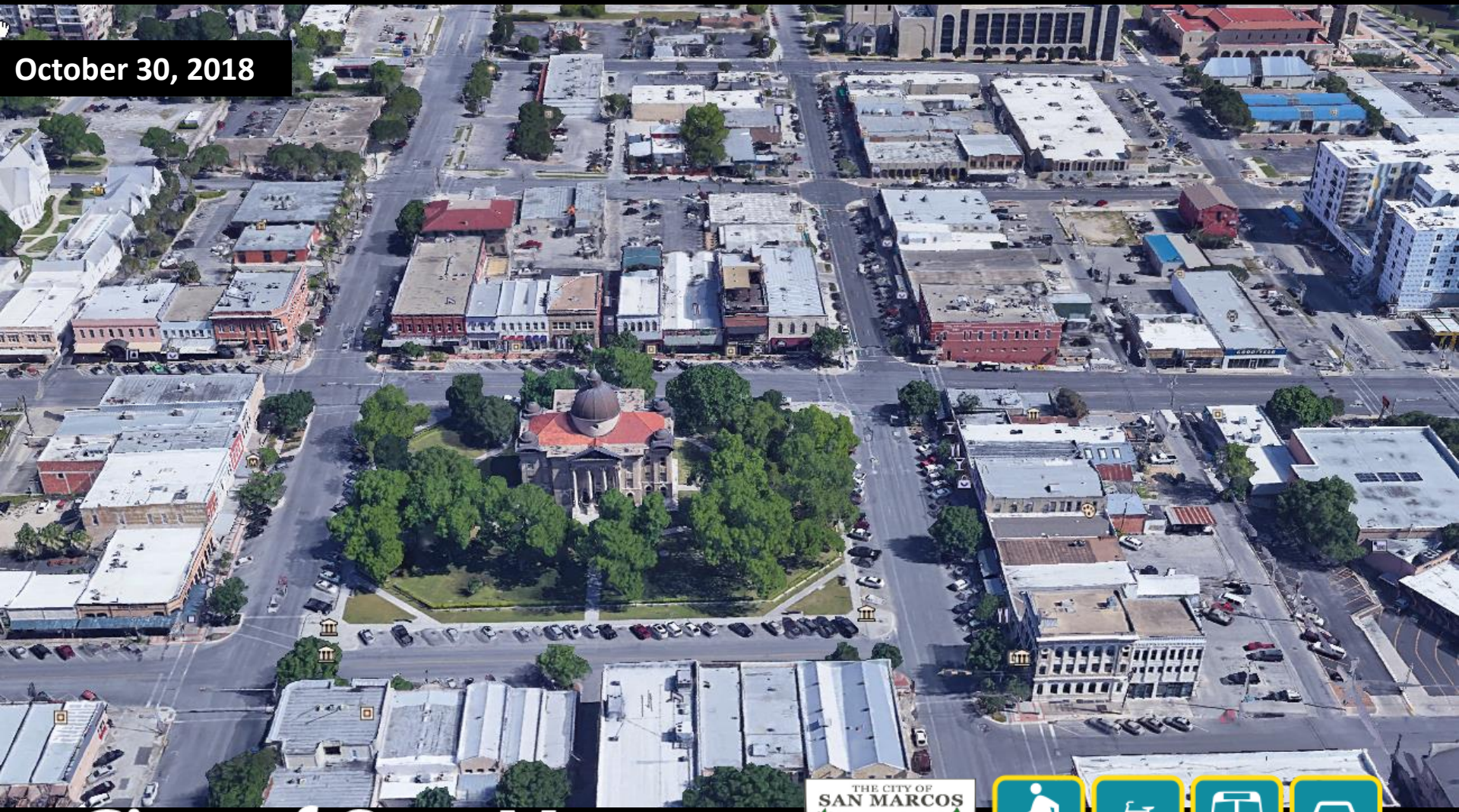
COUNCIL WORKSHOP

October 30, 2018



City of San Marcos

www.sanmarcostx.gov/transportation

Transportation Master Plan Update

Background

- TMP Presentation August 7, 2018
- Council Directed staff to revise TMP Report

Transportation Master Plan Follow-up

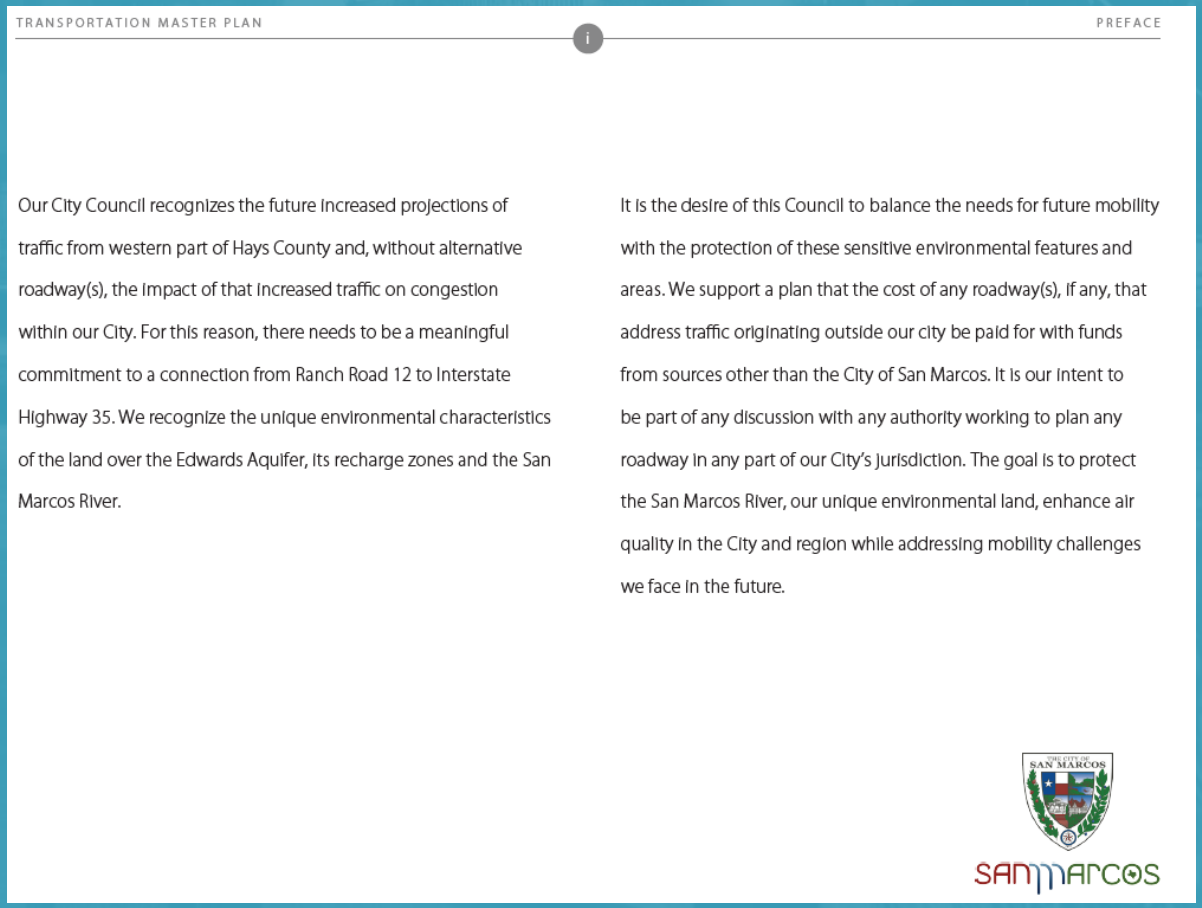
Tonight's Presentation:

- Preface – Text from Mayor & Council Members
- TMP Process & Goals
- Performance Measures
- Autonomous Vehicles
- Induced Demand
- Thoroughfare Plan & CIP
- Traffic & Parking Demand Management
- Existing/Proposed Bike Plan
- TxDOT, TxState & Hays County Collaboration
- Next Steps

TMP Preface

TMP Report Reference – Page i

- Text provided by Mayor & Council Members is included in the TMP Report



TRANSPORTATION MASTER PLAN i PREFACE

Our City Council recognizes the future increased projections of traffic from western part of Hays County and, without alternative roadway(s), the impact of that increased traffic on congestion within our City. For this reason, there needs to be a meaningful commitment to a connection from Ranch Road 12 to Interstate Highway 35. We recognize the unique environmental characteristics of the land over the Edwards Aquifer, its recharge zones and the San Marcos River.

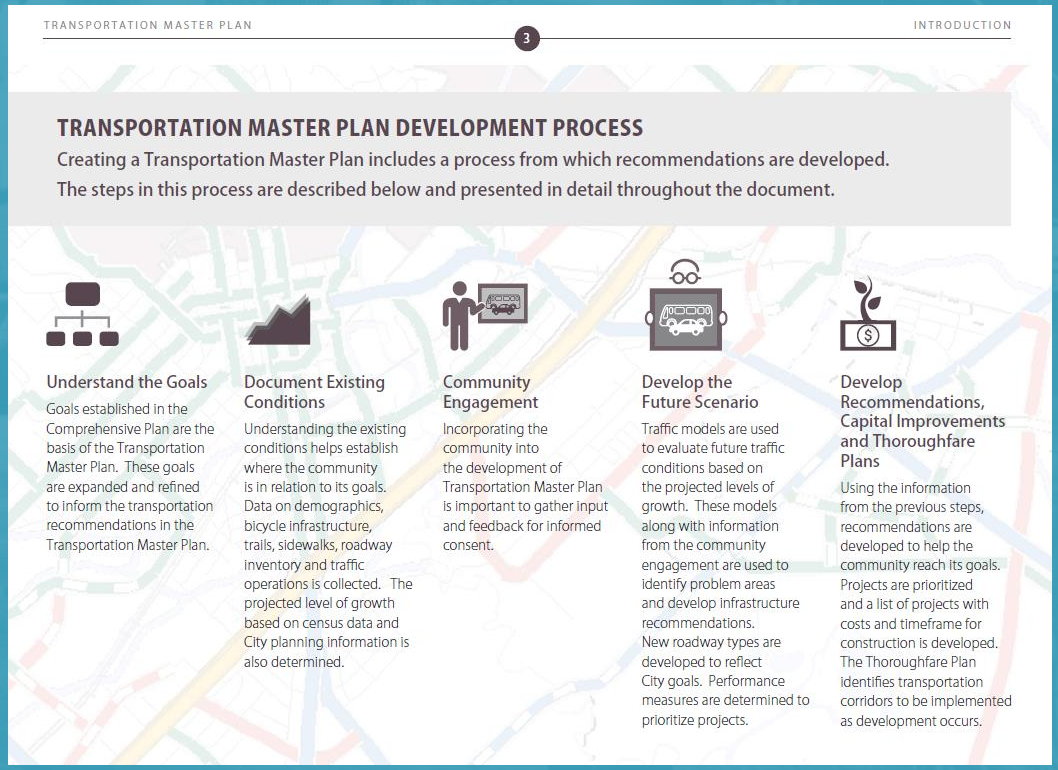
It is the desire of this Council to balance the needs for future mobility with the protection of these sensitive environmental features and areas. We support a plan that the cost of any roadway(s), if any, that address traffic originating outside our city be paid for with funds from sources other than the City of San Marcos. It is our intent to be part of any discussion with any authority working to plan any roadway in any part of our City's jurisdiction. The goal is to protect the San Marcos River, our unique environmental land, enhance air quality in the City and region while addressing mobility challenges we face in the future.

SANMARCOS

TMP Process & Goals

TMP Report Reference – Pages 2, 3 & 7

- Development Process
  - The report is revised to include a section on TMP development process (Pages 2 & 3)
- TMP Goals
  - TMP goals have been revised as per Council direction (Page 7)



TRANSPORTATION MASTER PLAN 3 INTRODUCTION

TRANSPORTATION MASTER PLAN DEVELOPMENT PROCESS

Creating a Transportation Master Plan includes a process from which recommendations are developed. The steps in this process are described below and presented in detail throughout the document.

Understand the Goals

Goals established in the Comprehensive Plan are the basis of the Transportation Master Plan. These goals are expanded and refined to inform the transportation recommendations in the Transportation Master Plan.

Document Existing Conditions

Understanding the existing conditions helps establish where the community is in relation to its goals. Data on demographics, bicycle infrastructure, trails, sidewalks, roadway inventory and traffic operations is collected. The projected level of growth based on census data and City planning information is also determined.

Community Engagement

Incorporating the community into the development of Transportation Master Plan is important to gather input and feedback for informed consent.

Develop the Future Scenario

Traffic models are used to evaluate future traffic conditions based on the projected levels of growth. These models along with information from the community engagement are used to identify problem areas and develop infrastructure recommendations. New roadway types are developed to reflect City goals. Performance measures are determined to prioritize projects.

Develop Recommendations, Capital Improvements and Thoroughfare Plans

Using the information from the previous steps, recommendations are developed to help the community reach its goals. Projects are prioritized and a list of projects with costs and timeframe for construction is developed. The Thoroughfare Plan identifies transportation corridors to be implemented as development occurs.

Performance Measures

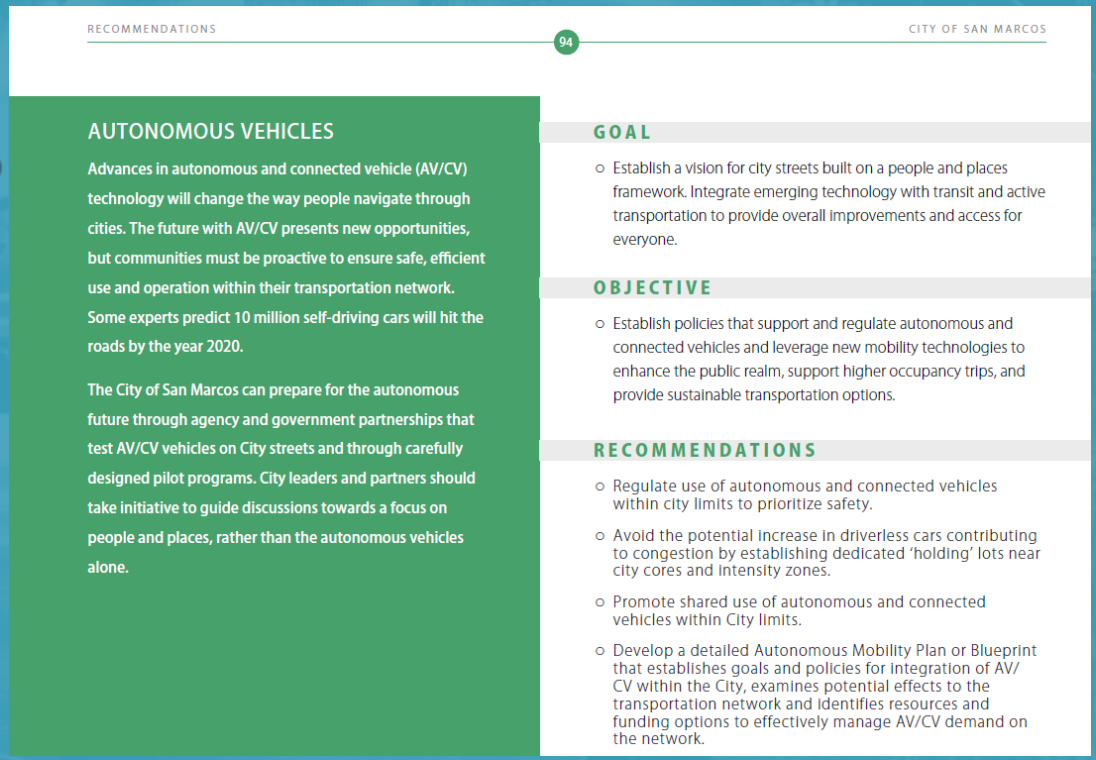
TMP Report Reference – Pages 18, 19, 49 – 54, 62, 63 & 92

- Performance Measures
  - Revised text to clarify vehicular performance measures
  - The report is revised to provide more emphasis on multi-modal goals and performance measures (page 62-63)
  - Under recommendations a new section is added to adopt sustainable multi-modal performance measures

Autonomous Vehicles

TMP Report Reference – Page 94

- Autonomous Vehicles
  - Under recommendations a new section is added to establish a vision for autonomous and connected vehicles



RECOMMENDATIONS 94 CITY OF SAN MARCOS

AUTONOMOUS VEHICLES

Advances in autonomous and connected vehicle (AV/CV) technology will change the way people navigate through cities. The future with AV/CV presents new opportunities, but communities must be proactive to ensure safe, efficient use and operation within their transportation network. Some experts predict 10 million self-driving cars will hit the roads by the year 2020.

The City of San Marcos can prepare for the autonomous future through agency and government partnerships that test AV/CV vehicles on City streets and through carefully designed pilot programs. City leaders and partners should take initiative to guide discussions towards a focus on people and places, rather than the autonomous vehicles alone.

GOAL

- Establish a vision for city streets built on a people and places framework. Integrate emerging technology with transit and active transportation to provide overall improvements and access for everyone.

OBJECTIVE

- Establish policies that support and regulate autonomous and connected vehicles and leverage new mobility technologies to enhance the public realm, support higher occupancy trips, and provide sustainable transportation options.

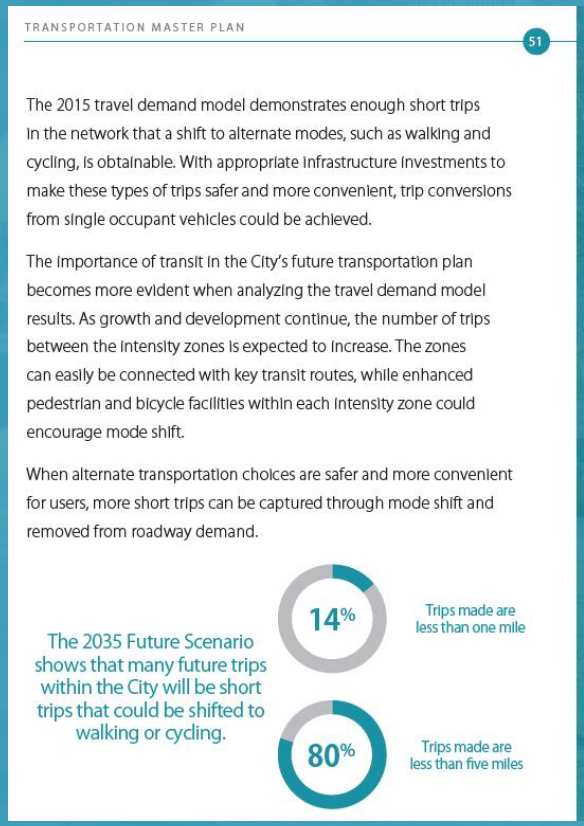
RECOMMENDATIONS

- Regulate use of autonomous and connected vehicles within city limits to prioritize safety.
- Avoid the potential increase in driverless cars contributing to congestion by establishing dedicated 'holding' lots near city cores and intensity zones.
- Promote shared use of autonomous and connected vehicles within City limits.
- Develop a detailed Autonomous Mobility Plan or Blueprint that establishes goals and policies for integration of AV/CV within the City, examines potential effects to the transportation network and identifies resources and funding options to effectively manage AV/CV demand on the network.

Induced Demand

TMP Report Reference – Pages 51 & 87

- Induced Demand
  - Under transportation modeling and future scenario section, strategies have been added to address induced demand



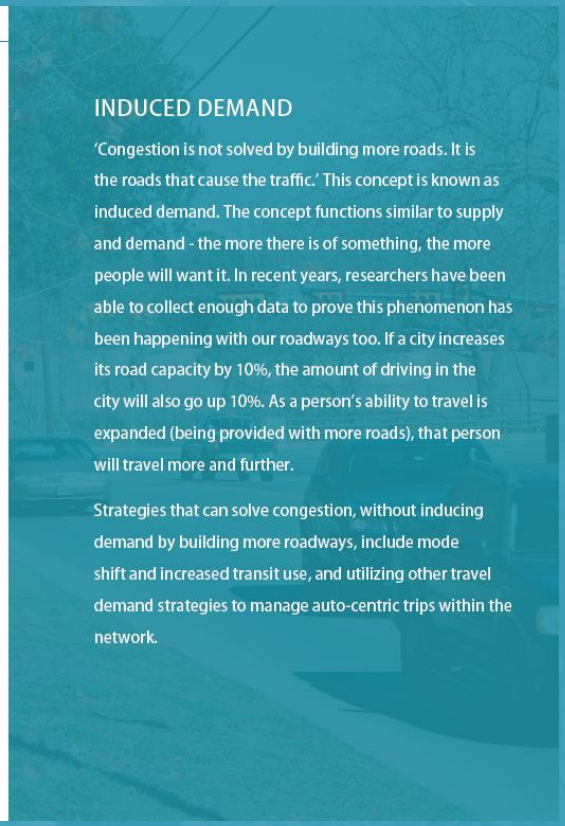
TRANSPORTATION MASTER PLAN 51

The 2015 travel demand model demonstrates enough short trips in the network that a shift to alternate modes, such as walking and cycling, is obtainable. With appropriate infrastructure investments to make these types of trips safer and more convenient, trip conversions from single occupant vehicles could be achieved.

The importance of transit in the City's future transportation plan becomes more evident when analyzing the travel demand model results. As growth and development continue, the number of trips between the intensity zones is expected to increase. The zones can easily be connected with key transit routes, while enhanced pedestrian and bicycle facilities within each intensity zone could encourage mode shift.

When alternate transportation choices are safer and more convenient for users, more short trips can be captured through mode shift and removed from roadway demand.

The 2035 Future Scenario shows that many future trips within the City will be short trips that could be shifted to walking or cycling.



INDUCED DEMAND

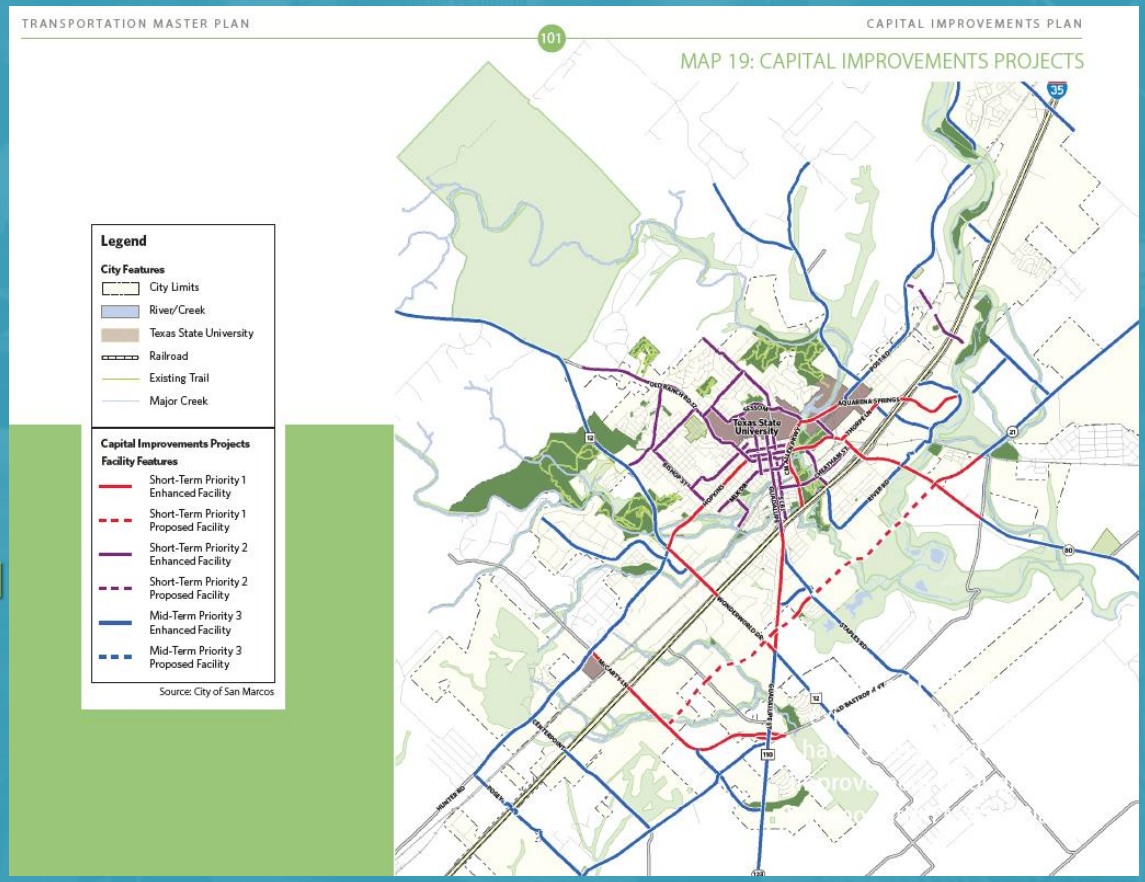
'Congestion is not solved by building more roads. It is the roads that cause the traffic.' This concept is known as induced demand. The concept functions similar to supply and demand - the more there is of something, the more people will want it. In recent years, researchers have been able to collect enough data to prove this phenomenon has been happening with our roadways too. If a city increases its road capacity by 10%, the amount of driving in the city will also go up 10%. As a person's ability to travel is expanded (being provided with more roads), that person will travel more and further.

Strategies that can solve congestion, without inducing demand by building more roadways, include mode shift and increased transit use, and utilizing other travel demand strategies to manage auto-centric trips within the network.

Thoroughfare Plan & CIP

TMP Report Reference – Pages 66, 68, 70, 97, 98 & 101

- Thoroughfare Plan & CIP
  - Objectives and recommendations are revised as per Council direction
  - Thoroughfare Map is revised as per Council direction
  - CIP map is created to illustrate short and mid term CIP projects



Traffic & Parking Demand Management

TMP Report Reference – Page 87

- Traffic Demand Management
  - Objectives and recommendations are revised to include traffic demand
- Parking Demand Management
  - Create management districts for areas of paid parking and designate residential parking districts

TRANSPORTATION MASTER PLAN 87 RECOMMENDATIONS

TRAVEL DEMAND MANAGEMENT

Travel Demand Management (TDM) refers to a set of strategies or policies designed to improve the overall efficiency of a travel network. TDM looks at moving people and goods, rather than focusing on the number of motor vehicles in the network. For example, reducing the number of single-occupant vehicles, or increasing ridership on transit both reduce the number of vehicles in the travel network, and therefore also reduces demand.

Data proves that single occupancy vehicles are a major cause of congestion. To reduce reliance on personal vehicles, it is imperative to expand viable transportation options. Transportation policies that encourage roadway expansion as a singular means to solve congestion contribute to more trips and work against travel demand management best practices.

GOAL

- Improve the efficiency of the transportation network and encourage modeshift towards more environmentally friendly transit options.

OBJECTIVE

- Improve the transportation network at a lower economic, environmental and social cost than high dollar, land-intensive improvements that may lead to greater greenhouse gas emissions and poor citizen health.

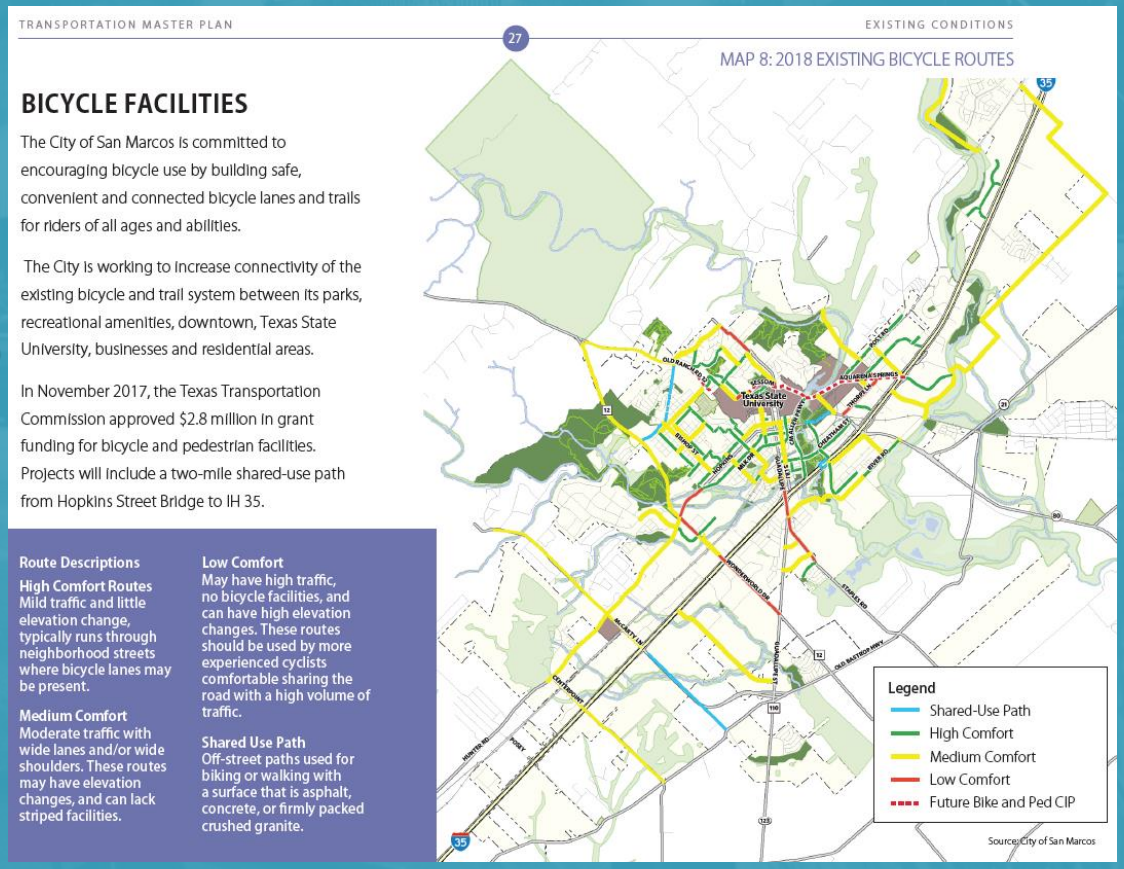
RECOMMENDATIONS

- Encourage carpools or vanpools through City sponsored programs.
- Promote Employer Commuter Choice Programs that expand options for employees on how to reach and accomplish their work, such as public or active transportation, telecommuting or alternate work hours.
- Provide real-time traveler information through a smart phone app or City website to provide an informed choice for users on how and when to travel.
- Create management districts for areas of paid parking and designate residential parking districts.

Existing/Proposed Bike Plan

TMP Report Reference – Pages 27, 28, 74, 75, & 77

- Existing Bike Plan
  - Existing bike plan is revised to include definitions
- Proposed Bike Plan
  - Goals and objectives are revised to include performance measures



TRANSPORTATION MASTER PLAN 27 EXISTING CONDITIONS

BICYCLE FACILITIES

The City of San Marcos is committed to encouraging bicycle use by building safe, convenient and connected bicycle lanes and trails for riders of all ages and abilities.

The City is working to increase connectivity of the existing bicycle and trail system between its parks, recreational amenities, downtown, Texas State University, businesses and residential areas.

In November 2017, the Texas Transportation Commission approved $2.8 million in grant funding for bicycle and pedestrian facilities. Projects will include a two-mile shared-use path from Hopkins Street Bridge to IH 35.

Route Descriptions

High Comfort Routes
Mild traffic and little elevation change, typically runs through neighborhood streets where bicycle lanes may be present.

Medium Comfort
Moderate traffic with wide lanes and/or wide shoulders. These routes may have elevation changes, and can lack striped facilities.

Low Comfort
May have high traffic, no bicycle facilities, and can have high elevation changes. These routes should be used by more experienced cyclists comfortable sharing the road with a high volume of traffic.

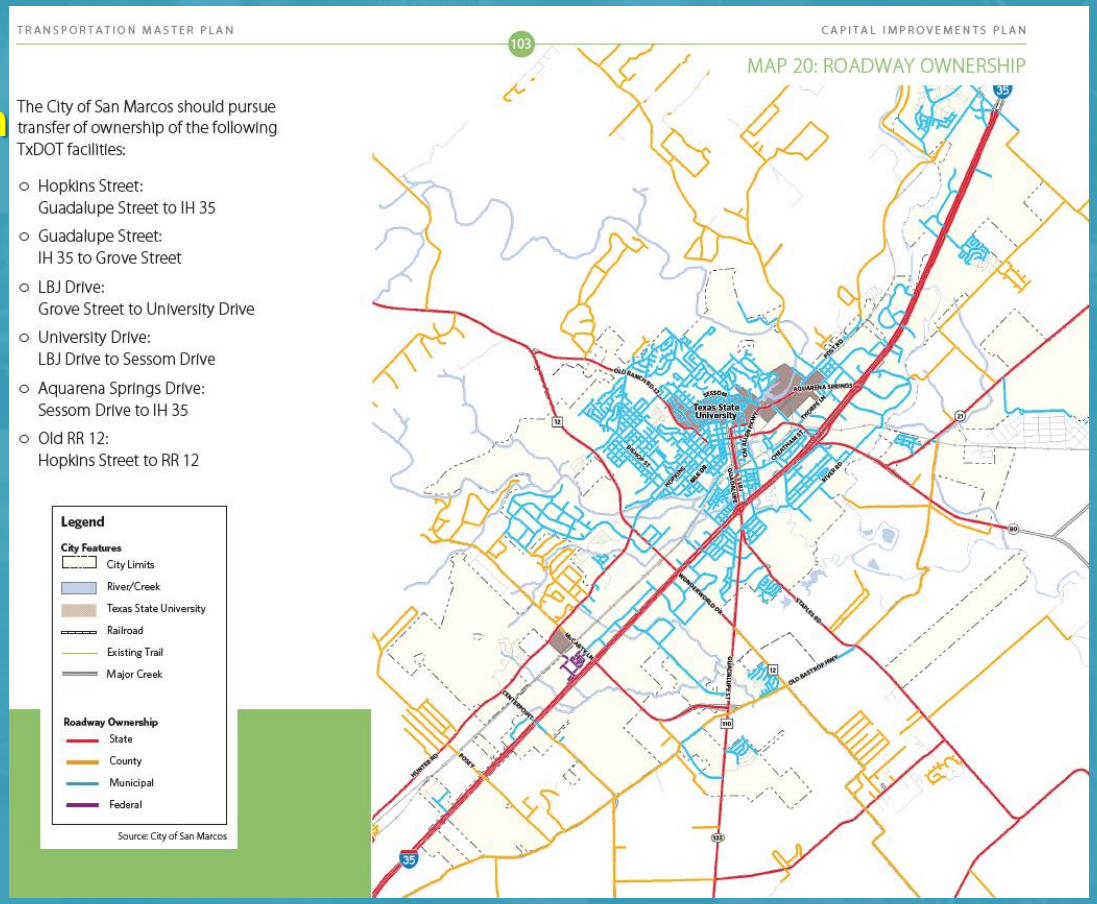
Shared Use Path
Off-street paths used for biking or walking with a surface that is asphalt, concrete, or firmly packed crushed granite.

MAP 8: 2018 EXISTING BICYCLE ROUTES

TxDOT, TxState & Hays County Collaboration

TMP Report Reference – Pages 102 & 103

- TxDOT
  - Project ownership section is revised as per Council direction



Next Steps

- First Reading November 20th
- Second Reading December 4th
- TMP Approval
- Implementation
- Funding
- TxDOT Coordination