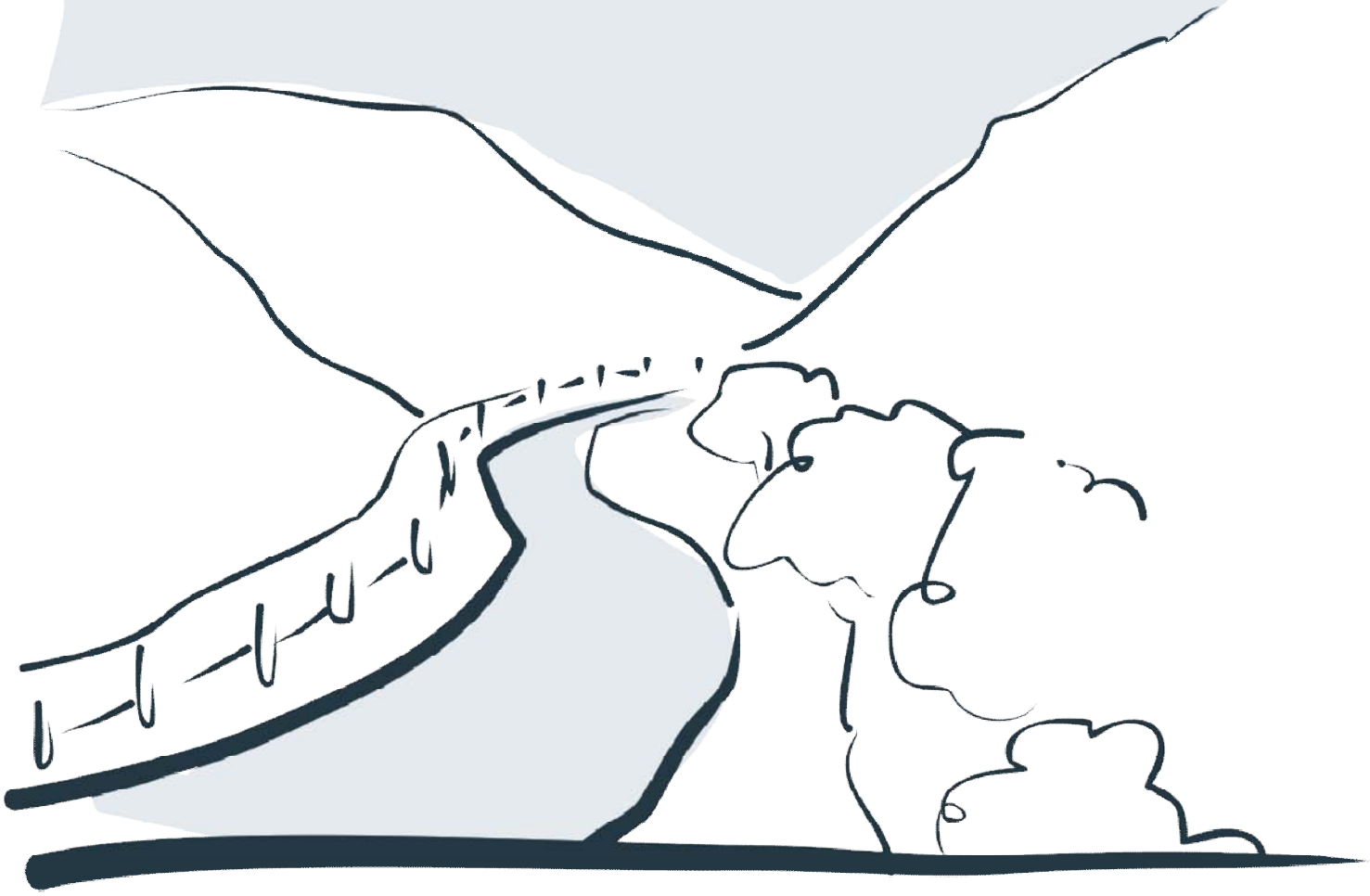
Hays County Transportation Plan

Technical Memorandum 1

Review of Existing Plans and Reports

January 18, 2012



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1.0 Overview

This Technical Memorandum #1, developed as part of the Hays County Transportation Plan (HCTP), provides a review and summary of each of the below identified plans and reports. The key findings of each of these existing plans and reports, as they relate to the HCTP, are provided in Section 0. A brief summary of each of these reports is included as part of Section 0.

- The Hays County 2025 Transportation Plan;
- The Hays County Capital Improvement Program;
- The Hays County Water Supply Plan;
- The Hays County Strategic Plan;
- The Hays County 1445 Agreements with cities in Hays County;
- The Capital Area Metropolitan Planning Organization (CAMPO) 2030 Long Range Transportation Plan;
- The Capital Area Metropolitan Planning Organization (CAMPO) 2035 Long Range Transportation Plan;
- The Capital Area Metropolitan Planning Organization (CAMPO) Congestion Management Process;
- The Capital Area Metropolitan Planning Organization (CAMPO)Transportation Improvement Program;
- The Texas Department of Transportation 2030 Committee Report.

2.0 Key Findings

The primary factor influencing the future of the transportation facilities and services in Hays County is rapid population growth, and more specifically, where this rapid population growth takes place. Currently, over half of the Hays County population resides within the I-35 corridor. The population of Hays County is anticipated to more than double within the next two decades, increasing from approximately 157,000 as of the 2010 census, to over 357,000 by 2030 per the CAMPO 2030 Plan. This rapid increase in population, along with its associated impact to land use, water supply, and other county facilities has the potential to cause significant traffic congestion and increase the need for new and improved facilities as well as the need for other modes of transportation.

The "Capital Area Metropolitan Planning Organization (CAMPO) Congestion Management Process (CMP)" (Section 3.5) and the "Hays County 1445 Agreements with cities in Hays County" (Section 3.2), named because the agreements came from House Bill 1445 which was enacted by the Texas legislature in 2001, both address the issue of increasing population growth and how to best manage potential transportation system congestion. The "Hays County 1445 Agreements with Cities in Hays County" recommends that the HCTP promotes a coordinated development review process, taking into account the 1445 agreements that are already in place and being developed.

Congestion management techniques will assist in improving the efficiency of the Hays County transportation system. However, according to transportation model runs conducted as part of the CAMPO CMP, projected population growth will offset current and planned investments in congestion management, resulting in increased congestion. Because of this, the CMP recommends incorporating congestion management policies into CAMPO's Transportation Improvement Plan (TIP) (Section 3.8). One option for including congestion management techniques into the TIP would be to require the projects in the TIP use Travel Demand Management or Transportation System Management techniques. A second method would be to influence policies that drive the TIP and Long-Range Transportation Plan (Section 3.3) project selection process by awarding points for congestion management as part of the scoring process. The HCTP should work towards identifying congestion management strategies as part of new projects to improve the likelihood of Hays County transportation projects being included in the TIP.

Population growth will also take its toll on the Hays County water supply, as reported in the "Water and Wastewater Facilities Plan for the Portion of Hays County West of the IH-35 Corridor" (Section 3.7) as well as other county services such as the legal system and general quality of life as reported in the "Hays County Strategic Policy and Implementation Plan" (Section 3.9). Coordinating the planning processes across all disciplines in Hays County will allow for the prioritization of projects that have the most impact. This will also allow development or improvement of transportation facilities to be coordinated with future land use development.

The TxDOT 2030 Committee report (Section 3.10) examines the future transportation needs of the state, taking into account the projected population growth. The report identifies projected needs and expenditures across the state, broken down by transportation mode. This report, along with the Strategic Policy and Implementation Plan, Capital Improvement Program (Section 3.6) and the "Journey to Work Commuting Data" (Section 3.4) can all assist in the development of a needs assessment as they relate to the HCTP.

While population growth will dictate the transportation needs of Hays County in the coming decades, an early assessment of those needs and their cost can help to limit the impacts associated with this growth. The inclusion of congestion mitigation techniques in this process will also address potential impacts of projected growth.

3.0 Summaries of Reviewed Plans and Reports

3.1 Hays County Multi-Corridor 2025 Transportation Plan

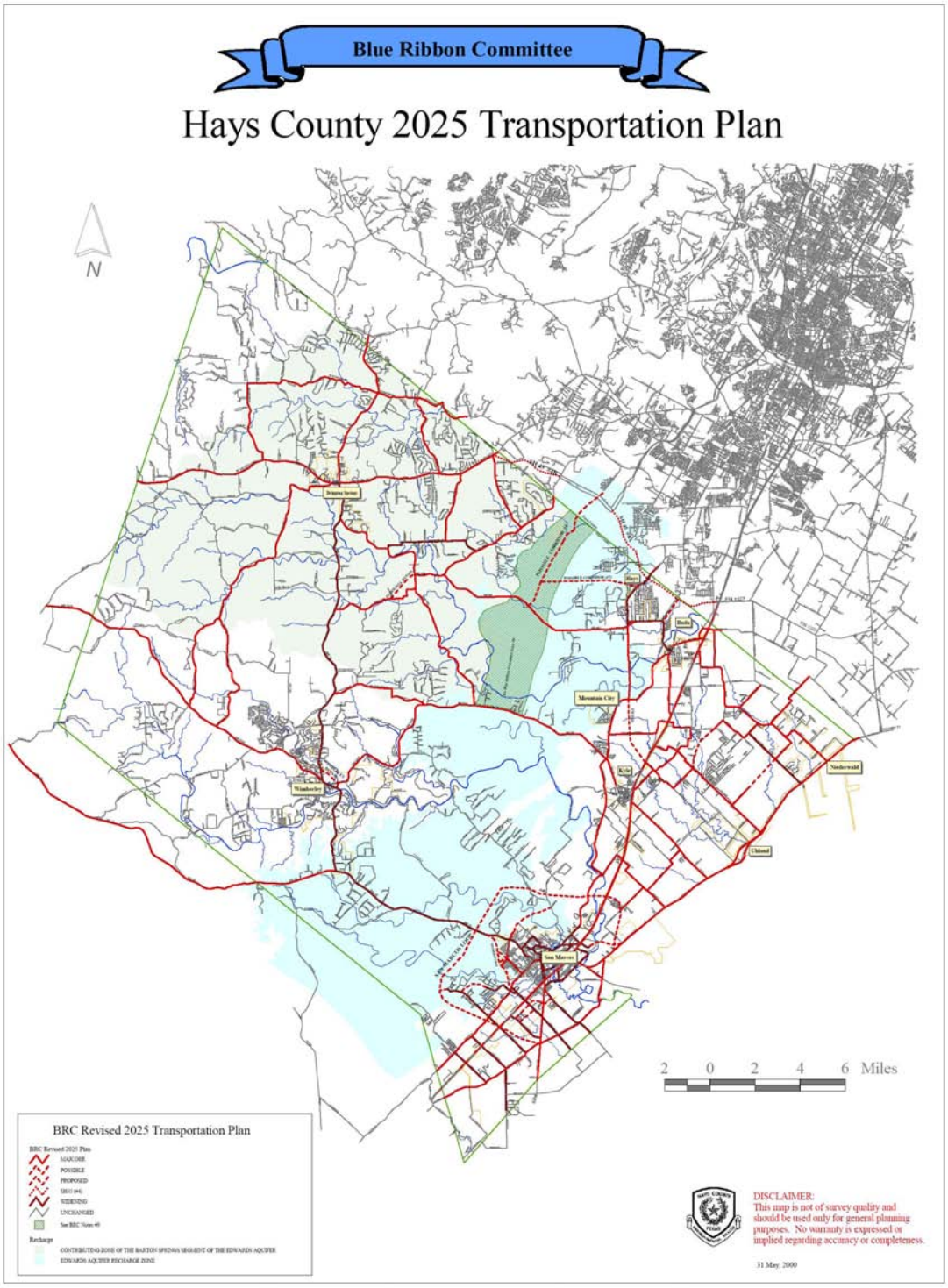
The current Hays County Transportation Plan (HCTP) was adopted on May 16, 2000 by a unanimous vote of the Hays County Commissioners' Court. In November, 1999, the Commissioners' Court appointed a 19-member "Blue Ribbon Committee of the Hays County Multi-Corridor 2025 Transportation Plan". The Committee met weekly from January to May 2000 and was chaired by Ms. Judy Carr. The Plan was based on the Hays County Comprehensive Transportation Planning Study, which was prepared by the consulting team of Prime Strategies, Inc., DPD, and Alliance-Texas Engineering Company.

The Blue Ribbon Committee made modifications to the Study report map and produced the Blue Ribbon Committee Hays County Multi-Corridor 2025 Transportation Plan and map which was adopted by the Commissioners' Court. The Plan includes the map and recommendations on top priority and high priority roads.

The Plan also includes policy recommendations relative to the road system, regional transportation system, safety, transportation funding and programming, road design, development's responsibility, incentive actions, natural environment, roads in the recharge zone, social and land use heritage, planning and review entities for development, and an agenda for the Legislature and other regulatory bodies. The Hays County 2025 Transportation Plan Map is shown in Figure 3-1.

Conclusion: The Hays County 2025 Transportation Plan is a historic resource that can be used in the preparation of the new Hays County Transportation Plan (HCTP). The consultant team will review the 2025 Plan's recommended roadways and policies and evaluate what should be considered for inclusion in the new HCTP.

Figure 3-1. Hays County 2025 Transportation Plan Map



3.2 HB 1445 City-County Subdivision Regulation Agreements in Hays County

The "1445 agreements" are important to long range transportation planning because, under state law, roadway right-of-way dedication can be required in new subdivisions if a new roadway or a roadway expansion is adopted in the official city/county transportation plan. Currently, six cities in Hays County have adopted transportation plans - San Marcos, Kyle, Buda, Dripping Springs, Wimberley, and Austin.

HB 1445 was enacted by the Texas Legislature in 2001. The bill was authored by Senator Jeff Wentworth in the Senate and Representative Bob Turner in the House. It mandates that cities and counties develop written agreements (interlocal contracts) that provide for coordinated city-county subdivision approval review in the extraterritorial jurisdiction (ETJ) of cities.

It was enacted after the Texas Association of Builders complained that when developers were platting land in ETJs, they were often subjected to conflicting regulations by cities and counties. Without an HB 1445 agreement, subdivisions must comply with the more stringent city or county regulation.

The size of a city's ETJ generally ranges from ½ mile to 5 miles, depending on the size of the city population. All twelve cities within Hays County have ETJs: Austin, Bear Creek, Buda, Dripping Springs, Hays, Kyle, Mountain City, Niederwald, San Marcos, Uhland, Wimberley, and Woodcreek. The map of cities and ETJs in Hays County is shown below in Figure 3.2.

Currently the only HB 1445 agreements in force in Hays County are with the cities of Uhland and Buda. All previous Hays County 1445 agreements have expired and the County Development Services Department is in the process of renegotiating new ones over the next several months. There are four options under the law: 1) City regulation of all plats in the ETJ, 2) County regulation of all plats in the ETJ, 3) geographically divided regulation by city and county within the ETJ, and 4) joint regulation by city and county with one uniform set of regulations, one filing fee, and one office to file plats.

In the absence of a recently adopted county transportation plan, the Hays County Development Services Department ensures that all regulated roadways in new subdivisions comply with Chapter 721 – Roadway Standards, of the revised Hays County Development Regulations adopted on July 19, 2011. Chapter 721 of the regulations specifies minimum right-of-way widths and building setback lines for seven roadway functional classifications in accordance with "Table 721.02 - Design Requirements Based on Roadway Classification", as shown below in

Table 3-1.

Conclusion: The new HCTP will be prepared in coordination with all city transportation plans and implemented through the 1445 agreements as they are adopted. When this is achieved there will be a unified transportation plan for Hays County and its cities, and 1445 agreements in place which will permit a cooperative, coordinated development review process that will ensure dedication/reservation of needed right-of-way.

Figure 3-2. Cities and Extraterritorial Jurisdictions of Cities in Hays County

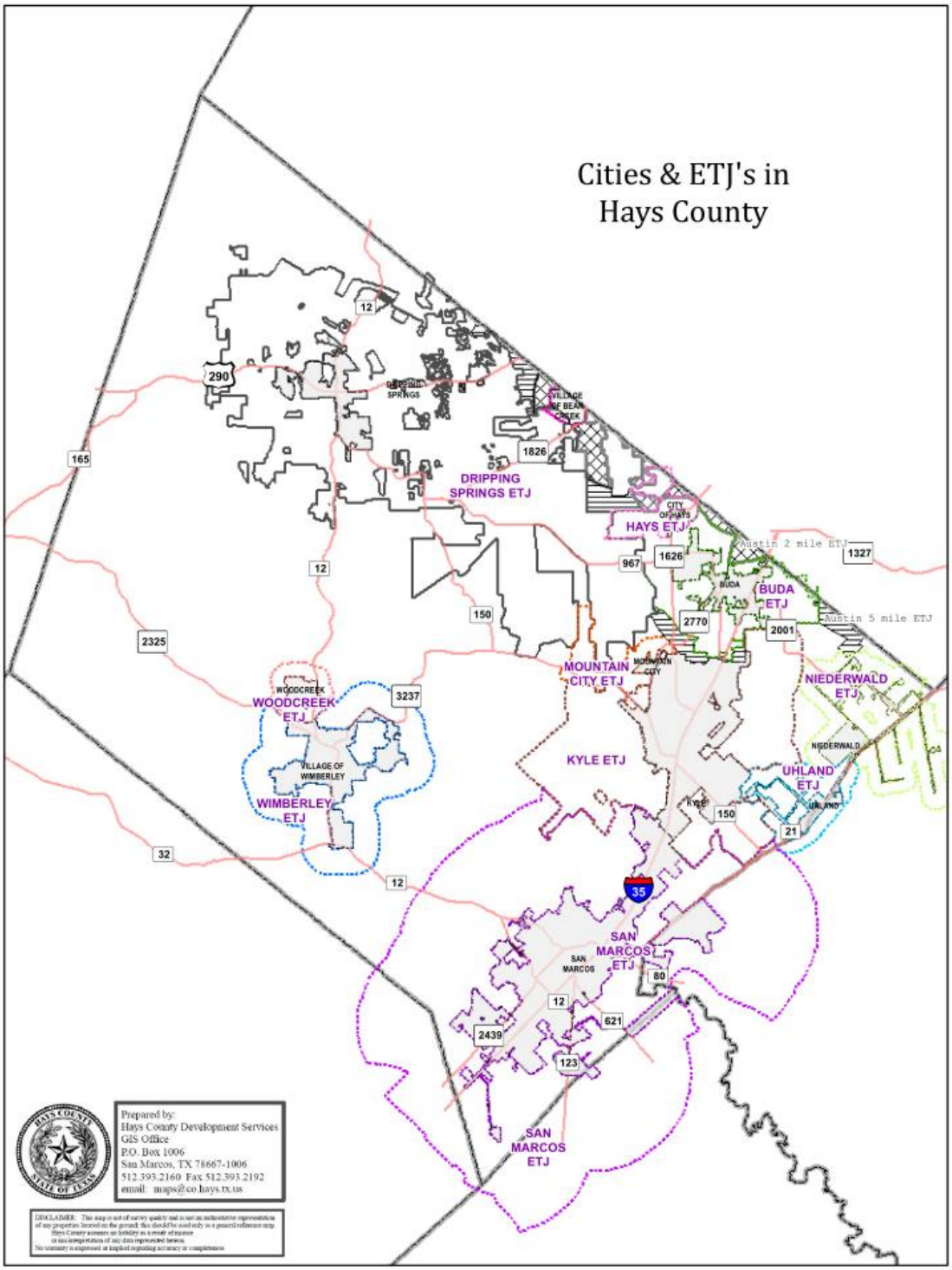


Table 3-1. Hays County Development Regulations, Chapter 721 – Roadway Standards

Functional Classification	Country Lane	Local Roadway	Urbanized Local Roadway	Minor Collector	Major Collector	Minor Arterial	Major Arterial
AASHTO Classification	Special Purpose	Local Rural	Special Purpose	Rural Collector	Rural Collector	Rural Arterial	Rural/Urban Arterial
Average Daily Traffic (ADT - one way trips*)	Not more than 100	101-1000	Not more than 1000	1001-2500	2501-5000	5001-15000	More than 15,000
Design Speed (mph)	25 mph	25 mph	25 mph	35 mph	45 mph	55mph	**
No. of Travel Lanes	2	2	2	2	2	4	**
Turn Lanes	No	No	No	No	**	**	**
Min. ROW Width (ft)	50	60	40	60	80	100	**
Building Setback (ft)	25	25	25	25	50	50	*50*
Width of Travelway (ft)	18	20	18	22	24	48	**
Width of Shoulders (ft)	2	4	2	5	6	8	**
Minimum Centerline Radius (ft)	200	300	200	375	675	975	**
Min. Tangent Length between Reverse or Compound Curves (ft)	50	100	50	150	300	500	**
Min. Radius for Edge of Pavement at Intersections (ft)	25	25	25	25	25	25	**
Intersection Street Angle Range (degrees)	80-100	80-100	80-100	80-100	80-100	80-100	**
Max. Grade (%):	11	11	10	10	9	8	**
Min. Street Centerline offset at Adjacent Intersections (ft)	110	125	110	125	125	125	**
Min. Stopping Sight Distance (ft)	175	175	175	250	350	550	**
Min. Intersection Sight Distance (ft)	250	250	250	350	450	550	**
Ditch Foreslope Grade	4:01	4:01	4:01	5:01	5:01	6:01	**
Ditch Backslope Grade	3:01	3:01	3:01	4:01	4:01	4:01	**
Min. Cul-de-sac ROW/ Pavement Radius (ft)	70/45	70/45	70/45	70/45	N/A	N/A	N/A
Min. "T" End ROW/ Pavement Length (ft)	80/65	80/65	80/65	N/A	N/A	N/A	N/A
Min. "T" End ROW/ Pavement Width & Radius (ft)***	40/20	40/20	40/20	N/A	N/A	N/A	N/A
Min. Lot Frontage (ft)	30	50	30	100	150	150	150
Min. Drive Spacing (ft)	50	50	50	75	120	120	120

Notes:
* ADT shall be based on an average of 10 one-way trips per dwelling unit per day for residential lots. ADT calculations for commercial or other lots shall approved by the Department on a case-by-case basis.
** Noted elements shall be approved by the County Engineer on a case-by-case basis.
*** "T" End Designs must conform to minimum AASHTO Standards
AASHTO – American Association of State Highway and Transportation Officials
Building Setback – Minimum building setback, in feet, applicable to each side of the roadway

3.3 Capital Area Metropolitan Planning Organization (CAMPO) 2030 and 2035 Plans

CAMPO is the designated regional transportation planning agency/Metropolitan Planning Organization (MPO) for the five-county Austin-Round Rock Metropolitan Statistical Area MSA). The counties currently included in CAMPO are Williamson, Travis, Hays, Caldwell and Bastrop. Under federal law there is a separate MPO established for every city and metropolitan area in the United States with more than 50,000 people. There are 25 MPOs currently established in the state of Texas.

There are two basic functions of MPOs under federal law: 1) to prepare and adopt a Regional Transportation Plan every five years for at least 20 years in the future, and 2) review and approve all federally funded transportation projects and studies in the MPO area, including roadways, transit, and bicycle-pedestrian facilities. In addition, the Texas Legislature and the Texas Transportation Commission have delegated to Texas MPOs the authority to select and recommend state-funded transportation projects within the individual MPO areas. CAMPO is governed by a 19-member Transportation Policy Board, composed of locally elected officials and highway and transit officials.

The two most recent CAMPO Regional Transportation Plans are the CAMPO 2030 Plan, adopted in 2005, and the CAMPO 2035 Plan, adopted in 2010. In preparing the plans, the CAMPO professional staff has conducted very extensive and comprehensive analysis over a 2-3 year period. This includes analysis of past and forecasted population and employment growth, regional travel patterns, travel modes (roadway, transit, bike-ped), the need to expand the entire 5-county transportation system in the future, the environmental effects of that expansion (notably air quality), the costs of the future transportation system and the projected total revenue needed to pay for the system. This valuable information and analysis, and the expertise of the CAMPO staff, is available to Hays County and is very useful as a resource in preparing the Hays County Transportation Plan.

There is one major difference between the CAMPO regional transportation plans and city and county transportation plans. The federal regulations that guide MPO plans require that the MPO plans be "fiscally constrained". This means that there cannot be a larger and more costly transportation system (roads, transit, bike/ped) adopted in the plan than there is "reasonably available" future funding to pay for it. However, City and county transportation plans are not limited by fiscal constraints. Their main purpose is to reserve right-of-way through the subdivision review process as new development occurs. This is a flexible process that does not require setting a date for roadway expansion, rather establishing a system where right-of-way is obtained through the subdivision process and roadway construction decisions are made when warranted according to future development patterns and increases in traffic.
In 2005, the CAMPO area included only three counties: Williamson, Travis and Hays. In 2010 CAMPO was expanded to add Bastrop and Caldwell counties. Therefore the CAMPO 2030 Plan includes three counties and the CAMPO 2035 Plan includes five counties. Hays County is included in both plans and the resulting population and employment data for Hays County from both plans is shown below in Table 3-2.

Table 3-2. Hays County Population and Employment Estimates and Forecasts

	Year	Population	Employment
State Estimate	2005	126,200	41,000
2010 U.S. Census	2010	157,107	N.A.
2035 CAMPO Plan	2015	189,200	66,200
2035 CAMPO Plan	2025	271,600	97,800
2030 CAMPO Plan	2030	359,000	126,000
2035 CAMPO Plan	2035	371,200	137,300

Please note that the Hays County population and employment forecasts for 2030 and 2035 are very similar, 359,000 and 371,200 for population, and 126,000 and 137,300 for employment. Based on the Hays County 2010 U.S. Census figure of 157,107, this indicates an increase of about 202,000 people by 2030 and 214,000 people by 2035. Therefore the HCTP will be prepared assuming an increase of population in Hays County of about 200,000 to 215,000 people. For comparison, the Hays County population in 2035 is forecasted to equal about 90% of Williamson County's current population in 2010 (422,679).

When Hays County will grow to 359,000 or 371,200 people depends on the rate of future population growth. The Texas State Data Center prepares alternative high, medium and low population forecasts by county based on the latest U.S. Census decennial population figures. The Center will prepare and release the forecasts based on the 2010 U.S. Census in Spring, 2012. At that point we can calculate the range of years when the 359,000/371,200 population figure might be reached in Hays County.

Conclusion: The two CAMPO long range plans will be very useful in the preparation of the HCTP in many aspects. For one, the CAMPO plans are based on detailed population and employment analysis and forecasts by small traffic serial zones which can readily be assumed for the HCTP. The CAMPO staff has conducted transportation computer modeling on these forecasts in several future years for both CAMPO plans, which indicate needed roadway sizes and is the basis for the planned roadway and transit systems in Hays County in the CAMPO plans. Finally, the CAMPO staff has estimated the future capital and operating costs of the planned transportation system in Hays County. This information can be evaluated and updated for use in the preparation of the HCTP.

3.4 Journey to Work Commuting Data

Another resource available for preparation of the HCTP is data on commuting patterns collected by the U.S. Census Bureau and Bureau of Labor Statistics. The data for Hays County commuting patterns in 2009 shows the following (Table 3-3):

Table 3-3. Hays County Commuting Patterns – 2009

	Number	Percentage
Live and work in Hays County	15,903	27%
Live in Hays County, work outside	42,984	73%
Total employed Hays County residents	58,887	100%
Live outside Hays County, work inside	27,081	

Conclusion: This information is useful in determining if a better "jobs – housing balance" can be achieved over time in Hays County. The higher the percentage of Hays County residents who work in Hays County (now 27%), the lower will be the travel demand on the County's roadways. This would reduce the need for future roadway system expansion and shorten commute times.

3.5 CAMPO Congestion Management Process State of the System Report, November 2009

The primary goal of CAMPO's Congestion Management Process (CMP) State of the System Report (November 2009) is to convey to the public and transportation agencies, the status of congestion in the region. To this end, the CMP provides methods for monitoring, evaluating, and managing congestion across the regional transportation system with the intent of protecting the region's investments in, and improving the effectiveness of the existing and future transportation networks. The CMP is also used as a planning tool to help reduce vehicle emissions and improve regional air quality.

Current and future congestion management measures and strategies used by all regional partners, including Hays County, for analyzing the performance of the region's transportation system are identified. As a criterion for the inclusion of a project in the Transportation Improvement Program (TIP), agencies must identify which of the congestion management measures and strategies will be implemented as part of the project. These congestion management measures and strategies include the development of a Congestion Index (CI) which identifies where specific congested segments are located and the development of Regional Growth Centers which focus regional growth on specific locations in an effort to reduce congestion.

CAMPO's CMP identifies added capacity projects throughout the region that are part of the TIP between 2006 and 2011 that incorporate Transportation Systems Management (TSM) or Travel Demand Management (TDM) techniques. While the vast majority of these projects include bicycle and pedestrian improvements, quite a few of these projects include access management techniques. Other projects include toll improvements, intersection improvements, the inclusion of express lanes, and grade separations as efforts to reduce congestion.

Eight congestion management projects from the TIP are located in Hays County and are identified in Table 3-4 below. The projects primarily consist of bicycle improvements throughout the county with the goal of increasing recreational opportunities for residents, providing alternative transportation options, and drawing in more tourists seeking bicycle on the paths. Most of these projects are also listed in the FY 2011-2014 TIP that is summarized here in Section 3.8.

Table 3-4. Hays County Congestion Management Projects Included in TIP

Project Name	Project Location	TSM / TDM Techniques Applied
FM 3407	RM 12 to RM 2439	Bicycle and Pedestrian Improvements
FM 1626	FM 270 to Travis County Line	Bicycle Improvements
FM 1626	Hays County Line to Bliss Spillar Rd.	Bicycle Improvements
RM 12	RM 32 to San Marcos City Limit	Bicycle Improvements
Cement Plant Rd Overpass	Frontage Rd west of IH-35 to Frontage Rd east of IH-35	Pedestrian Improvements
IH-35	FM 2001 to FM 1626	Bicycle Improvements
US 290 W	0.43 miles east of RM 12 to Travis County Line	Bicycle Improvements
FM 110	IH-35/McCarty Rd to SH 123	Bicycle Improvements

CAMPO's four-step modeling process, which is used to determine future congestion levels, is also presented in the report. The traffic model provides an output of volume to capacity (v/c) ratio which is used to quantify future congestion levels and identify where future capacity-adding facilities need to be located. According to the model, although planned investments are effective in reducing congestion, projected population growth will offset these investments resulting in a net increase in congestion.

CAMPO's long-range transportation plan (summarized in Section 3.3), provides a 25-year blueprint for growth and management of the regional transportation system and identifies how CAMPO's TIP must be consistent with this plan. While a CMP analysis was not applied to projects in the current CAMPO 2030 Plan, a CMP analysis will be continue to be integrated into the long range plan by incorporating congestion analysis for initial project selection in the CAMPO 2035 Plan.

The two main avenues identified in the report, by which CAMPO can implement congestion management strategies, are by either: (1) requiring projects in the TIP to use Travel Demand Management (TDM) or Transportation System Management (TSM) techniques, or (2) influencing the policies that drive the TIP and long-range transportation plan project selection process. This second method can be accomplished by issuing a call for projects that manage congestion and by awarding points for congestion management as part of the project scoring process.

CAMPO action items are included in each section of the report. One of these action items is that the CMP will continue to be incorporated into the CAMPO long range transportation plan. Performance measures will continue to be developed and data from other programs will continue to be added. The CMP will provide congestion data to local jurisdictions and transportation agencies, and will continue to use the TIP project selection process to ensure continued congestion management in the region.
Conclusion: The CAMPO congestion data can be used in the upcoming HCTP to identify areas where congestion is projected to increase. Once these areas are identified various congestion management strategies and related projects will need to be identified and incorporated into the HCTP. Because

CAMPO is looking to include congestion management and mitigation as part of the scoring system for a project's inclusion in the TIP, Hays County should clearly identify any congestion management techniques that could be employed on a given project for its' inclusion in the TIP.

3.6 Hays County Capital Improvement Program

In November 2008, Hays County voters approved a proposition to issue $207 million in Hays County road bonds for roadway safety and mobility improvements across the county. These improvement projects were divided into two categories of projects that would be funded through the bond issue: Pass-Through Projects, which are those projects eligible for up to $133 million in reimbursement from the TxDOT's Pass-Through Funding Program, and Priority Projects which were identified as being particularly important locally from input garnered from local entities and public input. Additional funding for both categories of projects will come from the City of Kyle ($11 million), the City of San Marcos ($7 million), and Federal grants ($3 million).

Currently there are seven Pass-Through Projects that are underway across Hays County - two in the San Marcos area, four in the Buda/Kyle area, and one in the Dripping Springs area. These projects are generally larger in scale than the Priority Projects and typically involve realignments, reconstruction, and road-widening projects such as Projects 18 and 19 which involve the widening of 6.8 miles of FM 1626 from a two-lane rural highway into a five-lane rural facility.

Priority Projects are generally smaller in scale and often involve such tasks as safety and intersection improvements, preliminary design engineering, environmental analyses, feasibility studies, and the purchase of right-of-way for corridor preservation. Currently there are 23 on-going Priority Projects across all four precincts in Hays County.

Table 3-5. Hays County Pass Through Projects

Project	Roadways	Status
Precinct One		
Project 20	FM 110 (San Marcos Loop), IH-35/McCarty Road to SH 123. First segment of proposed San Marcos Loop.	Estimated construction start date: May 2012.
Project 24	Relocation of existing FM 150 / IH-35 frontage road intersection and realigns portion of FM 150 east of IH-35 to merge with existing FM 150 East.	Estimated construction start date: Spring 2012.
Precinct Two		
Project 18	FM 1626 Segment A (FM 967 to FM 2770)	Estimated construction start date: Late 2013.
Project 19	FM 1626 Segment B (Bliss Spillar Road to FM 967)	Estimated construction start date: May 2012.
Project 22	IH-35 Phase 1 – Kyle Crossing (CR 210) to Kyle Parkway (FM 1626)	Open to traffic: December 2011.
Project 23	IH-35 Phase 2B (FM 150 to FM 1626)	Estimated construction start date: Summer 2012

Table 3-5. Hays County Pass Through Projects

Project	Roadways	Status
Project 25	IH-35 at FM 2001, Overpass Road	Open to traffic: September 2010.
Precinct Four		
Project 21	US 290 West, Trautwein Road to Nutty Brown Road	Construction complete: December 2011.

Table 3-6. Hays County Priority Projects

Project	Roadways	Status
Precinct One		
Project 11	Old Bastrop Highway (CR 266), Centerpoint to Francis Harris.	Scheduled construction completion date: Winter 2012.
Project 15	Post Road (CR 140) at Blanco River	No construction date identified.
Precinct Two		
Project 12a	SH 21 at High Road (CR 127)	Construction complete:
Project 12b	SH 21 at FM 2001	Construction to be completed: Spring 2012
Project 12c	SH 21 at Rohde Road (CR 126)	Project on hold pending possible future realignment of FM 2001.
Project 13	Dacy Lane (CR 206), Be bee Road (CR 122) to Windy Hill Road (CR 131)	Studies began in Spring of 2010
Project 16	Lakewood Drive at FM 1626	Estimated construction completion date: Spring 2012.
Project 17	RM 967 at Ruby Ranch	Scheduled construction completion date: Spring 2013.
Precinct Three		
Project 4	RM 2325, Fischer Store Road (CR 181) to Carney Lane	Scheduled construction completion date: Winter 2012.
Project 5	RM 12 at Old Kyle Road (Wimberley Business District)	Project design is nearing completion.
Project 6	RM 12 at RM 32	Scheduled construction completion date: Spring 2012.
Project 7	RM 12 Parkway Development	Project is 30% complete.
Project 8	RM 12 at Hugo Road (CR 214)	Scheduled construction completion date: Spring 2012.
Project 9	RM 12 at Sink Creek	Scheduled construction completion date: Spring 2012.
Project 10	RM 12 at Wonder World Drive (FM 3407)	Construction completed: Fall 2010.

Table 3-6. Hays County Priority Projects

Project	Roadways	Status
Precinct Four		
Project 1	US 290 from RM 12 to McGregor Lane	Estimated construction completion date: Spring 2013.
Project 2	RM 12 at Sports Park Drive	Estimated construction completion date: Winter 2012.
Project 3a	RM 1826 at Nutty Brown Road	Scheduled construction completion date: Spring 2013.
Project 3b	RM 1826 at Crystal Hills Drive	Scheduled construction completion date: Winter 2012.
Project 3c	RM 1826 Darden Hill Road	Scheduled construction completion date: Spring 2013.
Project 3d	RM 1826 at RM 967	Scheduled construction completion date: Summer 2012.
Project 14	Lime Kiln Road at Sink Creek	Studies began in Spring 2010.
Project 15	Post Road (CR 140) at the Blanco River	Studies began in Spring 2010.

Conclusion: The Pass-Through Projects are primarily located in the northeastern portion of the county and largely focus on access to and from the Austin area in Travis County. Hays County projects in this area include roadway widening such as Project 18 (FM 1626 Segment A; FM 967 to FM 2770) in Precinct 2 which is currently under construction and should start construction in late 2013 and Project 19 (FM 1626 Segment B; Bliss Spillar Road to FM 967), also in Precinct 2, which is scheduled to begin construction in May 2012. Both of these projects involve reconstructing FM 1626 from two lanes to five lanes. Project 23 (IH-35 phase 2B; FM 150 to FM 1626) and Project 24 (relocation of FM 150 / IH-35 frontage road intersection) which are both due to begin construction in the winter of 2011 and finish construction in summer and spring of 2012 respectively will allow all of the remaining two-way IH-35 frontage roads in Hays County to be converted to one-way. All four of these identified projects will improve roadway capacity and will allow for easier ingress and egress to and from the Austin area. The HCTP should identify these projects and take into account how these projects will impact development in this area as well as how continued population growth in these areas will impact the need for new transportation facilities.

The Priority Projects are primarily located in Precinct 3 and Precinct 4. The four phases of Project 3((RM 1826) in Precinct 4 along RM 1826 are all set to be completed between the summer of 2012 and the spring of 2013. Projects 5 through 10 in Precinct 3 are all along RM 12. Some of these projects have already been completed (Project 10) with the last of these projects scheduled to be completed by Spring 2012 (Projects 6, 8, and 9). Project 12 (SH 21) in Precinct 2 is divided into three phases. The first phase (Project 12a, SH 21 at High Road/CR 127)is complete, the second phase (Project 12b, SH 21 at FM 2001) is scheduled for completion in the spring of 2012, while the third phase (SH 21 at Rohde Road/CR126) has been placed on hold pending possible future realignment of FM 2001.

3.7 Water and Wastewater Facilities Plan for West of the IH-35 Corridor, February 2011

Hays County is one of the fastest growing counties in the United States. The county's population has increased nearly four times its 1980 population from 40,594 to 157,107 in 30 years. The rapid growth, periodic severe drought conditions, and limited alternative water supply options have resulted in increasing demands on the limited existing water supplies in the County west of the IH-35 corridor. This impact brought about regulation of non-domestic groundwater pumping and provision of new surface water supplies into northwestern Hays County.

This Hays County Water and Wastewater Facilities Plan was conducted under the Texas Water Development Board's (TWDB) regional planning grant program. The plan considers recommendations that have been developed in the broader State-funded regional water plans. However, these regional plans usually do not consider the needs of unincorporated areas. The areas west of IH-35 need to be analyzed since they place pressure on the county's limited water resources.

The Lower Colorado River Authority (LCRA) supplies treated water services to the City of Dripping Springs, the future Headwaters development project through the City of Dripping Springs, wholesale service to various water districts and water supply corporations serving Belterra, High Pointe, Rimrock, Rutherford Ranch, Reunion Ranch, and Salt Lick communities. During November 2011 LCRA's board of directors authorized the negotiation for the sale of 18 retail water and wastewater systems in the Hill Country and LCRA's southeast service area to Croix Infrastructure as well as the negotiation for the sale of the West Travis County Regional Water and Wastewater System to the Coalition of Central Texas Utilities Development Corporation and on January 17, 2012 this sale was completed. The board has set up criteria for the sale of these water and wastewater systems to protect their investment as well as the consumer.

Hays County government submitted a grant application grant in 2008 to the Texas Water Development Board (TWDB) for a regional planning grant to study the existing water situation and examine water and wastewater management options, infrastructure needs, and policy alternatives. The study reviewed unincorporated and incorporated areas, took a detailed look at water infrastructure needs, potential wastewater needs, and possible policy actions that may facilitate the provision of adequate water and wastewater utility service and help protect environmental resources. The study area included the portion of Hays County, west of the IH-35 corridor cities. The cities of San Marcos, Kyle, and Buda had already assessed their water supply needs and therefore did not participate in the study. Hays County, along with the cities of Wimberley, Dripping Springs, Woodcreek, Hays, the conservation districts of Barton Springs/Edwards and Hays Trinity, along with the Guadalupe-Blanco River Authority, and the Lower Colorado River Authority were all included in the study.

This study assessed residential electric connections data as a basis for the study. Historic trends in electric connections were used to forecast a High Case growth scenario of the study area population. Future service needs and unmet facility needs were identified.

Western Hays County currently has a very limited water supply however, the study has forecasted that even with no new major water projects the study area population could grow another 82 percent by 2060. With prospective growth, the only identified, practical way of addressing the larger scale water supply needs and not exacerbating the local resource problem is to import water supplies from outside areas that have excess supplies. Water and wastewater recommendations arising from the High Case growth forecast were identified specifically for the northwestern and central, northeastern, southwestern, and southeastern portions of the county.

Costs for implementing the various recommended water and wastewater management measures were estimated in this study. Total needed investment in water infrastructure over the 50-year planning period is estimated at $446 million, while total needed investment in wastewater infrastructure over the 50-year planning period is estimated at $368 million.

Conclusion: The projected increases in population will continue to place additional stress on already limited water supplies. The population and employment forecasts used to prepare the HCTP should take water supply and its potential for impacting future development into consideration. A coordinated planning effort across Hays County should help to proactively avoid some growth-related impacts as the Hays County transportation system will be directly impacted by the decisions regarding where and how to access the additional water supplies needed to accommodate growth. Population growth is generating greater pressure to implement more stringent water management actions as well as to link future land development to utility service. All of this will impact both development patterns as well as future transportation needs. Because of this, transportation officials in Hays County should coordinate efforts with county water and wastewater utilities to ensure a coordinated planning effort.

3.8 CAMPO FY 2011-2014 Transportation Improvement Program

In accordance with the Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU), the local Metropolitan Planning Organization (MPO), in this case CAMPO, is responsible for the development of a Transportation Improvement Program (TIP). This program must be updated at least once every four years and shall be approved by the MPO and the Governor. The TIP must include the projects proposed for funding under the Surface Transportation Program Title of the earlier ISTEA legislation and the Federal Transit Act and which are consistent with the Long Range Plan developed for the area.

The TIP must include a list of priority projects to be carried out within the MPO area during the four-year period. A financial plan that demonstrates how the TIP can be funded must also be included. This plan must identify resources from public and private sources that are reasonably expected to be made available to carry out the plan. Other innovative financing options should also be identified.

For Hays County, a total of 15 projects with an expenditure of $225,138,631were identified in the FY 2011-2014 TIP amendments adopted July 11, 2011. These projects included nine roadway projects totaling $222,269,256 and six bicycle/pedestrian projects totaling $2,869,375. All projects included in the FY 2011-2014 TIP for Hays County are identified in Table 3-7.

Table 3-7. FY 2011-2014 TIP Projects for Hays County

Project Type	Description	Cost
Bicycle/Pedestrian	From Charles Austin St. to Long St. parallel to Hopkins Dr. (RM 12) Construction of a 6' bicycle and pedestrian path parallel to RM 12.	$61,250
Bicycle/Pedestrian	Loop 82, from IH-35 to Sessom Dr. Construction of a 6' wide bicycle and pedestrian path with amenities.	$155,625
Roadway	SH 45 (SW, from FM 1626 to the Travis County Line. Preparation of environmental impact statement, traffic and revenue studies, final engineering for 4 tolled mainlines and 2 continuous non-tolled access lanes.	$12,800,000
Roadway	RM 12 from north of RM 32 to FM 3407. Preliminary engineering and ROW purchase to reconstruct to 4-lane parkway.	$111,000,000
Roadway	FM 2001 realignment from 645' East of IH-35 Frontage Rd. to Hillside Terrace. Preliminary engineering and construction of a 4-lane divided highway.	$4,899,000
Bicycle/Pedestrian	Capital area trail system from Barton Springs Trailhead entrance at Zilker Park to FM 150. Preliminary engineering and construction of the walk for a day trail.	$375,000
Roadway	Loop 82 railroad overpass from Charles Austin St. to IH-35. Preliminary engineering for overpass of railroad on Loop 82.	$44,825,000
Roadway	IH-35 from FM 1626 to Yarrington Rd. Preliminary engineering, ROW purchase and construction of 2-lane southbound frontage roads and conversion of northbound frontage roads to one way operation.	$17,200,000
Roadway	RM 150 from IH-35 northbound frontage road to 2300' east of IH-35. Preliminary engineering and construction to realign existing RM 150 with a five-lane urban minor arterial with bridge widening and intersection improvements.	$8,350,000
Roadway	FM 1626 from RM 967 to Brodie Lane. Preliminary engineering and construction to widen FM 1626 to a 4-lane divided roadway.	$43,100,000

Table 3-7. FY 2011-2014 TIP Projects for Hays County

Project Type	Description	Cost
Roadway	FM 110 from IH-35/McCarty Rd to SH 123. Preliminary engineering and construction of a 4-lane divided roadway.	$40,095,256
Bicycle/Pedestrian	North LBJ Drive from Sessom Dr. to Holland St. Construct intersection, signal, bicycle and pedestrian improvements.	$1,250,000
Bicycle/Pedestrian	River Road/Riverside from River Rd. to Riverside Dr. Construct a 6'-8' bicycle and pedestrian path.	$90,000
Bicycle/Pedestrian	North LBJ Bicycle Trail from Hopkins St. to University Dr. Construct bicycle trail	$937,500
Roadway	FM 1626 from FM 2770 to RM 967. Preliminary engineering, ROW purchase and construction to widen FM 1626 to 4-lane roadway with center turn lanes.	$40,000,000
TOTAL		$225,138,631

In total, for the CAMPO TIP for FY 2011-2014, approximately $1.17 billion dollars has been programmed and nearly $1.25 billion has been authorized for non-transit projects, indicating that more than sufficient funding is projected to be available to complete these projects. The largest highway financing funding sources are from local contributions ($431 million), Pass-Through Funding ($222 million), Federal ($220 million), and Prop 14 ($209) million.

The transit financial summary included at the end of the TIP only identifies the sources of funding for FY 2011 and does not summarize the projects that have been programmed. The transit financial summary identifies over $75.8 million in funding available through Federal, State, and other sources for FY 2011.

Conclusion: While the current TIP provides only a listing and summary of projects currently in the TIP, the larger issue is the potential inclusion of congestion management practices as part of the scoring used to determine projects that get listed on the TIP. The inclusion of congestion management is covered in more detail under Section 3.5. The HCTP should take into account both the projects that are already included in the TIP as well as how the inclusion of congestion management strategies will impact the addition of new projects to the TIP.

3.9 Hays County Strategic Policy and Implementation Plan (2010)

The goal of the Hays County Strategic Policy Plan, which was passed unanimously by County Commissioners on July 6, 2010, is to enhance the efficiency of service for the citizens of Hays County by providing a framework for decision-making for the Commissioners Court that addresses nearly every aspect of County governance. Hays County has been experiencing explosive growth over the past 20 years, and this growth is projected to continue as the population is anticipated to double again by 2030.

This growth has resulted in a strained transportation network and water system while changing the character of the community.

In an effort to achieve the goal of enhancing efficiency of services to Hays County citizens, the plan identifies activities in which the county is currently engaged, along with short-term (1-3 years), mid-term (3-5 years), and long-term (beyond 5 years) recommendations. These recommendations were categorized into one of six broad categories where the County has a direct role to play and can have an impact on residents. For each of the short-, mid-, and long-term recommendations, individual projects are listed along with action plans identifying the actions, duration, timeline, and the party responsible for implementation. Also identified as part of each project are potential partners, how success will be measured, and the estimated funding along with possible funding sources to complete each project. The six categories for which projects and recommendations are made, are divided into Internal Objects which covered those projects that are tied directly to County governance, Water and Wastewater, Transportation, Growth Management, Economic Development, and Quality of Life. The projects identified in each of the six identified categories represent the County's plan of action for continuing and enhancing operational efficiency during this population expansion.

Conclusion: The projected growth of the county is placing stress on all county facilities from the legal system to the transportation system, quality of life, and water supply. Coordinating efforts in these areas will help in proactively limiting the impacts associated with this growth. From a transportation perspective, adding roadway capacity and implementing congestion management strategies will help in limiting these impacts, however, other alternatives such as rail and bus transit should be examined in an effort to relieve the burden on the local roadway system. In helping Hays County governance improve the efficiency of services the HCTP should consider the utilization of other modes of transportation and should take into account the activities which the County is currently engaged in as it looks to improve the efficiency of delivery in County services.

Hays County Strategic Policy and Implementation Plan Section Summaries:

Internal Objects

The Internal Objects section, for the most part, focuses on coordinating processes and plans and streamlining existing procedures. Existing and future county plans such as the transportation plan and the water and wastewater plan are identified as being able to reap significant benefits from coordinating efforts with one another. Another coordination effort involves incorporating local city plans into one county-wide plan. The county-wide plan would identify on-going local projects and identify where coordination across jurisdictions would be beneficial. The Internal Objects section also focuses on streamlining existing procedures by centralizing such activities as collections and compliance as well as the purchasing process.

Some other projects that are being considered as part of the Internal Objects section include determining the expansion needs of police precinct offices adding an additional district judge and potentially adding an additional Court at Law. These projects are all in direct response to the rapidly expanding population of Hays County.

Water and Wastewater

The County is currently developing a water and wastewater facility plan to address the county's growth as well as a flood protection plan which will define flood risk and hopefully reduce flood insurance rates. In the short term the County is focused on implementing best practices and identifying opportunities to improve water conservation. As part of these short-term plans the county will hold a water summit with local cities, developers, and other interested parties, create an annual award recognizing best water conservation practices, increase education and outreach, and explore opportunities or new water supplies in the county such as pumping in water from adjacent aquifers or taping into surface water supplies.

In the mid-term the County will continue to support the Texas Watershed Steward Program and continue other efforts to protect water quality and quantity through efforts such as purchasing sensitive land with significant recharge features or riparian corridors. Beyond five years, the County will study the feasibility of becoming a utility provider which would give the County greater control over the distribution of water/wastewater infrastructure and subsequently, some control over growth.

Transportation

Transportation improvements were identified as a key issue during the public input process for the Strategic Policy Plan. The increased growth in population has created a need for new roads and improvements to existing roads. Hays County has been proactive, passing bonds and making agreements with the Texas Department of Transportation (TxDOT) to address many of the critical areas. Some of the current projects include the continued development of the County Transportation Plan, active coordination with school districts to ensure county roads are adequate to service new facilities, and the continued participation in the Georgetown to San Antonio Lone Star Rail Project.

Most of the short-term transportation projects involve the use of best practices and do not involve the construction of new roads. These projects include ensuring strict adherence to county standards to minimize curb cuts as these have the effect of contributing to major traffic slowdowns, incorporating water quality best practices into all road projects, and continuing to push for Scenic Road designation which would help to limit the number of billboards in the county.

Mid-term projects identified include incorporating bike and pedestrian facilities in new and upgraded county roads to increase safety for cyclists and continue to support Hays County as a cycling destination, and exploring the feasibility of contracting with Capital Metro to provide some level of bus connection to Austin. While these projects will require funding, the plan stresses that the long-term benefits would be substantial and therefore the funding should be considered investments rather than simply costs.

The long-term transportation projects in the plan include exploring the possibility for additional corridors and/or improvements to existing roads to alleviate congestion and supporting the development of rail infrastructure. Currently there are limited cross-county roads and the need for these facilities is expected to increase as SH 130 to the east of Hays County is completed and travelers look to access SH 130 as an alternative to IH-35 which will continue to see increased congestion. The development of rail infrastructure would not only contribute to the planned rail link between Georgetown and San Antonio, but would also help to remove rail freight from lines that currently bisect San Marcos and other communities, thereby increasing safety and reducing traffic congestion.

Growth Management

Growth management includes multiple strategies that affect where and how development occurs within the region. Growth management policies and initiatives work to mitigate problems that arise from unregulated growth, such as incompatible land uses, habitat and view-shed destruction, and increased cost in the provision of infrastructure for roads, water, and wastewater. There are currently three growth management projects ongoing in the County. The first is to streamline the permitting process by moving all permitting functions to one location, thereby establishing a "one-stop" permitting process, enabling applicants to address any permitting issues without having to travel to separate locations.. The second is to strictly enforce regulations requiring any developer submitting a plat for permitting to provide a *Water Availability Study* showing that there is sufficient water available to meet the demand of their development. The third project is to adopt and implement a Habitat Conservation Plan to conserve habitat for endangered species and to protect water resources.

The short-term growth management projects primarily focus on limiting unmanaged growth by identifying growth areas, focusing development in urban areas, encouraging low-impact development, and promoting the development of pedestrian facilities and increased connectivity in the street network. For the mid- and long-term, Hays County will focus on regulating land use and development including funding the acquisition of land and development rights, and funding new staff and services to meet the demand driven by population growth.

Economic Development

Participants in the town hall meetings, focus groups, and in one-on-one interviews indicated their support for the County to engage in strategically focused economic development activities, however counties in Texas have limited powers over economic development and generally defer to local economic development entities. In light of this, the short-term projects identified in the plan mostly focus on building upon the relationships with local economic development entities and establishing a County-wide economic development policy and a County-wide incentive policy to encourage additional business investment in the area.

Over the mid- to long-term, the plan encourages infrastructure development in areas suitable for economic development, increasing access to community college and vocational education opportunities, and being vigilant in recruiting new development from the State of Texas, health care facilities, and other technology industries. The plan also promotes Hays County as a cycling destination and proposes the development of bicycling infrastructure.

Quality of Life

The Quality of Life section of the Strategic Policy Plan seeks to ensure public safety, improved mobility, expanded recreational opportunities, and healthy and vibrant communities. A high quality of life can impact economic development and lead to a healthy and productive workforce. The County is currently engaged in supporting and potentially expanding the Capital Area Rural Transportation System (CARTS). The County is also involved in supporting local non-profit organizations, EMS services, and the Healthy Communities Coalition.

Over the short-term Hays County plans on improving quality of life by supporting school districts and expanding recreational opportunities across the county by increasing parkland and open spaces. Over the mid- to long-term Hays County plans to provide grant writing support to local non-profit organizations, expand the health care district while increasing access to health care, and update the Hays County Strategic Plan. The updated Strategic Plan would set goals and objectives to move the County forward and reflect the on-going issues and opportunities in the County.

3.10 Texas Transportation Needs Report – 2030 Committee, February 2009

The TxDOT 2030 Committee that developed the "Texas Transportation Needs Report" was comprised of 12 volunteer business leaders appointed by the Texas Transportation Commission Chair, Deirdre Delisi in May, 2008. The 2030 Committee was given the charge of providing an independent assessment of the state's transportation infrastructure and mobility needs from 2009 to 2030. The Committee developed the following goals for the report:

- Preserve and enhance the value of the state's enormous investment in transportation infrastructure.
- Preserve and enhance urban and rural mobility and their value to the economic competitiveness of Texas.
- Enhance the safety of Texas' traveling public.
- Initiate a discussion nonstrategic rebalancing of transportation investments among infrastructure, mobility, and non-highway modes to anticipate future needs.

The report provides a comprehensive analysis of estimated transportation needs, associated costs (in 2008 dollars), and resulting benefits from highway maintenance, urban mobility, rural mobility, and safety. This analysis was used as a tool to estimate the level of investment needed across multiple transportation modes. The report also identifies the need for more analysis to examine possible improvements in transportation efficiencies, the development of new technologies, travel options, and innovations. Due to time constraints during the development of the report, an in-depth analysis of other transportation modes that could provide highway congestion relief was not conducted.

Texas' population is projected to grow at close to twice the U.S. rate, adding between seven million and 17 million people by 2030, and the increased costs and congestion associated with this growth are viewed as a potential roadblock to Texas' growth and prosperity. Traffic delay in Texas' urban areas has already increased more than 500 percent in the last two decades as the construction of highway lane-miles has greatly lagged behind population growth and an increase in vehicle miles travelled (VMT) in the state's five largest metropolitan areas.

The report is broken into nine categories (Pavement Maintenance, Bridge Maintenance, Urban Mobility, Rural Mobility and Safety, Public Transportation, Freight Rail, Intercity Passenger Rail, Ports and Waterways, and Airports). Each of these categories discusses the challenges and conditions of the current system, and provides technical analysis of needs, benefits, funding, and costs, and finally provides the Committee's recommendations for each category.

Some of the main conclusions and recommendations identified in the report include:

- Pavement Maintenance: The maintenance needs for the existing 192,150 lane-mile pavement system along with adding pavement lane-miles to prevent worsening congestion will cost the state about $4 billion per year ($89 billion total between 2009 and 2030).
- Bridge Maintenance: In 2007 TxDOT spent $490 million for bridge rehabilitation and replacement. The report recommends an annual expenditure through 2030 of $1.5 billion dollars for bridge rehabilitation and replacement, an increase of just over $1 billion from what is currently spent on an annual basis with just over an additional $100 million in bridge inspection and maintenance expenditures. These expenditures would replace all identified structurally deficient, substandard load-only, and functionally obsolete bridges and increase inspection and maintenance activities to maintain safety and extend bridge life.
- Urban Mobility: The report's analysis indicates that investments in already identified projects to improve urban mobility will yield a cost-benefit of $6 - $11 for each dollar invested in terms of fuel savings, time savings, increased job creation, and associated tax revenues. Additionally, the cost to the state to improve urban mobility could be reduced through the development of additional transportation options which are often paid for by cities and the implementation of commuting options such as telecommuting, carpooling, and flexible work hours. The total estimated annual cost through 2030 to prevent worsening congestion is $7.6 billion per year.
- Rural Mobility and Safety: Mobility challenges in Texas' rural areas include increasing congestion and inadequate connecting routes resulting in more expensive travel. Widening and grade-separating highways results in reduced congestion and improved mobility. The investment needed to improve mobility and safety while attaining "full-connectivity" as defined by the report would by $19 billion total or $0.9 billion per year through 2030.
- Public Transportation: Public transportation, generally operated by local governments, is seeing challenges in increased demand for services, limited funding options, and urban area borders which often do not coincide with the boundaries of urban transit providers. The primary recommendation of the report is to conduct a comprehensive examination of federal, state, and local partnerships to meet regional needs through coordination of funding and services.
- Freight Rail: Freight rail needs are difficult to estimate as private industry generally operates freight rail lines, however, nationally studies indicate a need for increased capacity and velocity. Taking the same national growth assumption estimates and capital shortfall estimates from the national study, Texas' annual shortfall would be around $165 million annually or $3.6 billion between 2009 and 2030. As part of this investment, TxDOT could more effectively partner with private railroads to pursue the public interest of making the freight rail system more efficient and effective by removing bottlenecks and addressing capacity constraints as population and freight demand grow within the state.

- Intercity Passenger Rail: With the rising costs of right-of-way and construction, resolving mobility needs with additional highway capacity will become less and less cost-competitive. Currently, all intercity passenger rail in Texas is conventional with a top speed of 79 mph. Developing high-speed intercity passenger rail would be an expensive proposition and would require nearly 15 years to complete. Therefore, the Committee recommends that TxDOT authorizes a comprehensive evaluation of the viability and value to the state of the development of a high-speed rail system.
- Ports and Waterways: Texas handle more than 20 percent of the nation's oceangoing tonnage primarily through 10 ports. Between $71 and $90 million will be needed annually to dredge and maintain shipping channels. An additional $3.6 billion will be needed to complete the projected non-channel infrastructure improvements such as improvements to facilities such as docks, roads, rail lines, and berthing areas and channel widening/deepening projects. The Committee also recommends elevating port connectivity in the surface transportation planning process and incorporating ports into the state's homeland defense planning structure.
- Airport: The same capacity constraints that adversely affect Texas' highway system are likely to affect the state's airport infrastructure and operating systems just as severely. Texas' 26 commercial airports enplaned nearly 70 million passengers in 2006 with this number expected to increase by 73 percent to 120 million enplanements in 2025. Funding is the major hurdle to further airport development. The State of Texas primarily funds general aviation airports with funding for commercial airports coming primarily through the Federal Aviation Administration. The Committee recommends monitoring the adequacy of these funds to ensure a significant contribution to Texas' economic competitiveness.

The report also includes nine appendices including a public comments summary appendix and eight appendices detailing the background information for eight of the nine identified categories. No appendix was available for intercity passenger rail.

Conclusion: In total, the report identifies an annual investment of $14.3 billion (in 2008 dollars) is needed, or a total $315 billion investment between the years 2009 – 2030, falling well short of currently identified funding. The HCTP should take into consideration the 2030 Committee's identification of future needs within the transportation system. While the 2030 Committee does not specifically address the transportation needs of Hays County, the Committee's report can be used to help gauge projected funding needs and gaps. The development of new transportation modes and the opportunities to improve the efficiency of the current system identified by the 2030 Committee should be carefully identified and considered.

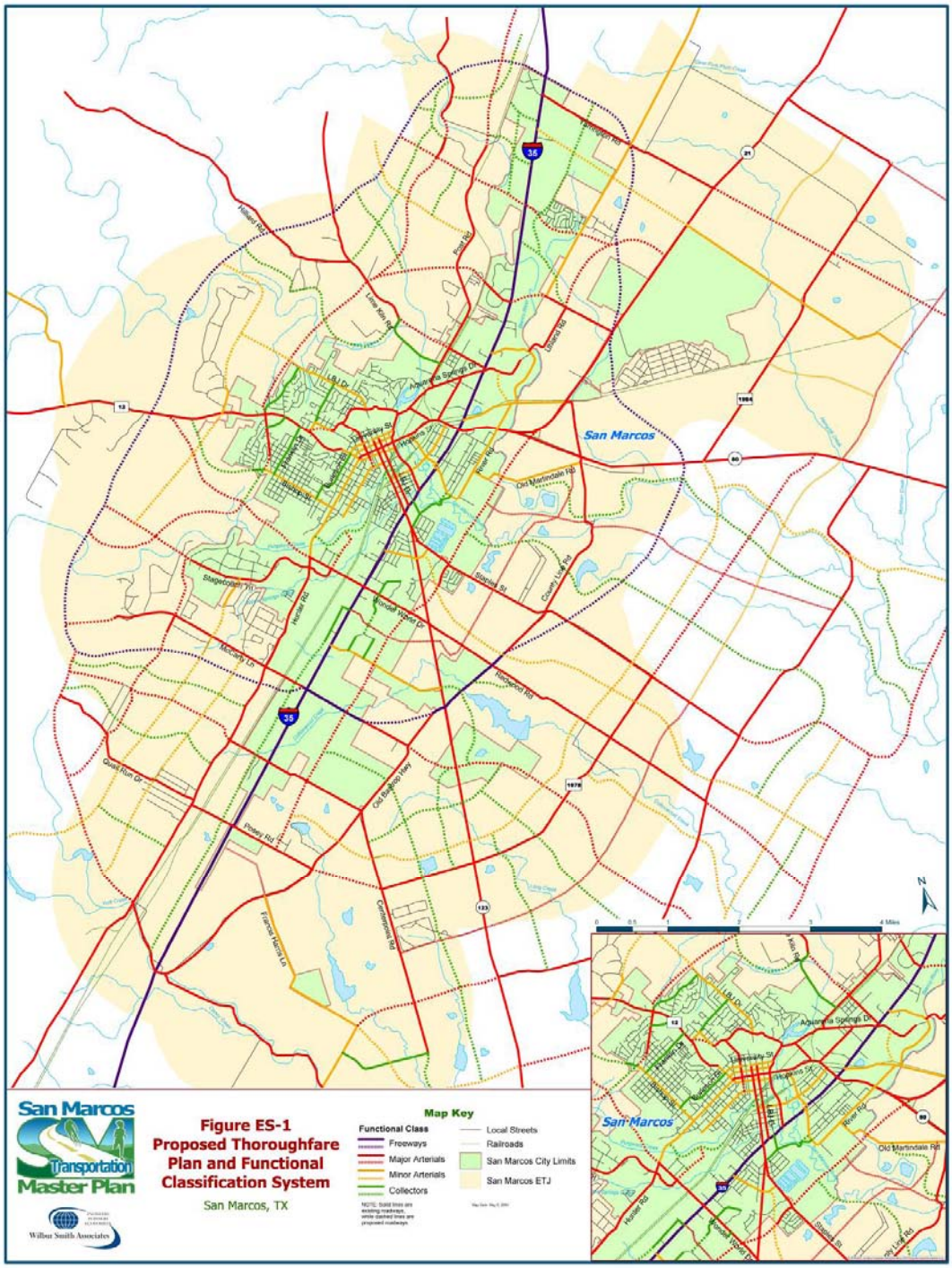
3.11 City Transportation Plans within Hays County

3.11.1 San Marcos Transportation Master Plan

The San Marcos Transportation Master Plan was adopted in 2004 (please see Figure 3.3). It was prepared by a consultant with the assistance of a Transportation Advisory Board. In preparing the Thoroughfare Plan, the consultant analyzed future traffic volumes, projected deficiencies and evaluated alternatives. New and expanded thoroughfares were included in a recommended transportation improvement program with three categories. They are Short-Term projects (2005-2010), Intermediate-Term projects (2010-2015) and Long-Term projects (2015-2025).

Opportunities and Issues - The 2010 population within the San Marcos city limits was 44,894, according to the U.S. Census. This is 28.6% of the total Hays County 2010 population of 157,107. San Marcos will prepare a new comprehensive plan over the next year and it will contain an updated transportation plan, so there is an opportunity to coordinate the HCTP and San Marcos planning efforts. Also, although San Marcos and Kyle have coordinated their plans in the past, there is an opportunity through the preparation of the HCTP to renew and update that coordination.

Figure 3-3. City of San Marcos Transportation Plan Map

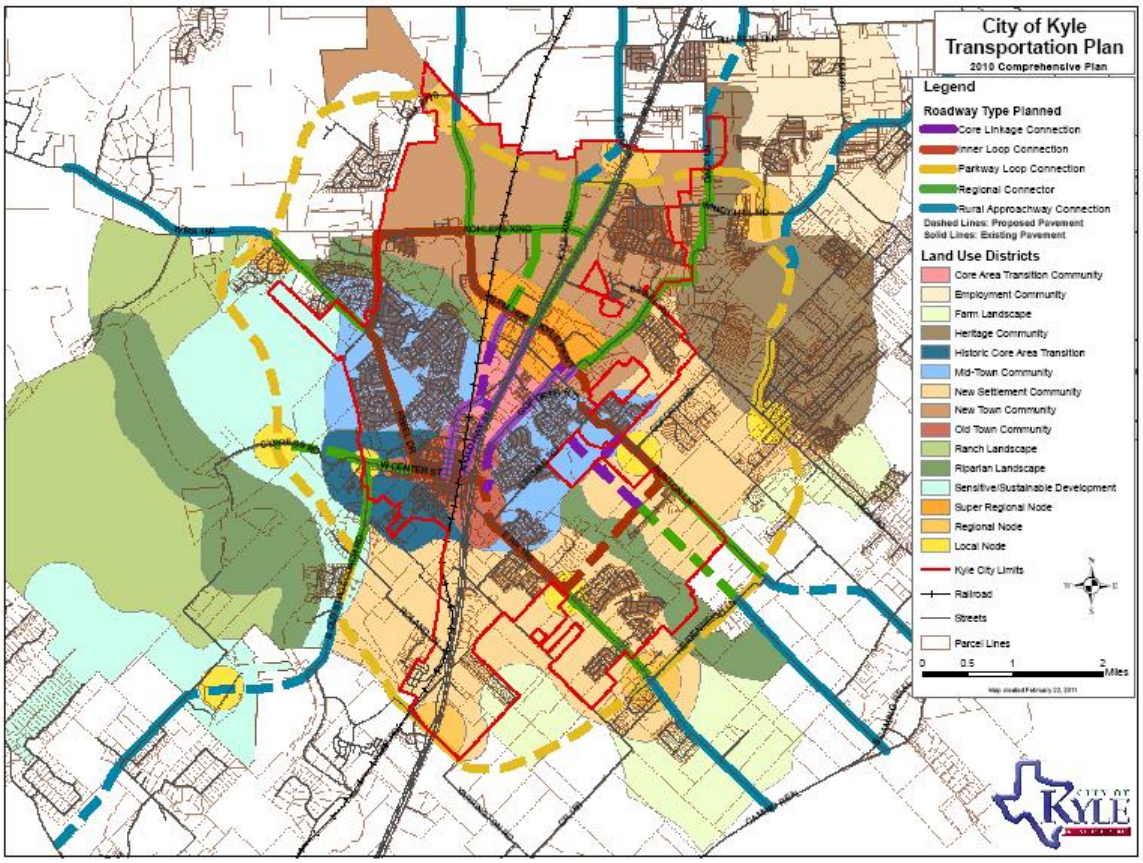


3.11.2 City of Kyle Transportation Master Plan

The City of Kyle Transportation Master Plan was adopted in 2005. This is Kyle's first transportation plan and it was prepared by a consultant with the aid of a Transportation Plan Advisory Committee. The Plan time period is 20 years and the Plan divides needed transportation projects into three phases: Immediate Priority (years 1-2), Short-Term Priority (years 3-5) and Long-Term Priority (years 6-20). These three categories are illustrated in tables and maps, including assumed project costs. The Transportation Plan was updated and included in the 2010 Comprehensive Plan, which was adopted in February 2011 (please see Figure 3-4)

Opportunities and Issues - The 2010 population within the Kyle city limits was 28,016, according to the U.S. Census. This is 17.8% of the total Hays County 2010 population of 157,107. Kyle is not scheduled to update its transportation plan in 2012, so there is an opportunity through the preparation of the HCTP to coordinate its existing plan with San Marcos to the south, Buda to the north and Niederwald to the east. For example, the Hays County Commissioners Court adopted a resolution on December 20 to reroute portions of FM 2001 between IH-35 and SH 21 within the ETJ boundaries of Buda, Kyle and Niederwald. A schematic of the proposed new route has been prepared by a private land owner.

Figure 3-4. City of Kyle Transportation Plan Map

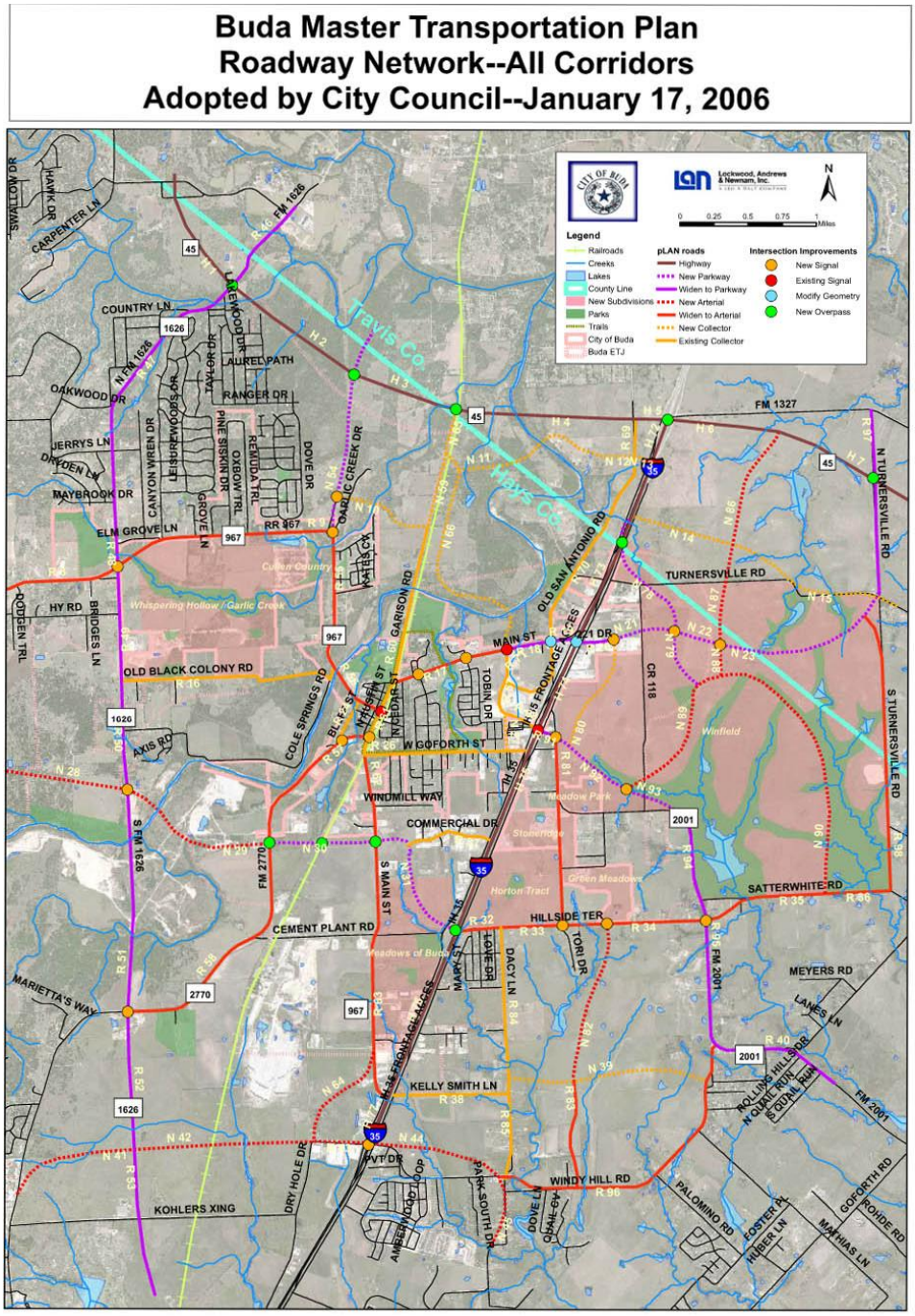


3.11.3 Buda Master Transportation Plan

The Buda Master Transportation Plan was adopted by the Buda City Council on January 17, 2006 (Figure 3.5). Like the Kyle Transportation Master Plan, the Buda Plan identified immediate, short-term, and long-term needs for the roadway network. It was based on population and employment projections made by the Capital Area Metropolitan Planning Organization (CAMPO). The new Buda 2030 Comprehensive Plan was adopted by the Buda City Council on October 18, 2011. This Plan includes a Transportation section, which promotes a multi-modal system of roadways, pedestrian and bicycle facilities, and public transit. It contains five transportation objectives and several related actions.

Opportunities and Issues - The 2010 population within the Buda city limits was 7,295, according to the U.S. Census. This is 4.6% of the total Hays County 2010 population of 157,107. Currently the Buda 2006 Transportation Plan is being revised by the same consultant that prepared the 2006 Buda Plan and the 2005 Kyle Plan so there is an opportunity to coordinate the preparation of the HCTP and the Buda Plan. Also, the Buda ETJ is bordered by Austin's ETJ, which extends into Hays County. A critical issue and opportunity is the proposed SH 45 (SW) between Loop 1 and IH- 35, which lies primarily within Austin's ETJ in both Travis and Hays counties.

Figure 3-5. City of Buda Master Transportation Plan Roadway Network – All Corridors



Commuter rail stop desired to be in Downtown Buda
(exact location to be determined)

Width of lines is not proportional to width of ROW or pavement.
All background and base map information collected Fall 2005.

3.11.4 Transportation Master Plan for the City of Wimberley

The Transportation Master Plan for the City of Wimberley was developed, reviewed and adopted over a period of three years to be consistent with the Wimberley Comprehensive Plan. The Plan is based on an estimate of where and how Wimberley Valley will grow, but does not predict the timing of growth. Yogi Berra is quoted on the title sheet – "It's tough to make predictions, especially about the future." The Plan contains five components. Component A – the Wimberley Valley Transportation Plan covers an area within a 5-mile radius of the village center, extending beyond Wimberley's ETJ in an advisory role (please see Figure 3-6). Component B – the Village of Wimberley Thoroughfare Master Plan covers only the Wimberley City limits and ETJ (please see Figure 3-7) Components A and B were adopted on August 2, 2007. Other components of the Plan include: C – the City of Wimberley Emergency Access Plan, D – the City of Wimberley Connectivity Plan, and E – the City of Wimberley Pedestrian, Bicycle and Parking Plan.

Opportunities and Issues - The 2010 population within the Wimberley city limits was 2,626, according to the US Census. This is 1.7% of the total Hays County 2010 population of 157,107. Wimberley is located midway between Dripping Springs and San Marcos on RM 12, fifteen miles from each town. RM 12 is the major north-south arterial connection between US 290 and IH-35 and it passes through hilly terrain and environmentally sensitive areas, as well as through a narrow right-of-way in downtown Wimberley. An important issue is how to accommodate increasing travel demand on this roadway without any significant detrimental effects.

Figure 3-6. City of Wimberley Transportation Plan Map

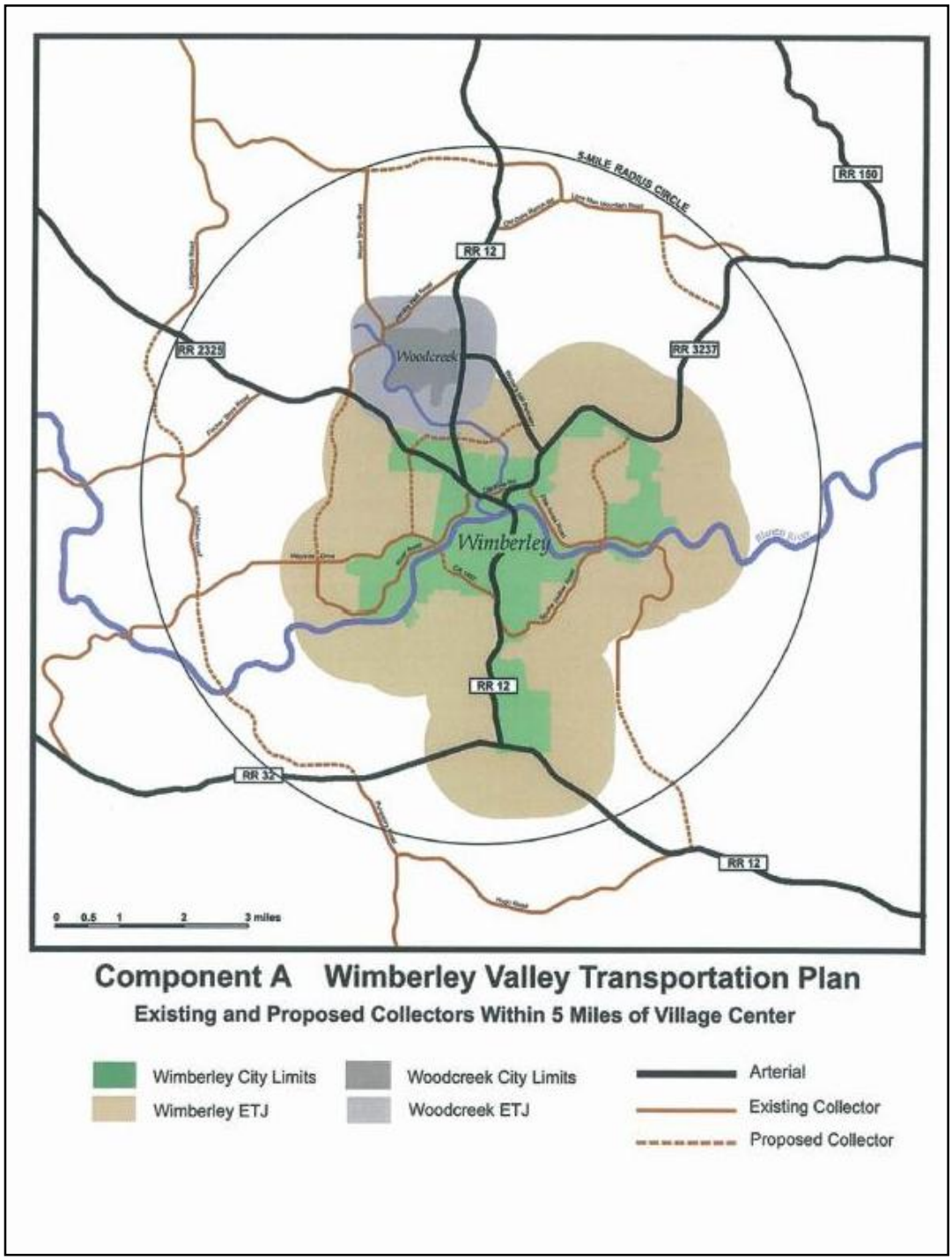
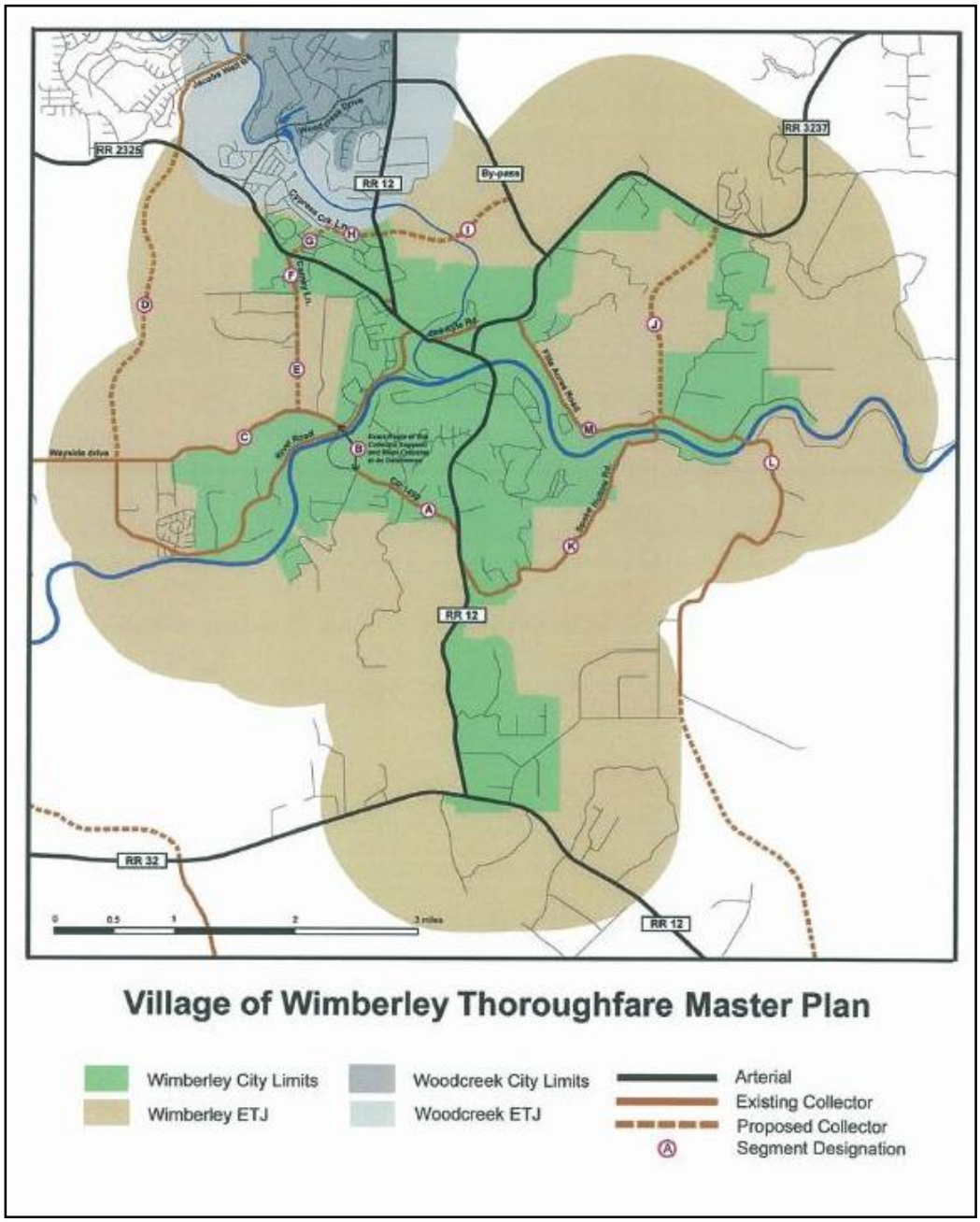


Figure 3-7. City of Wimberley Thoroughfare Master Plan

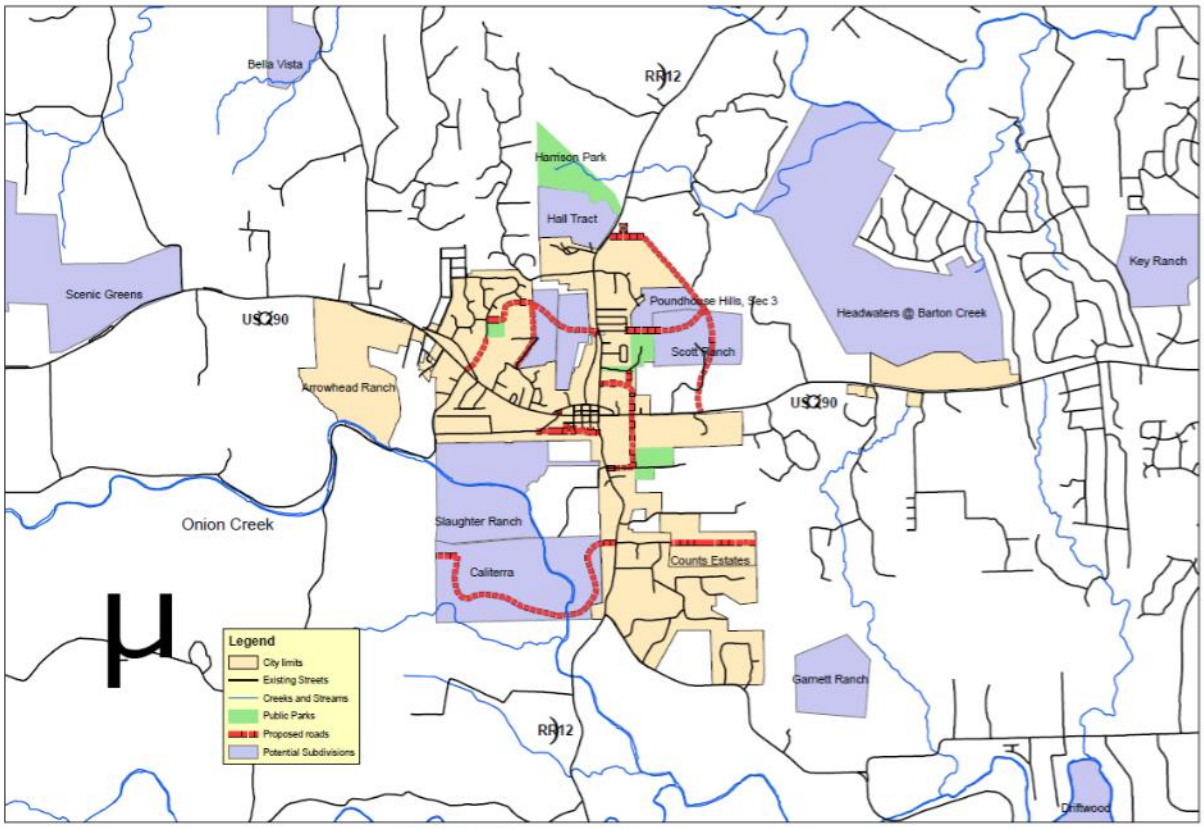


3.11.5 City of Dripping Springs Transportation Plan

The City of Dripping Springs Transportation Plan was prepared by the Dripping Springs Transportation Committee and adopted by the Dripping Springs City Council on February 12, 2008. The Transportation Plan (please see Figure 3.8) covers the incorporated area of Dripping Springs, but does not encompass the Dripping Springs Extra-Territorial Jurisdiction (ETJ) area, which is very large and extends to Austin's ETJ on the north and Buda's ETJ on the east. Dripping Springs may update its Plan in 2012.

Opportunities and Issues - The 2010 population within the Dripping Springs city limits was 1,788, according to the US Census. This is 1.1% of the total Hays County 2010 population of 157,107. US 290 is one of the major east-west highways in the CAMPO area and its right-of-way is very limited through downtown Dripping Springs. Therefore, an issue for the HCTP is how to accommodate growth in travel demand in this corridor, and whether a highway bypass should be considered. Another issue and opportunity for preparation of the HCTP is the very large Buda ETJ for which no city transportation plan has been adopted.

Figure 3-8. City of Dripping Springs Transportation Plan



City of Dripping Springs
Transportation Plan (February 12, 2008)

3.11.6 Conclusion from Review of Existing City Plans within Hays County

These plans are based on extensive in-depth analysis of existing and projected land use patterns and transportation conditions, and were formulated and/or reviewed by city committees composed of interested and experienced citizens and staff. The transportation plans of San Marcos, Kyle and Buda are contiguous to each other. In fact, the planned San Marcos outer loop connects at its northern end with the southern end of the planned Kyle outer loop, at the Yarrington Road overpass over IH-35. All five plans provide a valuable resource for use in preparation of the Hays County Transportation Plan. However, there are areas within the County that have no planned roadways and where there is inadequate circulation because of long dead-end roadways. There is an opportunity through the HCTP to extend selected roadways to provide at least two ways into and out of residential areas. This is important both for traveling convenience and for emergency access and egress.

According to the 2010 U.S. Census about 54% of the existing residential population of Hays County is located within the city limits of the five cities for which transportation plans were prepared and adopted over the last seven years. If the population within the ETJs of those five cities were also included, there would be a much higher percentage of the existing Hays County population in the jurisdiction of those five cities. Therefore, an opportunity for HCTP analysis is to tabulate the population and employment data for both 2010 and the CAMPO 2035 forecast within existing city limits and ETJs. With this information there is an opportunity to better coordinate the adoption of the HCTP by the County Commissioners Court and adoption of appropriate portions of the HCTP by the respective city councils. Another benefit of this coordinated adoption is that there will be a single transportation plan for implementation through the subdivision approval process as carried out by county and city staffs.