Navarro near old HEB.
22. Due to not enough side walks, city ordinance, minimum vehicle distance from pedestrian, bicyclist, on street
23. Need talking crosswalks and improvements for the blind and visually impaired.

24. I am delighted to take this opportunity to ask why in the hell there are huge poles in the middle of the handicapped accessible sidewalks on Ben Jordan? I can't drive down that street without my blood pressure rising about those.
25. I would like to see sidewalks where there aren't any. I would like to walk down John Stockbauer to take my children to the park and have a sidewalk all the way there.
26. Need about 2 miles of all-weather surface on existing nature trail in Riverside Park
27. If Pedestrian systems means sidewalks, then A LOT of improvement is needed with adding and maintaining sidewalks. Especially on Airline and John Stockbauer for runners and bikes, (near the Lone Tree trail).
28. We might be interested in pushing for "Blue Zone" certification, and evidence based method proven to improve the health a city's population. This would require creating ways for kids to walk and bike to school, for people to walk and bike to parks and markets.
29. In order to make Victoria a healthier community, we need to improve walkability. This would be a MAJOR asset to economic development and encouraging a younger demographic to relocate (or move back) to Victoria.
30. We need more sidewalks in the downtown area. It needs to be like the Riverwalk in San Antonio.

TRAFFIC SIGNALS & SIGNAL TIMING

1. Flashing light at FM 236 and Post Oak or turning lane.
2. Full traffic [signal] at 447 & 87
3. 2 lights on Airline @ Sam Houston & Ben Wilson poorly timed.
4. (Timing of Traffic) 87-463. Intersections of 87-Tropical 87-463
5. A lot of lights around town are just ridiculous. Sitting and waiting with no traffic around is pointless. They should be motion censored at low traffic times.
6. Also, it seems that some lights were changed, for example at Main and 59. It used to be timed well with the light at Bridge. Now it is not.
7. Traffic lights at Navarro and Glascow.
8. Timing of lights at West High School.
9. The lights downtown by the square on Bridge Streets timing!
10. Light at 59 and John Stockbauer is EXTREMELY LONG!!!
11. Also, there are traffic lights for the left turning lane which turn solid green first and then produce an arrow [in front of West High School]. This causes confusion when you have to watch the light instead of oncoming traffic (Mockingbird/John Stockbauer)
12. In addition the traffic signal timing is terrible [at Springwood and Main].
13. Better timing of lights off Rio Grande near downtown
14. New light at Navarro & Kovar goes red for Navarro traffic even though there is no side road traffic waiting. This adds to an already congested area.
15. Lights need to be synchronized to speed limit and frequently checked.
16. The recent re-timing of the traffic signals has created more congestion during peak hours. The traffic signals are no longer synchronized as well as they were prior to the recent re-timing.
17. Street lights need to be timed better (Sam Houston and Airline and Ben Jordan are way off and you can catch two red lights in a matter of 100 yards or the new light at

Teakwood and Houston Highway, you can sit at that light for over 3 minutes without any traffic going by you).

18. I recently traveled to Bend, Oregon, and was very impressed with their street system. They rely on roundabouts at most intersections, thus eliminating the needs for traffic lights and keeping the flow of traffic moving. It was great! In each roundabout, they had landscape features and a sculpture of some sort. Very forward thinking. I saw this in England a few years back and it seems to work very well.
19. Traffic lights on Navarro St are HORRIBLE.
20. There are some stoplights that take way too long to turn green. For example the light on John Stockbauer off of Houston highway you have to sit there for a long time in order for it to turn green. Also the light off of Ben Jordan and Sam Houston doesn't turn green for the people on Ben Jordan turning onto Sam Houston. The lights take too long to turn green or the ones going the opposite way stay green too long
21. Traffic flow, especially in the timing of traffic lights. One of many areas is intersection of Bridge and Rio Grande. There is very little traffic going north especially after 6 pm on. The traffic going west and coming out bank and other businesses jams continually. So lights could be set to allow a better flow
22. Light by Discount Tire is too short for left turners
23. Traffic congestion loop is awful. Lights are too short when only 1 car can get through.
24. Coordinate the lights between Main Street and Bridge Street on Rio Grand. The Bridge Street light is too long and only three cars cross the intersection before it changes to red on Rio Grand street crossing Main street heading west toward Bridge street in both directions.
25. The traffic congestion at school on Hwy 87 is awful ! People turning into school are in the Hwy 87 lane when it is green causing a complete stand still . The timing of that light and the loop needs to be improved to allow more traffic to flow better on Hwy 87. Another exit for the school is seriously needed.. Maybe they could leave by way of the loop instead of turn around back into Hwy 87 which is already packed with commuters trying to get to work . Also at the school light , during the summer, the red light for Hwy 87 could be lessened time wise . You sit & wait for cross traffic & there is none :)
26. Consider Left turn lights at Mockingbird and Main.
27. The Meadows subdivision needs a traffic light at the intersection of Goldenrod & John Stockbauer to control traffic from two grade schools and 1 high school and two subdivisions that exit onto John Stockbauer only. Come over here and try to get out of one of the subdivisions during school days especially and anytime at all. We need a traffic light. Goldenrod only exit off John Stockbauer. Another subdivision here with only exit off of John Stockbauer. Needs a traffic light. 2 grade schools and 1 high school nearby. Try getting out of either subdivision almost at anytime is horrible.
28. Please improve the traffic signal timing at the Zac Lentz Intersections (Main, Navarro, and Stockbauer). Mainly after about 8 o'clock when traffic dies down and your stuck at a red light for almost 15 minutes sometimes.
29. To improve traffic safety please consider a light at the intersection of TX-463 Airport Exit and Business 59.

TRAFFIC SAFETY & OPERATIONS

1. Not allowing people to pull out and use turn lane to turn left on Navarro.
2. Enforcing no U-Turns on North Navarro lights.
3. Center Turn lane not for merging.
4. Too many people running red lights.
5. Sometimes drivers don't pay attention or respect to pedestrians
6. The intersection of Halsey and Polk Ave is a 4-way stop. While fairly regularly a police officer is parked down the road to catch people running that stop, there are ALWAYS people speeding down my street with their crazy loud cars, especially late at night. That intersection is also a school bus stop.
7. Safety improvements on Navarro, i.e.…warning for upcoming stop lights, like is on Main Street near Las Palmas.
8. Too many people ignore/don't use crosswalks.
9. I really feel Navarro is still unsafe in areas. Adding medians would help.
10. Safety issue at Springwood and Main.
11. Monitor and stop motorists running red lights and not stopping at stop signs.
12. Improve safety regarding speeding and running red lights.
13. Center turn lanes are deadly. Many well-developed metropolitan areas have done away with them and gone to curbed medians to reduce traffic fatalities.
14. Left turn lanes need to line up. You cant see past other cars on unprotected left turns. (Ex.. Airline at Sundance. In front of mall on Navarro left turn lanes.)Fixing this will cut down on accidents and near misses.
15. Make Delmar a straight 4 lane road from Hanselmann to Pleasant Green, the 2 lane road carries too much traffic and has that dangerous curve.
16. The Meadows subdivision needs a traffic light at the intersection of Goldenrod & John Stockbauer to control traffic from two grade schools and 1 high school and two subdivisions that exit onto John Stockbauer only. Come over here and try to get out of one of the subdivisions during school days especially and anytime at all. We need a traffic light. Goldenrod only exit off John Stockbauer. Another subdivision here with only exit off of John Stockbauer. Needs a traffic light. 2 grade schools and 1 high school nearby. Try getting out of either subdivision almost at anytime is horrible.
17. Too many Victorians run red lights. Cameras might help, but a citizen should be able to challenge a ticket right here in Victoria and not by driving to another city!
18. Safety issues at Nursery Drive/Loop crossover.
19. Traveling Navarro, north to south is a nightmare! If I catch a red light at Academy/Walmart entrance, 98% of he time I will catch the light at Glascow, RED light that is. From Glascow I am 99% assured I will catch the RED light at East Larkspur or LaSalle Crossing, maybe 99.5% of the time. Traffic does not flow at all. I will not catch the green light at the Loop for sure. I understand the City of Victoria spent $$Millions on having an engineering company come in and time the lights. Now if I was turn left to get on to the loop toward the airport I will catch the red light on John Stockbauer! Please take time to come out here to Bridle Ridge and travel from Bridle Ridge down Navarro(south) to Crestwood you will understand.
20. To improve traffic safety please consider a light at the intersection of TX-463 Airport Exit and Business 59.
21. Additional access to North Navarro area to alleviate congestion and improve safety.

22. Navarro--more police control.
23. Enforce traffic laws
24. Plus left turn lanes are used for merging and other inappropriate driving.

BICYCLE ROUTES

1. Bike lanes everywhere
2. There needs to be special bicycle lanes. I know of several instances that people would prefer to ride their bike to work but it is too dangerous to share the road with the general public.
3. I'd like to see friendlier pedestrian and biking routes.
4. My husband rides his bike to work so bike routes/lanes would be AMAZING! Completion of the bike path past Airline would be nice as well.
5. Please do not invest in "bicycle lanes" as they are not proven to increase safety when it comes to oilfield trucks.
6. We desperately need bicycle lanes. There is no infrastructure to support bike commuting and very little to support biking for recreation.
7. Bike lanes.
8. A town our size needs bike lanes.
9. Bike lanes need to be a priority as well that are safe.
10. Bicycle lanes
11. Bicycle lanes would be an added degree of safety and a visual and physical appeal for residents and tourists alike.
12. Bike lanes around the city. Having lived elsewhere, Victoria is below par regarding these issues
13. Adding bicycle lanes
14. I would, also, like to see a bike lane on main roads.....it would be nice to be able to ride my bike (children in trailer) to various business establishments to help me get more exercise.
15. We might be interested in pushing for "Blue Zone" certification, an evidence-based method proven to improve the health of a city's population. This would require creating ways for kids to walk and bike to school, for people to walk and bike to parks and markets.
16. Include bike lanes in street projects. Don't know if the city owns the land between the railroad and nursery drive along Hwy 87, but a bike/hike path could easily fit along that route between RR and Nursery Dr.
17. Bike trails connecting the parks and down town, bike lanes
18. Bicycle routes should not be a priority unless there is an educational aspect to motorists. Certainly we should not waste money on bike lanes or infrastructure that we have neither the space or resources for -- and studies have shown that bike lanes do not increase bicycle safety....
19. Designated connected bike lanes.
20. Get rid of the massive left turn lanes. Narrow them and install landscaped medians. This would give room for bike lanes.
21. Bike Lanes!
22. Would love to see bike lanes on major streets.

BUS SERVICE

1. Send bus to park (Riverside)
2. Bus system that is frequent and cheap
3. Extending the routes of bus service
4. Also, there needs to be more stops on bus routes, especially in front of vital places such as shelters and walk-in clinics.
5. Bus stops close to places that serve those most in need. at Clinics; Women's Crisis Center; etc…
6. More comprehensive public transportation!
7. More transit shelters.
8. Expand the current transit system and include more pickup/dropoff points. Work with the school system to provide transit services within 2 mile range of schools with high needs due to safety issues.
9. Make bus routes easy to find. Publicize them much more and post them visibly in lots of locations, including at the bus stops themselves.
10. The bus system should address the growing needs of a working poor population and a college student population that is expanding rapidly.
11. There should be transit routes set up [along Nursery Road].
12. Many of the bus stops do not have seats and awnings over them. This is very important because of several reasons. 1. Many of the elderly, disabled & poor want to use these bus stops, many times out of necessity but can't! Strictly, because of this reason! 2.They are required to block sunlight in the heat of summer; wind during the cold months of winter; and rainfall,(which could happen at any time)! 3. At some of the stops, the places they are located at is only the width of a sidewalk. This makes it impossible for a wheelchair to be loaded on the bus, because the lifts on the buses only operate in one direction and there is no room for a wheelchair to even get on the lift without falling off the sidewalk. Or ,in the case of an electric wheelchair, if there is a lawn to drive on for this purpose, it may not be able, still, to use the lawn, if it has been mowed or edged! That would be the same as trying to go over a building's threshold. Therefore, these types of improvements need to be made, and the City of Victoria needs to get with the Golden Crescent Council & Victoria Transit Service to see these improvements are made!!!
13. Rather than the buses remaining in the street, build inlets to pickup and drop off passengers. Buses stopping in busy roadways is unsafe.
14. I suggest transit partner with VISD to share drivers and/or assist in picking up students who may have missed school bus pickup. I believe some city & school routes align and stops should be closer to schools. The city should have a stake in making sure transportation is available to students. It a community/city issue and benefits the citizenry as a whole
15. One of the main reasons we moved to Victoria was because of the public transportation, which we plan to use when we are older. We have never used it though.
16. A more frequent bus schedule and more buses and different routes. It shouldn't take 2 hours to get from one side of town to the other using the bus system.
17. Bus service needs to be more visible in the community and cheaper. Advertise routes so people will know what/where each color goes. It also needs to be made available to college students without cars (why it needs to be less expensive). This may be why poor rider attendance exists.

18. The buses need better routes. Some are over served and others are not served at all. I am speaking of the south part of town. Laurent and Ben Jordan have been forgotten. I could make better routes than we now have. This is really important. Some of the bus stops were probably fine 5 years ago, but they need to be relocated a bit. Take a look at Detar Navarro, this is really a dangerous situation with the traffic flow there. Anytime the buses stop in a high traffic area, there is more congestion. It might mean moving them to a side street.
19. Extend bus service into Northcrest, not everyone that lives here is a millionaire.
20. Bus stops need to be more user friendly!! more info at stops on routes and times.

MISCELLANEOUS

1. Please paint new lines on the streets especially on the Southeast side of town
2. We could also add more water park features to more parks.
3. I would like us to continue to promote I-69
4. Concerned about limiting access caused by Hwy 59 (I-69) improvements
5. Better lighting on trails, parks, and side streets.
6. A bunch of plant covered stop signs! (on roads people don't normally take)
7. Sat in far right turn lane heading north on intersection at US 59 and John Stockbauer
8. A great way to improve the streets would be to replace main streets with solar powered streets. This would be Eco friendly as well as long lasting and could also be fixed easily with boundary lines
9. If you want to attract better quality drivers for the Victoria transit system. Pay them more ($15.00/hour min.). They will stay longer and not be compelled to quit after they have been trained to be a CDL driver
10. Narrower residential streets and deeper residential lots will improve traffic safety in neighborhoods. Narrower streets will reduce speed and deeper lots will allow more cars to park off the street and not block sidewalks..
11. All street routes should be repainted.
12. Cutting back overgrown trees/brush around street signs, and over the roadway.
13. Crestwood needs to be completely redone like Laurent was done
14. Improving Red River from Ben Jordan to Navarro
15. The on-ramp to the new portions of Loop 463 are unsafe. There is no sight distance and they are not long enough nor do they truly offer a merge lane.
16. The ramps to 87 N at the Healthplex, from frontage rd. at John Stockbauer onto East Loop 463 and the frontage rd. at Mockingbird onto East Loop 463 are prime examples of poor planning that takes very little account of human driving behavior.
17. And many intersections have Yield signs that replaced appropriate stop signs. I can't believe that meets transportation code. Example of the are the intersection of Oliver and Levi Sloan; Penn Ave at Levi Sloan and Park Avenue at Levi Sloan.
18. If you are going to add turn lanes, fine. The medians are pretty, but dangerous. Take a look at Laurent and Wiener Schnitzel. Pay attention to the traffic flow. This particular intersection carries Detar, HEB, Rio Grande and Laurent. It's a very bad situation.
19. To help on maintaining neighborhood streets, create a truck route that 18-wheelers must abide by. Too many 18-wheelers are going down neighborhood streets, which causes the pavement to deteriorate due to the weight of the heavy trucks.

SCHOOL ACCESS AND SAFETY

1. Hwy 87-Loop Schools better roads
2. High school entrance/congestion should be improved!
3. Add another ingress / egress route to the west high school, Preferably to the loop access rd.
4. VISD needs to locate new schools in locations other than major roadway intersections or provide multiple entrances to the schools. VISD builds schools, creates traffic congestion and wants the City, TXDOT or law enforcement to solve the problem. The cost of schools should include these expenses and not push the cost to other governmental entities.
5. I won't bring up the lack of foresight and planning on the part of VISD concerning the entrances at both new high schools.
6. The traffic congestion at school on Hwy 87 is awful ! People turning into school are in the Hwy 87 lane when it is green causing a complete stand still . The timing of that light and the loop needs to be improved to allow more traffic to flow better on Hwy 87. Another exit for the school is seriously needed.. Maybe they could leave by way of the loop instead of turn around back into Hwy 87 which is already packed with commuters trying to get to work . Also at the school light , during the summer, the red light for Hwy 87 could be lessened time wise . You sit & wait for cross traffic & there is none :)
7. Buy up land next to the 2 new high schools to relieve all of that traffic. It will stop students from running across dangerous fast moving roads and highways.
8. School zones at both high schools. At least slow traffic to 45 on highway or access roads by high schools.
9. Fix entrance to West High.
10. One major traffic safety issue is school traffic in front of West High School. There needs to be a project to improve safety for the kids while preventing congestion.
11. Timing of lights at West High School.
12. Near West High School--add a sidewalk
13. Near West High School--work on congestion
14. Please add sidewalk on Guy Grant between Salem and Mockingbird so kids can safely walk to school.
15. We might be interested in pushing for "Blue Zone" certification, and evidence based method proven to improve the health a city's population. This would require creating ways for kids to walk and bike to school, for people to walk and bike to parks and markets.
16. The Meadows subdivision needs a traffic light at the intersection of Goldenrod & John Stockbauer to control traffic from two grade schools and 1 high school and two subdivisions that exit onto John Stockbauer only. Come over here and try to get out of one of the subdivisions during school days especially and anytime at all. We need a traffic light. Goldenrod only exit off John Stockbauer. Another subdivision here with only exit off of John Stockbauer. Needs a traffic light. 2 grade schools and 1 high school nearby. Try getting out of either subdivision almost at anytime is horrible.

SPEEDS AND SPEED LIMITS

1. Lower speed limit on Ben Jordon St. between Port Lavaca and Laurent. 35 Mph

2. Increase speed limits on Laurent St.
3. Navarro is getting too congested and the speed limits don't match what traffic is actually doing.
4. Slow down traffic on Sam Houston
5. Slowing traffic on Glascow.
6. Speed limits vary too much across town and are not consistent. You can be limited to 35 on a wide street and allowed to go 45 on a two way street in poor repair.
7. The speed limits on the roads in the county are arbitrary at best. They do not appear to be based on population density, road conditions, etc.
8. No speed traps
9. Ben Jordan North of Airline is 40 MPH other areas of Ben Jordan are 35. North of Airline needs to be 35 MPH
10. Speed is too high inside the city limits on South Laurent. 55 mph where people back out into the street is too high especially when big trucks are doing 60-65 mph.
11. Too fast on Navarro

Railroad Crossings

1. No trains from 7:30-8! (AM)
2. Timing of trains needs to be worked on. It is very inconvenient for the trains to run at 7:50 when people are trying to get to work or school.
3. Stop trains from coming thru town!
4. Remove freight trains from city limits!
5. The number of trains, their length, and the times at which they travel through town should be examined. Long trains at 0800, 1200, and 1700 are unacceptable.
6. This town is getting too big to have trains holding up traffic. especially at rush hour.
7. Consider a railroad underpass at either Rio Grand and Main, Main and Crestwood or Main at Mockingbird.
8. Less train horns
9. Truck need to use overpass instead of RR Crossing at 87-463 Loop!

Economic Development

1. I would like to see new streets built to open up new areas for development.
2. Clean up the surrounding downtown areas and bring in more shopping and entertainment along the downtown area. Outdoor music, competitions outdoors and activities Thursday through Sunday. I would like to see an outdoor arena and museum day and other sidewalk activities treasure hunts to get to know the city. Treasure hunting in the downtown area would be fun. We need more family activities. Also Christmas in Victoria Arts and Crafts at each store downtown with hot cocoa, carolers, Santa for a week. Have each vendor provide cookies or activities and a stamp sheet with some historical fact and the person who got all the locations stamped could have their name in a lottery to win a prize
3. Using train/tram line to transport people to downtown or Riverside Park would be cool.
4. I feel we should also be concerned with building new streets in areas of town we want or expect to see growth.

5. Extend Stockbauer north of Dale's to Navarro Street to relieve traffic on Navarro and Loop 463. It would spur new growth in that area behind Walmart and Dale's.
6. Make an overpass on Loop 463 over Ben Jordan to spur growth in that area.
7. More Infrastructure projects to attract business is needed to sustain a economy that is built to last

MALL AREA

1. The cut through to get to other businesses needs to be addressed. Getting to Wal-Mart from John Stockbauer without cutting through Mall, Hobby Lobby & Lowe's needs to be addressed. Drivers want to avoid Navarro so a street needs to be developed to the east of the mall or behind the mall to get better traffic flow.
2. Mall and Movie parking lot (with arrow pointing at sector 1)
3. Fix Victoria Mall Drive (in front of movie theatre) make bigger, repair
4. Improving Victoria Mall road and create a true connector/collector street between Loop 463 and North Navarro
5. The street thru the mall?
6. (next to poor traffic congestion) Mall
7. Complete the Glascow/Benavides loop to ease congestion on North Navarro in the Mall area.

MEDIANS

1. Median barrier to restrict turning at specific point of the street only.
2. Do away with all medians, they are a safety hazard.
3. I think the addition of medians to the system would greatly improve traffic safety.
4. Median on Navarro is (still) a dumb idea especially since there aren't many openings to cross over
5. I really feel Navarro is still unsafe in areas. Adding medians would help.
6. Center turn lanes are deadly. Many well-developed metropolitan areas have done away with them and gone to curbed medians to reduce traffic fatalities.

SLOWING TRAFFIC ON NEIGHBORHOOD STREETS

1. Slowing traffic down in residential neighborhoods is pretty big. There's a lot of careless drivers in residential areas.
2. I live in the Woodway subdivision and traffic driving thru our neighborhood during the school year is very dangerous for our children.
3. The intersection of Halsey and Polk Ave is a 4-way stop. While fairly regularly a police officer is parked down the road to catch people running that stop, there are ALWAYS people speeding down my street with their crazy loud cars, especially late at night. That intersection is also a school bus stop.

APPENDIX C: TRANSIT SURVEY RESPONSES ON POTENTIAL PROJECTS

ADDITIONAL BUS STOPS AND ROUTES

1. Juan Linn Neumann store
2. Around Loop 463
3. Closer to the splashpad on Airline
4. Need more stops. Need bus stop close to Hansleman Rd.
5. Want bus stops further down Cuero Hwy and places we can't reach by walking.
6. More bus stops on Sam Houston near residential neighborhoods and also near East High School
7. Service to the high schools and stops on Sam Houston past Airline
8. Busses that run North from Downtown. Cambridge Arms.
9. Port Lavaca Hwy and Callis always have to walk from Odem St because its the closest one besides the one at the gas station but I'm not walking on the highway
10. A route on weekends to Red River Park there is always family events that my family and I can't attend cause of no way to get there
11. A stop somewhere by Khols and Academy stores
12. Victoria is growing so should the routes...
13. What Victoria needs are more bus stop locations. there are not enough.
14. Bus stop at Burger King,
15. bus stop at Q Trip convenience store on Ben Jordan
16. Need bus stop @ Kohl's (closest is at Burger King), new Goodwill, Citizens Healthplex, Riverside Park (zoo), Ethel Lee Tracy Park.
17. Flex bus needs to run to new Walmart. Long walks to destinations are not good fro blind/visually impaired.
18. Need a bus stop to go down Sam Houston to Vista del Sol Apartments.
19. Add more bus stops on Sundays
20. Add more bus stops outside all apartment complexes
21. Yes more stops on the North side of town
22. More service to South Ben Jordan.
23. If some time if they need to come on time and have more routes
24. They need to… get closer to where u have to go.
25. Need a dedicated route for Rio Grande.
26. How about a route that goes to airport and bus station on Bloomington Hwy
27. it would be nice if buses ran from park n' rides. The routes do not serve large swaths of Victoria
28. A bus stop closer to West High School
29. Service to Riverside Park needed!
30. One by Goodwin
31. Need stops closer to West and East HS

MISCELLANEOUS

1. (about destinations you want to go) I think they reach most of them but I don't live in the city so I'm not near a stop.
2. I think the Green route is too long to go in a one-way loop. It would be nice if it could have an opposite direction route, change directions at a certain time of day, or for the flex routes to be reversed.

3. Shut them down they are a waste of taxpayer money.
4. A better way for the drivers to see the fare box so everybody pays equal cause I pay and I see a lot of people not paying correct fare.
5. Not at this moment
6. No
7. No everything is fine although I think the price of riding transit should be lower.
8. Bigger buses.
9. Because of the growth of Victoria, the drivers should be paid more (min. 15.00/hour). You will get a better quality of drivers and they will stay on the job.
10. Out of city, not out of city limits, but different addition of the Nursery Rd, Cuero
11. And why is it so expensive when it has really bad service specially during the weekend.
12. Have really nice bus drivers though :)
13. Very difficult to locate a bus for an out of town visitor.
14. Well
15. All I have to say is they are nice
16. As a bus rider, I feel the buses themselves should be washed more frequently. With them traveling all over town, I feel it is a shame to see grungy bus pick me up, then to think our population and visitors see it like that. Doesn't represent our city too well. I understand in larger cities like Houston where they have thousands of buses in their fleet, it may be difficult to keep them clean...But with Victoria's small fleet, I believe they could be kept up better with something as simple as soap and water, and it would brighten up my day to see a clean bus for a change!
17. There have been complaints about a certain bus driver [name given] who is doing drugs and they warn him before they do drug test on him, but other drivers get in trouble for things they don't even do wrong. He gets away with doing drugs and driving all these people around one day he is going to hurt someone really bad and they already know what he is doing.

TIMING AND SCHEDULE

1. Staying on time
2. That is pretty good timing.
3. The transfer location at Mockingbird and Laurent is timed badly (flex route, pink and brown routes). There is almost a half hour wait every time I transfer from brown to pink lines. There is no where to sit while waiting.
4. If buses are late or decide to leave early you have to wait a long time for your next bus--possibly in the sun at an uncovered stop.
5. Increased frequency
6. They need to pass every 20 minutes
7. It will be great every 20 minutes.
8. Bus every 15 minutes. Sometime be on time but everything else is great.
9. Frequency of service between 9am-5pm as well as consistency
10. Run more frequently in the morning when people are going to work (10-15 minutes)
11. Try harder to make 30 min stops.
12. Some bus stops night shifts and weekends need to be not so long too many transfer on weekend takes to long to get home.

13. If some time if they need to come on time and have more routes

AMENITIES AT BUS STOPS OR TRANSFER STATIONS

1. The transfer location at Mockingbird and Laurent is timed badly (flex route, pink and brown routes). There is almost a half hour wait every time I transfer from brown to pink lines. There is no where to sit while waiting.
2. If buses are late or decide to leave early you have to wait a long time for your next bus--possibly in the sun at an uncovered stop.
3. Need benches at every stop.
4. They need…more benches
5. More benches at the stops
6. All stops should be covered.
7. The stop at Lova and Glendale is in very close proximity to the Thomas Ninke Senior Village and the V.F.W. hall, while it does have a bench, there is not a much needed shade cover over the bench. I would have to say that it would be a preventable tragedy to lose an elderly loved one or anyone for that matter to a heat stroke or heart attack, that a simple cover could prevent. Note: at this location the typical flat top cover will do nothing for the July sun in the evening due to the angle of the setting sun. Thanks in advance for caring enough to offer this survey. Now for the real challenge....getting it done...thanks
8. Need more benches to sit on.
9. Each location needs seat and protection from the elements
10. Please available maps and bus stops locations. Then I will use the bus instead of my car.
11. Shaded spots and more benches down South
12. I don't ride the transit system but the city really needs to put covered benches for these people who are waiting on the bus. It is so bad that they have to stand in the sun baking at over 100 degrees!

TRANSFERS

1. The transfer location at Mockingbird and Laurent is timed badly (flex route, pink and brown routes). There is almost a half hour wait every time I transfer from brown to pink lines. There is no where to sit while waiting.
2. They need to pass every 20 minutes more benches and get closer to where u have to go.
3. The transfer location at Mockingbird and Laurent is timed badly (flex route, pink and brown routes). There is almost a half hour wait every time I transfer from brown to pink lines. There is no where to sit while waiting.
4. (about transfers) Need to get closer to where you have to go.
5. Would like to stop jumping from bus to bus
6. It would be nice if the bus would go straight Navarro instead of making us go to the bus station and leaving us there for 30 mins.
7. Weekends: Catching a transfer takes a long time. Pink doesn't wait for purple.
8. Some bus stops night shifts and weekends need to be not so long too many transfer on weekend takes to long to get home.

WAL-MART

1. Going to the Wal-Mart on Houston Hwy on weekends
2. Bus needs to go to new Walmart (Houston Hwy) and to the Food Stamp office
3. Across from the old Walmart (Academy)
4. A flex route to the new Wal-Mart
5. The new Wal-Mart needs a bus stop for the nights and weekends because some work over there
6. There needs to be a night & weekend bus stop at the new Wal-Mart because there are people that could use that to go to work.

APPENDIX D: STAKEHOLDER SURVEY RESPONSES ON POTENTIAL PROJECTS

TRAINS

1. Trains are kind of a nuisance. If the Fannin coal plant closes and the north bound railroad becomes inactive, as it did 20 years ago, we should move the Kansas City Southern track to the east side of the city limits.
2. Railroad crossing on South Ben Jordan is poor and the timing of the trains consistently causes a problem for employees and members.
3. The train takes way too long on Stockbauer by Surplus – I went down to Hill Road and came around and a guy was just standing there looking around instead of getting the train going.

SCHOOLS

1. The traffic on HWY 87 arriving to and departing the High School and Cade Middle School.
2. More student transportation for VC and UHV to other parts of town. Walkovers on Houston highway would be nice

STREET MAINTENANCE

1. Tell the mayor chip seal sucks. Yes, I know it's less expensive than concrete :)
2. Street maintenance costs us thousands in repairs

PEDESTRIAN AND BICYCLE SYSTEM

1. More needed for pedestrians, walkers, bikers, runners.
2. Sidewalks

HIGHWAY 59 FRONTAGE ROAD

1. Hwy 59 Frontage Road project
2. We need a bridge at Hanselmann road to access our property

MISCELLANEOUS

1. We will eventually need an outer loop around the north east side of Victoria beginning at Beck Rd. East and intersecting Hwy 87 at Oliver Rd. In 25 years Burroughsville Rd., at the east end of L-463, should be extended to intersect Hwy. 87 near Da Costa.
2. North street between Laurent and Ben Jordan needs improvement

TRAFFIC SIGNAL TIMING

1. Traffic light timing on Hwy 77N- North Navarro is horrible!!

APPENDIX E: *VOICE OF VICTORIA* FLYER AND COMMENT CARDS ON DRAFT PLAN

Figure E-1: Public Review and Comment Period Informational Handout

Victoria 2040 Long-Range Metropolitan Transportation Plan

The **Victoria 2040 Long-Range Metropolitan Transportation Plan (MTP)** helps the Victoria Metropolitan Planning Organization (MPO) and the Texas Department of Transportation (TxDOT) plan for future transportation needs in Victoria County. The plan features:

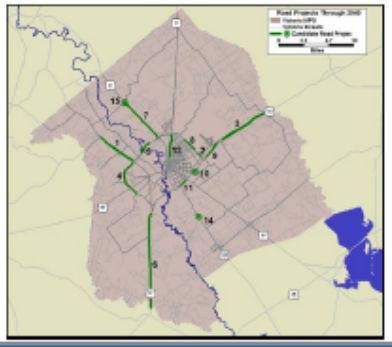
- Review of **applicable laws**
- Discussion of **current and future demographics** in Victoria County
- Description of **public outreach** using the *Voice of Victoria* surveys with summary results, and with individual comments shown in Appendices
- List of the **evaluation criteria** used to score projects
- Review of the **transportation modes** in Victoria County
- **Evaluation and scoring** of candidate road projects
- **Financial plan** showing the amount of funding available for projects by category
- List of **funded and unfunded projects**
- A **summary of conditions** by transportation mode

The funding available for projects is limited. Public comments played an important role in the planning process. The two highest ranked projects, based on the evaluation criteria, were selected for funding. These two projects – the upgrading of US 77 at the Guadalupe River from a two-lane undivided to a four-lane divided highway (ID#5) and an overpass at US 87 & FM 447 (ID#15) – will require all the funds projected to be available. If additional funds become available, then other projects on this 14 project list may be able to proceed.

The plan also considered 35 bicycle and pedestrian trail projects. Currently, the MPO does not have any funding to undertake these projects, but they are included in the plan as possible future projects."

Para obtener más información en Español, por favor viste :

www.victoriampo.com



Candidate Road Projects with ID, Score, and Rank

ID	Rank	Score	Road	Limits from	Limits to	Description	Project Cost
5	1	71	US 77	0.42 mi east of FM 1685	1.04 mi west of US 87	Add 2 lanes	$ 30,532,718
15	2	67	US 87	FM 447		Construct overpass	$ 13,356,461
14	3	66	SH 185	FM 1432		Construct overpass	$ 10,750,000
13	4	66	Business US 77	Loop 463	Airline Rd	Construct center median	$ 3,500,000
9	5	64	US 59	Loop 463	US 59 / Business US 59	Construct frontage roads	$ 11,500,000
2	6	60	Loop 463	North of Business US 59	Lone Tree Rd	Add 2 lanes	$ 1,783,000
3	7	58	US 59	FM 1686	FM 444	Add 2 lanes	$ 17,640,646
6	8	55	US 77 S	US 77 / US 59 interchange	Refugio County Line	Add 2 lanes	$ 46,410,900
7	9	53	US 87	Zac Lentz Pkwy.	FM 447	Add 2 lanes	$ 24,505,000
1	10	52	FM 236	US 77	FM 622	Add 2 lanes	$ 14,926,700
8	11	52	Loop 463	Mockingbird Ln	BU 59T	Construct frontage roads	$ 1,250,000
4	12	48	US 77	FM 236	FM 446	Add 2 lanes	$ 8,472,800
10	13	47	US 59	Hanselman Rd		Construct overpass	$ 11,000,000
11	14	45	US 59	SH 185	US 87	Construct frontage roads	$ 1,500,000

REVIEW & COMMENT

The public can review and comment on the entire draft 2040 MTP until **March 9, 2015.**

REVIEW

In person: 700 Main Center, Suite 129

Online: www.victoriampo.org

COMMENT

Mail: P.O. Box 1758, TX 77902

Email: mcraighead@victoriatx.org

Facebook: https://www.facebook.com/voiceofvictoriampo

QUESTIONS or COMMENTS

Mary Craighead

361.485.3360

mcraighead@victoriatx.org

Figure E-2: Public Review and Comment Period Comment Form

Victoria 2040 Long-Range Metropolitan Transportation Plan Comment Form

The Victoria 2040 Long-Range Metropolitan Transportation Plan is one of a series of documents that help the Victoria Metropolitan Planning Organization (MPO) and the Texas Department of Transportation plan for future transportation needs. Your comments on this plan or on general transportation issues in Victoria County are always welcome, but if you would like to have your comments taken into account for the final draft of the plan, please submit them by **March 9, 2015**.

The full document of the Victoria 2040 Metropolitan Transportation Plan is available to review or download through the MPO website. The website also links to the plan's facebook page, where you can enter comments online.

http://www.victoriampo.org

https://www.facebook.com/voiceofvictoriampo

To mail in comments, please send to:

Mary Craighead
Victoria MPO
Voice of Victoria MTP
PO Box 1758
Victoria, Texas 77902

How did you hear about the Victoria 2040 Metropolitan Transportation Plan?

- ☐ TV
- ☐ Radio
- ☐ Newspaper
- ☐ Word of Mouth
- ☐ Flyer
- ☐ MPO Website
- ☐ Other _____

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VICTORIA MPO
METROPOLITAN PLANNING ORGANIZATION

CDM Smith