Performance Concepts in Planning
Lane Kendig, inc.
Planning • Zoning • Growth Management • Housing • Design

October 4, 2005

Mr. Juan Lopez
Director of Planning & Zoning
City of Edinburg
221 N. 8th Avenue
Edinburg, Texas 78540

RE: Edinburg Gateway Plan - An Agenda for 2025

Dear Mr. Lopez:

I am pleased to submit this final Comprehensive Plan document. The project commenced upon execution of our Professional Services Agreement, dated September 28, 2004. The plan was completed with its acceptance by the Citizens' Delegation on August 11, 2005 and adoption by the City Council on October 4, 2005.

The plan is intended to serve as a framework for community decision-making, ultimately providing a blueprint or "gateway" to the future. It provides integrated policy direction in the areas of land use and community character, growth and development, transportation, economic development, and utilities. This policy direction is coupled with short- and long-term implementation strategies to help translate the policies into actionable programs, development activities, and other strategic efforts by the City, its residents, and other jurisdictional partners.

As this plan is implemented, it is important to remain mindful of the overall vision statement, as follows: *Moving toward the Year 2025 and beyond, OUR VISION is to manage growth in such a way that the livability of the community is enhanced, resulting in improved economic competitiveness, efficient land use to support adequate housing for different lifecycle stages and income levels, transportation choices including more opportunities for walking and bicycling, enhanced community places to foster citizen well-being and improved livability, protected natural areas, strategic and efficient use of community infrastructure, and improved aesthetic quality and community character - together creating a community that citizens want to call home.*

LKI is pleased to have been engaged in the development of this vision, and in turn, planning for the long-range well-being of this fine community. I wish you continued success.

Respectfully submitted,

Bret C. Keast
Vice President

Table of Contents

Edinburg Gateway Plan
- An Agenda for 2025

Chapter 1: Gateway to the Future

Chapter 2: Community Snapshot

Chapter 3: Land Use and Character

Chapter 4: Transportation

Chapter 5: Economic Development

Chapter 6: Utilities

Chapter 7: Implementation

Overview
Executive Summary

Edinburg Gateway Plan
- An Agenda for 2025

The Edinburg Comprehensive Plan is comprised of goals, objectives, and related policies to provide strategic direction for the community to the Year 2025 – and beyond. The plan is intended to serve as a framework for community decision-making, ultimately providing a blueprint or "gateway" to the future. It provides integrated policy direction in the areas of land use and community character, growth and development, transportation, economic development, and utilities. This policy direction is coupled with short- and long-term implementation strategies to help translate the policies into actionable programs, development activities, and other strategic efforts by the City, its residents, and other jurisdictional partners.

The plan serves a framework for community decision-making and provides a blueprint or "gateway" to the future.

PLANNING for the future of Edinburg

The City of Edinburg last adopted a Comprehensive Plan in 1987. Since then, the City has experienced significant population growth, leading to the importance and timeliness of this planning process. As depicted in **Table 1, Edinburg Historical Population, 1980 to 2000**, the community experienced a 24.13 percent change in population between 1980 and 1990, and an impressive 63.50 percent population change between 1990 and 2000. Similar growth rates have occurred since 2000 thereby further warranting this plan. With the amount of development has come related pressures on the community's infrastructure (water, wastewater and drainage utilities, parks, and schools), its services (police, fire and emergency medical), and the surrounding agricultural lands and natural environment. Population projection scenarios, economic development studies, and demographic analyses suggest that the City will continue to face significant change. Rather than respond in a piecemeal fashion to the challenges and opportunities associated with this change, the City decided to engage in a comprehensive planning process to proactively and strategically plan for it.

Table 1, Edinburg Historical Population, 1980 to 2000

Year	Edinburg	Percent Change
1980	24,075	
1990	29,885	24.13%
2000	48,863	63.50%

Source: Edinburg Comprehensive Plan, 1987 and U.S. Census Bureau

The Edinburg Gateway Plan is a "big picture" vision of the City and its five-mile extraterritorial jurisdiction. The plan speaks to the future of the community, while also taking into account the trends, interests, opportunities, and challenges of Hidalgo County, the Lower Rio Grande Valley, and the State of Texas. This integrated approach is important as it lays a foundation for partnership building, access to grant programs, and protection of natural resources that stretch across and beyond jurisdictional borders.

VALUE of the Edinburg Gateway Plan

The livability of a city is dependent upon several factors, including, but not limited to, the availability of parks and open space, level of traffic congestion, feelings of safety and security, and quality of the built and natural environments.

The value of this plan lies in what is accomplished by the community in both the short- and long-term. This plan:

- Establishes policy direction for future development and redevelopment, providing decision-making guidance to members of the Planning and Zoning Commission, City Council, and City staff;
- Identifies recommendations that contribute to the annual work programs of individual departments and the City as a whole;
- Identifies capital improvement needs and priorities for use by City management to guide annual budgeting and capital improvement programming decisions;
- States the municipality's intentions regarding its physical development and infrastructure investment, ultimately creating an improved level of certainty for landowners and developers;
- Communicates to citizens the type, pattern, and character of future development, thereby allowing private investment decisions that are compatible and consistent with the plan for future development;
- Coordinates transportation and infrastructure improvements with development, creating an integrated development framework; and,
- Lays out the future economic and physical development of the community, which is useful to other local, State, and Federal agencies engaged in the provision of programs, services, and facilities.

PUBLIC Participation Program

The Citizens' Delegation provided input into the development of the plan to ensure that it reflects the values and priorities of the community.

In order to effectively garner information from the citizens to ensure that the plan truly reflects the vision and mission of the community, as well as their issues, concerns, interests, and insights, a public participation program was launched over a 12-month period. The public participation program involved the following involvement opportunities:

- **Citizens' Delegation** - This committee was made up of 17 members representing different interests across the community, such as real estate, parks and recreation, tourism, education, youth, etc. Their role was to provide input into the development of the plan to ensure that it reflects the values and priorities of the community.
- **Citizens' Congress** - The purpose of this public meeting was to engage citizens by raising awareness about the development of the Comprehensive Plan, identifying the purpose of the plan, and explaining the intentions for moving forward with adoption and eventual implementation. The information obtained was used to craft the vision

and mission statements, and led to the development of the plan's goals, objectives, and actions.

- **Stakeholder Interviews** - The stakeholder interviews were conducted to solicit the input of residents, which was invaluable toward understanding the underlying issues and needs of the area and, specifically, the values and priorities of those who know best – citizens, members of the Citizens' Delegation, neighborhood and civic organizations, community service organizations, business and industry leaders, major landowners and developers, and other community leaders.
- **Open House** – The open house included an overview presentation of the plan followed by questions and discussion by members of the public. Each of the comments were noted and incorporated into the final draft plan.
- **Public Outreach Activities** - The City hosted information about the plan on its website, detailing the project schedule, opportunities for public participation, and draft and final elements of the plan as they became available. Articles were also inserted into the local newspaper and the local public access television channel was used as a means to broadcast information about the planning process.
- **First-and-Next-Steps Workshop** – A workshop was held in the latter stage of the planning process to engage the City Council in an exercise to identify short- and long-term priorities for plan implementation. The workshop was designed to identify how these priorities could be actualized by assigning roles, responsibilities, and timelines for implementation.
- **Public Hearing** – A City Council public hearing was held to review comments from the public and consider the Comprehensive Plan for adoption.

The Edinburg Economic Development Corporation hosted on their website a page devoted to the Edinburg Gateway Plan. This medium was useful in making the plan available to the public.

VISION for the Future

The community's vision statement was developed through input from citizens, which was achieved through the public participation program, as described above. The vision for Edinburg is as follows:

Edinburg Gateway Plan - An Agenda for 2025

Moving toward the Year 2025 and beyond, OUR VISION is to manage growth in such a way that the livability of the community is enhanced, resulting in improved economic competitiveness, efficient land use to support adequate housing for different lifecycle stages and income levels, transportation choices including more opportunities for walking and bicycling, enhanced community places to foster citizen well-being and improved livability, protected natural areas, strategic and efficient use of community infrastructure, and improved aesthetic quality and community character - together creating a community that citizens want to call home.

A mission states the role or purpose by which the community intends to serve its residents. Edinburg's mission statement is as follows:

Economic Development: *The City of Edinburg will stabilize and strengthen its tax base by helping businesses grow, capitalizing on new partnership opportunities provided through existing businesses and institutions like the University of Texas-Pan American, and adapting to new economies. These efforts will produce a range of employment opportunities for different ages, abilities, and incomes. Improved employment opportunities will lead to increased wealth and spending, creating the option to expand quality retail and service-related businesses that will contribute to the local economy*

Housing: *A more extensive range of housing choices will be offered to accommodate people of different ages, incomes, and abilities, including housing for students and first-time homebuyers. Land use policies will encourage infill residential development to curb sprawl and create better efficiencies in land use.*

Transportation: *The roadways and highways that make up the community's transportation network will devote only as much land to roads as is required to effectively move people and goods in and around the community. The transportation focus will be street, path and sidewalk connectivity so that people and neighborhoods are connected to form an integrated community. Transportation improvements will also focus on safety of motorists, pedestrians, and cyclists.*

Livability: *The quality of life for citizens of Edinburg will be improved through enhanced community places, such as civic squares, parks, open spaces, recreational areas, and the downtown district that are easily accessible, well-maintained, and places of interest. Community improvements to these places, combined with the expansion of community-supported youth programs, seniors' activities, and community gathering events, will create a sense of place and place attachment among residents. There will be heightened attention to protecting*

natural areas to preserve habitat, wildlife, and natural resources. One of the benefits of these efforts will be an opportunity for the community to improve its ability to serve as a world birding destination.

Infrastructure: *The community will continue to invest in its infrastructure, to ensure long-term adequate provision of water, wastewater, drainage, and electrical utilities. Public outreach efforts will be made to educate citizens about conservation methods to reduce infrastructure demands and costs associated with expansion.*

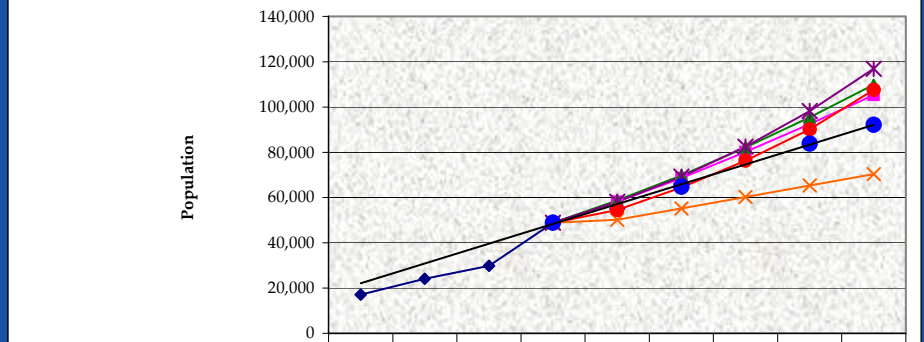
Community Character: *The aesthetic quality of the community will be improved through design considerations, and enforced through up-to-date development ordinances and property codes that will improve the maintenance and appearance of the community. Attention will be given to community character so that Edinburg becomes a more attractive, exciting community with unique districts that are both destination areas and places to call home.*

SNAPSHOT of our Community

Population

Edinburg has evolved from a small ranching community in the early 20th Century, to an agriculture and trade-based community. The arrival of the Southern Pacific Railroad led to a building boom in the late 1920s. Growth, prosperity, and development continued due in large part to the community's geographic location at a major highway intersection and close to the U.S./Mexico border. Edinburg, commonly referred to as the "Gateway City" to the Rio Grande Valley, continues to grow and prosper as evidenced through the recent high growth period between 1990 and 2000 when Edinburg experienced a 63.50 percent increase in population. Projected population figures suggest continued positive

Figure 1, Projected Population Scenarios of Edinburg



	1970	1980	1990	2000	2005	2010	2015	2020	2025
Historical	17,163	24,075	29,885	48,863					
Step Down 2000-02				48,863	58,200	68,681	80,223	92,409	105,307
Step Down 1.0				48,863	58,699	69,822	82,159	95,394	109,768
Linear Regression				48,863	50,179	55,224	60,270	65,315	70,361
Geometric				48,863	58,172	69,254	82,447	98,153	116,852
Exponential Growth				48,863	54,520	64,478	76,254	90,181	107,573
Texas Water Development Board				48,863		64,792		83,869	92,096

growth trends in the future. The challenge confronting this community is to plan for growth in such a way that the livability of Edinburg is both sustained and enhanced.

The projected population for Edinburg in the Year 2025 ranges from 70,361 persons to 116,852 persons, as shown in **Figure 1, Projected Population Scenarios of Edinburg**. Using a "curve fitting" approach to determine which projection is most likely based upon the historical trend since 1970, the Step Down 2000 – 2002 method offers a realistic scenario. Without taking into account the linear regression scenario that appears as an outlier, the step-down 1.0 and the step-down 2000 - 2002 scenarios identify as the mid-points among the different scenarios. Given that it is unlikely that the extensive growth seen in the 1990s will be sustained over the next two decades, the step-down 2000 – 2002 scenario is preferred over the step-down 1.0 high-growth alternative. The step-down 2000 – 2002 scenario predicts that by the Year 2025, Edinburg's population will total 105,307 persons.

Employment

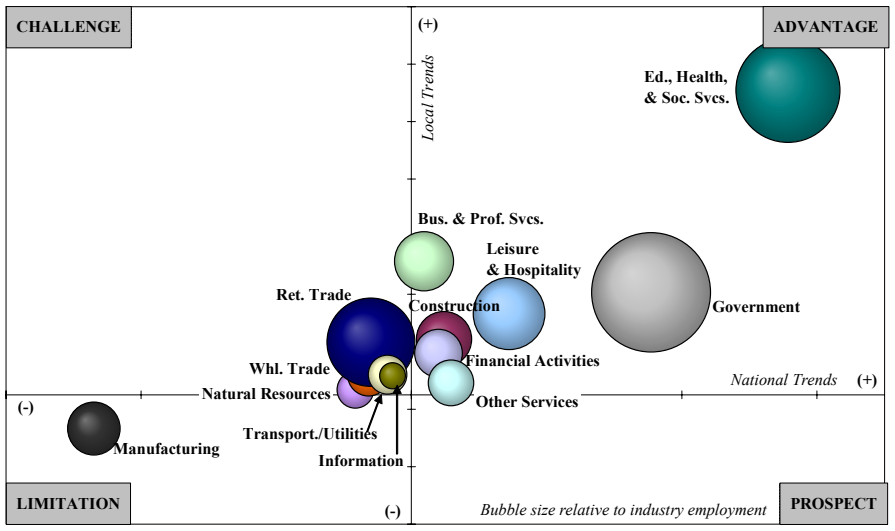
Educational, Health, and Social Services is the economic sector that employs the largest share of Edinburg residents. According to the 2000 U.S. Census, more than one-third (6,172 persons) of all employed Edinburg adults work in this sector, compared to 26.3 percent of all Hidalgo County residents and only 19 percent of persons state-wide. Employment within this sector is dominated by the Educational Services (public and private education) sub-sector, which employs 22.5 percent of all working adults in Edinburg. This high percentage is likely the result of two factors including the presence of the University of Texas-Pan American, and a high proportion of school-age children that require more schools and teachers compared to other communities without a predominantly young population. The Health Care and Social Assistance sub-sector employs 12.6 percent of working adults living in the City, a higher percentage than both county-wide and state-wide (11.5 percent and 9.8 percent, respectively).

Economy

Shift-share analysis is a comparative tool used to measure the economic linkages between changes in the structure of a local economy and that of a higher-level economy. In this case, the U.S. Shift-share analysis is a technique that determines the source of changes in a given industry in the local economy by allocating shifts in employment among three components, including national, industry mix, and regional competitive share. Graphically depicted in **Figure 2, Shift-Share Analysis**, is the employment size and

economic performance of Hidalgo County's major industries from 1999 to 2004. Each of Hidalgo County's major employment sectors can be categorized as an asset, prospect, challenge, or limitation. According to this analysis, the Education, Health, and Social Services sector is Hidalgo County's greatest economic asset. This is due to the industry's strong pace of growth both nationally and locally, implying that opportunities for continued growth should persist. Other major sectoral advantages include Government, Business, and Professional Services, and Leisure and Hospitality.

Figure 2, Shift-Share Analysis



LAND USE and Community Character

Since 1980, Edinburg has doubled its population from 24,075 persons to 48,863 persons in 2000. This rate of growth has led to significant changes in the type, pattern, density, and scale of development. Growth has, thus, caused concern on behalf of residents as to the integrity of their neighborhoods, the character and appearance of both new and old development, conservation of environmental resources and preservation of valued open space, the ability to provide adequate infrastructure and community facilities concurrent with development, protection of the community's identity, and safeguarding the community's best economic interests. Each of these concerns were well-articulated by citizens during the Citizens' Congress held in December 2004.

Key issues relating to land use include:

- **Management of Future Growth** – Concerns were expressed as to a loss of community identity as the City's edge is blurred and becomes seamlessly fused with McAllen and Pharr. There is also concern for an imbalance of growth leading to an overburdening of under-developed infrastructure,

Benefits of a Unified Development Code:

- *A UDC offers procedural consistency and a single source of standards and definitions.*
- *It greatly simplifies the amendment process helping to ensure consistency among the different codes.*
- *It makes the regulations more user-friendly for the development, real estate, and consultant communities.*
- *There can be better cross-referencing to ensure that all related provisions are taken into account pertaining to any particular development proposal.*
- *There is a single consolidated list of definitions, which helps to prevent inconsistencies.*
- *The administration of the codes is consolidated into one section thereby simplifying the roles and responsibilities of each official and body.*
- *The permitting process can be documented in a single document, which is helpful to identify the crossovers in the permitting process.*
- *The applications and procedures for all development processes can be clearly defined including use of a flow diagram to illustrate the submission and review process.*
- *It allows application of subdivision requirements to "zoning-only" projects, such as driveway access and site circulation review for a single-user site plan when subdivision is not required.*
- *It improves the ability to track the total development process.*

over-populated schools, insufficient public safety response times, and a lack of parks and recreation areas and facilities.

- **Compatible and Cohesive Pattern of Future Development** - Of significant concern is an increasing mixture of uses, including: abutting residential and non-residential development along roadway corridors; rezoning of property to Local Business (C-1) in low density residential areas; allowable home occupations without increased performance standards; and, special uses allowed in any district without increased standards and criteria.
- **Enhancing Development Character** - Residents would like to see Downtown enhanced, including improved public parking areas, heightened emphasis on pedestrians, better traffic movement patterns, more amenities, an enhanced physical presence, more green space and landscaping, and downtown living opportunities. Enhanced standards are also desired including better sign controls, more site landscaping and open space, and architectural standards. Protection of neighborhood integrity is yet another important community issue.
- **Supporting Economic Development** - This plan must account for the economic potential of this area while, at the same time, safeguarding other interests and objectives relating to community identity and character, land use compatibility, and adequate infrastructure provision. Rather than responding to development proposals on a case-by-case basis, the intended pattern and character of development must be established to carefully guide decisions. Doing so will allow advanced planning of infrastructure systems and timely provision of municipal services concurrent with new development.
- **Effective Plan Implementation** - Communities that are successful in achieving their vision are those who have a collective vision, consensus of direction, and a commitment to act. Without this resolve, plans are ineffective and lack the support necessary to realize their goals. Therefore, in order to achieve desirable development outcomes, there must be a firm commitment to abide by the policies and recommendations of this plan.

Key recommendations include:

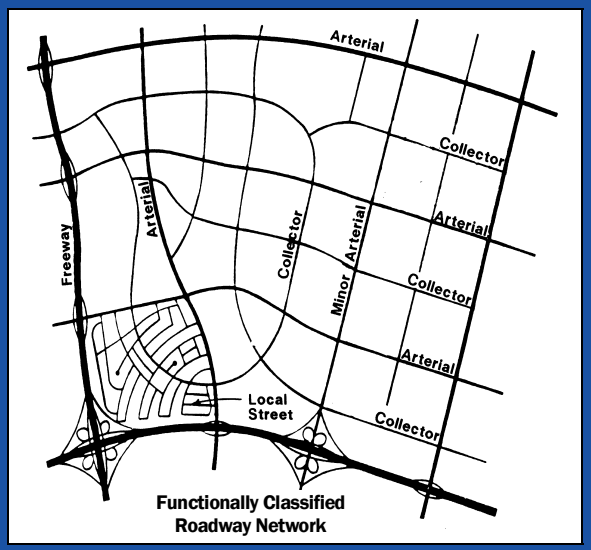
- Prepare a **growth sequencing plan** to identify areas that have adequate infrastructure capacity available and may immediately support development.
- Adopt a **municipal annexation plan** to implement the growth sequencing plan.
- Prepare a **unified development code (UDC)** to consolidate all of the City's

development-related codes into a single bound ordinance.

- **Amend the development regulations** to better manage community growth, adopt a character-based land use system, incorporate compatibility standards, integrate bufferyard requirements, and standards for gated communities.
- Prepare a **downtown and university area master plan**.
- Prepare **special area corridor revitalization plans** for S.H. 107/University Drive and Closner Street.
- Conduct **annual plan reviews** and a five-year evaluation and appraisal process.

TRANSPORTATION and Community Mobility

The purpose of this transportation chapter is to address area-wide mobility on all levels, from sidewalks and trails, to local streets and neighborhood access, to arterial roadways and highways. The objective is to establish a system to accommodate local and regional travel demand through the Year 2025 and beyond. The transportation element is closely coordinated with each of the other elements to create an efficient and effective area-wide transportation network that ensures safe and efficient movement of people and goods. The transportation network is visualized by the Thoroughfare Plan, which is the long-term plan for developing an overall system of thoroughfares for the City and its two-mile extraterritorial jurisdiction (ETJ). The Thoroughfare Plan serves as a guide for securing needed rights-of-way and upgrading and extending the network of streets, roads, and highways in a coordinated and timely fashion to ensure good circulation and access.



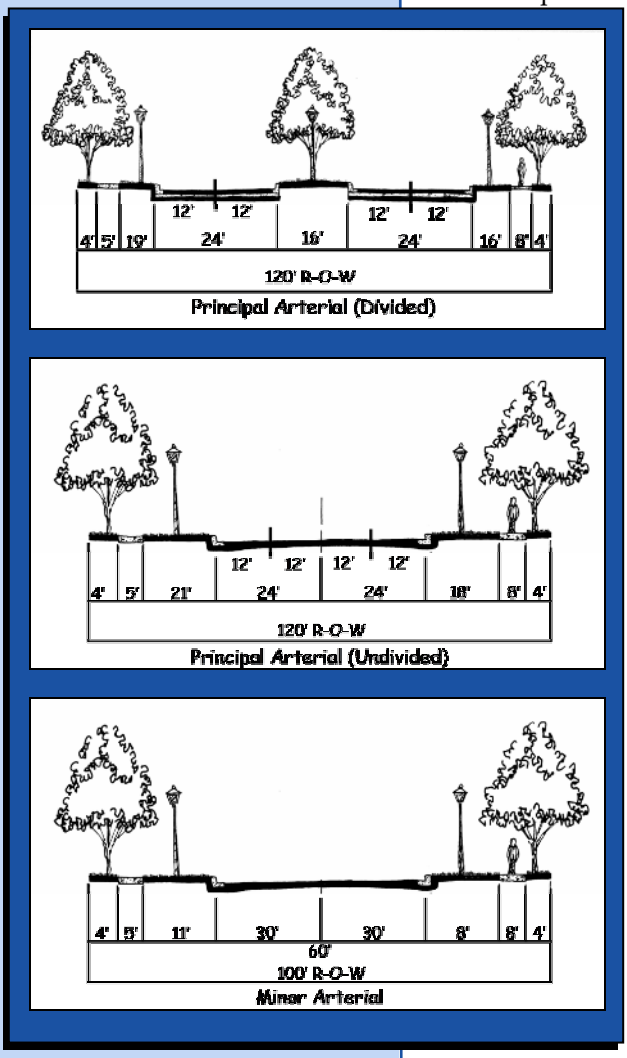
A typical thoroughfare network includes various classifications of roads, each with a design function within the overall transportation system.

Key transportation issues include:

- **Improved International, Regional, Intra- and Inter-state Mobility** - The NAFTA Highway presents opportunities for international, regional, intra- and inter-state transportation that can not be overstated. Further to the automobile, air transportation is a key component of Edinburg's long-term economic sustainability. Designation for an industrial park and as a User Fee Airport by the U.S. Customs Service contributes significantly to the future development of the airport.
- **Efficient, Safe and Convenient Local Transportation Network** - Connectivity is a key to providing an efficient roadway network for vehicular traffic as well as sidewalks

and trails that allow people to move safely throughout the community. Railroads present a challenge for the continuity of the street system yet, at the same time, provide an rail-to-trail opportunities.

- **Traffic Control and Parking** – There are several roadways in the community that are classified by the Metropolitan Planning Organization (MPO) as congested, which can be controlled through improved traffic control systems. Road design and more particularly, access management, is an additional way that traffic can be effectively controlled.
- **Accessible Alternative Transportation Modes** - The population is comprised of younger persons, including 54 percent who are under 30 years of age and 10 percent who are 0 to 4 years of age. These statistics indicate that walking, biking, and public transit could be the transportation modes of choice - and/or necessity. In 2000 there were 267,000 annual unlinked passenger trips in the metropolitan area meaning that there is a significant need not being met for public transportation.
- **Environmental Enhancement, Energy Conservation, and Improved Quality of Life** - The benefits of managing traffic congestion and improving mobility include the improvement of air quality and the reduction of fuel consumption. As such, efforts to improve environmental quality and conserve energy can have spin-off benefits in terms of improving quality of life and livability.
- **Community Form and Character** - Transportation planning impacts the degree to which the landscape is protected and open lands are preserved. Therefore, it is essential that transportation improvements be planned and designed with both form and function in mind.



Priority recommendations are as follows:

- Adopt new design standards to provide alternative rights-of-way and pavement widths.
- Adopt access management regulations.
- Require extension of collector roads to improve roadway continuity and community connectivity.
- Improve wayfinding by improving street signage.
- Install traffic calming improvements to slow traffic in neighborhoods.
- Update the early 1990s downtown parking study.
- Install medians in arterial streets to better manage traffic and improve roadway aesthetics.

- Establish an escrow account to fund roadway improvements rather than requiring incremental arterial road widening.

ECONOMIC Development

The purpose of the economic element is to provide the city with a framework for economic growth. Edinburg's location in the Lower Rio Grande Valley, as well as its proximity to Mexico, offers significant opportunities. The strategies in this plan will help define Edinburg in the minds of businesses and residents throughout the region. Sound economic development policies will enhance Edinburg's ability to capture regional job growth and business expansion while maintaining its capacity to provide public services for current and future residents.

The selection of target industries included the analysis of multiple factors, such as local, regional, and global industry trends; potential for industrial linkages; regional labor availability and skill sets; existing assets (e.g., industrial parks, available buildings, infrastructure); proximity to markets; and, business climate (e.g., tax rates, permitting). In determining suitable targets for Edinburg, land use and the City's development patterns were also taken heavily into account. Listed in **Table 2, Target Selection Matrix**, are the target industries that represent the best opportunities for business retention, expansion, and attraction activities in the Edinburg area.

Table 2, Target Selection Matrix

	LABOR	ECONOMY	LAND	SCORE
Administration/ Call Centers	+	+	+	+++
Specialty Foods	+	+	+	+++
Electronics	=	+	+	++
Automotive	=	+	+	++
Logistics/ Distribution	=	+	+	++
Medical/Health Care	=	+	+	++
Professional & Financial Services	=	+	+	++
Retail/Entertainment/ Tourism	+	+	+	+++

\+ Advantage
= No Advantage or Disadvantage
\- Disadvantage

Our priority economic development goals are as follows:

- Leverage the University's growth and other research opportunities.
- Establish a services-oriented employment center on the southern portion

of the U.S. 281 corridor.

- Leverage existing industrial parks, zones, and the airport for industrial and logistics recruitment.
- Retain and expand existing employers.
- Strengthen ties between the University, surrounding neighborhoods, and downtown areas.
- Promote retail and entertainment activities in Downtown and along University Drive.
- Support excellence in the K-12 public school system.
- Promote and expand healthcare-related training programs at UTPA.

UTILITY Infrastructure

Drainage

This element of the Comprehensive Plan focuses on three components of the City's public utilities system – drainage, water, and wastewater. The drainage component draws from a Drainage Study that was conducted with a view to creating a long-term Drainage Master Plan for the Northwest portion of the City (Rooth Road to Closner, University Drive to Monte Cristo Road). The water component speaks to the Water Master Plan that was developed; defining specific steps to provide a reliable water supply to the Year 2014. A more general discussion of the requirements for the water system to the Year 2025 is also included. Finally, the wastewater component draws from the Wastewater Collection System Master Plan that was developed to evaluate the service area needs for the wastewater collection system's interceptors and pumping facilities, and in turn, recommend improvements that serve as the basis for the design, construction, and financing of facilities to meet anticipated regulatory requirements, residential and commercial growth, and system reliability needs.

Three alternatives are identified in the master plan, including: 1) underground pipe network system; 2) drainage discharge ditch system; and, 3) drainage storage ditch system. The latter alternative is economically favored for the following reasons:

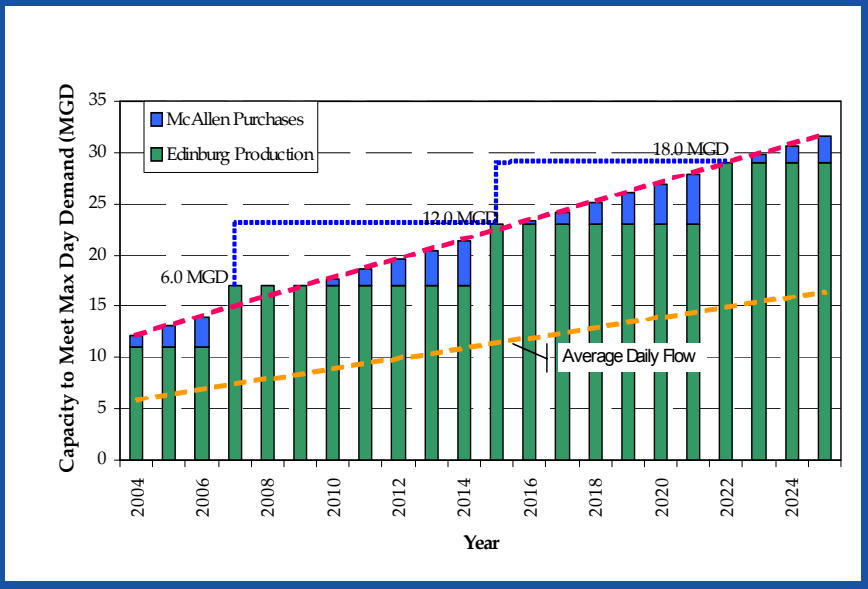
- The system is more economically attractive for development.
- Maintenance is more economical.
- The system is easily upgraded to meet increased demands. For example, the City would have the option to enlarge the ditch to handle the 100-year storm by widening the ditch - without altering the depth - to increase storage volume.

Water

Many components of the water system have been in use for 50 to 75 years and are nearing the end of their useful life. Adding to the challenge of aging infrastructure is the increase in water demand. In the last ten years, Edinburg's water demand has increased at a sustained growth rate of 5.25 percent. The Water Master Plan assumes that this rapid rate of growth will continue for at least the next ten years. As growth continues to the southwest, north, northeast, and northwest, the City must act to meet the corresponding increase in water demands. At the same time, new regulations regarding contaminants such as cryptosporidium, total organic carbon, and trihalomethanes will present new challenges in treatment at both the existing water treatment plant and at any new water treatment plans constructed for the system.

In order to meet the maximum day demand, Edinburg, at a minimum, will need to construct a 6.0 MGD water treatment plant, in addition to its current 10 MGD plant and contracts with McAllen, Sharyland WSC, and North Alamo WSC. This new water treatment will not require expansion through the 10-year planning period, as illustrated in **Figure 3, Phasing of 6.0 MGD Initial Mode**. The expansion can be delayed and finished water purchases can be reduced by making improvements to the existing water treatment plant. With improvements to the plant hydraulics and the addition/upgrade of several processing units, the existing plan can be expanded to 12.73 MGD, which includes the decommissioning of train #1 of the existing plant.

Figure 3, Phasing of 6.0 MGD Initial Mode



Source: Melden & Hunt, Inc.

Wastewater

The Wastewater Collection System Master Plan effort was driven by a significant increase in population during the last decade, and a concern for adequate facilities to best serve the City. The plan focused on evaluating the

service area needs for the wastewater collection system's interceptors and pumping facilities. The recommended improvements serve as the basis for the design, construction, and financing of facilities to meet anticipated regulatory requirements, residential and commercial growth, and system reliability needs. Implementation of the recommended improvements will provide an adequate and dependable wastewater collection system for the City through to the Year 2015.

IMPLEMENTATION Strategy

Plans that are effective in achieving their goals and objectives include an implementation framework that outline the general strategies, directions, and priorities of the community. As such, the policy direction provided for in this plan is coupled with short- and long-term implementation strategies to help realize policies into actionable programs, development activities, and other strategic efforts by the City of Edinburg and its residents.

Implementation is the most important part of this planning process because it is the point at which the Comprehensive Plan transitions from policy into practice. Implementation is when general concepts identified during the course of the plan development process take shape and are developed into actual projects and programs. Goals, objectives, and recommended actions that are visionary in the plan are transformed into detailed regulations, programs, capital improvements, agreements, studies, incentives, and other types of implementation activity. The role of the plan is to form the construct by which specific decisions will be made. Without strategic direction and an organizational approach, well-intentioned plans are commonly unsuccessful in seeing their vision become reality. To avoid this outcome, the implementation plan includes strategic actions, including:

- an **organizational structure** that clearly defines the roles of the City Commission, Planning and Zoning Commissions, Action Task Force, and Plan Administrator, as well as on-going participation of residents;
- a process for **annual plan evaluations** to provide opportunity for regular review and preparation of updates and revisions;
- procedures and criteria for an **evaluation and appraisal report** to be prepared every five years, the outcome of which will result in a comprehensive re-assessment and amendment of the plan;
- a plan for **intergovernmental coordination** to proactively respond to issues that are common across jurisdictional boundaries; and,
- a **prioritized five-year action plan** with specific tasks, timeframes, responsibilities, and sources of funds.

Action Task Force

An Action Task Force should be appointed by City Council with the express purpose of ensuring that programs and activities are carried out to implement the plan. Their role is to refine and prioritize the implementation plan and initiate action over the short-term, on the basis of annual work programs and five-year projected time frames. Further to the actual implementation plan, the Task Force is responsible for identifying specific actions beyond the information provided in this plan. They must determine methods or programs to be used to implement the proposed actions, specifically identifying which agencies and/or departments will be responsible for their implementation, estimating costs, identifying proposed sources of funding, and establishing timeframes in which the recommended actions will be accomplished.

The following describes the different areas of responsibility for individual Action Task Force members:

- **Governance** – The primary role of the group tasked with the governance aspect of implementation will be to ensure projects are consistent with the objectives and missions of other orders of government (e.g. Hidalgo County) and agencies (e.g. the ECISD and others).
- **Infrastructure** – The group responsible for the infrastructure component of implementation will be involved with all improvements or projects dealing with infrastructure. As such, this group will require technical knowledge, as well as expertise with utility and other infrastructure systems, including their funding methods.
- **Economic Development** – The group who focuses on implementation and economic development will play an active role in pursuing projects that contribute to the community's economic development. They will coordinate closely with the Edinburg Economic Development Corporation, as well as with local businesses and developers.
- **Planning** – The group responsible for the planning aspect of implementation will work closely with the Planning and Zoning Commission, assuming responsibility for implementing its projects and initiatives. They will coordinate closely with the Plan Administrator, and maintain a line of communication with the community to monitor shifting priorities and needs.
- **Parks and Recreation** – The group responsible for parks and recreation implementation will be responsible for projects and improvements related to parks, hike and bike trails, public open space and natural areas preservation. The recommendations contained within the Parks and Recreation Master Plan would be within the purview of this group.

Chapter One
Gateway to the Future

Edinburg Gateway Plan
- An Agenda for 2025

The plan serves a framework for community decision-making and provides a blueprint or "gateway" to the future.

The Edinburg Comprehensive Plan is comprised of goals, objectives, and related policies to provide strategic direction for the community to the Year 2025 – and beyond. The plan is intended to serve as a framework for community decision-making, ultimately providing a blueprint or "gateway" to the future. It provides integrated policy direction in the areas of land use and community character, growth and development, transportation, economic development, and utilities. This policy direction is coupled with short- and long-term implementation strategies to help translate the policies into actionable programs, development activities, and other strategic efforts by the City, its residents, and other jurisdictional partners.

PLANNING for the future of Edinburg

The City of Edinburg last adopted a Comprehensive Plan in 1987. Since then, the City has experienced significant population growth, leading to the importance and timeliness of this planning process. As depicted in **Table 1.1, Edinburg Historical Population, 1980 to 2000**, the community experienced a 24.13 percent change in population between 1980 and 1990, and an impressive 63.50 percent population change between 1990 and 2000. Similar growth rates have occurred since 2000 thereby further warranting this plan. With the amount of development has come related pressures on the community's infrastructure (water, wastewater and drainage utilities, parks, and schools), its services (police, fire and emergency medical), and the surrounding agricultural lands and natural environment. Population projection scenarios, economic development studies, and demographic analyses suggest that the City will continue to face significant change. Rather than respond in a piecemeal fashion to the challenges and opportunities associated with this change, the City decided to engage in a comprehensive planning process to proactively and strategically plan for it.

Table 1.1, Edinburg Historical Population, 1980 to 2000

Year	Edinburg	Percent Change
1980	24,075	
1990	29,885	24.13%
2000	48,863	63.50%

Source: Edinburg Comprehensive Plan, 1987 and U.S. Census Bureau

The Edinburg Gateway Plan is a "big picture" vision of the City and its five-mile extraterritorial jurisdiction. The plan speaks to the future of the community, while also taking into account the trends, interests, opportunities, and challenges of Hidalgo County, the Lower Rio Grande Valley, and the State of Texas. This integrated approach is important as it lays a foundation for partnership building, access to grant programs, and protection of natural resources that stretch across and beyond jurisdictional borders.

The plan encompasses a series of goals, objectives, and policies that will guide the Planning and Zoning Commission and City Council in administering the development regulations. It will also help to coordinate the actions of many different departments and divisions within the City, while taking into account the interests of the county, region, and state. The contents of the plan will provide guidance in the location, financing, and sequencing of public improvements, and in facilitating reinvestment and redevelopment efforts.

VALUE of the Edinburg Gateway Plan

The livability of a city is dependent upon several factors, including, but not limited to, the availability of parks and open space, level of traffic congestion, feelings of safety and security, and quality of the built and natural environments.

Developing a comprehensive plan is valuable to the community because it means that municipal staff, elected officials, and citizens have agreed to commit time and effort toward thinking about Edinburg and a vision for its future. Engaging in the planning process means thinking about the community's collective, overall vision and mission for the future, and more specifically, identifying goals, objectives, policies, and actions to realize them. In order to develop this strategic framework, participants in the planning process were required to ask themselves key questions such as:

- Is growth desirable and if so, how much?
- Are there limits to the amount of growth that we can physically and economically sustain as a community?
- Where should our growth be directed and what instruments are available to proactively manage new development?
- What are our expectations for the future character and appearance of our community?
- How should new development be timed and sequenced to occur concurrent with the provision of adequate public facilities and services to fulfill our charge of protecting the public health, safety, and welfare?

Ultimately, these probing questions and others led to the development of goals, objectives, policies, and recommendations that form the Edinburg Gateway Plan. The value of this plan lies in what is accomplished by the community in both the short- and long-term. This plan:

- Establishes policy direction for future development and redevelopment, providing decision-making guidance to members of the Planning and Zoning Commission, City Council, and City staff;
- Identifies recommendations that contribute to the annual work programs of individual departments and the City as a whole;
- Identifies capital improvement needs and priorities for use by City management to guide annual budgeting and capital improvement programming decisions;

- States the municipality's intentions regarding its physical development and infrastructure investment, ultimately creating an improved level of certainty for landowners and developers;
- Communicates to citizens the type, pattern, and character of future development, thereby allowing private investment decisions that are compatible and consistent with the plan for future development;
- Coordinates transportation and infrastructure improvements with development, creating an integrated development framework; and,
- Lays out the future economic and physical development of the community, which is useful to other local, State, and Federal agencies engaged in the provision of programs, services, and facilities.

PUBLIC Participation Program

In order to effectively garner information from the citizens to ensure that the plan truly reflects the vision and mission of the community, as well as their issues, concerns, interests, and insights, a public participation program was launched over an 12-month period.

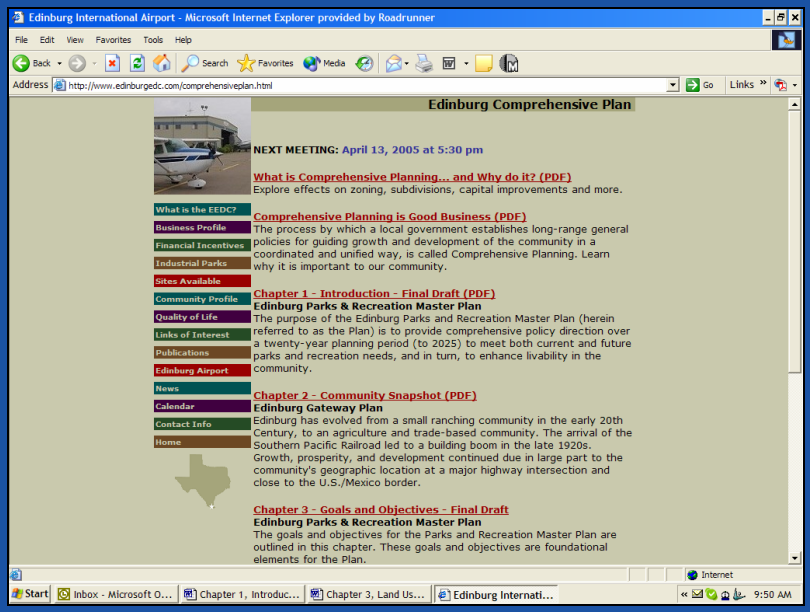
The public participation program involved meetings with the Citizens' Delegation, a Citizens' Congress, stakeholder interviews, an open house, public outreach activities, a "first-and-next-steps" workshop, and a public hearing. The following describes each component of the program:

- **Citizens' Delegation** - Key to the success of a truly participatory planning process was the establishment of the Citizens' Delegation. This committee was made up of 17 members that represent different interests across the community, such as real estate, parks and recreation, tourism, education, youth, etc. The role of the Citizens' Delegation's was to provide input into the development of the plan to ensure that it reflects the values and priorities of the community. Each draft element that was submitted was thoroughly reviewed by the Citizens' Delegation. Comments were later incorporated into final elements of the plan. This collaborative and iterative process ensured that the people who live and work in Edinburg were involved in planning for its future.
- **Citizens' Congress** - A Citizens' Congress was held early in the planning process for members of the general public to participate. The purpose of the public meeting was to engage citizens of Edinburg by raising awareness about the development of the Comprehensive Plan, identifying the purpose of the plan, and explaining the intentions for moving forward with adoption and eventual implementation. The Citizens' Congress was an opportunity to hear from citizens what they

The Citizens' Delegation provided input into the development of the plan to ensure that it reflects the values and priorities of the community.

perceive the community's issues and problems to be, and further to this, identify possible options to address these issues and outline action priorities. The information that was obtained from the Citizens' Congress was used to craft the vision and mission statements, and led to the development of the plan's goals, objectives, and actions. Further to serving as a mechanism to raise awareness and gather information, the Citizens' Congress was designed to build momentum and interest in the future of Edinburg, and ultimately, build a constituency of persons interested in implementing the adopted plan.

- **Stakeholder Interviews** - The stakeholder interviews were conducted to solicit the input of residents. This input was invaluable toward understanding the underlying issues and needs of the area and, specifically, the values and priorities of those who know best – citizens, members of the Citizens' Delegation, neighborhood and civic organizations, community service organizations, business and industry leaders, major landowners and developers, and other community leaders.
- **Open House** – An open invitation was extended to the residents of the community to view the draft plan and offer comments. The open house included an overview presentation of the plan followed by questions and discussion by members of the public. Each of the comments were noted and incorporated into the final draft plan submitted to the City Council for their review and consideration.



The Edinburg Economic Development Corporation hosted on their website a page devoted to the Edinburg Gateway Plan. This medium was useful in making the plan available to the public.

- **Public Outreach Activities** - A series of public outreach activities took place to raise awareness about the development of the plan and encourage participation in the planning process. The City hosted information about the plan on its website, detailing the project schedule, opportunities for public participation, and draft and final elements of the plan as they became available. Articles were also inserted into the local newspaper and the local public access television channel was used as a means to broadcast information about the planning process. These efforts ensured that citizens were able keep abreast of the development of the plan.

- **First-and-Next-Steps Workshop** – A workshop was held in the latter stage of the planning process to engage the City Council in an exercise to identify short- and long-term priorities for plan implementation. The workshop was designed to identify how these priorities could be actualized by assigning roles, responsibilities, and timelines for implementation. The initial priorities were reviewed and validated by the Council prior to the plan's adoption. The importance of this workshop is the commitment of the City's leadership in following through with the initiatives and recommendations of the plan.
- **Public Hearing** – A City Council public hearing was held to review comments from the public and consider the Draft Comprehensive Plan for adoption.

VISION for the Future

A vision statement identifies what a community strives to achieve in the future to meet the needs of its residents. It incorporates a shared understanding of the nature and purpose of the community, and uses this understanding to move it toward a greater purpose. A vision describes the community's preferred future, offering direction for the goals, objectives, and policies that provide a framework for future planning, development, and programmatic decisions.

The community's vision statement was developed through input from citizens, which was achieved through the public participation program, as described above. The vision for Edinburg is as follows:

> *Moving toward the Year 2025 and beyond,* ***OUR VISION*** *is to manage growth in such a way that the livability of the community is enhanced, resulting in improved economic competitiveness, efficient land use to support adequate housing for different lifecycle stages and income levels, transportation choices including more opportunities for walking and bicycling, enhanced community places to foster citizen well-being and improved livability, protected natural areas, strategic and efficient use of community infrastructure, and improved aesthetic quality and community character - together creating a community that citizens want to call home.*

A mission is a more detailed statement of the vision. It states the role or purpose by which the community intends to serve its residents. The mission describes what the community does, who it serves, and what makes it unique. Edinburg's mission statement is as follows:

Economic Development: *The City of Edinburg will stabilize and strengthen its tax base by helping businesses grow, capitalizing on new partnership opportunities provided through existing businesses and institutions like the University of Texas-Pan American, and adapting to new economies. These efforts will produce a range of employment opportunities for different ages, abilities, and incomes. Improved employment opportunities will lead to increased wealth and spending, creating the option to expand quality retail and service-related businesses that will contribute to the local economy*

Housing: *A more extensive range of housing choices will be offered to accommodate people of different ages, incomes, and abilities, including housing for students and first-time homebuyers. Land use policies will encourage infill residential development to curb sprawl and create better efficiencies in land use.*

Transportation: *The roadways and highways that make up the community's transportation network will devote only as much land to roads as is required to effectively move people and goods in and around the community. The transportation focus will be street, path and sidewalk connectivity so that people and neighborhoods are connected to form an integrated community. Transportation improvements will also focus on safety of motorists, pedestrians, and cyclists.*

Livability: *The quality of life for citizens of Edinburg will be improved through enhanced community places, such as civic squares, parks, open spaces, recreational areas, and the downtown district that are easily accessible, well-maintained, and places of interest. Community improvements to these places, combined with the expansion of community-supported youth programs, seniors' activities, and community gathering events, will create a sense of place and place attachment among residents. There will be heightened attention to protecting natural areas to preserve habitat, wildlife, and natural resources. One of the benefits of these efforts will be an opportunity for the community to improve its ability to serve as a world birding destination.*

Infrastructure: *The community will continue to invest in its infrastructure, to ensure long-term adequate provision of water, wastewater, drainage, and electrical utilities. Public outreach efforts will be made to educate citizens about conservation methods to reduce infrastructure demands and costs associated with expansion.*

Community Character: *The aesthetic quality of the community will be improved through design considerations, and enforced through up-to-date development ordinances and property codes that will improve the maintenance*

and appearance of the community. Attention will be given to community character so that Edinburg becomes a more attractive, exciting community with unique districts that are both destination areas and places to call home.

LOOKING Ahead to the Future

Based on the community's vision and mission statements, a look ahead into the Year 2025 would reveal the following glimpse into Edinburg's future:

- **Economy** - The economy is diverse and stable. It continues to be dominated by the Educational, Health, and Social Services Sector, with the Educational Services sub-sector showing the greatest strength, largely due to the presence of the University of Texas-Pan American. The University has played a significant role in local economic development, creating opportunities for partnerships with the City and local businesses, and driving niche markets in research and technology. The community has proactively marketed itself as a destination, and as such, the Tourism and Leisure sector has grown. Winter Texans, birders coming to the World Birding Center and other local destinations, and cross-border tourists from Mexico have helped to strengthen our local tax base. Edinburg has enlarged its regional presence by capturing a more significant share of spending and by diversifying its retail market base. The community has been successful in increasing commercial cargo traffic, establishing the airport as a South Texas hub for international cargo transport. There are plentiful employment opportunities for our youth and for all residents as they mature in their careers. Students coming to study at the University often choose to continue living in the community, thereby contributing their knowledge and expertise to the local workforce. Due to the strength of the economy and the availability of a range of employment opportunities, the median household income has continued to rise, and compares favorably to other major cities in Hidalgo County, throughout the Lower Rio Grande Valley, and Texas.
- **Pattern of Development** - The pattern of development has followed the policies and principles set forth in the Edinburg Gateway Plan. The community has focused on developing in already-developed areas, successfully curbing sprawl. These efforts have proven to be rewarding as evidenced by decreased spending on road construction and maintenance, more compact and connected neighborhoods, and a decreased rate of agricultural land consumption. An emphasis on redevelopment and infill has improved property values, allowed adaptive reuse of vacant and underutilized properties, and re-established the integrity of older neighborhoods and districts. The downtown has

benefited from the blending of commercial/retail and residential uses, and continued aesthetic enhancement of the whole downtown district.

- **Neighborhoods** - Neighborhoods are one of the community's greatest assets. Housing plays a large role in contributing to the desirability of our neighborhoods. Housing prices continue to be within reach of residents' incomes. This is due to efforts to create more diversity in housing choice, leading to housing for persons of all income levels, stages of life, and abilities. New subdivisions have been located near, and developed to include, places of work, shop, and play so as to reduce dependency on the automobile and create improved quality of life. Infill residential development has allowed amenities that exist in already developed areas to be used to their fullest capacity. Each neighborhood is walkable as a result of an interconnected system of sidewalks and community trails, which provide connections to neighborhood parks, places of work, and other community gathering areas.
- **Infrastructure System** - The infrastructure system has been continuously improved through a staged program of rehabilitation, replacement, and timely expansion of our treatment plants. The extension of infrastructure has been sequenced to ensure that we grow in a fiscally responsible manner thereby leading rather than following development. A focus on infill development over the years has decreased pressures on infrastructure, resulting in reduced costs associated with extension of water and wastewater lines. The water and wastewater systems have been continuously improved to meet Federal guidelines and to provide the necessary operating capacities to serve expanded and new industries. The treatment plants have state-of-the-art technologies allowing for close performance monitoring and timely adjustments to maintain operating efficiencies. The transportation system has improved local, regional, inter-state, and cross-border mobility through continued investment in roadways, improved service and increased use of the public transit system, and an improved network of trails and sidewalks for cyclists and pedestrians. The community's infrastructure system has provided a competitive economic edge over other communities in the area, making Edinburg a sound investment choice.

- **Parks and Recreation System** - The parks and recreation system serves as a valuable community amenity. Parks contribute to the identity of neighborhoods and to the community as a whole. They are a large part of the quality of life and the character of the community. Maintenance and facilities investments in existing parks have ensured that they are well maintained and offer enough varied activities to ensure high user rates. The community has continued to invest in new parks, focusing land

acquisition efforts to allow for the development of community parks that serve a large number of residents. Parks are distributed evenly throughout the community, and are connected by a trail system that is well used. Comfort and aesthetic appeal is provided by large shade trees in parks and along trails, giving respite from the local climate. The City formed a partnership with the Edinburg Consolidated Independent School District (ECISD) to share acquisition, development, and maintenance costs of parks and recreation facilities. Old school yards have been redesigned, and new schools are being built to include sculptures, play equipment, murals, and community gardens, thereby serving as community amenities that further supplement the parks and recreation system.

- **Environment** - The environment has been protected and conserved. The community has a healthy and vibrant environment with preserved natural open spaces, agricultural lands, and rural areas. Flood prone areas have been protected, making them into valuable community amenities, such as naturalized parks that also have a stormwater recharge function. Parks, open spaces, and recreational areas reflect the local geography and are frequented by native and migratory birds, and other animal species.

- **Character and Appearance** - The character and appearance of the community is recognized as being unique. Residents and visitors feel a sense of place, and there is a sentiment of living in and visiting somewhere special. A priority emphasis on the appearance of gateways and corridors has had a dramatic effect on the image of the community. The gateways are denoted by significant entry features, extensive landscaping, roadway enhancements, and improved controls of the abutting land uses. Roadways now contain more green space within the rights-of-way, all arterial and collector roadways have landscaped boulevards, and the standards of roadway signage and lighting has been upgraded. The community has invested in the appearance of bridges and structures, and consideration has been given to street furniture that reflects the look and feel of the community. Through a collective effort of businesses and residents, combined with adherence to updated codes, the maintenance and upkeep of properties contribute to an enhanced community appearance. Local business owners, developers, and community associations have a renewed interest and pride of ownership that has led to more green spaces, trees and shrubs, flowerbeds, community gardens, and well-maintained private open space.

ORGANIZATION of the Plan

The plan is organized into seven individual plan elements, each of which address existing conditions, key issues, goals and objectives, and specific action recommendations for the respective elements. The chapters include:

Gateway to the Future ❶

This chapter explains the purpose of planning and the value that will be accrued from undertaking a comprehensive planning process in Edinburg. The chapter also outlines the public participation program that served as a foundational element to the planning process. The vision and mission statements are identified, and a glimpse of Edinburg in the Year 2025 is provided.

Community Snapshot ❷

This chapter offers an in-depth introduction to the city amd its planning area, which documents existing socioeconomic conditions and demographic characteristics pertaining to its historical and current population; the age, gender, and educational attainment of its people; and the economic position of the community and its businesses. The purpose of this chapter is to examine how the community has grown since its settlement in the late nineteenth century, to identify its current characteristics and resources that will contribute to the envisioned future, and to analyze where the community appears to be headed in the future.

Land Use ❸

This chapter provides a vision for the future physical development of Edinburg and its two-and five-mile planning areas. The purpose of this chapter is to establish the necessary policy guidance that will enable sound decision-making about the compatibility and appropriateness of individual developments within the context of the larger community. An essential component of this chapter is the land use plan, which will serve as the City's policy for directing ongoing development and

managing future growth, preserving valued areas and lands, and protecting neighborhoods.

Transportation 4

The purpose of this chapter is to address community-wide mobility needs on all levels, from sidewalks and trails, to local streets and neighborhood access, to arterial roadways and highways. This element of the Plan includes a Thoroughfare Plan, which is the long-term plan for developing an overall system of thoroughfares for the City and its planning area. The Thoroughfare Plan is to be used as a guide for securing rights-of-way, and upgrading and extending the network of local, collector, and arterial roads, and highways in an efficient manner.

Economic Development 5

The purpose of this chapter is to provide guidance about how the community can achieve its vision while being proactive about economic development. This chapter contains an economic assessment, and outlines ways to support and retain existing businesses, attract and grow new businesses, and train the community's workforce - all with a view to achieving improved livability.

Utilities 6

This chapter focuses on community infrastructure, including water, wastewater, and drainage. It establishes a link between development and infrastructure by assessing servicing capacities, identifying capacity requirements, and outlining utility improvement needs.

Implementation 7

The purpose of this chapter is to integrate the different elements of the Plan together in such a way as to provide a clear path for sound decision-making. It outlines the organizational structure necessary to implement the Plan, including roles and responsibilities, establishes a process for annual and periodic evaluation and appraisal of the plan, and sets forth a five-year action plan.

Chapter Two
Community Snapshot

Edinburg has evolved from a small ranching community in the early 20th Century, to an agriculture and trade-based community. The arrival of the Southern Pacific Railroad led to a building boom in the late 1920s. Growth, prosperity, and development continued due in large part to the community's geographic location at a major highway intersection and close to the U.S./Mexico border. Edinburg, commonly referred to as the "Gateway City" to the Rio Grande Valley, continues to grow and prosper as evidenced through the recent high growth period between 1990 and 2000 when Edinburg experienced a 63.50 percent increase in population. Projected population figures suggest continued positive growth trends in the future. The challenge confronting this community is to plan for growth in such a way that the livability of Edinburg is both sustained and enhanced.

The purpose of this chapter is to examine how the community has grown since its incorporation, identify current characteristics and resources that will contribute to the community's vision for the Year 2025 and beyond, and analyze the trends that will impact the future course of Edinburg and its economic development. Essentially, this chapter provides the baseline data and critical analyses that will underscore the issues and problems that guide policy development and implementation.

The value of this chapter lies in the fact that it identifies and assesses demographic and socio-economic trends including historic, current, and projected population; ethnic and household composition; age; income and poverty level; education; employment and labor force; and, local community economics. This type of analyses is invaluable as it allows an assessment of the community in terms of where it has been, where it is presently, and where it appears to be headed. With this "big picture" view, the community's decision-makers and residents are able to clearly determine the issues and problems and develop policy strategies to proactively manage future growth and development. Central to this plan is the fact that there is a clear connection between the issues and problems that are identified, corresponding strategic policy responses, and an implementation plan.

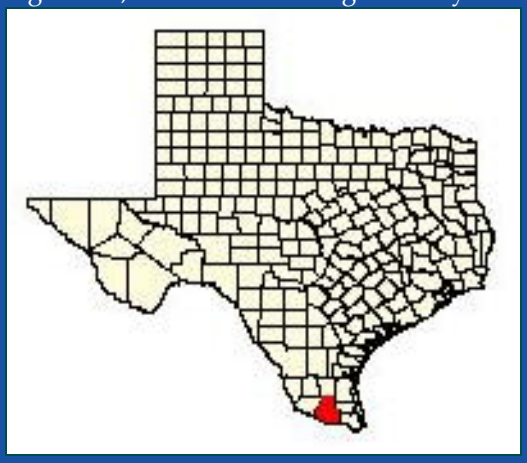
- Edinburg grew 80.83 percent between 1930 and 1940 with the addition of 3,897 persons
- Edinburg grew 63.50 percent between 1990 and 2000 with the addition of 18,978 persons. The population was 48,863 persons in 2000
- Hidalgo County had a population increase of 48.47 percent between 1990 and 2000, from 383,545 to 569,463 persons
- Edinburg has accounted for 7.8 to 9.5 percent of the County population between 1970 and 2000
- Hidalgo County's population in 2025 is projected at 1,227,282 persons
- Edinburg is projected to have a 2025 population ranging from 70,361 to 116,852 persons
- A "middle ground" of the different projection scenarios for Edinburg is 105,307 persons

LOCATION of the Community

Figure 2.1, Lower Rio Grande Valley

The City of Edinburg is located in the Lower Rio Grande Valley, as displayed in **Figure 2.1, Lower Rio Grande Valley**. The Valley stretches from South Padre Island west to Rio Grande City in Starr County, and from its southernmost tip in Brownsville north to the northern boundaries of Willacy, Hidalgo, and Starr Counties. Together, these three counties account for 4,244 square miles.

Figure 2.2, Location of Hidalgo County



As shown in **Figure 2.2, Location of Hidalgo County**, Edinburg is situated within Hidalgo County, which is bordered by Cameron County to the east, Brooks County to the north, Starr County to the west, and Mexico to the south. Hidalgo County has never experienced a decrease in population and is identified as having a high population density compared to the State average. According to the 2000 U.S. Census, Hidalgo County had 362.8 persons per square mile, which is considerably higher than the Texas average of 79.6 persons per square mile[1].

The City is situated in the south central part of the county at the junction of S.H. 107 and U.S. 281, as displayed by **Figure 2.3, Location of Edinburg**. According to the U.S. Census Bureau, the McAllen-Edinburg-Mission Metropolitan Statistical Area (MSA) was the fourth fastest growing area in the United States during the 1990s. The MSA is also one of the fastest growing areas in Texas.

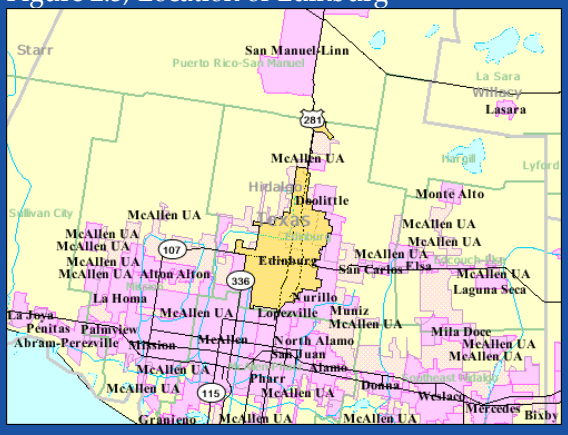
HISTORY of the Community

In 1908, a small town called Chapin was selected as the new county seat for Hidalgo County. By 1911, the settlement of Chapin was renamed Edinburg. Until 1915, Edinburg and Hidalgo County were predominantly involved in ranching. In 1915, the arrival of irrigation initiated an agricultural economy. Trade soon took hold and Edinburg became the scene of growth, prosperity, and rapid development. The City was a center for buying and processing cotton, grain, and citrus produce as well as other commodities.

[1] U.S. Census Bureau, State and County QuickFacts, 2004

Hopes that the Southern Pacific Railroad would build a line to the Rio Grande Valley were ultimately fulfilled when in 1927, the first train arrived in the City. Thousands of people gathered to participate in the opening ceremony and witness the driving of the "golden spike". A building boom occurred during this time (late 1920s) at which point a hospital, country club, and several schools were built. Edinburg became a leader in education with the construction of Edinburg Junior College and several other public schools. In 1951, the university became a State supported school, which was renamed the Pan American University.

Figure 2.3, Location of Edinburg



Following World War II, the economy diversified to include for example, oil field equipment, agricultural chemicals, and food processing plants. Edinburg's location on a major highway benefited the City as highways and trucks replaced rail service. The City has been named the "Gateway City" to the Rio Grande Valley. By the 1970s, the economy further diversified with a significant increase in tourism.

Edinburg was awarded America's original and most prestigious community recognition award - the All-American City. The City was honored with the award in 1968, 1995, and 2000.[2]

HISTORIC POPULATION Change

The historical population of Edinburg is shown in **Table 2.1, Historical Population, 1930 to 2000**. As demonstrated, the rate of population growth over 70 years (1930 to 2000) has been extensive. The highest percent change in Edinburg's population was between 1930 and 1940 when the City experienced an 80.83 percent increase in population. This population increase can be attributed to the completion of the Southern Pacific Railroad and the local building boom that took place in the late 1920s. The second highest percent change in Edinburg's population was seen recently between 1990 and 2000, with a 63.50 percent increase.

In Hidalgo County, the period of 1930 to 1940 was also the time of highest percent change in population when the county's population increased by a staggering 154.61 percent. The railway is identified as the factor that brought settlers to the county from the Midwest and the East at this time. The

[2] Edinburg Chamber of Commerce, 2004 and TSHA Online, 2004

Table 2.1, Historical Population, 1930 to 2000

Year	Edinburg		Hidalgo County	
	Population	Percent Change	Population	Percent Change
1930	4 821		77 004	
1940	8 718	80.83	196 059	154.61
1950	12 383	42.04	160 446	-18.16
1960	18 706	51.06	180 904	12.75
1970	17 163	-8.25	181 535	0.35
1980	24 075	40.27	283 323	56.07
1990	29 885	24.13	383 545	35.37
2000	48 863	63.50	569 463	48.47

Source: Edinburg Comprehensive Plan, 1987 and U.S. Census Bureau

population growth manifested itself in towns that sprang up east to west along U.S. 83 through the southern part of the county. By 1930, U.S. 83 was described as "the longest main street in the world".[3] The percent change in the 1970s was 56.07 percent and in the 1990s was 48.47 percent).

PROJECTED Change in Population

Population projections are an important component of the long-range planning process. The purpose of population projections is to:

- Evaluate a range of future population scenarios enabling the community to identify the internal and external factors that may contribute to the rate of population increase;
- Adequately determine and quantify the demands that will be placed on public facilities and services, such as fire and police protection, water and wastewater facilities, transportation infrastructure, parks and open space, and municipal buildings;
- Allow advanced planning to effectively guide new development, coordinate timely provision of adequate infrastructure, and appropriately direct available resources; and,
- Create a strategy to seize opportunities and overcome foreseen challenges.

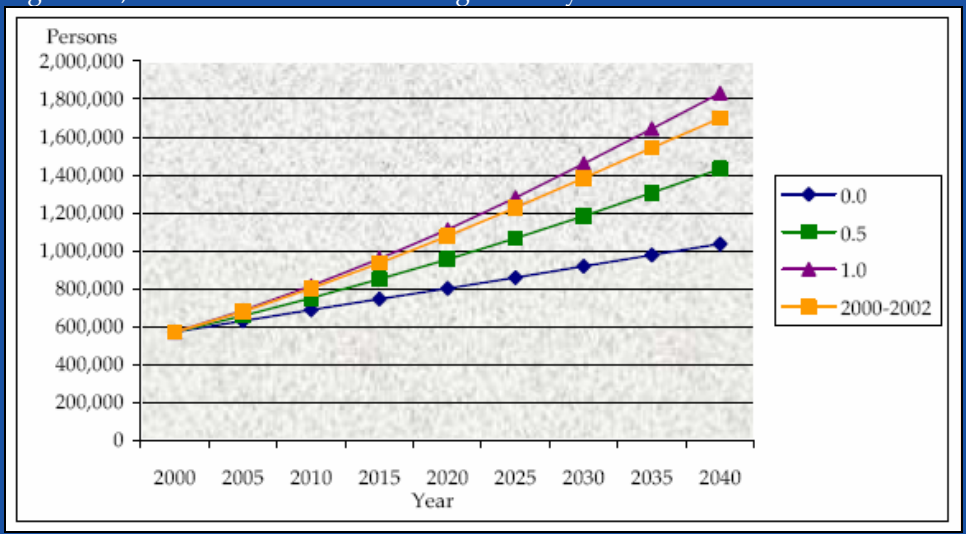
The Texas State Data Center prepares four population scenarios for the state of Texas and the U.S. The scenarios assume the same set of mortality and fertility assumptions, but differ in assumptions relative to net migration. The net migration assumptions are derived from 1990 to 2000 patterns, which have been altered relative to expected future population trends. The scenarios that are produced are referred to as the Zero Migration (0.0) Scenario, One-Half 1990 – 2000 (0.5) Scenario, and the 1990 – 2000 (1.0) Scenario. A

[3] TSHA Online, 2004

fourth scenario is produced using migration from 2000 – 2002, which reflects post-2000 patterns. The following points explain the 1990 – 2000 scenarios:

- The *Zero Migration (0.0) Scenario* assumes that in-migration and out-migration are equal, resulting in growth only through natural increase (the excess or deficit of births relative to deaths). This scenario produces the lowest population projection for counties with historical patterns of population growth through net in-migration.
- The *One-Half 1990 – 2000 Migration (0.5) Scenario* was prepared as an approximate average of the Zero (0.0) and 1990 – 2000 (1.0) Scenarios. It assumes rates of net migration that are one-half of those of the 1990s. This scenario is included in projections because many counties in Texas are unlikely to continue to experience the high rate of growth seen in the 1990s. Since the One-Half (0.5) Scenario projects rates of population growth that are approximately an average of the Zero (0.0) and 1990 – 2000 (1.0) Scenarios, it suggests slower growth than the 1990 – 2000 (1.0) Scenario while still indicating steady growth.
- The *1990 – 2000 Migration (1.0) Scenario* assumes that trends in the age, sex, and race/ethnicity net migration rates of the 1990s will characterize those occurring in the future. The 1990s was a period characterized by substantial growth (22.8 percent growth between 1990 and 2000 in Texas). Due to the fact that growth was so extensive during the 1990s, it is not likely to be sustained over time, thereby making this scenario a high growth alternative.

Figure 2.4, Scenario Forecasts of Hidalgo County



Source: Texas State Data Center

The scenarios vary widely in the forecasted future population for the County, as demonstrated in **Figure 2.4, Scenario Forecasts of Hidalgo County**. The 0.0 Scenario reflects a modest increase from 569,463 persons in 2000 to 1,035,971 persons in 2040, or an 81.92 percent population increase. The 0.5 Scenario indicates 1,430,617 persons in the Year 2040, or a 151.22 percent increase in population from 2000 to 2040. The 2000 – 2002 Scenario indicates

1,698,645 persons in the Year 2040, or a 198.29 percent increase from 2000 to 2040. The 1.0 Scenario represents the most optimistic growth projection, assuming a continuation of the trend from 1990 to 2000, and showing an increase to 1,832,170 persons in the Year 2040, or a 221.74 percent increase from 2000 to 2040.

A linear regression (straight-line) analysis for Hidalgo County illustrates that the 2000 – 2002 Scenario produces values that represent an approximate midpoint between the 0.5 and 1.0 Scenarios. This mid-point position, combined with local trends in migration and the economy, suggest that the 2000 – 2002 Scenario is preferred over the 0.5 and 1.0 Scenarios for projecting population growth in Hidalgo County and, hence, in Edinburg.

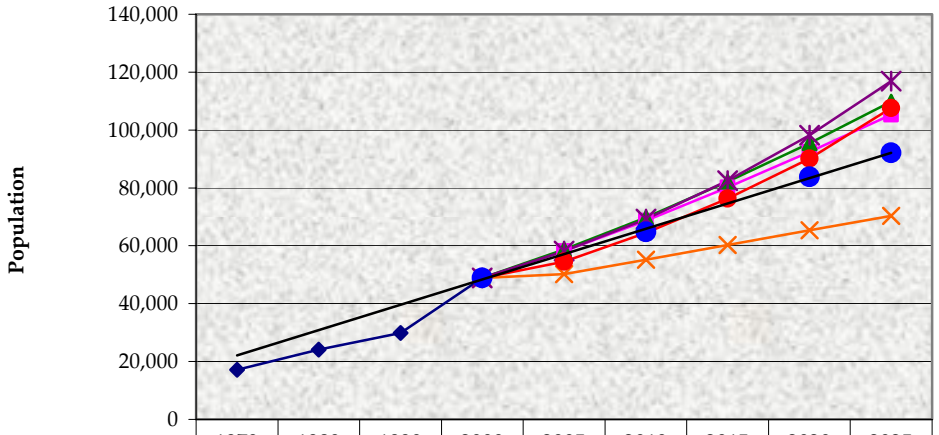
To project future population there are other methods that can be used to further estimate the Year 2025 population, including the linear regression, exponential growth, geometric, and step-down methods, as well as the projections of the Texas Water Development Board (TWDB).[4] These statistical methods were used to compare alternative population forecasts to reflect the plan's 20-year horizon, as identified in **Figure 2.5, Projected Population Scenarios of Edinburg**.

Linear projections involve a graphical projection of past historical trends into the future. In this case, linear techniques of choice were simple "linear regression" and "exponential growth". Linear regression forecasts are straight-line projections of historical population. In a linear growth scenario, the same absolute number of additional persons is added to the population each period. This results in a declining rate of growth over time since the same amount is added to an ever-expanding base. By contrast, exponential growth assumes a constant rate of growth in establishing a forecast. The geometric technique projects the future using a growth factor that is the average rate of growth over a historical period of time. Finally, the step-down method was used to project Edinburg's population based on its share of the total population in Hidalgo County.

The step-down projection method (assuming use of the Texas State Data Center 1990 – 2000 Migration 1.0 Scenario) assumes that trends in the age, sex, and race/ethnicity net migration rates of the 1990s will characterize those occurring in the future. By contrast, the step-down 2000 – 2002 scenario uses migration patterns from the time period 2000 to 2002. As such, this scenario

[4] The TWDB provides projection data on a per decade basis. Projections for the Years 2005, 2015, and 2025 were unavailable.

Figure 2.5, Projected Population Scenarios of Edinburg



	1970	1980	1990	2000	2005	2010	2015	2020	2025
Historical	17,163	24,075	29,885	48,863					
Step Down 2000-02				48,863	58,200	68,681	80,223	92,409	105,307
Step Down 1.0				48,863	58,699	69,822	82,159	95,394	109,768
Linear Regression				48,863	50,179	55,224	60,270	65,315	70,361
Geometric				48,863	58,172	69,254	82,447	98,153	116,852
Exponential Growth				48,863	54,520	64,478	76,254	90,181	107,573
Texas Water Development Board				48,863		64,792		83,869	92,096

Source: Lane Kendig, inc.

produces projections that are lower than the step-down 1.0 technique due to the post-2000 deceleration in population growth as compared to the 1990s.

Analysis of Edinburg and Hidalgo County indicates that the City's share of the County's population has been decreasing each decade since its peak at 9.5 percent in 1970. By comparison, in the Year 2025, it is expected that Edinburg's population will represent approximately 5.7 percent of Hidalgo County's population.

The projected population for Edinburg in the Year 2025 ranges from 70,361 persons to 116,852 persons. Using a "curve fitting" approach to determine which projection is most likely based upon the historical trend since 1970, the Step Down 2000 – 2002 method offers a realistic scenario. Without taking into account the linear regression scenario that appears as an outlier, the step-down 1.0 and the step-down 2000 - 2002 scenarios identify as the mid-points

among the different scenarios. Given that it is unlikely that the extensive growth seen in the 1990s will be sustained over the next two decades, the step-down 2000 – 2002 scenario is preferred over the step-down 1.0 high-growth alternative. The step-down 2000 – 2002 scenario predicts that by the Year 2025, Edinburg's population will total 105,307 persons.

IMPLICATIONS of Population Growth

The population projections and associated shifts in the community's socio-economic characteristics that are identified in this Community Snapshot are used as a basis to formulate the City's growth policies. In particular, the aforementioned projected population scenarios will help the City and private business interests better evaluate the following:

- Demands for varying housing types, sizes, and prices;
- Employment for residents of Edinburg and the surrounding area;
- Changes in the median household income and the effective buying power of residents;
- Numbers of school-age children moving to the area and the impact on demand for school facilities;
- Projected future traffic volumes, congestion, and demands for new roadway infrastructure and alternative modes of transportation;
- Use of local parks and recreation facilities and the demand for additional areas, facilities, and programs;
- Capacity requirements for water and wastewater service, storm drainage improvements, and the requisite capital investments; and,
- Impact on the number of police, fire, and emergency medical service calls and their response times, service levels, and facility and staffing needs.

The implications of the expected future population characteristics and the physical and economic growth of Edinburg and its planning area are reflected in other areas of this plan, such as Chapter 3, Land Use; Chapter 5, Economic Development; and, Chapter 6, Utilities.

POPULATION Characteristics

The gender split between men and women in Edinburg is fairly even with 48.87 percent of the population comprised of males and 51.13 percent of the population females.

According to the 2000 U.S. Census, the median age in Edinburg is 27.2 years. As demonstrated in **Figure 2.6, Median Age**, this median age is lower than that of the United States and Texas, but equal to that of Hidalgo County. Compared to other municipalities in the McAllen-Edinburg-Mission MSA, Edinburg's median age is lower than both McAllen and Mission. As Edinburg continues to develop, it is expected that the median age will be lower as more young families and their school-age children move into the community.

Figure 2.6, Median Age

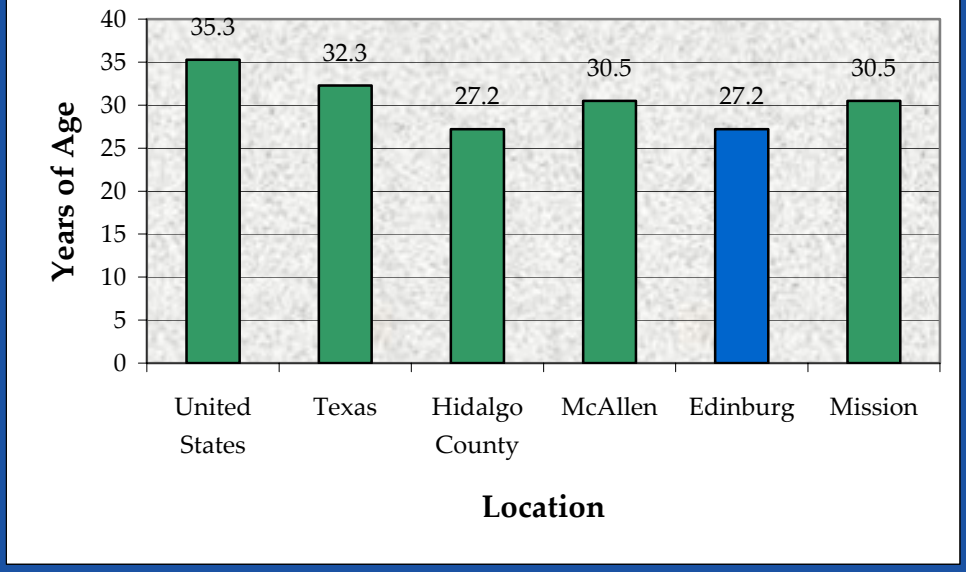
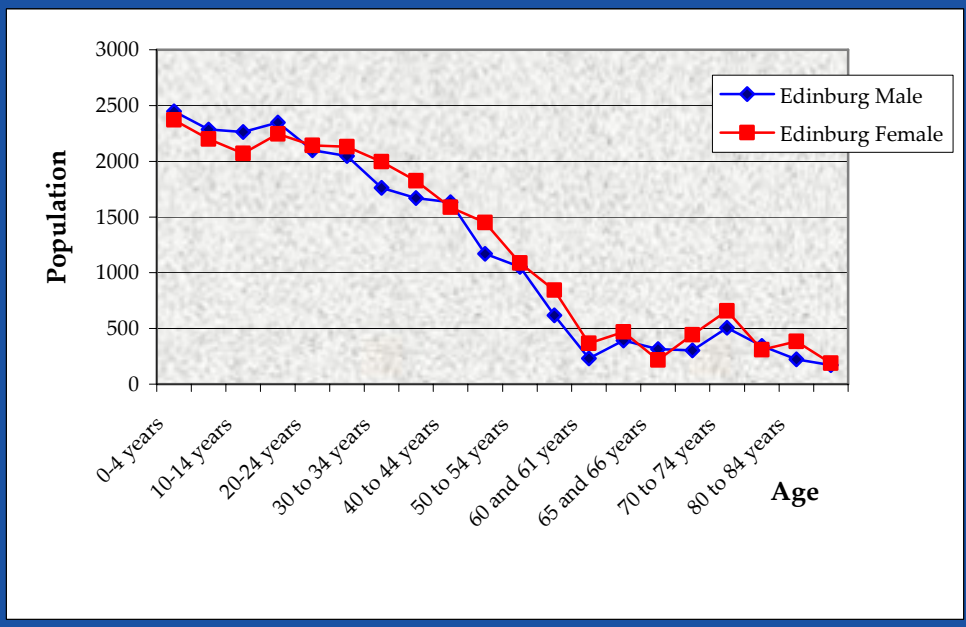


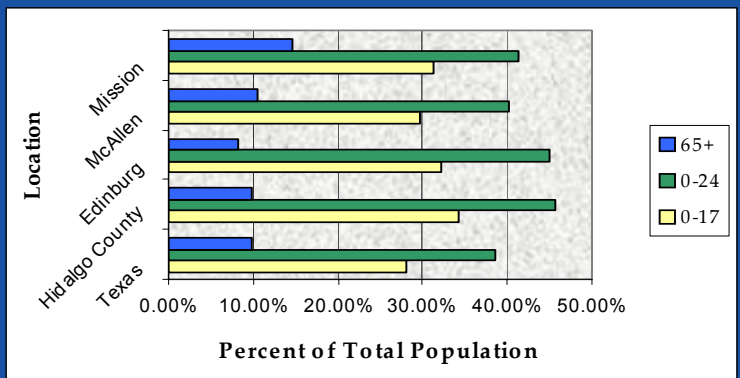
Figure 2.7, Age Distribution of Edinburg



Source: U.S. Census Bureau, 2000

Both men and women under 30 years of age represent the largest segment of Edinburg's population (54.54 percent), as displayed by **Figure 2.7, Age Distribution of Edinburg**. The highest populations for both genders are seen in the 0-4 age cohort, which represents 9.86 percent of the total population. Populations generally trend downward from this point until 60 to 64 years of age at which point there is a general increase in persons aged 60 years and over.

Figure 2.8, Percentage by Age

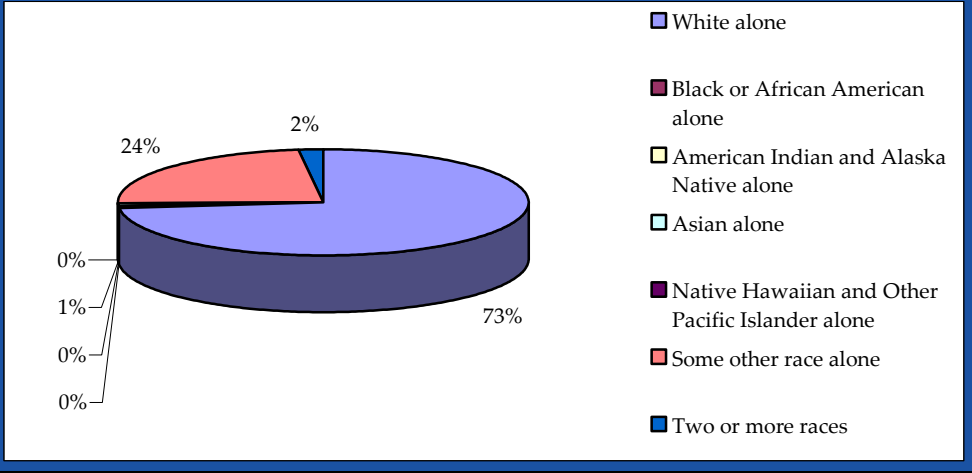


Source: U.S. Census Bureau, 2000

As indicated in **Figure 2.8, Percentage by Age**, Edinburg has the highest percentage of persons under the age of 18 (32.25 percent) compared to other municipalities in the McAllen-Edinburg-Mission MSA (McAllen – 29.78 percent, Mission – 31.39 percent). However, Edinburg has a lower percentage of persons under the age of 18 compared to Hidalgo County (34.27 percent). Similarly, Edinburg has the highest percentage of persons under 25 years (44.96 percent) compared to McAllen (40.07 percent) and Mission (41.32 percent), but is exceeded by Hidalgo County (45.56 percent). Edinburg's 65+ age cohort accounts for 8.31 percent of its population, which is less than McAllen (10.59 percent), Mission (14.52 percent), and Hidalgo County (9.80 percent).

The racial composition of Edinburg is depicted in **Figure 2.9, Racial Composition**. A majority of the population (73 percent) is white, with the second largest race (24 percent) designated by the Census Bureau as "some other race alone", for which a racial category is not individually defined by the Census. Hidalgo County and Texas are also comprised of populations with greater than 70 percent of persons that are white (78 percent and 71 percent, respectively). Similar to Edinburg, the second largest race in Hidalgo County and Texas is designated as "some other race alone".

Figure 2.9, Racial Composition



Source: U.S. Census Bureau, 2000

The U.S. Census Bureau classifies persons of Hispanic or Latino origin separately since they are not defined as a separate race, but rather associated with one of the races referred to in Figure 2.9, Racial Composition, while also being of Hispanic or

Latino origin. Displayed in **Figure 2.10, Hispanic or Latino Origin**, is the percentage of Hispanic or Latino persons in Edinburg, which represent 89 percent of the City's population.

The predominant household language is Spanish (85 percent), followed by English (13 percent), as displayed in **Figure 2.11, Household Language in Edinburg**. Of households where the predominant language is Spanish, 19.41 percent are linguistically isolated, meaning a household where no member 14 years old and over speaks English only or speaks a non-English language and speaks English "very well." In other words, all members 14 years old and over have some difficulty speaking English.

Figure 2.10, Hispanic or Latino Origin

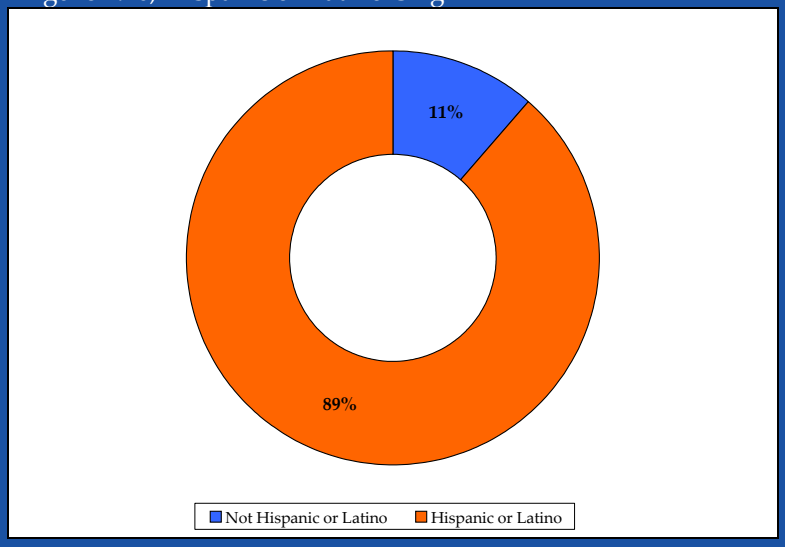
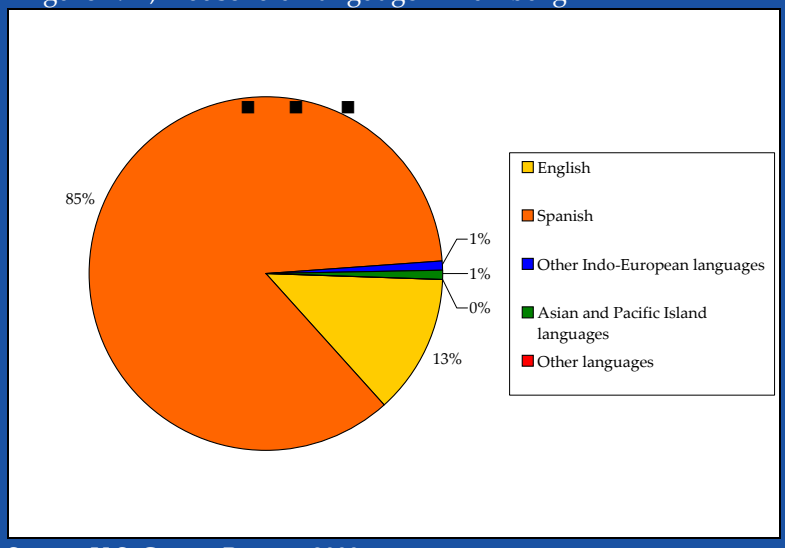


Figure 2.11, Household Language in Edinburg



Source: U.S. Census Bureau, 2000

HOUSEHOLD Composition

According to the U.S. Census Bureau, households are classified as either "family" or "non-family" units. Family units are generally defined as those with a married couple or a single head of household with or without children. Non-family households include those with one person living alone. The household composition of Edinburg is 92.54 percent family households and 7.46 percent non-family households. The composition in McAllen is close to that of Edinburg with 92.12 percent family households and 7.88 percent non-family households. Mission has a larger family composition with 94.16 percent family households and 5.84 percent non-family households. A possible explanation for the lower percentage of family households in Edinburg is the number of single students attending the University of Texas-Pan American.

Figure 2.12, Household Size

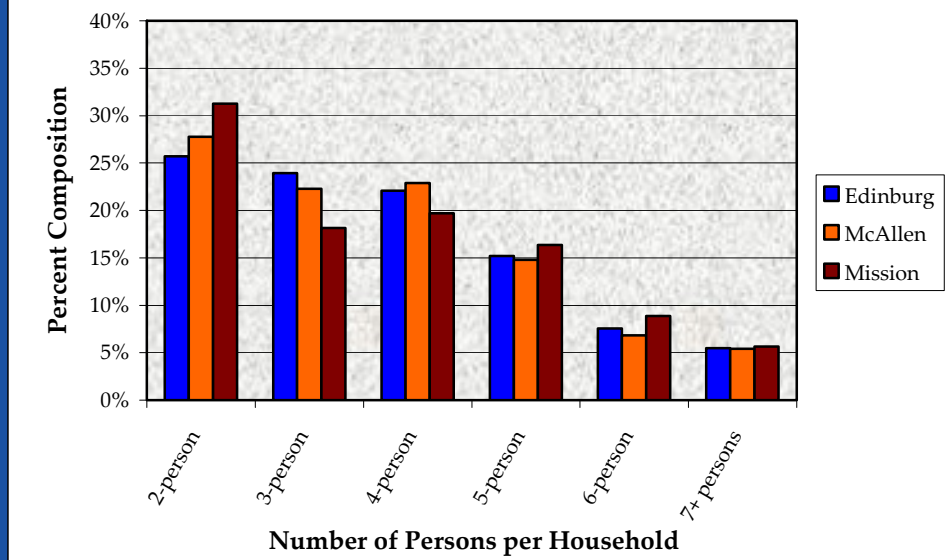


Table 2.2, Persons per Household

Place	Persons per Household
United States	2.59
Texas	2.72
Hidalgo County	3.60
Edinburg	3.29
McAllen	3.18
Mission	3.31

Source: U.S. Census Bureau, 2000

The distribution of family households by number of persons is illustrated in **Figure 2.12, Household Size**. The largest segments of the population in Edinburg are in two-person (25.72 percent) and three-person (23.92 percent) households, followed by four-person households (22.09 percent). The number of five-, six-, and seven-person households in Edinburg is higher than McAllen, but lower than Mission. As shown in **Table 2.2, Persons per Household**, the three communities in the McAllen-Edinburg-Mission MSA ranged in average number of persons per household in the Year 2000 from 3.18 to 3.31. This number is lower than the Hidalgo County average (3.60) and higher than the Texas (2.72) and United States (2.59) average number of persons per household. The number of persons per household could increase if younger families with school-age children are attracted to the community. Factors such as the amount of new development, the size of homes, price of homes, growth policies, and land development controls could play a role in determining settlement of younger families in the community.

INCOME and Poverty

Displayed in **Table 2.3, Median Household Income**, is the median household income in 1989 and 1999. The table indicates that Edinburg had the lowest percent change in median household income (16.39 percent) between 1989

and 1999 compared to other municipalities in the McAllen-Edinburg-Mission MSA, Hidalgo County, and Texas. When comparing Edinburg to the two other MSA municipalities, Edinburg was ranked second in median household income in 1989, totaling $18,956. By 1999, Edinburg had the lowest median household income totaling $28,938. Nonetheless, Edinburg's median household income was higher than Hidalgo County's median household income in both 1989 and 1999 by 13.49 percent and 16.39 percent, respectively. However, Hidalgo County's median household income has increased by 48.85 percent between 1989 and 1999 compared to Edinburg's 16.39 percent change during the same time period. These numbers suggest that Edinburg's median household income will continue to increase, but perhaps not to the same degree as other communities without an increased focus to attract higher paying employers.

Table 2.3, Median Household Income

Jurisdiction	1989	1999	Percent Change
Texas	$27,016	$39,927	47.79%
Hidalgo County	$16,703	$24,863	48.85%
Edinburg	**$18,956**	**$28,938**	**16.39%**
McAllen	$22,068	$33,641	52.44%
Mission	$17,489	$30,647	75.24%

Source: U.S. Census Bureau, 1990 and 2000

Of the total population in Edinburg, 33.78 percent was considered to have poverty status, based on 1989 income levels[5]. By contrast, the latest Census identifies that Edinburg experienced a decrease in the number of persons below poverty level, as depicted in **Table 2.4, Poverty Level**. Of the total population, 29.20 percent had a 1999 income that was below poverty level. This poverty level is lower than Hidalgo County (35.87 percent) and higher than the southern region of the U.S. (13.93 percent).

Table 2.4, Poverty Level

Location	Persons with Income Below Poverty Level	Percent Below Poverty Level	Persons with Income at or above Poverty Level	Percent at or Above Poverty Level
Edinburg	**13,737**	**29.20**	**33,305**	**70.80**
Hidalgo County	201,865	35.87	360,891	64.13
Southern U.S.	13,569,265	13.93	83,868,070	86.07

U. S. Census Bureau, 1999

[5] The Census Bureau uses a set of money income thresholds that vary by family size and composition to detect who is poor. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family or unrelated individual is classified as being "below the poverty level".

HOUSING Occupancy and Tenure

Table 2.5, Residential Vacancy

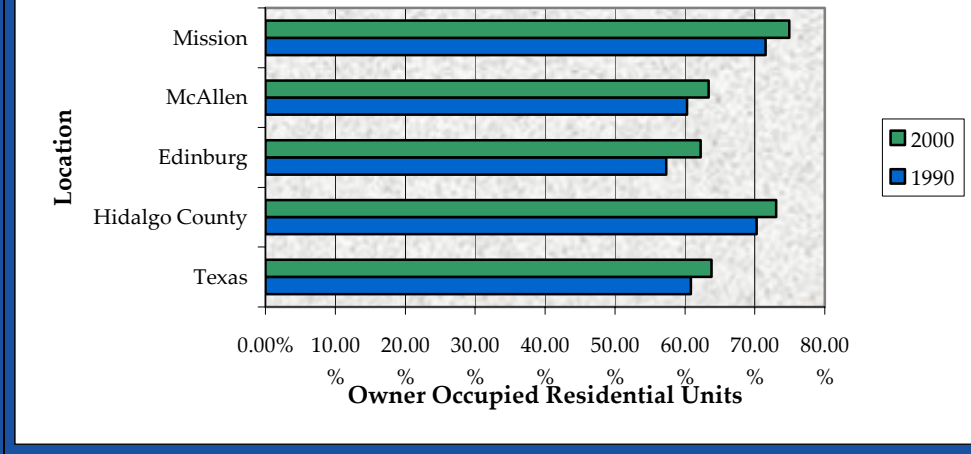
Jurisdiction	1990	2000
Texas	13.38%	9.37%
Hidalgo County	19.31%	18.60%
Edinburg	**7.95%**	**10.48%**
McAllen	12.91%	12.68%
Mission	21.98%	21.75%

Source: U.S. Census Bureau, 1990 and 2000

According to 2000 Census data, as shown in **Table 2.5, Residential Vacancy**, Edinburg has the lowest vacancy rate (10.48%) compared to other municipalities in the MSA (McAllen, 12.68 percent and Mission, 21.75 percent) and Hidalgo County (18.60 percent). However, the vacancy rate for Texas sits at just over one percent lower than Edinburg at 9.37 percent. Between 1990 and 2000, Edinburg's vacancy rate moved from 7.95 percent to 10.48 percent. This rise in vacancy is inconsistent with the decrease in vacancy seen in Texas and Hidalgo County. Generally, a five to seven percent vacancy rate is desirable. A vacancy rate below five percent suggests a saturated market that requires residential construction activity. A vacancy rate above ten percent is highly undesirable. New residential construction has both positive and negative impacts on the community. For example, Edinburg has a more than sufficient supply of housing to accommodate persons moving into or within the community. However, it also further exploits the housing market by offering new housing stock at affordable prices thereby giving home buyers options other than the existing housing supply. As such, Edinburg is in a position where residential vacancy is higher than preferred thereby necessitating housing policy to forge a more stable housing market.

As depicted in **Figure 2.13, Owner Occupancy**, all communities in the McAllen-Edinburg-Mission MSA experienced an increase in owner occupancy between 1990 and 2000. In the case of Edinburg, 57.33 percent of its residential units were owner occupied in 1990. By the Year 2000, 62.27 percent of its residential units were owner occupied. While this is a positive indicator, the overall percentage of owner occupied units is lower compared to other communities in the MSA, Hidalgo County, and the

Figure 2.13, Owner Occupancy



Source: U.S. Census Bureau, 2000

State. The greatest difference in owner occupancy is seen between Hidalgo County and Edinburg where the County's owner occupancy rate is 10.79 percent higher. This difference could be attributed simply to the housing stock that is available in the community. This difference could also be the result of the number of students in Edinburg that may not be in a financial position to become homeowners. Furthermore, students may not consider real estate to be a stable investment given potential uncertainty about whether they plan to stay in Edinburg following the completion of their studies. Finally, a large portion of students at the University of Texas–Pan American commute from other surrounding communities. During the course of their studies, students might consider renting in Edinburg and later commuting, or vice versa, without considering the option of home ownership.

The housing conditions in Edinburg represent an area where efforts could be made to bring the local housing market in line with Hidalgo County. The outcome of these efforts could have spin-off benefits on local economic development.

HOUSING Affordability

As noted previously in Table 2.3, Median Household Income, Edinburg's median household income ($28,938) exceeds that of Hidalgo County, but is less than the median household income state-wide.

Affordability is typically defined as a percent of a household's income spent on housing. In other words, housing is considered affordable if no more than 30 percent of household income is devoted to housing costs. As depicted in **Table 2.6, Housing Affordability**, $723.45 per month is an affordable mortgage payment for a median household income of $28,938 (the median household income in Edinburg). For households earning 30 percent of the median income, affordable housing means a monthly mortgage payment of $217.04.

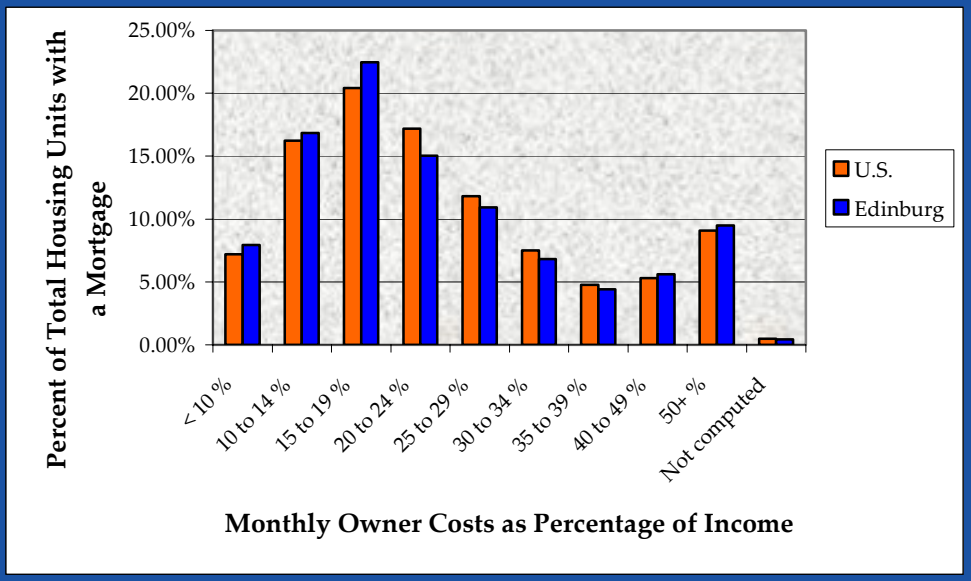
Table 2.6, Housing Affordability

Percent of Median Income	Household Income	Affordable Mortgage Payment
180	$52,088.40	$1,302.21
150	$43,407.00	$1,085.18
130	$37,619.40	$940.49
100	**$28,938.00**	**$723.45**
80	$23,150.40	$578.76
50	$14,469.00	$361.73
30	$8,681.40	$217.04

U. S. Census Bureau, 2000

As demonstrated in **Figure 2.14, Monthly Owner Costs as a Percentage of Household Income in 1999**, 26.33 percent of owners in Edinburg who have a mortgage spend 30 percent or more of their household income on their home. This number is only slightly below the U.S. (26.66 percent). As

Figure 2.14, Monthly Owner Costs as a Percentage of Household Income in 1999



Source: U.S. Census Bureau, 2000

noted above, spending more than 30 percent of household income on housing is considered unaffordable. The most prominent trend in spending was in the 15 to 19 percent of income range. In Edinburg, 22.46 percent of owners spend 15 to 19 percent of income on monthly owner costs, compared to the U.S., which equals 20.41 percent.

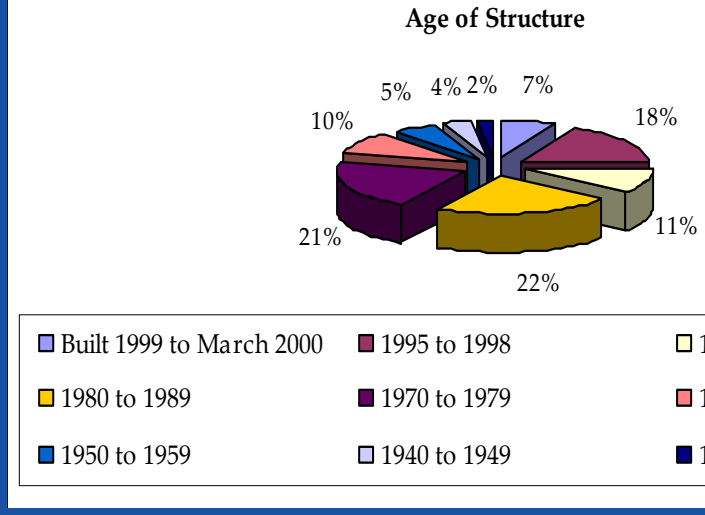
According to the most recent Census data, of the 7,225 owner occupied housing units in Edinburg, 52.25 percent have a mortgage and 47.75 percent do not have a mortgage. The number of persons without a mortgage is significantly higher compared to the U.S. where 29.97 percent of households do not have a mortgage. This information suggests that a higher percentage of homeowners in Edinburg have a higher disposable income (i.e. income not dedicated to mortgage debt) compared to the rest of the U.S.

In Edinburg, 37.73 percent of the population occupies rental accommodation. While this rental rate is comparable to McAllen (36.61 percent), it greatly exceeds Mission's rental population (25.05 percent). The difference can be explained by the student population in Edinburg, which may also be drawing students from McAllen. In terms of median contract rent, Edinburg is $367 per month. This is somewhat comparable to McAllen ($402 per month), but well exceeds Mission's median contract rent ($306 per month). This difference in median contract rents among the MSA municipalities can be explained by the demand for rental housing in Edinburg due to the presence of the University, and the fact that McAllen is a substantially larger market compared to Mission.

As displayed in **Figure 2.15, Age of Structure**, 43 percent of the housing in Edinburg was built in a 19 year time period (1970 and 1989). Comparatively, in the most recent time period (1990 to March 2000), 36 percent of Edinburg's

housing has been built. These numbers indicate that while close to half of the residential building stock was constructed between 1970 and 1989, 36 percent of the stock was built recently in only a ten year time period (1990 to March 2000). This high construction activity is reflected in the vacancy rate, which increased from 7.95 percent to 10.48 percent between 1990 and 2000.

Figure 2.15, Age of Structure



Source: U.S. Census Bureau, 2000

EDUCATIONAL Attainment

The Edinburg Consolidated Independent School District (ECISD) serves the City of Edinburg, covering 834.4 square miles. The ECISD includes three high schools, four middle schools, one alternative campus, and 27 elementary schools. According to the ECISD, the peak student membership in the 2002-2003 school year was 24,444 students. The ECISD abuts "peer" school districts including: Rio Grande ISD, San Isidro ISD, Brooks ISD, Kennedy County Wide CSD, Raymondville ISD, Lasara ISD, Monte Alto ISD, Edcouch-Elsa ISD, Weslaco ISD, Donna ISD, Pharr-San Juan-Alamo ISD, McAllen ISD, Sharyland ISD, Mission Cons. ISD, and La Joya ISD.

Provided in **Table 2.7, Education Statistics**, is a comparison of ECISD education statistics for the 2002 school year, the most recent year for which data has been published by the Texas Education Agency (TEA), against state-wide and peer districts, including the McAllen Independent School District (MISD) and the Mission Consolidated Independent School District (MCISD).

The data indicates that the ECISD has a comparable attendance rate and annual dropout rate compared to the State, MISD, and MCISD. This data indicates that 78.6 percent of the ECISD class of 2002 graduated. Comparatively, 82.8 percent of the class of 2002 in Texas graduated.

Table 2.7, Education Statistics

Statistical Category	Texas	ECISD	McAllen ISD	Mission CISD
Total Number of Students	4,239,911	23,985	23,259	13,754
Attendance Rate - 2001-2002	95.6%	95.9%	95.9%	96.3%
Annual Dropout Rate (Gr 7-12) - 2001-2002	0.9%	1.1%	1.5%	1.0%
Completion/Student Status Rate - Class of 2002:				
Graduated	82.8%	78.6%	75.5%	80.0%
Received GED	4.1%	3.7%	3.9%	2.4%
Continued High School	8.0%	10.5%	11.2%	12.5%
Mean SAT score - Class of 2002	986	906	960	912
Mean ACT score - Class of 2002	20.0	16.7	18.2	17.7
Economically Disadvantaged	51.9%	85.3%	69.4%	82.8%
Limited English Proficient	14.9%	31.2%	35.4%	25.1%
Number of Students per Teacher	14.7	15.5	15.2	15.2
Average Teacher Experience (years)	11.8	11.9	12.7	13.2
Average Teacher Salary:				
Beginning Teacher	$31,876	$29,747	$30,326	$29,482
Over 20 Years Experience	$50,065	$47,893	$51,551	$52,269
Teacher Turnover Rate	15.6%	11.7%	12.1%	9.3%
Tax:				
Adopted Rate Tax (Total) (calendar year 2002)	$1.533	$1.551	$1.543	$1.584
Value by Category:				
Business	36.3%	32.7%	42.7%	27.3%
Residential	52.2%	35.4%	51.0%	61.2%
Land	6.7%	9.9%	4.5%	9.9%
Oil and gas	3.5%	21.0%	0.5%	0.0%
Other	1.2%	1.0%	1.3%	1.6%
Total Revenues per Pupil	$6,919	$7,454	$6,366	$6,842
Total Expeditures per Pupil	$7,088	$7,483	$6,368	$7,142
Student Enrollement by Program:				
Bilingual / ESL Education	13.5%	29.6%	34.0%	23.4%
Career and Technology Education	19.8%	18.0%	22.7%	18.7%
Gifted and Talented Education	7.8%	9.1%	8.4%	7.7%
Special Education	11.6%	8.6%	9.1%	6.1%

Source: Texas Education Agency

While these numbers are not favorable to the ECISD, the District falls mid-way between completion rates for MISD (75.5 percent) and MCISD (80.0 percent).

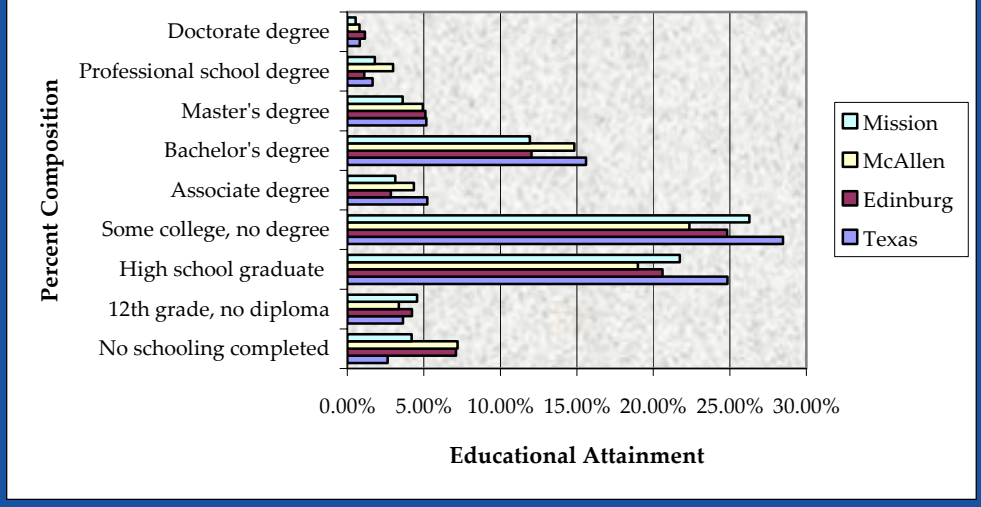
Mean SAT and ACT scores for the Class of 2002 in the ECISD, 906 and 16.7 respectively, fall below the average scores for the MISD and MCISD, as well as the State average. Slightly over 85 percent of the students in ECISD are economically disadvantaged, and 31.2 percent of students have limited proficiency in English. These numbers exceed those of the State (51.9 percent and 14.9 percent, respectively), but more closely compare to other Districts in the MSA. Based on the percentage of students that have limited proficiency in English, it follows that 29.6 percent of students in the ECISD are enrolled in the bilingual / ESL program, compared to the state-wide enrollment of 13.5 percent.

The student-teacher ratio in ECISD is 15.5 meaning that there are slightly more than 15 students per teacher, which is higher than the State average as well as MISD and MCISD. Teachers in the ECISD have an average of 0.8 to 1.3 years less experience than teachers in MISD and MCISD, and an average of 0.1 years more experience than teachers across the State. An examination of teacher salaries based on years of experience reveals that teachers in the ECISD are paid less than the State average salary, both as new teachers and teachers with more than 20 years experience. Compared to teachers in the MISD and MCISD, teachers in the ECISD are paid a comparable salary of $29,747. However, teachers with more than 20 years experience are paid less than teachers with the same experience in the MISD and MCISD (difference ranging from $3,658 - $4,376 per annum). The teacher turnover rate in the ECISD is 11.7 percent, a figure that is 3.9 percent lower than the State.

The adopted rate tax in the ECISD ($1.551) is comparable to the State, as well as MISD and MCISD. However, an examination of the tax value by category reveals that comparatively, the percent tax derived from residential land in the ECISD (35.4 percent) is significantly lower than the State and other MSA Districts. Also of note is the fact that 21 percent of ECISD tax is derived from oil and gas, compared to the MISD (0.5 percent) and MCISD (0.0 percent). Expenditures exceed revenues in the ECISD by $29 per pupil – a number more favorable compared to the MCISD, which has a per pupil deficit of $300.

Further to monitoring education statistics, the TEA also monitors the academic accountability of school districts by designating them as Exemplary, Recognized, Academically Acceptable, Academically Unacceptable, Unacceptable due to Special Accreditation Investigation, or Not Rated. The ECISD received a 2002 academic accountability rating of “academically acceptable”. Notably, MISD and MCISD received academic accountability ratings of “recognized”.

Figure 2.16, Educational Attainment



Source: U.S. Census Bureau, 2000

Illustrated in **Figure 2.16, Educational Attainment**, is the educational attainment of persons 25 years and over in Edinburg compared to McAllen, Mission, and the State. In Edinburg, 7.10 percent of the population has no schooling completed. While this number is comparable to neighboring McAllen (7.21 percent), it exceeds Mission (4.20 percent) and Texas (2.63 percent). Edinburg also exceeds McAllen and Texas with regard to the percentage of its population whose highest level of educational attainment is 12th grade (no diploma). The largest cohort was seen in the category "some college, no degree" (24.82 percent). In terms of attainment of a post-secondary degree, 22.20 percent of Edinburg's population has obtained an Associate, Bachelor's, Master's, Professional School, or Doctoral degree. Similar to Edinburg, 21.02 percent of Mission's population has a post-secondary degree. Comparatively, 27.92 percent of McAllen's population has a post-secondary degree, closer in comparison to the State (28.46 percent) than Edinburg.

EMPLOYMENT

Educational, Health, and Social Services is the economic sector that employs the largest share of Edinburg residents, as shown in **Table 2.8, Employment by Industry Comparison**. According to the 2000 U.S. Census, more than one-third (6,172 persons) of all employed Edinburg adults work in this sector, compared to 26.3 percent of all Hidalgo County residents and only 19 percent of persons state-wide. Employment within this sector is dominated by the Educational Services (public and private education) sub-sector, which employs 22.5 percent of all working adults in Edinburg. This high percentage is likely the result of two factors including the presence of the University of Texas-Pan American, and a high proportion of school-age children that require more schools and teachers compared to other communities without a predominantly young population. The Health Care and Social Assistance sub-sector employs 12.6 percent of working adults living in the City, a higher

Table 2.8, Employment by Industry Comparison

Industry	Edinburg		Hidalgo Co.		Texas	
	Workers	% of Total	Workers	% of Total	Workers	% of Total
Total Employed Edinburg Residents, Age 16+ Yrs.	**17,598**		**180,121**		**9,234,372**	
Natural Resources	**473**	**2.7%**	**7,475**	**4.1%**	**247,697**	**2.7%**
Agriculture, Forestry, Fishing & Hunting	322	1.8%	6,139	3.4%	126,173	1.4%
Mining	151	0.9%	1,336	0.7%	121,524	1.3%
Construction	**988**	**5.6%**	**17,008**	**9.4%**	**743,606**	**8.1%**
Manufacturing	**861**	**4.9%**	**13,349**	**7.4%**	**1,093,752**	**11.8%**
Wholesale Trade	**905**	**5.1%**	**8,863**	**4.9%**	**362,928**	**3.9%**
Retail Trade	**1,947**	**11.1%**	**24,315**	**13.5%**	**1,108,004**	**12.0%**
Transportation/Utilities	**874**	**5.0%**	**9,001**	**5.0%**	**535,568**	**5.8%**
Transportation & Warehousing	708	4.0%	7,551	4.2%	438,903	4.8%
Utilities	166	0.9%	1,450	0.8%	96,665	1.0%
Information	**272**	**1.5%**	**2,984**	**1.7%**	**283,256**	**3.1%**
Financial Activities	**744**	**4.2%**	**6,708**	**3.7%**	**630,133**	**6.8%**
Finance & Insurance	455	2.6%	4,457	2.5%	437,467	4.7%
Real Estate & Rental & Leasing	289	1.6%	2,251	1.2%	192,666	2.1%
Business & Professional Services	**1,180**	**6.7%**	**10,946**	**6.1%**	**878,726**	**9.5%**
Professional, Scientific, & Technical Services	700	4.0%	5,084	2.8%	534,974	5.8%
Management of Companies & Enterprises	0	0.0%	28	0.0%	5,883	0.1%
Administrative & Support & Waste Management Services	480	2.7%	5,834	3.2%	337,869	3.7%
Educational, Health & Social Services	**6,172**	**35.1%**	**47,346**	**26.3%**	**1,779,801**	**19.3%**
Educational Services	3,961	22.5%	26,693	14.8%	871,375	9.4%
Health Care & Social Assistance	2,211	12.6%	20,653	11.5%	908,426	9.8%
Leisure & Hospitality	**1,133**	**6.4%**	**13,559**	**7.5%**	**673,016**	**7.3%**
Arts, Entertainment, & Recreation	201	1.1%	1,566	0.9%	111,571	1.2%
Accommodation & Food Services	932	5.3%	11,993	6.7%	561,445	6.1%
Other Services (except Public Administration)	**836**	**4.8%**	**10,315**	**5.7%**	**480,785**	**5.2%**
Public Administration	**1,213**	**6.9%**	**8,252**	**4.6%**	**417,100**	**4.5%**

Source: U.S. Census Bureau, 2000 and TIP Strategies, Inc.

percentage than both county-wide and state-wide (11.5 percent and 9.8 percent, respectively).

Edinburg's second largest employment sector is Retail Trade, employing 1,947 residents, or 11.1 percent of the City's workforce. Despite being the second largest employment sector, Retail Trade in Edinburg represents a smaller share than throughout Hidalgo County (13.5 percent) and Texas (12.0 percent). The Public Administration sector employs 6.9 percent of workers

living in Edinburg. This represents a much larger share than Hidalgo County's 4.6 percent and the State's 4.5 percent respective shares.

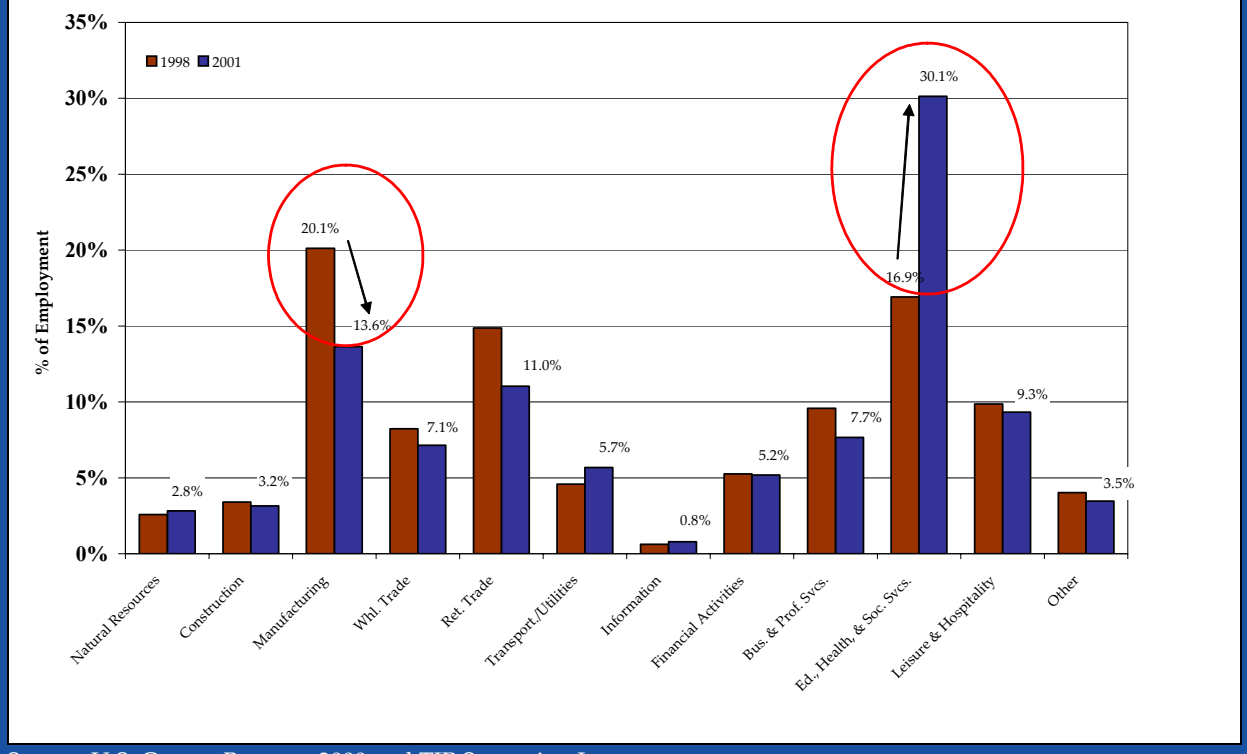
Other major employment sectors for Edinburg residents include Business and Professional Services and Leisure and Hospitality. Business and Professional Services employs 6.7 percent of the City's employed residents. This is a slightly higher share than the County as a whole (6.1 percent), but is significantly lower than the State's 9.5 percent rate of employment. Within this sector, Professional, Scientific, and Technical Services employs 4.0 percent of Edinburg's residents, compared to just 2.8 percent throughout Hidalgo County and 5.8 percent state-wide. The proportion of Edinburg's residents employed in the Leisure and Hospitality sector (6.4 percent) is only slightly lower than Hidalgo County (7.5 percent) and the State (7.3 percent). This is the result of a lower employment rate in the Accommodation and Food Services sub-sector in Edinburg.

Also of note are the low employment rates of Edinburg residents in the Construction (5.6 percent) and Manufacturing (4.9 percent) sectors. Among county-wide residents, Construction employs 9.4 percent of all workers, and Manufacturing employs 7.4 percent of the labor force. This is in comparison to employment rates of 8.1 percent in Construction and 11.8 percent in Manufacturing state-wide.

Estimated in **Figure 2.17, Private Non-farm Employment Distribution**, is the change in the allocation of private sector, non-farm jobs located in the Edinburg area from 1998 to 2001, the most recent date for which these figures are available.[6] While the previous data set measures the number of employed adults living in Edinburg regardless of job location, these figures reveal the number of jobs by industry located in the Edinburg area. From 1998 to 2001, the Edinburg area's share of jobs within the Education, Health, and Social Services sector nearly doubled from 16.9 percent to 30.1 percent. During this period, it is estimated that nearly 3,600 new private sector jobs were created in this industry.[7] This strong growth represents approximately 60 percent of all new private sector jobs created during 1998 to 2001. Consequently, the Education, Health, and Social Services sector is now the largest single industry in the Edinburg area.

[6] The Edinburg area is defined by zip codes 78539 and 78540.
[7] This data set does not include employment in public education.

Figure 2.17, Private Non-farm Employment Distribution



Source: U.S. Census Bureau, 2000 and TIP Strategies, Inc.

Further to the Education, Health, and Social Services sector, only one other sector, Transportation/Utilities, increased its share of jobs in the Edinburg area significantly. In 1998, this industry accounted for an estimated 619 positions, 4.6 percent of the City's job base. By 2001, the Transportation/Utilities sector had added 488 jobs, reaching a total of approximately 1,100 or 5.7 percent of all private sector jobs. This increase represented 8.2 percent of all new jobs created in the Edinburg area. Leisure and Hospitality also contributed a large share (8.1 percent) of job growth to the community. While its overall percentage of jobs fell slightly, the Leisure and Hospitality sector grew 36 percent and added nearly 500 positions from 1998 to 2001.

Conversely, the Manufacturing sector's relative position has declined significantly in the Edinburg area. In 1998, this industry represented approximately 20 percent the City's job base; but by 2001, the Manufacturing

sector's share had fallen to just 13.6 percent. This percentage decline, however, was not the result of mass layoffs but the consequence of strong job growth elsewhere in the local economy. In 2001, an estimated 2,658 manufacturing-related jobs existed in the Edinburg area, only 63 fewer jobs than were present in 1998. The Retail Trade sector's share of jobs in the Edinburg also fell significantly, despite having added an estimated 140 positions from 1998 to 2001. In 1998, just over 2,000 jobs were present in Edinburg's Retail Trade sector. By 2001, the industry had grown 6.9 percent to approximately 2,150 positions.

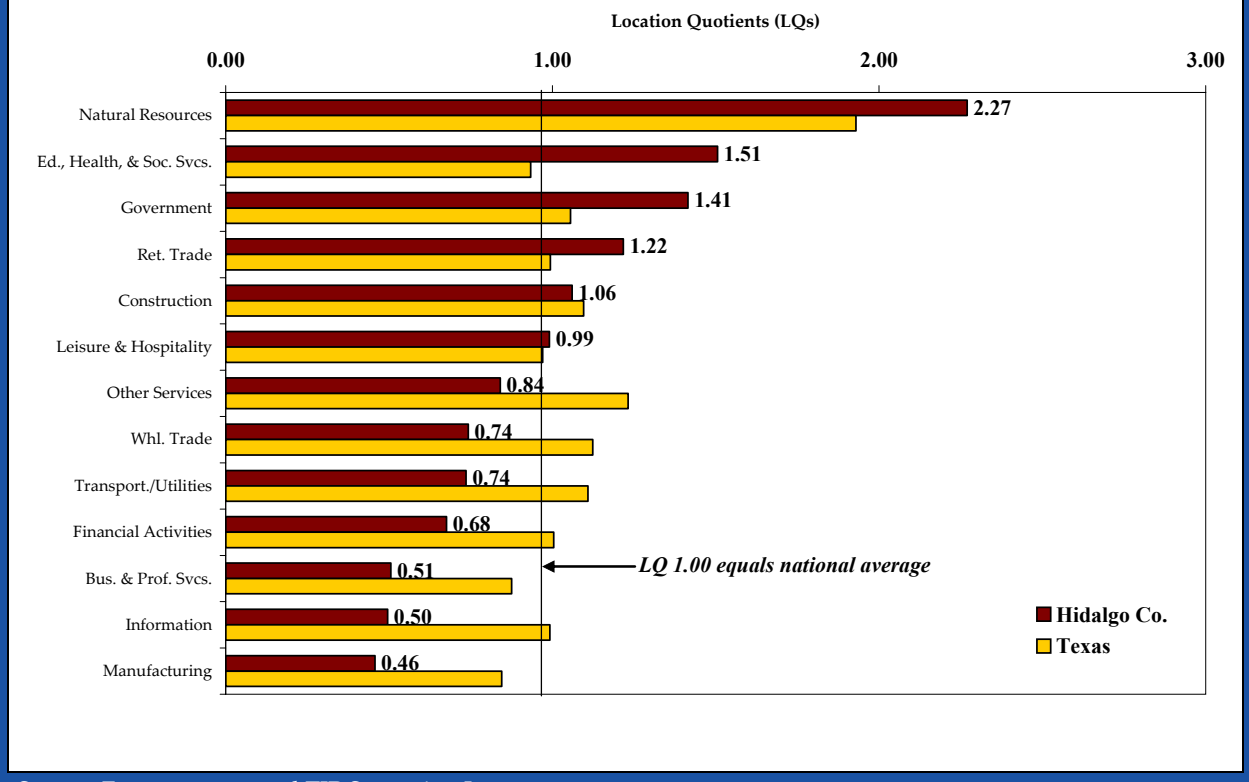
Location quotients (LQs) are ratios generally used to measure the relative concentration of an industry in a region versus its concentration in the nation by measuring employment. While an LQ equal to 1.00 indicates that an industry's regional concentration is the same as the nation, an LQ greater than 1.25 generally indicates a regional specialization in that industry. Likewise, an LQ that is significantly lower than 1.00 points to a weak presence for an industry in a region. Displayed in **Figure 2.18, Location Quotient Comparison,** are the LQs by major industry for Hidalgo County and Texas in the Year 2004, according to employment data provided by Economy.com.[8]

The Natural Resources sector has the highest LQ in Hidalgo County at 2.27. In other words, this industry has over two times as many jobs in Hidalgo County than would be expected given national employment rates. While Hidalgo County has a high concentration of jobs in this sector, local employment in Natural Resources stands at only 4,480 or 2.4 percent of all jobs. Other industries with strong LQs in Hidalgo County include Education, Health, and Social Services (1.51), Government (1.41), and Retail Trade (1.22).

Hidalgo County's lowest LQ is in Manufacturing at 0.46, meaning that slightly less than half as many manufacturing-related jobs are present than would be expected given national employment rates. Hidalgo County has low LQs in several high-end service sector industries including, Financial Activities (0.68), Business and Professional Services (0.51), and Information (0.50). While Hidalgo County has benefited from its location along the U.S./Mexican border, its geographic advantage has yet to be fully realized as seen in its relatively low concentration of jobs in the Transportation/Utilities industry (0.74 LQ).

[8] The data were unavailable for Edinburg. Government includes Public Administration and all other governmental functions, such as public education and the military.

Figure 2.18, Location Quotient Comparison

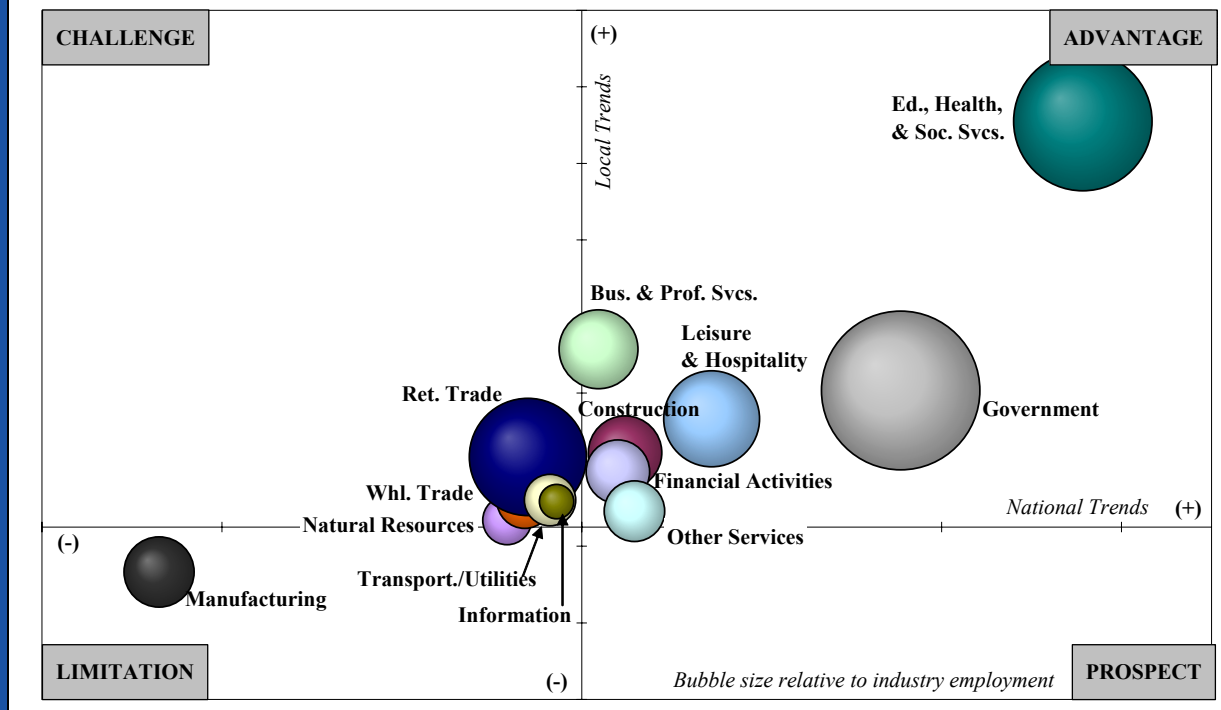


Source: Economy.com and TIP Strategies, Inc.

Shift-share analysis is a comparative tool used to measure the economic linkages between changes in the structure of a local economy and that of a higher-level or parent economy. In this case, the U.S. Shift-share analysis is a technique that determines the source of changes in a given industry in the local economy by allocating shifts in employment among three components, including national, industry mix, and regional competitive share. Graphically depicted in **Figure 2.19, Shift-Share Analysis**, is the employment size and economic performance of Hidalgo County's major industries from 1999 to 2004, according to employment data provided by Economy.com. Each of Hidalgo County's major employment sectors can be categorized as an asset, prospect, challenge, or limitation.

According to shift-share analysis performed for the last five years, the Education, Health, and Social Services sector is Hidalgo County's greatest economic asset. This is due to the industry's strong pace of growth both

Figure 2.19, Shift-Share Analysis



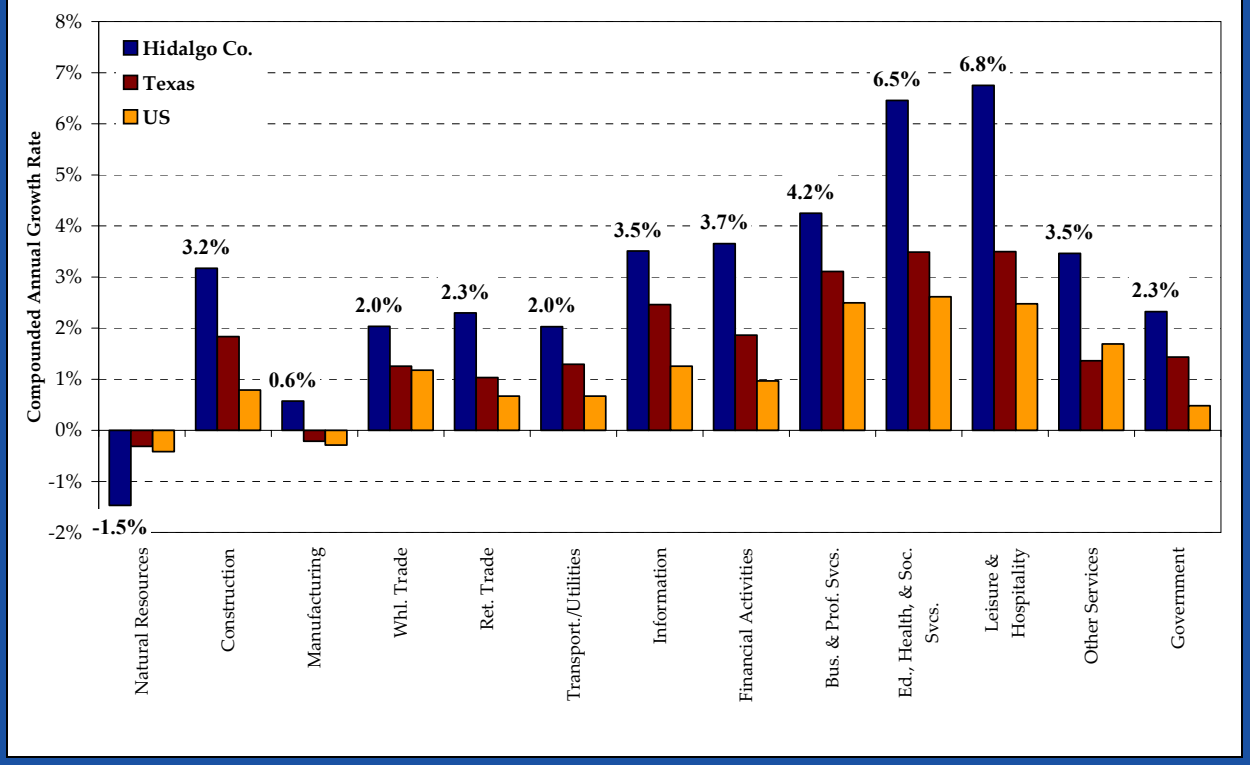
Source: Economy.com and TIP Strategies, Inc.

nationally and locally, implying that opportunities for continued growth should persist. Other major sectoral advantages include Government, Business, and Professional Services, and Leisure and Hospitality.

Several of Hidalgo County's major industries are categorized as "challenges" according to shift-share analysis: Retail Trade, Wholesale Trade, Information, Transportation/Utilities, and Natural Resources. These industries are considered challenges because Hidalgo County showed relatively strong growth recently in industries whose employment levels either declined or lagged nationally during the shift-share time frame (1999-2004). In other words, macroeconomic trends may present challenges to future growth prospects locally in these industries.

As shown in **Figure 2.20, Forecast Annual Growth Rate,** nearly every major sector will grow at a more rapid pace in Hidalgo County than state-wide and nationally during the next ten years, according to data provided by

Figure 2.20, Forecast Annual Growth Rate



Source: Economy.com and TIP Strategies, Inc.

Economy.com. In particular, industries in the services sector are expected to lead employment growth. For example, Leisure and Hospitality and Education, Health, and Social Services are forecasted to grow at annual rates of 6.8 and 6.5 percent, respectively. Other industries that are forecasted to grow at a rapid pace include Business and Professional Services (4.2 percent), Financial Activities (3.7 percent), Information (3.5 percent), and Construction (3.2 percent).

Natural Resources and Manufacturing are both projected to shed jobs at the state and national levels during the forecast period (2004-2014). Locally, Natural Resources is also expected to decline (-1.5 percent per year), while Manufacturing will add jobs at a slow annual rate (0.6 percent).

Detailed in **Table 2.9, Employment Forecast by Industry**, is the total expected job growth in Hidalgo County for industries that are expected to add 500 jobs

or more during the next ten years. According to Economy.com, these 30 industries will represent 80 percent of all job growth in Hidalgo County during the forecast period. Dominating this list are industries from the Education, Health, and Social Services; Government; Leisure and Hospitality; and, Construction sectors. Many of these sectors provide services that are needed to serve a growing and aging population such as education, health care, construction, restaurants, and retail trade.

Table 2.9, Employment Forecast by Industry

4-digit NAICS	Industry Description	Major Sector	Employment		Change	
			2004	2014	Percent	Actual
	Total Employment		**187,671**	**271,886**	**44.90%**	**84,215**
6216-	Home Health Care Svcs.	Education, Health, and Social Services	14,576	29,047	99.30%	14,471
GVL	Local Government	Government (includes public education)	37,623	48,028	27.70%	10,406
7222-	Limited-Service Eating Places	Leisure and Hospitality	7,664	15,883	107.20%	8,219
7221-	Full-Service Restaurants	Leisure and Hospitality	5,705	10,413	82.50%	4,708
6211-	Offices of Physicians	Education, Health, and Social Services	4,159	8,483	104.00%	4,324
6221-	General Medical & Surgical Hospitals	Education, Health, and Social Services	6,205	9,775	57.50%	3,570
6241-	Individual & Family Svcs.	Education, Health, and Social Services	2,630	5,397	105.20%	2,767
5221-	Depository Credit Intermediation	Financial Activities	2,853	4,482	57.10%	1,629
5614-	Business Support Svcs.	Business and Professional Services	2,632	4,228	60.70%	1,596
6244-	Child Day Care Svcs.	Education, Health, and Social Services	1,354	2,802	106.90%	1,448
7211-	Traveler Accommodation	Leisure and Hospitality	1,592	2,747	72.50%	1,155
GVS	State Government	Government (includes public education)	4,848	5,992	23.60%	1,144
4411-	Automobile Dealers	Retail Trade	2,310	3,333	44.30%	1,023
5613-	Employment Svcs.	Business and Professional Services	2,888	3,883	34.40%	995
2360-	Construction of Buildings	Construction	2,090	2,983	42.70%	892
4451-	Grocery Stores	Retail Trade	4,248	5,125	20.60%	877
2370-	Heavy & Civil Engineering Construction	Construction	1,721	2,583	50.10%	862
2382-	Building Equipment Contractors	Construction	1,986	2,781	40.10%	796
6231-	Nursing Care Facilities	Education, Health, and Social Services	1,148	1,870	62.80%	721
5616-	Investigation & Security Svcs.	Business and Professional Services	814	1,518	86.60%	704
4471-	Gasoline Stations	Retail Trade	1,752	2,407	37.40%	656
8111-	Automotive Repair & Maintenance	Other Services	1,549	2,187	41.20%	638
5617-	Svcs. to Buildings & Dwellings	Business and Professional Services	807	1,444	79.00%	637
7139-	Other Amusement & Recreation Industries	Leisure and Hospitality	764	1,386	81.40%	622
6214-	Outpatient Care Centers	Education, Health, and Social Services	571	1,167	104.50%	596
2383-	Building Finishing Contractors	Construction	1,192	1,768	48.30%	576
4461-	Health & Personal Care Stores	Retail Trade	1,282	1,857	44.90%	576
7224-	Drinking Places (Alcoholic Beverages)	Leisure and Hospitality	560	1,132	102.00%	572
GVF	Federal Government	Government (includes public education)	2,781	3,292	18.40%	511
4421-	Furniture Stores	Retail Trade	859	1,361	58.40%	502

Source: Economy.com and TIP Strategies, Inc.

Chapter Three

Land Use and Character

Edinburg Gateway Plan
- An Agenda for 2025

Since 1980, Edinburg has doubled its population from 24,075 persons to 48,863 persons in 2000[1]. According to the estimates of this plan, which are consistent with those recently prepared by The University of Texas Pan American (UTPA), the population is now estimated at approximately 58,000 persons. This rate of growth has led to significant changes in the type, pattern, density, and scale of development. Growth has, thus, caused concern on behalf of residents as to the integrity of their neighborhoods, the character and appearance of both new and old development, conservation of environmental resources and preservation of valued open space, the ability to provide adequate infrastructure and community facilities concurrent with development, protection of the community's identity, and safeguarding the community's best economic interests. Each of these concerns were well-articulated by citizens during the Citizens' Congress held in December 2004.

The preparation of this Land Use element involved examination of the community's historic pattern of development, which generally originated in downtown and radiated outward along S.H. 107 and what is now Business 281/Closner; the ongoing pattern of new development within the City and its five-mile extraterritorial jurisdiction (ETJ); and, the types, densities, and arrangements of individual land uses. The general pattern of agricultural land, rural and countryside acreages, suburban single family residential development, auto-urban manufactured home and multiple family development, suburban (neighborhood) and auto-urban (downtown and strip centers) commercial uses, auto-urban industrial uses, special uses (public and tax-exempt properties), open space and natural lands, and vacant/undeveloped land use types were evaluated as to their contribution to the overall pattern of development and character of the community.

This element provides a 20-year vision and overall policy framework for the future physical and economic development of the City limits and portions of the extraterritorial area. The primary focus of this chapter is the urbanized and urbanizing areas of the community, although the entire five-mile ETJ[2] is subject to the goals, objectives, and recommendations expressed in this chapter. Advanced planning for the areas outside the City limits is particularly essential based upon the amount of existing and ongoing

Citizen comments on the community's land use and growth:

- There are apparently no limits to City growth
- Land uses are mixed causing incompatibility
- Quality of development is a concern
- The community is lacking an identity
- There are no buffers between uses
- We are lacking significant commercial development
- The community needs special districts and places
- We lack quality and up-to-date zoning and subdivision standards
- The community needs to define itself
- We have room to grow, which is good and bad
- Zoning can be a strength because it creates a better environment
- Businesses need to be created along the Expressway
- We need a better system to notify residents about what is going on around them
- The City needs to adopt and enforce ordinances for inoperable vehicles and trash
- There are growth constraints such as the floodplain
- The Downtown Square needs improvement
- A downtown parking garage is needed

[1] U.S. Census Bureau
[2] The Texas Local Government Code defines extraterritorial jurisdiction for municipalities with a population of 5,000 or more and located in a county bordering the Rio Grande River as the area outside the municipal limits but within five miles of those limits.

Citizen comments on the community's land use and growth:

- The two forces that are critical are to manage our development and capture tourism and economic development
- Our neighborhoods need sidewalks and bike paths
- Neighborhoods need a focal point, such as a park or school
- Itinerant vendors are a problem
- We do not capitalize on being the County seat nor do we capitalize on the University
- The amount of parking around the University is becoming an increasing problem for nearby neighborhoods
- We need to focus on preserving open space and sensitive areas
- Our new development is laid out in cookie-cutter fashion and is highly monotonous
- Residents and businesses need to take pride in the appearance and maintenance of their properties
- Signs need to be regulated
- The community needs architectural standards
- We need highly visible gateways to the community
- The zoning ordinances needs to be comprehensively revised
- There need to be standards for uses developed prior to annexation, e.g. colonias

development occurring in the peripheral areas, the expectation of future incorporation of these areas, and the required provision of adequate municipal facilities and services.

The vision as to how this community develops in the future was formed by the concerns and ideas expressed during the Citizens' Congress by residents, civic leaders, land and business owners, and other community stakeholders. The chapter begins by outlining the key issues and future planning considerations relating to the community's existing and future land use character, which is followed by goals, objectives, and recommendations intended to guide ongoing land use and community character decisions. The outcome of this process and the ability of the City to exact control over its future development lie in the implementation of land use and growth policies and the methods of regulation and enforcement.

Each element of this plan is inherently interrelated as each influences and is influenced by the other elements. Therefore, the concepts of land use and community character are integral to other components of the plan. For instance, the transportation system provides access to land for development, which effectively determines the use and density of land. The provision or lack of utilities can dictate the amount, location, and timing of development. Design and development character impact community aesthetics and, thus, the internal and external perceptions held by area residents and those considering investment in the community. Proximity to public facilities can impact public health and safety at specific locations and, as a result, impact the development potential of an area.

ISSUES Relating to Land Use and Character

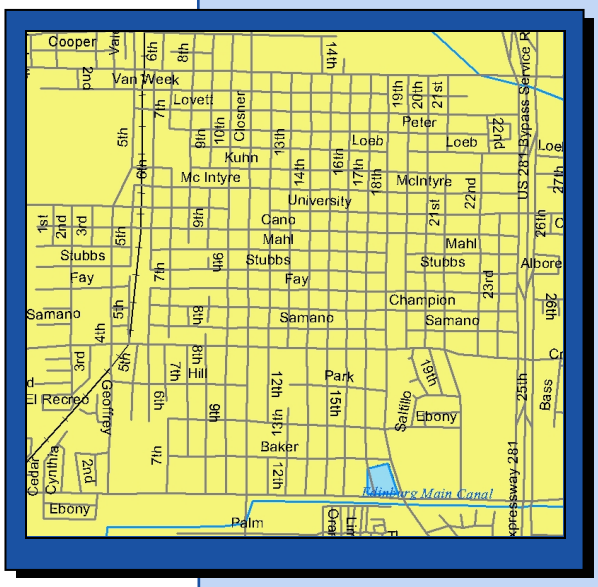
The issues summarized below are based upon the input received in the facilitated sessions held during the Citizens' Congress in December 2004. The comments expressed by participants in this process were used to form the issue statements, which provide a basis for creation of the goals, objectives, and plan recommendations. In addition, these issues reflect the observations and decisions of City staff, the Citizens' Delegation, and the Consultant Team.

Management of Future Growth

As the community's population has increased and new development has occurred, its geographic area has spread outward from the original town area. Up to about 1980, the City was largely within an area measuring roughly one and one-half miles square. This area, as depicted in the graphic in the margin, was bound by Schunior on the north and Freddy Gonzalez to the south, with

the railroad – and a little beyond – and U.S. 281 defining the west and east boundaries, respectively. Notable of this area is its traditional street grid, with streets spaced a block apart forming a dense network of roadway connections.

Since 1980, development has spread outward from the original town area. This more recent development reflects a contemporary pattern of discontinuous curvilinear streets and cul-de-sacs; a significant contrast to the traditional street grid pattern. Initially, new subdivisions were developed contiguous to the original town area, spreading outward to the south and west as well as on the east side of U.S. 281. In recent years, the outlying portions of the City limits have begun to develop, with new development occurring to the west of Jackson Road and in the southwest and northwest quadrants of the community. Increasingly, the City is beginning to experience development within the extraterritorial jurisdiction[3] beyond the City limits.



This outward pattern of growth now occurring in the peripheral areas is commonly referred to as urban sprawl. It is a trend that is not unique to this community or The Lower Rio Grande Valley. Among the reasons for its occurrence is a search for greenfield development opportunities offering fewer development constraints and, thus, an increased development efficiency; lower land values equating to lower per-acre and per-square-foot land and home prices; an increasing desire of homeowners to live in more rural and countryside settings away from the more densely developed areas; and, generally, an increased tolerance for longer drive times and less convenience.

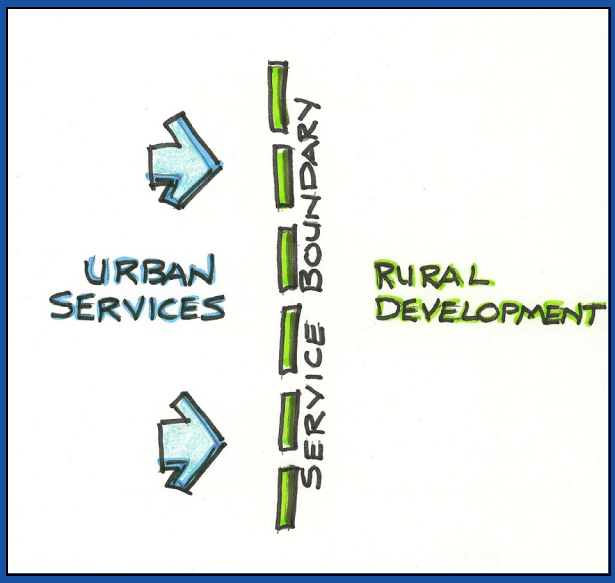
Based upon the comments received from residents during the Citizens' Congress, there is a growing concern for the community's pattern of development. Concerns were expressed as to a loss of community identity as the City's edge is blurred and the community becomes seamlessly fused with McAllen to the west and Pharr to the south. Even with the entry monument at

Statistics on the Sprawling of America

Over a 20-year period, the 100 largest urbanized areas sprawled out over an additional 14,545 square miles. That was more than 9 million acres of natural habitats, farmland and other rural space that were covered over by the asphalt, buildings and subdivisions of suburbia. The McAllen-Edinburg-Mission urbanized area ranks 56th on the list of the 100 largest urbanized areas regarding the amount of sprawl (in square miles) that occurred between 1970 and 1990.

[3] As defined by Chapter 42, Extraterritorial Jurisdiction of Municipalities, of the Texas Local Government Code, "extraterritorial jurisdiction" is the unincorporated area that is contiguous to the corporate boundary of the municipality. For a municipality that has a population of 5,000 or more and is located in a county bordering the Rio Grande River, "extraterritorial jurisdiction means the area outside the municipal limits but within five miles of those limits, in accordance with Chapter 212, Municipal Regulation of Subdivisions and Property Development.

the intersection of Owassa and McColl, there is an apparent loss in a sense of place as residents identify with a neighboring community even though they reside within the City limits of Edinburg. Many work and play outside of the City further strengthening their attachment elsewhere.



Defining an edge for provision of urban services is important to adequate plan for both short-term and long-range infrastructure needs.

It was noted that much of the new development is occurring to the southwest and northwest of the community, even though the community's "front door" is the relatively undeveloped U.S. 281 corridor. The reasons cited for the concern for an imbalance of growth are an overburdening of under-developed infrastructure systems, including unimproved roadways, under-sized water and wastewater lines, a lack of drainageways and detention areas, increasingly over-populated schools, insufficient public safety response times, and a lack of parks and recreation areas and facilities. Residents would like to see the City take a proactive approach to managing the pattern of development, instead, directing it to locations that will seize greater economic development opportunities, such as the U.S. 281 corridor, and coordinating it concurrent with the provision of capital improvements.

A significant concern that was voiced repeatedly is the drastic shift in community character that is resulting from the recent development pattern. Areas around the periphery of the City and ETJ that have – to this point – had a rural or countryside character are witnessing changes to a more suburban character as new subdivisions are developed with smaller lot sizes and, thus, greater densities. Residents who enjoyed the view of open land are now overlooking subdivisions – and soon shopping centers – which has raised concerns for the impacts on property values, neighborhood integrity, and general livability. While this is a natural occurrence in rapidly growing areas, residents are nonetheless interested in finding ways to remedy the impacts on the character of their neighborhoods and the community as a whole.

There are both practical and policy issues associated with peripheral development. The more significant issues relate to the inability of the City to promote orderly growth and urbanization by coordinating development with the provision of facilities and services. Another common issue with development occurring outside the City limits is a limitation for expanding the tax base in line with increasing service demands. This is especially important since residents and businesses outside the City benefit from access

to public facilities and services, such as parks and libraries within the City, but do not share in the tax burden associated with constructing and maintaining these facilities and services. A sprawling pattern of development also stretches resources and increases costs for providing services, while burdening the capacities of infrastructure systems that are not adequately designed or existing to support such development.

Compatible and Cohesive Pattern of Future Development

The community has a typical pattern of development. Similar to other communities, retail businesses in Downtown have largely been replaced by government and professional offices and service-related activities. Without a significant collection of weekend and night-time destinations, such as restaurants, unique retail shops, and galleries, occupancy rates have declined over time leaving empty storefronts and buildings. The retail development that once occupied Downtown is now located along the major transportation corridors with the highest traffic volumes and, hence, market exposure.

Commercial establishments are now located along major corridors leaving Downtown as a center for government and professional offices.

Older retail establishments are located along S.H. 107/University Drive stretching from east of the U.S. 281 Bypass to UTPA and both north and south of Downtown along Business 281/Closner Road. As new residential development occurs to the west, northwest and southwest, commercial retail and service businesses closely follow along each of the major roadway corridors. Newly forming markets resulting from residential development are exploited, leading to strip commercial development extending the full length of Business 281/Closner Road to the U.S. 281 Bypass; along S.H. 107/University Drive west of UTPA to McColl Road and, increasingly, toward the western City limits; along McColl Road between University Drive and Freddy Gonzalez and from Wisconsin to the southern City limits; and, sporadically along the U.S. 281 Bypass. Smaller convenience stores and neighborhood commercial uses are also appearing at intersections around the community. The most significant concentration of industrial development is north of Schunior Road to one-half mile north of Chapin Road stretching, generally, from the U.S. 281 Bypass to the railroad, along Business 281 to Rogers Road, and along Monte Cristo from the railroad to the U.S. 281 Bypass. There are also two power plants at the northwest corner of Sugar Road and Monte Cristo Road and at the southwest corner of McColl Road and Monte Cristo Road.

Subdivisions are commonly located a limited distance from arterial roadways leaving the street frontage for commercial development, leading to abutting residential and commercial uses.

Due to the grid of arterial streets and the resulting traffic patterns and volumes, higher land values exist adjacent to the thoroughfares leading to their more intensive non-residential use. The land development pattern has contributed to the strip commercial use along corridors by setting residential development a limited distance (commonly 300' or 400') from the thoroughfare frontage, limiting the site development alternatives of the property. Additionally, within the C-2, General Business District, while the minimum front yard is only 20 feet, the minimum required rear yard is 15 feet when abutting a residential district. Therefore, buildings may be constructed toward the rear of the site – closest to the abutting residential use – with the required parking adjacent to the street. Without bufferyard and explicit landscaping and buffering requirements between residential and non-residential districts and uses, with the exception of a required six foot landscaped open space buffer strip in the C-O, Office Business District, there is little to protect existing neighborhoods from the impacts associated with abutting uses.

In response to resident concerns for abutting higher density residential and more intensive non-residential uses, and a silence of the City's development regulations relating to compatibility or residential protection standards, most of the newer neighborhoods are now self-contained and gated. While this has achieved – at least partially – the intended effect of protecting the neighborhood from encroaching incompatible development, it has created additional issues as to the perceptions of safety, the aesthetic appearance of roadway corridors, connections within and between neighborhoods and to nearby parks and schools, neighborhood and citywide traffic movement patterns, and access by public safety vehicles.

Walls are commonly used throughout the community as a means to buffer unknown adjacent uses.

Incompatibility was one of the highest priorities cited by community residents who participated in the facilitated land use and growth break-out group during the Citizens' Congress. Of significant concern is an increasing mixture of uses, which includes the following:

- Abutting residential and non-residential development along roadway corridors without bufferyard requirements and standards;

- Rezoning of property to C-1, Local Business District, in low density residential areas that have a suburban (versus auto-urban) character, for which the allowable uses are too intensive without compatibility and residential protection standards, including those such as: banks, hotels and motels, medical clinics and offices, pharmacies, and "any other local business (undefined) supplying the everyday shopping needs of the immediate neighborhood";
- Allowable home occupations without increased performance standards; and,
- Special uses allowed in any district, subject to limitation, without increased performance standards and criteria for use by the Planning and Zoning Commission and City Council in considering the appropriateness of the requested special use.

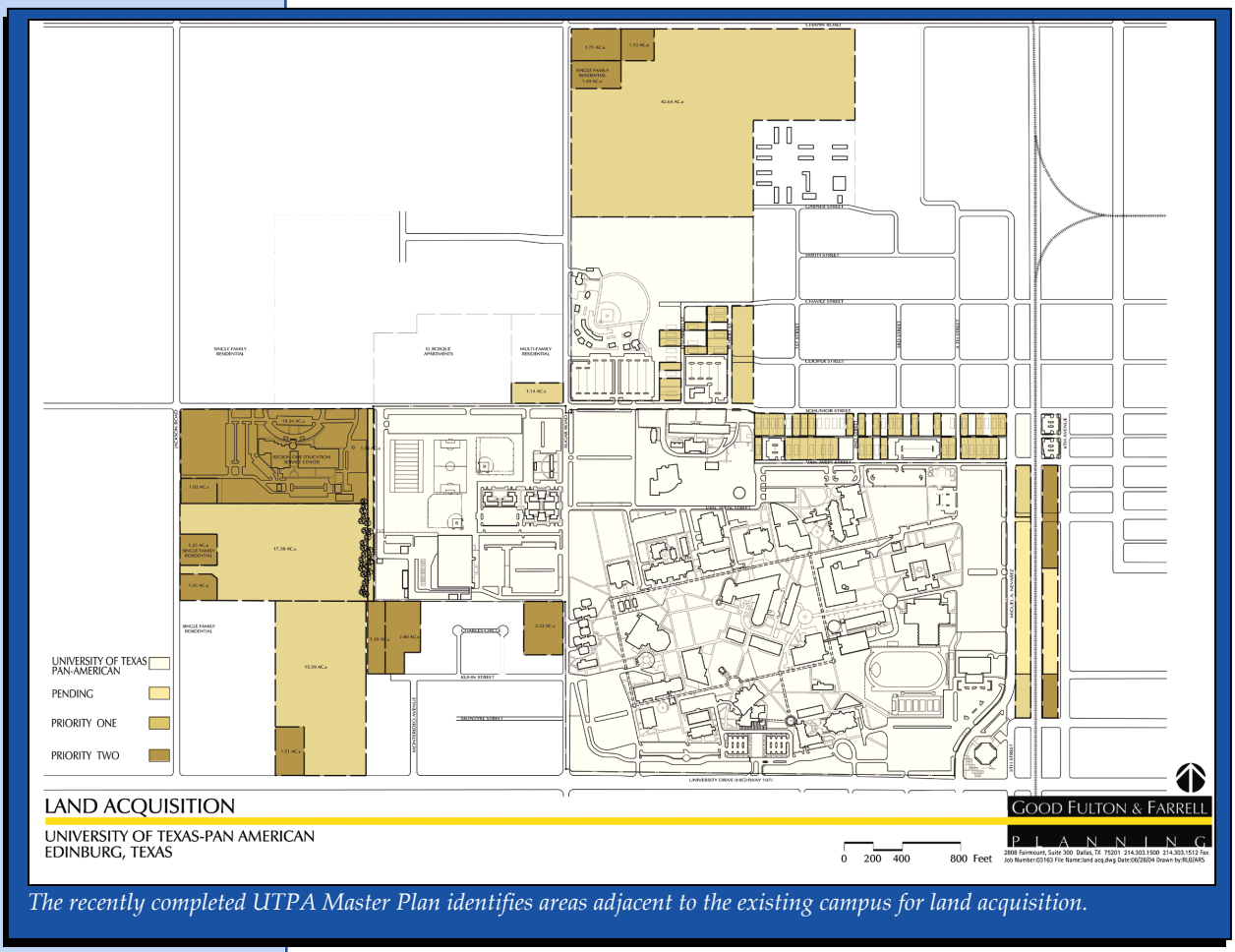
Areas of specific concern that were noted include the existing neighborhoods surrounding the UTPA campus, those abutting the current non-residential uses in Downtown and along University Drive and Closner Road, and those along and near the U.S. 281 Bypass.

Enhancing Development Character

One of the key issues and, hence, highest priorities of the community, according to those who attended the Citizens' Congress is its identity and attractiveness. One of the focuses of the discussions was on the desire to enhance downtown. It is recognized that this is one of the community's greatest assets, which is not currently fulfilling its potential. Residents would like to see unique and upscale shops, restaurants, more museums and galleries, and destinations to attract residents and visitors in the evenings and on weekends. They would like to see vacant storefronts and buildings occupied, improved public parking areas (possibly including elevated parking), a heightened emphasis on pedestrians, better traffic movement patterns and control features, more amenities such as plazas and public gathering areas, an enhanced physical presence achieved through building standards and signage controls, more green space and landscaping, and downtown living opportunities. This area is viewed as an "economic gem in the rough," which offers the potential – with attention and investment – to become a community focal point. Revitalization of downtown would create a sense of place and belonging for community residents.

Downtown is described as an "economic gem in the rough," which offers the potential to become a community focal point.

Another area of popular discussion is the UTPA campus and its surrounding neighborhood environs. With enrollment projections forecasted to crest 37,588 students in the Year 2020, up from 15,914 in 2003, and the faculty and staff forecasted to reach 4,478 in the Year 2020 (from 2,624 in 2005), the recently completed university master plan identifies a space deficiency of 3,173,564 gross square feet. This deficiency equates to more than 35, 3-story buildings or over 26, 4-story buildings to sustain this projected level of enrollment growth. On-campus housing to support the projected enrollment will require roughly 36 acres. This on-campus housing acreage assumes a 20 percent capture of freshmen and sophomores, a 5 percent capture of juniors and seniors, and a 15 percent capture of graduate students. The balance of those not residing on campus, which amounts to 33,569 students, must be housed elsewhere. Currently, 82 percent of the students reside within Hidalgo County, meaning that there will be an increased market for high density



The recently completed UTPA Master Plan identifies areas adjacent to the existing campus for land acquisition.

housing within Edinburg and throughout the county. In addition, there will be a need for an additional 96 acres for surface parking.

While residents are in full support of the University's growth and recognize its economic benefit to the community, there remains concern about the impacts on adjacent neighborhoods as well as the community as a whole. The issues identified include, among others:

- An increase in density as new multiple family complexes are constructed to support the expanded enrollment;
- The impacts of large surface parking lots as well as on-street parking demand on neighborhood streets;
- Traffic circulation and movement patterns on the adjacent arterial roads and, particularly, on neighborhoods streets;
- Possible conversion of nearby homes for renter versus owner occupancy; and,
- The scale of the campus in relation to the surrounding low-density neighborhoods.

Residents would like to see a University Area Master Plan to coordinate the campus expansion with mitigating improvements and to show how it will be integrated into the fabric of the community.

As the population continues to grow and there is a greater demand for non-residential development, there must be plans, policies, and ordinances in place to effectively manage its appropriate placement and quality. The emerging pattern of development is along the frontage of each major corridor, as is presently occurring along University Drive to the western City limits and along McColl Road south of University Drive. This pattern of strip development lends itself to the concerns expressed by residents, including a proliferation of signage; multiple driveways; limited green space and landscaping along the streetscape; buildings situated to the back of sites with a view from the street across large expanses of concrete and parked vehicles; wide street sections needed to accommodate higher traffic volumes, multiple turning movements and vehicular acceleration and deceleration; and, generally, an unappealing corridor environment. Instead, they would like to see more significant shopping districts with enhanced standards that achieve a development character that reflects positively on the community and its identity. Specifically, they would like to see

Integrating storm detention as open space and an amenity contributes to an enhanced character of commercial development.

better sign controls restricting their height, size and number; more site landscaping and open space; and, architectural standards to create districts with a cohesive, unified appearance.

As seen in this example, different housing types may be accommodated while preserving neighborhood character with standards for bufferyards and open space.

Another significant issue relating to development character is the quality, sustainability, and integrity of neighborhoods. For a vast majority of the population, their home is their single largest lifetime investment. Therefore, sustaining the quality of the neighborhood environment, protecting property values, and preserving livability are of significant value to homeowners. As discussed earlier in this chapter, gated communities have become the norm in an effort to safeguard neighborhood integrity. Rather, a land use system that is based on character versus use will ensure that adjacent development is consistent or compatible in character. This approach helps to avoid situations where subdivisions with widely varying lot and home sizes directly abut one another without a bufferyard that varies in an equivalent width and opacity. Similarly, a character-based system remedies the issues of incompatibility commonly associated with manufactured home communities, higher density and multiple family dwellings, and non-residential development.

There are areas interspersed throughout the community and ETJ that possess valuable natural resources warranting protection. Lands along and adjacent to irrigation canals and drainageways, within the floodplain generally stretching diagonally across the community from northwest to southeast and scattered throughout the City limits and ETJ, lands with gas wells, as well as prime agricultural lands surrounding the community, offer opportunities for resource conservation and land preservation. While these areas are sensitive to urban development, they may be utilized to fulfill other community objectives, such as environmental protection, open space preservation, and sound resource management.

Residents are interested in forging a community that is both unique and attractive. There were numerous comments received through interviews and the Citizens' Congress regarding the desire for more green space integrated into development with linear greenways and trails connecting them. This objective may be achieved by adopting sound environmental conservation and responsible land development practices. Sensitive areas along the canals, drainageways, and within the floodplain may be incorporated into developments as a natural amenity, while sustaining their resource function.

Doing so requires a regulatory system that balances development efficiency and resource protection. Through innovative land planning, resources may be preserved and effectively integrated into development without compromising private interests.

Sensitive development practices are necessary to protect the community's environmental resources and other pristine and highly valued lands.

Supporting Economic Development

Each element of this plan is interrelated and both influences and is influenced by the community's economic development. In other words, the future land use plan must delineate the areas that are both appropriate and suitable for future non-residential development. Areas that are suitable must be adequately separated from areas of less use intensity, such as single family neighborhoods, while also having good access to the local street system and the regional highway network. Adequate utility capacities must be available to meet the requisite water, wastewater, and drainage demands of commercial and industrial users. Municipal services such as police and fire protection must all be readily available to protect both life and property. Technology infrastructure, such as fiber optics and other telecommunication services, must also be available. Each of these required facilities and services bear significance on the pattern, type, and timing of the community's future growth and development.

This community is fortunate – from an economic development perspective – to be situated along the U.S. 281 corridor. This U.S. Highway provides the primary northern access to the metropolitan area, which extends northward to San Antonio, to the west of the Dallas/Fort Worth Metroplex, and eventually tying into Interstate 44 in Wichita Falls, Texas. U.S. 281 is also part of the Interstate 69 NAFTA (North American Free Trade Agreement) Highway connecting Edinburg to Mexico and Canada. Today, development along this major transportation corridor is limited, offering great economic potential for future development. This plan must account for the economic potential of this area while, at the same time, safeguarding other interests and objectives relating to community identity and character, land use compatibility, and adequate infrastructure provision.

Interstate 69 will be a 1,600 mile facility connecting from Port Huron, Michigan through Edinburg to the Texas/Mexico border.

Much of the commercial development within the community is smaller-scale strip commercial shopping centers and service-related businesses. While there is a significant presence of Hidalgo County government, the University, and a

growing healthcare sector, it does not have any larger-scale or regional retail centers. As the population of the community continues to grow and the population center of the county begins to shift over time, there will be an increasing demand for both commercial development and significant employment centers. This presents an opportunity to capture larger shares of these markets. This plan must, therefore, express the community's vision for its long-term economic growth and development.

The presence of UTPA offers an economic asset to the community, the larger metropolitan area, as well as The Lower Rio Grande Valley. Based upon the projected enrollment and increase in faculty, the value of the University to the economic development program will only strengthen the competitive position of the community. UTPA offers a resource for higher learning and technical training, and also provides an opportunity to forge partnerships with local business and industry for research and technology advancement. This plan, together with the economic strategy plan outlined in Chapter 5, Economic Development, must, therefore, seek ways to further foster these relationships through proactive land use planning, growth policies, and supportive regulations.

While the importance of Downtown has been discussed elsewhere in this chapter relating to community appearance and character, it also is important to the community's economic development. The County Courthouse and its related government activities are responsible for generating a significant amount of traffic and daytime population. However, Downtown is not currently seizing its economic potential by encouraging increased local spending at restaurants, shops, and other businesses. In addition to the business community, Downtown presents an opportunity to attract the tourism market, particularly considering the population of Winter Texans visiting the area each year. The opportunity in Downtown is to create a unique destination for local residents, tourists, visitors, and the business community.

To allow the community's economic development program to be successful, this plan must be proactive in its future planning. Rather than responding to development proposals on a case-by-case basis, which severely limits the ability to properly plan and coordinate a compatible pattern of use, the intended pattern and character of development must be established to carefully guide such important decisions. Doing so will allow advanced planning of infrastructure systems and timely provision of municipal services concurrent with new development. While there are rural water suppliers easing demands for water infrastructure in the outlying areas of the ETJ, the

City may use in Capital Improvement Program (CIP, as a growth management tool. Specifically, roadway capacity may be used as a prerequisite for allowing urban development in the ETJ. Use of a mechanism such as traffic-sheds may allow the City to sequence the location and timing of development as roadway and other infrastructure capacity improvements are made and, hence, adequate facilities and services become available. Such approach gives the City an upper hand in directing its development in a fiscally responsible manner.

Effective Plan Implementation

Communities that are successful in achieving their vision are those who have a collective vision, consensus of direction, and a commitment to act. Without this resolve, plans are ineffective and lack the support necessary to realize their goals. Therefore, in order to achieve desirable development outcomes, there must be a firm commitment to abide by the policies and recommendations of this plan. The Future Land Use Plan and the goals, objectives, and recommendations to support it are intended to provide the guidance necessary to achieve the preferred type, pattern, and character of future development. As conditions change over time, the plan will require periodic review and amendment to continue to reflect the City's economic development objectives, development policies and regulations, and other long-range planning considerations.

Directly associated with the implementation of this plan is the enactment of incentives, standards, and regulations to ensure compliance with the City's policies and overall community vision. While regulations impose certain restrictions on the use of land, in the interest of all persons and the community as a whole, they are an essential component for realizing each of the values expressed by individuals during this planning process.

Regulations that are enacted must be fair, equally applied, and contain a certain degree of reasonableness. There must also be diligence, though, in their enforcement so as to protect the interests of all persons – including those who are nearby or adjacent to the use – and to secure the overall vision of the community.

Goals, Objectives and Recommendations ■ ■ ■

The following goals, objectives, and actions were formulated to specifically address the issues and problems outlined in the summaries above. The goals reflect the overall vision of the community, which may be achieved through

the objectives and by acting on the recommendations. It is important to note that these are also general statements of policy that may be cited for support or denial of development proposals and used in making important community investment decisions regarding the provision and timing of facilities and services.

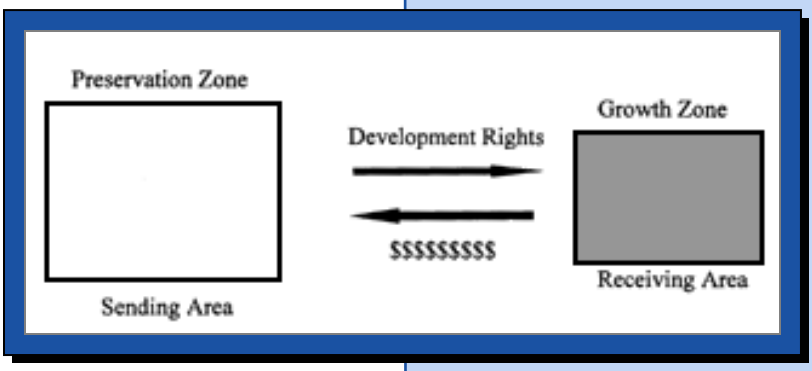
GOAL 3.1: A well-managed pattern of development that is fiscally responsible

Objectives and Actions

- ***Manage the pattern of development concurrent with the provision of adequate public facilities and services.***
  1. Utilize the water and wastewater infrastructure plans, area drainage studies, municipal thoroughfare plan, and capital improvement plan to coordinate the pattern and timing of future development concurrent with the availability or provision of adequate public facilities and services. Prepare a growth sequencing plan to identify "urban areas" that have adequate infrastructure capacity available and may immediately support development; "urban fringe areas" that are suitable for urban development subject to the extension and availability of adequate facilities and services; "rural areas" that are beyond the area of urban service provision and subject to future annexation and development; and, "agricultural areas" that are intended to remain undeveloped for the horizon of this plan. Based upon the size and condition of existing infrastructure, thresholds must be established to quantify the capacity available for development within each of the defined areas.
  2. In accordance with Chapter 43, Municipal Annexation of the Texas Local Government Code, prepare and adopt a municipal annexation plan "that specifically identifies annexations that may occur beginning on the third anniversary of the date the annexation plan is adopted."[4] The purpose of the annexation plan is to implement the growth sequencing plan and to coordinate the timing of capital improvements. As required by law, the municipality must provide full municipal services within two and one-half years after the effective date of the annexation.[5]
  3. Consider the adoption of provisions to allow a transfer of development rights from sending zones, such as the rural and agricultural areas in the periphery of the City limits and ETJ, to

Transferable Development Rights – *A program, either voluntary or, in some instances, mandatory, that can relocate potential development from areas where proposed land use or environmental impacts are considered undesirable (the sending area) to another site (receiving area) chosen on the basis of its ability to accommodate additional units of development beyond that for which it is zoned, with minimal environmental, social and aesthetic impacts.*

[4] Section 43.052, Municipal Annexation Plan Required
[5] Section 43.056, Provision of Services to Annexed Area



receiving zones where there are adequate public facility and service capacities available to support increased densities. The receiving zone would be the "urban area", with provisions allowing a transfer of a lesser density to the "urban fringe area." This program would give the rural and agricultural property owners the ability to transfer their allowable density to properties within the urban area that would then be able to develop with an increased density. In effect, development rights are purchased from the outlying areas giving them a developable value to their land.

- ***Amend the development regulations to better manage community growth.***
  4. Amend the zoning ordinance to include districts allowing agriculture, rural, and countryside development types, which limit development density consistent with the designated agricultural, rural, and urban fringe areas reflected on the growth sequencing plan (yet to be developed). The minimum lot areas and utility requirements would, in effect, control the development character thereby preventing premature urban development in areas without adequate infrastructure. Subsequently, amend the zoning map to designate the agriculture, rural, and countryside areas. A neighborhood conservation district would be used for existing development, which would allow its continued existence as a conforming use.
  5. Amend the zoning and subdivision regulations to allow and encourage development clustering (30% open space), conservation (50% open space), and preservation (80% open space) development, which allows smaller lot sizes, reduced setbacks, increased floor area ratios, and added flexibility of other area standards in exchange for more open space, preservation of natural areas, and land set aside for sensitive areas. These development types allow an equivalent (or increased) net density thereby allowing development of otherwise constrained sites within the urban area. This is particularly important for sites with land within the floodplain as well as those along irrigation canals, drainageways, and the railroad, as well as around gas well sites.
  6. Amend the zoning ordinance to further clarify the zoning districts to include - in addition to their use, such as single and multiple family residential, manufactured homes, offices, local and general business,

The plan at the top illustrates a conventional development pattern covering the entire development site, consuming all the land, and eliminating the natural features that make the site appealing. A small pond at the center is hidden behind lots, off-limits to most residents. In contrast, development clustering (lower figure) uses a variety of lot sizes to accommodate the same number of units, while preserving substantial areas as open space. The pond is preserved as an accessible amenity, which is linked to a trail. With more connections and linkages between streets, travel distances are shorter throughout the development. The sparse arrangement of homes around the perimeter allows an attractive, unobstructed view of the development's surrounding rural character.

and restricted and general industrial - the actual character of development. These amendments would further differentiate the types of use to reflect their density (lot size and dwelling units per acre) and intensity (floor area ratio, impervious cover). Therefore, a character district may include density and bufferyard provisions to mitigate the impacts of the adjoining use. In the case of two abutting subdivisions within the same zoning district yet widely varying lot and home sizes, for instance, through ordinance provisions the character of both may be protected and maintained. This is particularly important in the outlying areas where the character is changing as more and more development occurs.

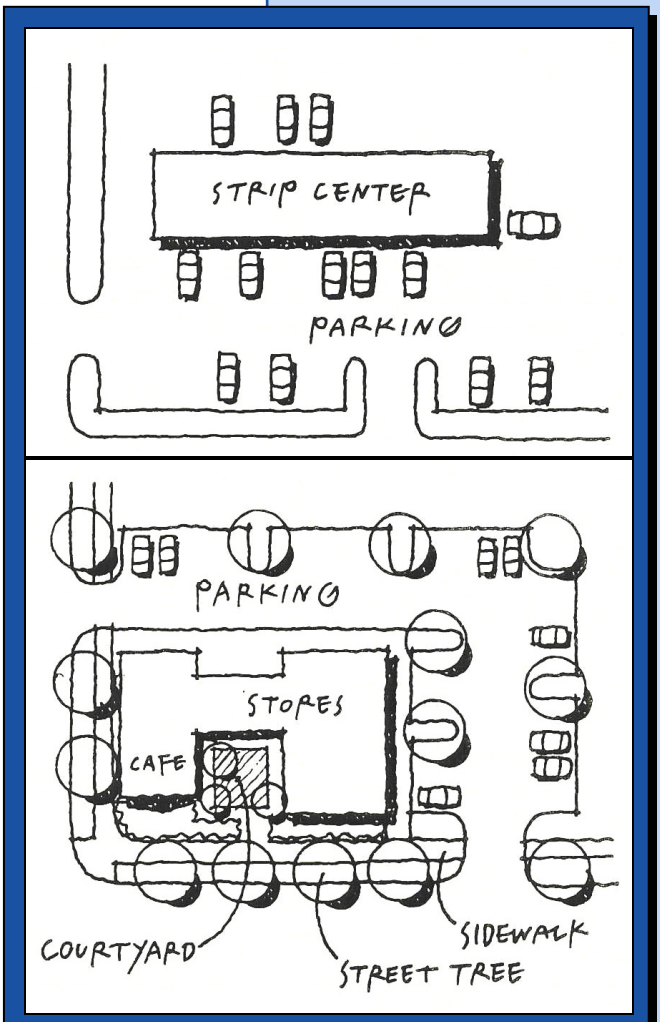
GOAL 3.2: An economically viable and compatible pattern of future land use and development

Objectives and Actions

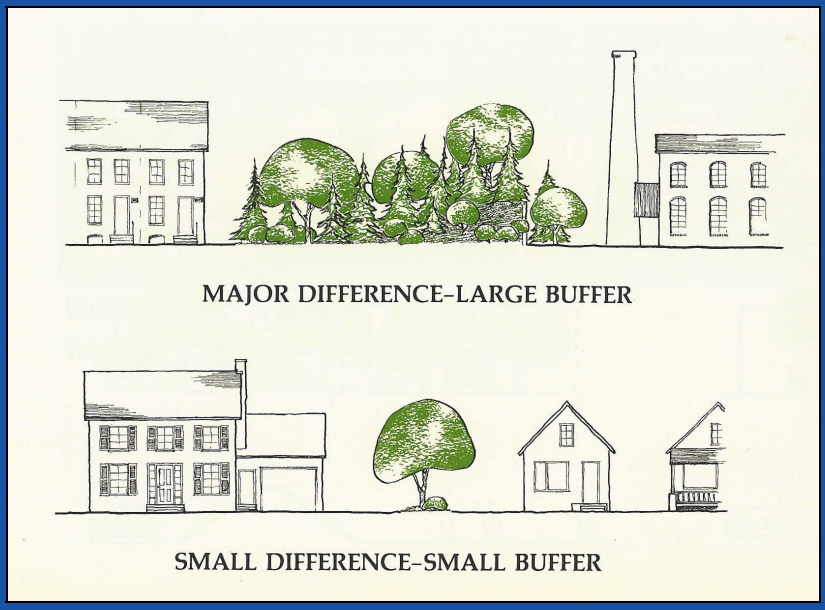
- ***Achieve a future land use pattern that maximizes the market value of land while reflecting a compatible and cohesive land use character.***
  1. Utilize the Future Land Use Plan to guide non-residential development to locations within the community that are compatible with existing development and suitable for intensive development. Rather than allowing zoning and land development patterns that lend to strip commercial development adjacent to each of the major corridors - causing issues of neighborhood compatibility, increasingly congested roadways, and aesthetic concerns - implement a development pattern of suburban centers focused around the urban core. Such land use planning approach concentrates non-residential development in locations that may be designed to enhance compatibility and plan for infrastructure improvements to support intensive development, such as wider roadway cross-sections for turn lanes and acceleration/deceleration lanes, street lighting, directional signage, increased green space and bufferyards, etc.
- ***Provide for the development of compatible land uses, avoiding mixtures of incompatible uses in proximity to one another without adequate standards***
  2. Amend the zoning ordinance provisions requiring a maximum front yard setback of 20 feet within the C-O, Office Business District; C-1, Local Business District; and C-2, General Business District rather than having no front yard requirement, a minimal rear yard (15 feet when abutting a residential district), and allowing the building to be placed toward the rear of the site – closest to the abutting use. Such requirement will require the building to be set toward the front of the

site, with the required parking to the side and rear. Open space and landscaping would be required within the front yard. To mitigate the impacts of the parking in the side and rear lot, bufferyard requirements would need to be adopted. The opacity of the required bufferyard would vary according to the density/intensity of the subject and adjacent uses.

3. Amend the zoning ordinance to incorporate performance standards into the C-2, General Business District, relating to the allowable height and setbacks from adjacent residential areas. A bulk plane should be established whereby, at a minimum, the building height would require an equivalent building setback from adjoining residential property lines.
4. Incorporate an allowance for increased density of residential development within a distance of 300 feet of arterial roadways. Such provision will allow a density necessary to capture the increased market value of land adjacent to a major transportation facility. The increased density allowance would be in the form of a density bonus, which would be an incentive to develop residential versus non-residential use along corridors.
5. Integrate bufferyard requirements into the zoning ordinance, which is based upon not only on use but the character (density and intensity) of development. The basis of a bufferyard approach is to vary the buffering requirements based upon the character of the subject and abutting properties. The bufferyard model is based upon an opacity factor with variable allowances for bufferyard width, density of landscaping, and the use of fences and berms. The requirements to achieve the requisite opacity factor would be explicit as to the type and number of trees and shrubs in combination with the bufferyard width and use of fences or berms. This would enhance the current zoning regulations, which do not specify any landscaping or buffering requirements other than within the C-O, Office Business District.



The use of a "build-to" line versus a large front yard setback shifts the placement of parking, thereby forging a very different corridor environment and appearance.



Bufferyard requirements that vary according to the intensity of the adjacent use provide for improved effectiveness in achieving compatibility.

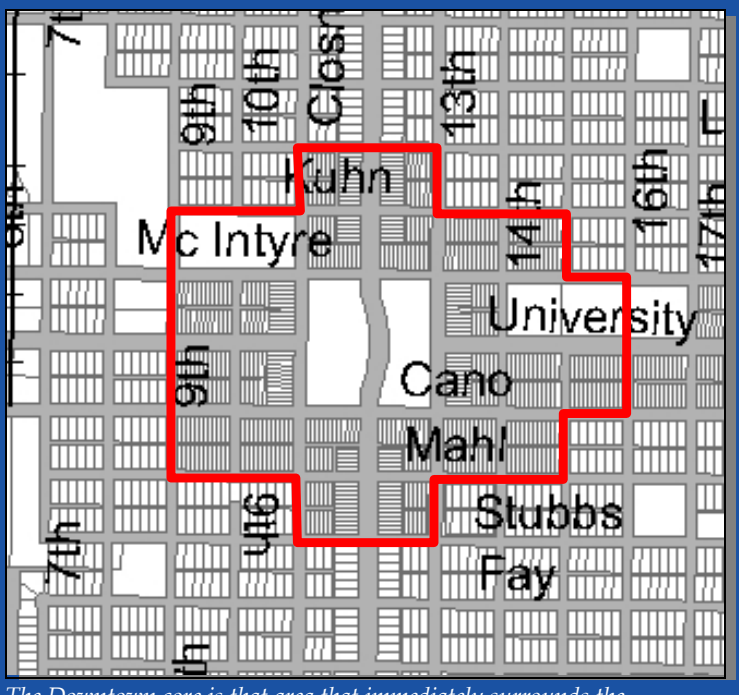
6. Establish requirements concerning gated communities. With adjustments to building setbacks, incorporation of bulk plane provisions, adoption of bufferyard standards, increased density allowances adjacent to arterial roadways, and the integration of a character-based system, gated communities will become much less necessary to achieve the neighborhood protection and compatibility objectives of residents. Standards for gated communities need to address fire access, roadway continuity and pedestrian connections between abutting neighborhoods and to nearby schools and parks, setbacks of the subdivision wall or fence from the public street right-of-way, the amount of open space and landscaping required between the wall or fence of the right-of-way, and the materials and design of monuments, gates, and walls. Review procedures must be established concurrent with the subdivision review process.
7. Redefine the existing zoning districts to include their character. For instance, the C-1, Local Business District would become a Suburban Commercial District. The permitted uses would be more explicitly identified to limit the uses to those that are compatible within a neighborhood environment. The dimensional requirements relating to the floor area ratio, maximum building height, and required minimum landscape surface ratio of the lot would also be adjusted. Additionally, there would be measurable performance standards for such things as lighting, signage, and noise to ensure neighborhood compatibility.
8. Reclassify special uses such as hospitals, clinics and institutions; office buildings of civic, religious or charitable organizations; snow cone stands; and adult day care and assisted living

Subdivision walls may be enhanced with provisions for increased open space and bufferyards.

centers as conditional uses with limited review. Amend the ordinance to clarify the required conditions and performance standards for such uses thereby making them permitted by right with a limited review versus a zoning amendment requiring a public hearing. Furthermore, establish criteria for considering special uses, including the following:

a. Conformance of the proposed use to the Comprehensive Plan;
b. The character of the neighborhood and surrounding area;
c. The zoning and uses of nearby properties, and the extent to which the proposed use would be in harmony with such zoning and uses;
d. The suitability of the property for the uses to which it has been restricted under the applicable zoning regulations;
e. The extent to which the approval of the application would detrimentally affect nearby and surrounding properties;
f. The extent to which the proposed use would adversely affect the capacity of safety of the adjacent roadway network, or present parking or site circulation problems in the vicinity of the property;
g. The extent to which the proposed use would create environmental harm; and,
h. The gain, if any, to the public health, safety, and welfare due to denial of the application compared to the hardship imposed upon the landowner.

GOAL 3.3: An enhanced pattern and form of development that positively contributes to community character and economic vitality



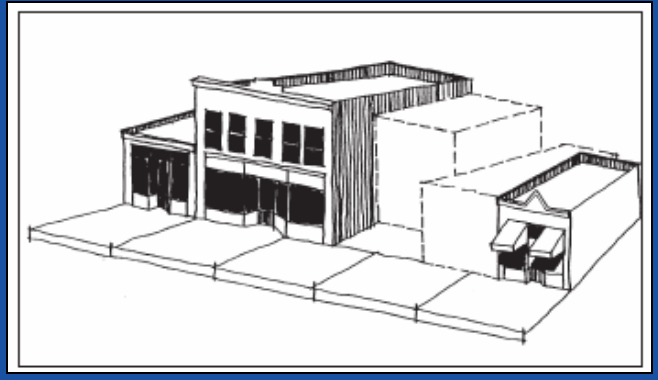
The Downtown core is that area that immediately surrounds the Courthouse Square. The environs around the core must also be studied.

Objectives and Actions

- Revitalize Downtown to create an urban village center as a community focal point and economic destination.
  1. Conduct an economic study focused on the downtown core and its immediate environs to include an analysis of its current economic contributions, such as sales and property tax collections, its relative market area, and its capture as a percentage of the local retail base. The analysis should include a detailed inventory of building space, including

both ground and upper floors, and their current utilization and occupancy. The types of businesses must be inventoried along with characteristics like business hours, numbers of employees and parking spaces, type and number of patrons, and other relevant factors. A business mix assessment should be prepared to identify the current mix of businesses and the optimum current and future mix of uses.

2. Prepare a constraints study to identify limiting factors for redevelopment and improved utilization of Downtown properties and buildings. The study should include interviews of business and land owners and lessees as well as an objective review. Such factors as land and building ownership, traffic and pedestrian circulation, parking, building and lease space sizes, building conditions, building code issues such as ADA accessibility, lease rates, and other contributing factors should be identified and addressed.
3. As part of a Downtown Master Plan, identify physical enhancements to the Downtown and along each of the major corridors leading into it. Such enhancements should seek to improve the urban character of the district through standards to increase the building enclosure. Create a special urban village zoning district including requirements for zero and side yard setbacks; a minimum (versus maximum) building height of two stories; allowances for upper floor residential use and incentives for high density urban living; and building form requirements include building bulk and scale, facade materials and architectural detailing, window and doorway fenestration, and sign placement. District provisions must also address pedestrian ways and amenities, street trees and planters, gardens and plazas, public art displays, outdoor activities and displays, and other requirements. Public rights-of-way enhancements should be addressed including street cross-sections (width, turn lanes, medians), traffic controls (signs, lights, speed tables), pedestrian improvements (sidewalks, crosswalks, way-finding, pedestrian-actuated signals, curb cuts, ADA accessibility), and property access (driveway location, number, width, design).



Building walls should maintain an alignment at the sidewalk's edge to increase building enclosure and enhance the urban character of Downtown

4. As part of a Downtown Master Plan, update the early 1990s parking study and prepare an updated future plan. The update should include an inventory of both on- and off-street parking spaces. The

number of spaces would be compared to the parking demand of the existing businesses yielding a surplus or deficiency. The location of parking spaces and their restrictions (hours and duration) must be evaluated to identify necessary policy modifications or needed parking improvements. The study should document the options and solutions to address any deficiencies, including a warrant for an elevated parking structure. Current policies and management of Downtown parking should be reviewed with recommendations for management organization, fee structure, and enforcement.

- ***Prepare a plan to ensure compatible integration of the University into the adjacent and nearby neighborhoods.***

5. Prepare a University area master plan, incorporating the recently adopted UTPA master plan. The area-wide master plan should include specific land use and zoning recommendations as to the properties to be restricted or allowed for single family, higher density and multiple family, and non-residential uses. Mitigating improvements such as applicable bufferyard standards, on-street parking restrictions, and environmental performance standards for noise and lighting must be addressed. The special area plan should also include traffic and parking evaluations to identify properties suitable for off-street parking, parking access and circulation requirements, and area-wide traffic movement patterns. Traffic calming improvements such as speed tables and humps, chicanes, traffic circles, street narrowing and/or closure, and one-way streets should be considered. Zoning and building code restrictions addressing housing occupancy, building conversions, and parking should be considered to manage the sustainability and integrity of the surrounding neighborhoods.

- ***Improve the character and functionality of developed and "tired" street corridors.***

6. Prepare special area corridor revitalization studies and plans for S.H. 107/University Drive from Raul Longoria to 5th Street and Closner Street from Schunior to Freddy Gonzalez. The studies should include a detailed inventory and assessment of existing conditions, including land use and zoning, building footprints, numbers and locations of driveways and parking lots, numbers and locations of signs, trees and vegetation, power poles and overhead lines, street cross-section and right-of-way, sidewalks and pedestrian improvements, pervious and impervious surfaces, and general visual characteristics. The revitalization plan should include specific regulatory recommendations and identified improvements and their estimated

costs. An implementation plan should identify priorities, funding options and sources, and a timeline.

- ***Encourage the conservation of environmental resources and require the protection and preservation of sensitive lands.***

7. Adopt resource protection standards to preserve stands of existing vegetation, which form effective natural buffers within and between uses. Preserved vegetation would be required to meet certain standards of performance, such as opacity and vegetation density, as a means of avoiding conflict between incompatible land uses. Coupled with the protection standards would be provisions for allowing variations of conventional subdivisions, such as clustered, conservation, and preservation development, each of which reward preservation of open space with bonuses – or incentives - allowing an equivalent development density. These forms of development encourage integration of open space and natural resources, thereby meeting the objectives of the community and developer.
8. Amend the zoning and subdivision regulations to include site capacity calculations, which quantify the allowable density that can be accommodated on an environmentally constrained site. Also, create zoning district provisions and subdivision standards for alternative forms of development clustering. Include density bonuses for innovative land development thereby creating an incentive for appropriate development of constrained sites (particularly within the "urban area" discussed elsewhere in this chapter).
9. Seek to acquire by way of fee simple purchase or conservation easements highly sensitive lands and conservation sites. These areas may include land along the irrigation canals and drainageways, within the Federal Emergency Management Agency (FEMA) floodway, wetland and wildlife habitat areas, or historically or culturally significant sites. Consider organization of a land-bank program whereby property owners may deed their land to the "bank" to ensure long-term conservation and protection, with tax benefits and off-setting incentives for increased development density

Development clustering is a land development technique that integrates natural resources as permanent open space.

and other favorable dimensional allowances. The impacts on adjacent properties resulting from density bonuses would be remedied by the use of character (versus use-based) districts and strict bufferyard requirements.

GOAL 3.4: A pattern of future land use that maximizes economic development

Objectives and Actions

- ***Amend the Future Land Use Plan and development codes to better support the community's economic development.***
  1. Capture the economic value of land along the U.S. 281 Bypass for higher intensity commercial and industrial development. This will require an amendment to the zoning ordinance and map to create a district (or districts) and minimum standards for uses that will generate significant new employment, increased investment, and an expanded local tax base. The corridor should be designated as a regional employment and retail center, and provided with the requisite transportation facilities, technology infrastructure, and utility improvements. Design standards must be applied to ensure development that exceeds that found in the standard districts. The standard of development should reflect positively on the community character while also achieving the objectives of land use compatibility. The corridor should be segmented for different types and intensities of uses, consistent with the existing pattern of land use, availability of access and infrastructure, and development suitability. Possible segments, coordinated with the target industry plan outlined in Chapter 5, Economic Development, may include industrial areas for specialty food, electronics, and transportation industries; highway commercial areas for automotive businesses; professional office park for administration, offices and call centers; medical business park for healthcare and medical facilities; and a regional shopping district.
  2. Prepare a unified development code (UDC) to consolidate all of the City's development-related codes into a single bound ordinance. Among other benefits, a UDC allows simplification and streamlining of the development review and approval processes by coordinating the review and permitting functions. Streamlining may be accomplished by consolidating districts and establishing strict performance standards, which both improve development outcomes and limit the number of zoning amendments and, thus, application

submittals, review time, and public hearings. Portions of the existing ordinance requiring substantial review and negotiated approvals, such as special use permits (for some uses) and a community unit plan, may be permitted as of right, subject to applicable conditions and standards. These and many other ordinance modifications greatly aid economic development by expediting approval of compliant applications and shortening development time.

GOAL 3.5: Policies, regulations, incentives, and processes that represent the vision and desired character of the community

Objectives and Actions

- ***Conduct regular reviews and periodic amendments of this Comprehensive Plan and its implementing regulations.***
  1. Annually perform staff and Planning & Zoning Commission reviews of this Comprehensive Plan to identify necessary amendments resulting from modification of policies and practices, significant shifts in economic development, and/or changes of the development environment. A report should be prepared each year documenting development approvals and land use decisions of the previous years and identifying emerging conflicts or inconsistencies with recent practices and policies. The report should be reviewed and discussed in a workshop setting with the Planning and Zoning Commission, who, after comprehensive analysis and consideration, should forward a recommendation of plan amendments to the City Council for deliberation and adoption. Included within the textual amendments should be recommended amendments to the Future Land Use Plan, Thoroughfare Plan, Park System Plan, Utility Infrastructure Plan, and other guidance documents. Each recommended change should be reviewed to ensure internal consistency. Upon the five year anniversary of the plan's adoption, an evaluation and appraisal report should be prepared, which will result in a major comprehensive plan revision. Such revision shall incorporate the plan amendments from the previous four years.
  2. Concurrent with the annual plan review and amendment process, and the five-year evaluation and appraisal process, each of the City's development ordinances (or unified development code) should be reviewed with recommendations for amendments. Such amendments should be designed to implement recent changes in development policy resulting from land use, zoning, and growth policy decisions of the Planning & Zoning Commission and City Council. Different from the plan amendments, each ordinance amendment should be incorporated into the code and annually codified.

Benefits of a Unified Development Code:

- *A UDC offers procedural consistency and a single source of standards and definitions.*
- *It greatly simplifies the amendment process helping to ensure consistency among the different codes.*
- *It makes the regulations more user-friendly for the development, real estate, and consultant communities.*
- *There can be better cross-referencing to ensure that all related provisions are taken into account pertaining to any particular development proposal.*
- *There is a single consolidated list of definitions, which helps to prevent inconsistencies.*
- *The administration of the codes is consolidated into one section thereby simplifying the roles and responsibilities of each official and body.*
- *The permitting process can be documented in a single document, which is helpful to identify the crossovers in the permitting process.*
- *The applications and procedures for all development processes can be clearly defined including use of a flow diagram to illustrate the submission and review process.*
- *It allows application of subdivision requirements to "zoning-only" projects, such as driveway access and site circulation review for a single-user site plan when subdivision is not required.*
- *It improves the ability to track the total development process.*

COMMUNITY FORM

There are two basic forms of communities. A freestanding community is separated from its neighbors and has a surrounding rural character. It has a naturally identifiable edge that enables visitors and passers-by to form an identity of the community. This type of community is quite different from a composite community that is formed when communities grow together, thereby making it difficult to identify one community from another. In the latter case there are no clear edges, leaving each community without an individual identity.

Edinburg could be described as a freestanding community in years past, although this is quickly changing as new development occurs around the edges and periphery of the City limits and ETJ. There are now several locations along the south and east limits of the City that are directly abutting development in McAllen and Pharr. Such pattern of development will eventually blur the edge of the community with those of the surrounding communities leaving only a welcome sign to distinguish one from the other. Without proactive planning to avoid such inevitable occurrence, the community's identity will further erode over time.

Creating a permanent identifiable edge to the community through clearly defined gateway improvements, preservation of permanent open space, and strict protection of the rural character will collectively form an "edge" to the community, thereby giving it form and definition. Sporadic development stretching outside of the City limits, such as that increasingly occurring along the western fringes of the City limits and ETJ, blurs the entrance and sense of arrival into the community. Controlling both the pattern and type of development in these areas will help to form a positive first impression and signify a formal entrance into the community.

While the City does not have control over the land use and growth policies of its neighbors, it has the discretion of forming its own definitive boundary, thereby allowing it to maintain a freestanding and unique identity. Doing so will require near-term policy and regulatory decisions to define the limits of urban growth. While the continuing growth of McAllen and Pharr may pose the most near-term threat to Edinburg's community form and, hence, character, the amount of rural and countryside development occurring around the periphery of the City limits and throughout the ETJ also presents a real challenge to the community. This area is within the subdivision authority of the City, thereby offering an instrument by which the community may influence the pattern of development.

The current freestanding form (top illustration) of Edinburg is at risk of blending in with McAllen and Pharr to become a composite community (bottom illustration) without distinctiveness between communities. Land use and growth policy decisions must be established in the near term to defend the community's character and identity.

COMMUNITY CHARACTER and Land Use

There is an essential difference in evaluating the current development pattern from the perspective of land use, as opposed to community character. Simply conducting an inventory and classifying land according to its use, such as low- and high-density residential, local and general business, and light and heavy industry does not account for the widely varying characteristics of these uses and the character that is portrayed. Individual land uses that may be classified similarly may exhibit quite different characters as a result of their intensity. For instance, a grocery store and big-box retail store each sell groceries and are both commercial uses, but the character (and relative impacts) of these two uses are much different.

A community character assessment further classifies the use of land by its density and intensity, yielding different character classes and types. Factors such as density (generally determined by lot size and building coverage) and intensity (building height and floor area, landscape surface and impervious cover) determine the character of each individual use. The result is a more comprehensive analysis of land use, which is useful in establishing more effective policies and development regulations.

The influence that uses exert on each other and the impacts associated with their performance are individually unique and, thus, have important implications on development outcome and community livability. Therefore, the development character has essential land use policy implications that must be handled according to their performance in the context of their natural and built environments to achieve the intended outcome.

The surrounding agricultural use currently frames the community and is responsible for its freestanding identity and highly valued "small-town" atmosphere.

To protect and enhance the character of the community, this plan must articulate the land uses and design elements that contribute to its "small-town" atmosphere. Once the plan establishes the goals and policies to achieve the community vision, it is incumbent upon the City to implement it. This may include amendments to the zoning ordinance and subdivision regulations to effectively manage the pattern, type, density, and intensity of uses. The recommended amendments contained in this chapter are essential to ensure development occurs in a manner that is consistent with the vision of this plan – and, more importantly, the residents of this community.

Character Considerations

Residents cite its "small-town" atmosphere, location with The Lower Rio Grande Valley, proximity to U.S. 281/I-69, access to quality primary education and higher learning institutions such as UTPA, a reasonable cost of living, and strong family values as its most valued assets. They enjoy the benefits of a relatively small town that is situated on the edge of a growing metropolitan area. Residents have a sense of pride in their community and enjoy it as a place to live and raise a family. This Comprehensive Plan must, therefore, translate these intangible values into future development and growth strategies so that future decisions enhance, rather than deteriorate, these important community values.

The purpose of this plan is to establish a policy framework as to how the community grows and the pattern, type, and appearance of new development. Affecting the City's ability to realize their vision is the lack of a growth plan and up-to-date implementation tools to manage development consistent with the resident's expectations. Without pro-activeness to exact control over its own destiny there is reason for concern, as expressed by citizens during the public involvement process. Haphazard development will negatively impact the character of the community without a concerted effort to better manage its compatibility, appearance, and design. According to community residents, the community must also reinvest in older neighborhoods, rehabilitate the housing stock, revitalize Downtown and other business areas, protect natural resources and sensitive lands, provide development incentives and assistance for improving businesses and properties, continue to upgrade and improve municipal infrastructure, and further enhance community livability with additional parks, trails, and open space amenities.

Land Use and Character Types

The core values of the community were identified through the input received at the Citizens' Congress. The values that most clearly reflect the desired future vision are to be an economically balanced, well-educated, clean and attractive, family-oriented, small-town community that has its own uniqueness and identity. To achieve this vision, a means of converting this statement of future intent into land use policies and implementation must be formed. An inventory of existing land use was used to characterize existing development and document the general patterns of use and the densities and intensities that form the character of development. Once the existing character

Photo Depictions of Land Use Character Types

Urban Commercial

Urban Residential

Auto-Urban Commercial

Auto-Urban Residential

Suburban Commercial

is known, standards may be formulated to alter the character of certain areas and enhance others.

Each of the community character types described below is present in Edinburg with varying degrees of significance, as displayed in **Figure 3.1, Existing Land Use Character**. Those that are more readily identifiable include the auto-urban nature of the commercial and industrial development along S.H. 107/University Avenue, Business 281/Closner, and along the U.S. 281 Bypass – and to a lesser extent along McColl Road, Monte Cristo Road and others - and the auto-urban character of neighborhoods throughout the community. In addition, there are a few higher density manufactured home/recreational vehicle communities and apartment complexes that exhibit an auto-urban residential character, which are scattered throughout the community. The outlying areas around the community are, generally, agricultural and increasingly becoming countryside and even suburban in character. The range of community character types and their functions are as follows:

Urban Character – The only area with an urban character is around the Downtown Square. This area was traditionally a center of commerce, culture, and entertainment in the community. Today, it is largely a government center for Hidalgo County and the City with some remaining retail businesses and a number of offices and service-related businesses. With the advent and increasing popularity of the automobile, its reflection on the patterns of contemporary communities has led to an auto orientation of nonresidential use in strip centers along highways and arterial streets. As discussed earlier, this pattern has manifested itself along S.H. 107/University Drive, Business 281/Closner and increasingly along each of the other arterial roadways. Hence, areas with an urban character have since declined, leaving behind only portions of what may have existed at one time.

The value of an urban character is once again being recognized and, as a result, is returning to communities of all sizes. A mixture of uses, most often with first floor commercial and upper floor residential use, streets enclosed by buildings, an emphasis on pedestrian scale, an enhanced architectural environment, and public spaces, are characteristic of the urban environment. An urban center is designed with an intensity of use to draw people into close contact, where congestion and personal encounters are both expected and essential for creating a vibrant community center.

Urban spaces are "architectural," meaning that they are enclosed by buildings. In other words, the distance across a space, e.g. the width of a

Edinburg Gateway Plan
An Agenda For 2025

THE CITY OF EDINBURG

Edinburg Airport

Edinburg Reservoir

Guerra

Avila

Magee

De Zavala

Monte Cristo

Villareal

Truman

Edinburg North

Memorial

Eisenhower

Garza

North-West Holding Pond

Harvest Christian Academy

Frontier Park

Economedes

Lincoln

Apollo Park

Fountain Park

South Texas BETA

Treviño Park

West Park

Cavazos

Bicentennial and Dr. Diaz Parks

Jaycee Park

De La Viña

Jefferson

Genizo Park

L.B. Johnson

Memorial Park

San Carlos

John F. Kennedy

Municipal Park

Citrus Park

Freddy Gonzalez Memorial Park

Cano-Gonzalez

South Park

Freddy Gonzalez

Canterbury

St. Matthew's

Edinburg Middle School

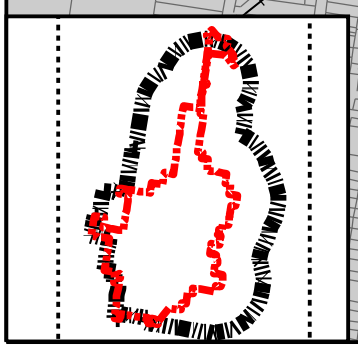
Esparza

Betts

Edinburg High School

Discovery School

De Escandon



Legend

- Estate Residential
- Suburban Single Family
- Urban Single Family
- Mobile Home
- Suburban Mobile Home Park
- Suburban Multifamily
- AutoUrban MultiFamily
- Urban Townhouse
- Urban Multifamily
- AutoUrban Office
- AutoUrban Commercial
- Urban Commercial
- Urban Office
- Urban Institutional
- Industrial
- Open Space
- Vacant
- Utility/Storage
- Schools
- Parks
- Major Roads
- Rail Lines
- ETJ Boundary (2 mile)
- City Limits

UTPA

Lane Kendig, inc.
19901 Southwest Freeway
Sugar Land, TX 77479
Telephone Num. (281) 343-5034

Figure 3.1,
Existing Land Use

Miles
0 0.25 0.5 1 1.5 2 2.5

Future Land Use Plan Approved 10/4/05
By Edinburg City Council

downtown street in relation to height of the block face, is essential for creating an "urban" environment. Glimpses of an urban past exist at each of the entrances to the Downtown Square and along the outer block faces around the square. However, the urban character has been replaced by an auto-urban character as streets have been widened over the years to accommodate higher traffic volumes. The area radiating outward from the square is characteristic of an auto-urban character as a result of single and two-story building heights, increased building setbacks, parking lots abutting the street right-of-way, and signage that is oriented to the attention of the passing automobile. The urban character of Downtown could be nurtured, for instance, by developing the existing parking lot adjacent to the courthouse with an elevated parking structure with a potential for retail uses on the first floor and offices surrounding the exterior. The height and scale of the building along with zero or limited street setbacks, creation of pedestrian precincts and public spaces, and an enhanced architectural appearance would facilitate an urban character.

Auto-Urban Character - This character type represents generally all of the commercial and industrial areas throughout the community. It is most commonly associated with the auto-oriented retail strip centers and small commercial sites along each of the major roadways. Fast food restaurants, gas stations, small shopping centers, and big-box retailers are the dominant commercial images of an auto-urban character. Higher density residential uses, such as attached and multiple-family housing, manufactured home and recreational vehicle communities, and site-built homes on very small lots also have this character due to their density, reduced open space, relative amount of impervious surface devoted to buildings and parking lots, and increased building enclosure.

The primary difference in urban and auto-urban characters is the role of the automobile in its site design. Rather than buildings oriented to the street, as in an urban setting like that found around and immediately leading into the Downtown Square, auto-urban environments are characterized by large expanses of parking surrounding large building footprints with limited allowance for landscape surfaces.

Although the development intensity of auto-urban areas is usually less than that found within an urban setting, this is commonly due to parcel size and design preference, rather than an outcome of local regulation. Auto-urban uses require a significant amount of space for high levels of automobile dependent interaction, i.e. large surface parking lots with multiple points of

Suburban Residential

Suburban Estate

Rural Countryside

Rural Agricultural

Natural

ingress/egress, service and loading areas, etc. As a result, buildings are constructed at the back of the site nearest neighboring uses and away from their roadway frontage. This is often the result of a minimum versus maximum front yard setback, as is the case in the City's commercial districts. Auto-urban uses also have a greater reliance on site access, thereby adding to the number of travel lanes and ingress/egress points on the abutting roadway. The result is expansive parking areas that dominate the front setback and, thus, the character of the development.

The impact of accommodating the automobile, as is typical of contemporary development, is a primary determinant in the character of an auto-urban environment. Auto-urban uses - with very few exceptions - consume more land for streets, parking, and other vehicular use areas than is covered by buildings, which commonly exceeds a two-to-one ratio. This type of development design demands large sites and proximity to a high volume roadway, which diminishes the importance of architecture and results in reduced landscape surface and elimination of natural features.

Suburban Character – This community character type is very different from the urban and auto-urban types. The distinguishing factors of a suburban character are an increase in open space - both on individual sites and cumulatively throughout a development - and the preservation or use of vegetation within and between developments helping to create a balance between building mass and "green mass." Rather than creating a sense of enclosure by buildings, as in an urban environment, open space and vegetation form a sense of enclosure in suburban areas. Therefore, landscape surface and vegetative cover are essential elements in creating suburban character.

The physical distinction between a suburban and urban (or auto-urban) character is the level of use intensiveness or magnitude of activity affecting adjacent uses. Suburban environments are sought as relief from more intensive urban settings, thereby leading to the popularity of contemporary neighborhoods denoted for their larger lots and open spaces.

There are numerous examples of suburban character throughout the community as reflected by each of the more recent subdivisions. While exhibiting a suburban character, the newer residential areas are quite different from the traditional neighborhoods as a result of curvilinear street patterns, contemporary "box-like" housing styles as a result of volume building, an identical building envelope on each lot formed by consistent front, side and year yard setbacks, and a lack of vegetation. Enhancing the

suburban character of these areas may include varying lot sizes, housing styles and setbacks within each neighborhood; integrating more open space throughout the developments; and requiring the use of native vegetation along streets and on each lot to increase the vegetative cover.

Integration of permanent open space into development avoids the loss of temporary "borrowed" space when abutting development occurs.

All too often, the open space that contributes to a suburban character of a neighborhood is abutting land that is not yet developed and with open views that are not yet closed. As in the case of most neighborhoods abutting vacant land, the adjacent view that contributes to the neighborhood character is temporary, rather than permanent. The natural open space and views of the landscape are, thus, "borrowed" from the adjoining land. Consequently, as development occurs in these previously open areas, the character of the existing neighborhood changes. When there are no land development regulations to ensure compatible adjacent uses, the magnitude of character change may vary greatly depending upon the use type developed next door. This is a vital consideration for the protection and sustainability of neighborhoods and residential properties values.

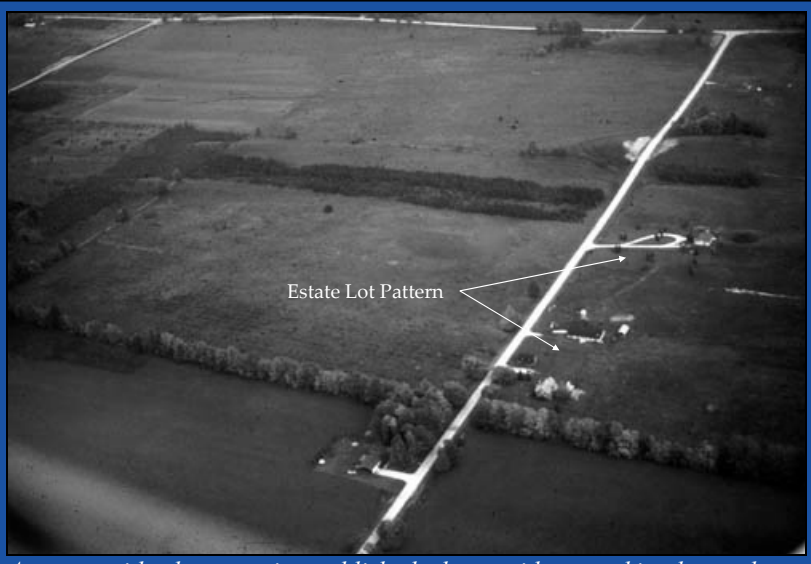
A large majority of the neighborhoods have views of open space across the street or behind individual lots. Additionally, the surrounding rural land further contributes to the enjoyment of homeowners and their value for preserving community character. However, as new development continues to occur in these "borrowed" areas, there will likely be a heightened dissatisfaction of homeowners when the adjacent land develops. The only recourse of homeowners to alter the eventual outcome will be through the public hearing process. Therefore, to maintain these views and achieve the type of character expressed emphatically by residents, permanent open space must be incorporated into each development. One means of achieving this character is by clustering development, which allows an equivalent (or higher) density while preserving permanent open space.

Suburban estate (large-lot) character is becoming more common within the City limits. An estate character requires low-density development on larger

properties (typically one acre or larger), thereby producing a visual openness. As a result of larger lot sizes, open space and vegetation are intended to be the more dominate views, while the buildings are to be apparent, yet secondary to the landscape. Dependent upon the size of the home and its percent of coverage and location on the lot, the estate character may more closely resemble a larger version of the typical suburban character. To achieve an estate character, the design of these subdivisions must actively seek to imitate more rural areas through the use of rural street sections, vast open space throughout the development, use of rural fence types and/or hedgerows to divide properties, preservation or planting of native vegetation along property boundaries, and generous building setbacks on all sides.

Rural Character – This character class includes three types - countryside, agricultural, and natural. The areas surrounding the community are typical of a rural character as a result of the prevailing agricultural landscape, particularly to the north and east. Similar to the transition from the urban to suburban character classes, the visible distinction of the rural character is the importance of the natural landscape – rather than buildings - as the dominant visual feature. Agricultural activities and natural areas are the dominant land use, rather than conventional suburban and estate residential development.

- **Countryside Character** – This type of rural character includes sparse residential acreages, which are often in the ex-urban areas (the areas beyond the City limits) where the first signs of suburbanization are present. Examples of a countryside character may be seen in the outlying areas where dwellings are on larger acreages. The common fate of these areas is often an eventual conversion to a suburban character as additional land is developed in near proximity to these rural areas. Very low intensities (minimum five-acre lot size) are needed to preserve a countryside character, which can be achieved by vegetative screening and locating homes where they are less visible. This character type may be sustained through stringent limits on minimum lot sizes or permanent protection of prime agricultural land and open space.



A countryside character is established when residents seeking larger lots and vast open space construct estate dwellings in the rural areas.

- **Agricultural Character** – The character of these rural areas is dominated by agricultural use where homes are an accessory to the agricultural operation. Agriculture may also be a dominant land use in the "countryside" areas, which accommodate a rural residential lifestyle, while allowing agricultural use to continue. In the more rural areas, it is the intended and nearly sole use.
- **Natural Character** – The character of natural rural areas constrain development due to features such as streams and floodplains or heavily vegetated areas.

FUTURE LAND USE and its Character

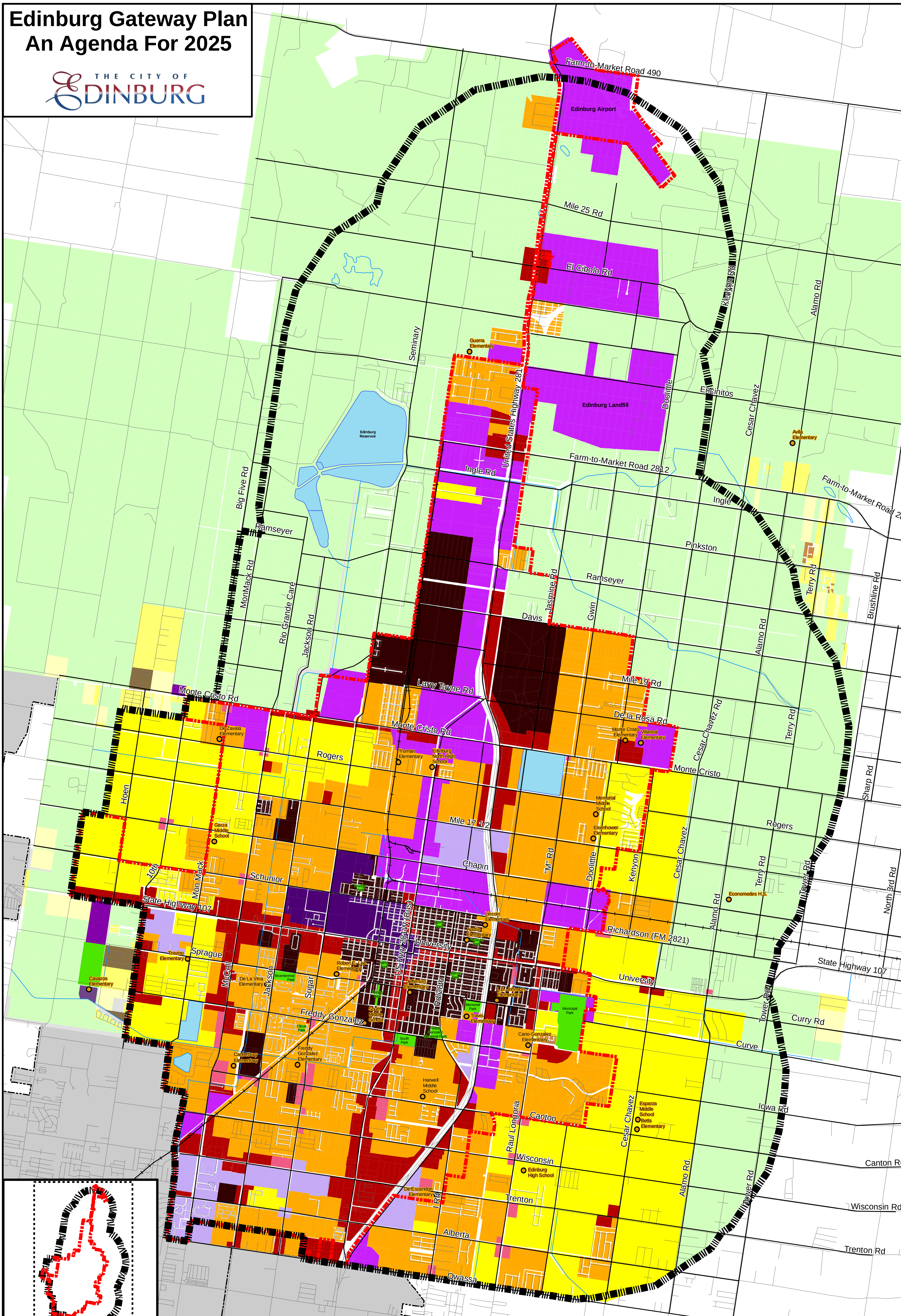
Based upon continuing development, a change in land use is evident. It is nearly inevitable that a community positioned in proximity to a growing metropolitan area will expand. While the community may grow and develop, however, its community character may be maintained and further enhanced. Residents can continue to enjoy a small-town atmosphere and the quality of life they value while landowners can profitably develop their property consistent with the community's future development objectives.

The essence of comprehensive planning is a recognition that the community does not have to wait to react to growth. Rather, it can determine where and under what circumstances growth will occur. Through active community support, this plan can ensure that growth meets certain standards and that development aids in achieving the desired community character.

Displayed in **Figure 3.2, Future Land Use Plan** is the overall physical representation of the community's vision for its future urban form and development character. It encompasses themes that are important to quality of life in the community and strives to balance community character with objectives for economic development. It is a guide for managing growth in terms of the pattern, arrangement, density, scale, and site design characteristics of development. As a guide for land development, the Future Land Use Plan captures and develops into policies and regulations the community's values regarding how, when, and where it will grow in the future. This is significant since the findings and recommendations contained in this plan provide the basis for decisions pertaining to the City's zoning and subdivision ordinances, which are the primary tools to implement the plan.

Edinburg Gateway Plan
An Agenda For 2025

THE CITY OF EDINBURG


Farm-to-Market Road 490
Edinburg Airport
Mile 25 Rd
El Cibolo Rd
Kenyon Rd
Alamo Rd
Seminary
Guerra Elementary
United States Highway 281
Edinburg Landfill
Doolittle
Encinitos
Cesar Chavez
Avila Elementary
Edinburg Reservoir
Farm-to-Market Road 2812
Ingle Rd
Farm-to-Market Road 281
Ingle
Big Five Rd
Ramseyer
Pinkston
MonMack Rd
Rio Grande Care
Jackson Rd
Jasmine Rd
Gwin
Davis
Terry Rd
Brushline Rd
Larry Tayne Rd
Mile 19 Rd
De la Rosa Rd
Monte Cristo Rd
Monte Cristo Elementary
Villareal Elementary
De Zavala Elementary
Rogers
Truman Elementary
Edinburg North High School
Monte Cristo
Cesar Chavez Rd
Sharp Rd
Hoen
Memorial Middle School
Garza Middle School
Mile 17 1/2
Eisenhower Elementary
Chapin
"M" Rd
Kenyon
10th
Mon Mack
Schunior
State Highway 107
Economedes H.S.
Tower Rd
North 3rd Rd
Lincoln Elementary
Austin Elementary
Richardson (FM 2821)
Sprague
Trevino Elementary
University
US Hwy 281W (Bus)
Robert E. Lee Elementary
De La Vina Elementary
McColl
Jackson
Sugar
Bicentennial Park
Cavazos Elementary
Jefferson Elementary
I Rd/28th
L.B. Johnson Elementary
Municipal Park
Memorial Park
Travis Elementary
Freddy Gonzalez
South Middle School
Citrus Park
Curry Rd
Cano-Gonzalez Elementary
Curve
Canterbury Elementary
Freddy Gonzalez Elementary
South Park
Freddy Gonzalez Memorial Park
Harwell Middle School
Iowa Rd
Esparza Middle School
Betts Elementary
Canton
Raul Longoria
Canton Rd
Wisconsin
Edinburg High School
Alamo Rd.
De Escandon Elementary
Trenton
Wisconsin Rd
Alberta
Trenton Rd
Owassa

μ

Legend

- Agricultural: Farmstead; Residential (Septic/Well); Residential (Septic/Rural Water)
- Suburban: Single Family; Cluster Large; Cluster Medium; Planned
- Auto-Urban: Single Family; Multiple Family
- Urban: Single Family; Cluster; Planned
- Urban University: Mixed (1st Floor Retail/Upper Residential); Commercial
- Neighborhood Commercial
- General Commercial
- Office Business Park
- Industrial
- Water Bodies
- Schools
- Parks
- Major Roads
- Rail Lines
- ETJ Boundary (2 mile)
- City Limits

A comprehensive plan shall not constitute zoning regulations or establish zoning district boundaries. Local Government Code 219.005

DISC Data and Information Systems Center

UTPA The University of Texas-Pan American

Lane Kendig, inc.
19901 Southwest Freeway
Sugar Land, TX 77479
Telephone Num. (281) 343-5034

Figure 3.2
Future Land Use

1 inch equals 1 miles

Future Land Use Plan Approved 10/04/05
By Edinburg City Council

Guiding Future Development Character

Displayed in **Table 3.1, Future Land Use and Character District Requirements**, is the recommended character districts, development options, and dimensional requirements that contribute to its character. This land use system is similar yet different from the conventional land use classification system now used by the City. The difference lies in the definition of *land use character* (as opposed to land use only), which relates not only to the use but more importantly to the design of the use. For instance, measures of intensity

Table 3.1
FUTURE LAND USE AND CHARACTER DISTRICT REQUIREMENTS

District	Development Options	Lot Size	OSR/LSR*	Intensity (Density or FAR)*
Agriculture	Farmstead (agricultural unit)	10 ac.	0.00	0.092
	Residential - Septic & Well	1 ac.	0.00	0.83
	Residential - Septic & Rural Water	0.5 ac.	0.00	1.60
Suburban	Single Family	20,000 s.f.	0.05	1.57
	Cluster 1	15,000 s.f.	0.25	1.67
	Cluster 2	10,000 s.f.	0.35	2.00
	Planned	6,000 s.f.	0.50	2.50
Auto-Urban	Manufactured Home (Double-wide)	7,200 s.f.	0.15	3.30
	Single Family (+ MH Single-wide)	6,000 s.f.	0.15	4.20
	Two-Family	3,000 s.f.	0.15	8.50
	Townhome	2,500 s.f.	0.15	5.70
	Multiple Family	2,000 s.f.	0.30	13.00
Urban	Single Family (with alleys)	6,000 s.f.	0.15	4.20
	Cluster	5,000 s.f.	0.25	4.50
	Planned	Mixed	0.30	4.70
Urban University	Planned (First Floor Retail/ Upper Floor Residential)		0.15-0.25	7.50-25.00
	All Other		0.10-0.15	1.294-2.294 FAR
Commercial, Neighborhood	All Uses		0.45	0.237 FAR
Commercial, General	All Uses		0.15	0.395 FAR
Office Business Park	All Uses		0.30	0.594 FAR
Industrial	All Uses (outer ring)		0.30	0.673 FAR
	All Uses (inner ring)		0.20	0.769 FAR
NOTE: Density incentives are provided for development with increased open space				

Source: Lane Kendig, inc.

include residential density (dwelling units per acre) and, for non-residential development, a floor area ratio (FAR) to control the amount of total floor area permitted on a development site. Use of this system allows the ability to better manage the intensity of development so as to ensure compatibility between adjacent uses. Paired with compatibility standards such as bufferyard requirements, adjacent and abutting uses will be better protected from the impacts resulting from increased intensity.

The table is organized first showing the Character Districts (column one) in ascending order from least to most intense, including Agriculture, Suburban, Auto-Urban, Urban, Urban University, Commercial-Neighborhood, Commercial-General, Office Business Park, and Industrial. Within each character district is a definition of the development options (column two) available within the district. Using a conventional land use system, these development options may be considered incompatible. Using a character-based system, though, establishes controls as to the scale and intensity of the use thereby holding steady the character of the use within the district. For instance, within the Auto-Urban district, there are several development options available, ranging from manufactured homes to single- and two-family dwellings to townhome dwellings. Note, however, that while the density increases so does the required minimum open space ratio. Therefore, while the net density may increase the overall gross density remains relatively constant. Use of performance-based bufferyard standards further ensures compatibility among the development options within the district by varying the requisite landscape opacity requirements proportional to the increase in net density.

For each development option, the required minimum lot size, amount of open space (residential) or landscape surface area (non-residential), and allowable dwelling units per acre (residential) or floor area ratio (non-residential) are indicated. For instance, within the Auto-Urban District, there are four development options ranging from double-wide manufactured homes to townhome dwellings, each with defined lot sizes, open space ratios, and densities. Each of the development options is similar in character and, thus the amount of impact placed on adjacent properties due to measurable performance characteristics, such as generated traffic volumes and total population. Therefore, bufferyard standards may be designed to adequately screen and buffer these development types from less intensive Suburban and Agricultural uses. Other relevant considerations for compatibility between uses, such as separation of manufactured homes from single family "site-built" homes, may be handled with increased development standards.

This approach is advantageous because it better defines uses according to their relevant impacts, increases development flexibility within the individual

districts thereby minimizing zone changes while improving development outcomes and compatibility.

Transition of Existing Zoning Districts – As mentioned earlier there are similarities and differences between the proposed land use system and the current system of zoning districts. Outlined below are the considerations for transitioning to a character-based land use management system.

- **Agriculture** - The agriculture district is new since the City does not currently have any provisions within its ordinance for very low-density farmstead and residential development. As seen in Figure 3.2, Future Land Use Plan, this is essential to protect and preserve the agricultural character of the far outlying areas of the ETJ where urban services and facilities do not and are not planned to exist during the 20-year horizon of this plan. The determinant for the varying development options within the district is the availability of water and wastewater, with greater densities allowed with septic systems and rural water. Due to the lowest density agricultural nature of this district there are to open space requirements. Since there are not open space or on-site drainage requirements the density is simply a result of the allowable lot size.
- **Suburban** – The suburban district is also new since the largest minimum residential lot size in the current zoning ordinance is 7,100 square feet within the RA-1 district. While the lot size may exceed the minimum required by the zoning district there are not existing standards to require larger lots, which are essential to a suburban character. As seen in Figure 3.2, Future Land Use Plan, the suburban districts are generally around the periphery of the urbanized and urbanizing area of the community, in essence allowing an urban to rural transition. There are four development options within the suburban district. As the lot size decreases in size from 20,000 square feet to 6,000 square feet, the required minimum open space increases proportionally from 5 percent to 50 percent. This inverse relationship allows the density to increase moderately from 1.57 to 2.50 dwelling units per acre, which sustains the suburban character. Development within this district is appropriate for sensitive sites where lots may be clustered around flood prone areas, yet allowing an increased development yield to act as an incentive for clustering and preserving open space. The planned development option is similar to the City's community unit plan, although there are specific development standards required to warrant a suburban character.
- **Auto-Urban** – The auto-urban district most closely resembles the current residential zoning districts.
  - For double-wide manufactured homes, the minimum lot size is consistent with the requirements of the R-MH, Residential Manufactured Home district. The distinguishing difference is a required minimum 15 percent open space and a maximum density of 3.30 units per acre. The current zoning requirements do not require

an open space thereby allowing 4.0 units per acre.

- The single family option allows a minimum lot size of 6,000 square feet versus 7,100 square feet in the R-A1 district, with a requirement of 15 percent open space and a density of 4.20 units per acre. The lot size has been significantly reduced to allow an increased number of units per acre while allowing for more open space. A certain percentage of the open space may be required around the periphery of the development, adjacent to arterial roadways thereby allowing more green space and separation from the pavement surface. The remainder of the open space can be required throughout the development for parks, trails, and other open space amenities. This option generally combines the current R-A1 and R-A2 districts.
- The two family option allows a consistent lot size (3,000 square feet) with current standards. The required 15 percent open space and 8.50 units per acre maintains the suburban character of this development type.
- The townhome option is generally new since there are not explicit requirements within the current zoning regulations for this housing type other than a less dense multiple family dwelling. A minimum lot size of 2,500 square feet per dwelling unit offers the next step up in density from the two family option while maintaining the suburban character with a 15 percent open space requirement. The maximum allowable density is 5.70 units per acre.
- The multiple family development option allows a consistent minimum lot size per dwelling unit of 2,000 square feet although a 30 percent open space requirement limits density to 13.00 rather than 19.00 units per acre as presently allowed. Currently, there are no requirements for open space within the high density residential district.

- **Urban** – The urban district most closely resembles the original town area where the lot sizes are smaller. The single family option allows a minimum lot size of 6,000 square feet with an alley, which equates to 3.90 units per acre with 20 percent open space. This is similar to the current R-B1 district with respect to overall density. The cluster option allows an increased density (4.08 units per acre) with 25 percent open space. Since there are not clustering provisions in the current zoning ordinance this is a proposed new development option. Similar to the suburban district, the planned option is not unlike the community unit plan in its intended outcome, although there are minimum required development standards to ensure an urban character. A density of 4.5 units per acre is allowed with 35 percent open space.
- **Urban University** – This is a new district that is intended to accommodate increased development density around UTPA. It encourages mixed use with retail on the first floor and upper floor

residential, with a maximum density ranging up to 25 units per acre. The R-B2 district currently allows 19 units per acre with no provision for mixed use. Again, the only way the community could accommodate this is through a community unit plan, which does not include any specific development standards thereby leaving the outcomes unknown. This district has a required minimum density of 7.50 units per acre to increase the use intensity around the campus thereby creating an urban environment. Other non-residential uses would also be allowed within this district, with minimum floor area and landscape surface area ratios to maintain the urban character.

- **Commercial, Neighborhood** – This district is similar to the current C-O and C-1 districts, except the 45 percent open space requirement needed to ensure a character suitable for a low density neighborhood environs limits the maximum floor area to 0.237. Without an open space requirement, the floor area ratio in the current C-O and C-1 districts may be as high as 0.431, allowing uses that are not compatible with adjoining residential uses. Having no landscape surface area or floor area standards severely restricts the ability to ensure uses that are consistent and compatible in character with an adjacent neighborhood.
- **Commercial, General** – Similar to Commercial, Neighborhood, this district is generally consistent with the C-2 district with the exception of the 15 percent open space requirement and a floor area limitation of 0.395. The current C-2 district does not have a minimum landscape surface ratio – other than typical building/parking setbacks – meaning that the floor area ratio may be as high as 0.465. A description of the allowable uses is not as important as the scale and intensity of the use.
- **Office Business Park** – This is a proposed new district that would accommodate the City's economic development objectives by creating a campus type environment for medical, research and development, and other professional offices. To ensure a campus setting there is a minimum required landscape surface area of 30 percent and a maximum floor area ratio of 0.594. This floor area ratio accommodated 4-story buildings.
- **Industrial** – The industrial district is similar to the current M-1 and M-2 districts. Again, there are minimum landscape surface areas required, with a 30 percent requirement for the sites around the periphery of an industrial park or adjacent to arterial roadways and a 20 percent requirement for all other industrial uses. Due to the nature and scale of industrial uses their floor areas may be as high as 0.673 and 0.769, respectively.
- **Generally** – The same number of districts are proposed as exist in the current ordinance, however, there is an expanded range of permitted development options within each district. In other words, a community unit plan, which requires extensive submittal, review and approval processes, would not be necessary since the development standards are incorporated thereby allowing mixed development types and use by

Commentary - A Floor Area Ratio (FAR) of 0.431 means that roughly 43 percent of a development site may be covered by a single story building. With the required parking, loading and vehicular use areas and typical setbacks in a commercial district this maximizes the site leaving little to no landscape surface area. Having a minimum landscape surface area together with a limitation on floor area gives control over the character of the use. Simply specifying the uses permitted and minimal requirements for building setbacks limits the ability to manage development character.

right. An essential component of this approach is bufferyard standards to effectively screen and mitigate the impacts among the development options within each of the residential districts. The use of standards such as an open space ratio (in residential districts), landscape surface ratio (in non-residential districts), maximum allowable density (residential units per area) and floor area ratio (in non-residential districts) allow the character of areas to be defined. Incentives for increased open space/landscape surface are integrated into the districts by allowing increased density for planned development and clustering.

SENSIBLE Future Development

Typical development patterns are based upon the simple notion of creating development that is both marketable and profitable. Often, little thought is given to the cumulative impact of development until it has occurred and the impacts are realized. Sprawl is defined as *an inefficient consumption of land, which spreads from urban and suburban areas to undeveloped rural land resulting in an inefficient use of infrastructure*. While sprawl is marketable to the general public, equating to larger lots and lower home prices, as well as the financial institutions that fund development projects, from the perspective of the community, it is short-sighted and of long-term consequence.

In recent years, communities are adopting development practices that still allow for marketability and profit, but also aid the community in achieving efficiency and improving quality of life. While the popular term of "Smart Growth" has been attached to this notion, it is really nothing more than sensible planning that better reflects the interest of the community and its residents. The tenets of planning for sensible development seek to balance the need to support economic development, while protecting the environment, directing development to the areas for which public services and utilities are readily available, encouraging infill development on vacant or underutilized properties where existing infrastructure may be more efficiently utilized, promoting a more compact development pattern to reduce the need for costly infrastructure and minimize the loss of raw productive land, maintaining a highly efficient street network and infrastructure systems, and providing community gathering areas and pedestrian-friendly destinations. The goal is not to limit or slow development activity. Rather, the objective is to seize economic development opportunities, while carefully managing the location and pattern of growth and rewarding those who place an emphasis on the community's values.

A policy framework is useful to guide decisions about the timing and pattern of future development. These policies may be used to either support or deny applications for development around the periphery of the community where facilities and services are not readily available or capable of supporting increased development densities. Policies for helping the community achieve attractive and fiscally responsible future development include:

Policy 1: The efficiency of existing infrastructure must be maximized by directing development to occur within a designated "urban area;" rather than allowing peripheral development in the areas beyond reasonable facility and service provisions thereby requiring costly infrastructure extensions and expansion of the service area.

Policy 2: Development will be staged in a deliberate sequence so as to enable timely provision of adequate public facilities and services. Incentives will be provided to encourage development of vacant and underutilized areas that are already served by infrastructure before development occurs in the fringe and peripheral areas of the community.

Policy 3: The far outlying rural areas will be preserved as agricultural lands or permanent open space and, thus, protected from the encroachment of premature urban development.

Policy 4: Partnerships will be established with other jurisdictional authorities and service providers to develop long-term growth management strategies that will conserve resources and sustain adequate service provision. Relationships will be formalized through joint projects, inter-local agreements, and memoranda of understanding to provide more cost effective coordination of services and growth management policies.

Policy 5: A mixing of uses will be encouraged through zoning allowances and requirements, thereby bringing neighborhoods and businesses together to form more compact centers of community activity and creating opportunities for social interaction.

Policy 6: The development of water and wastewater systems must be closely coordinated with the planned pattern of new development and in areas that are suitable and desirable for future growth.

Policy 7: Adequate facilities and services will be constructed within the areas most suitable for urban development.

Policy 8: Preservation measures will be enacted to protect sensitive lands and conserve environmental resources.

Policy 9: A variety of housing types and prices will be offered to meet varied family needs.

Annexation

Annexation allows the community to extend its municipal services, regulations, voting privileges, and taxing authority to new territory. It is a mechanism provided under State law[6] for promoting orderly growth and urbanization by coordinating private land development with construction or improvement of public facilities (streets, water, sewer, drainage, and schools) and provision of adequate public services through phased expansion of the City's corporate limits. The City may also use its annexation authority to expand the tax base in line with increasing service demands. This is especially important when residents and businesses outside the City limits benefit from access to municipal facilities and services, such as parks, trails, libraries, and other community facilities, but do not share the tax burden associated with constructing and maintaining those facilities and services.

The City's annexation program should include an ongoing process of appropriate planning and preparation for future annexations in compliance with the requirements of State law and consistent with this Comprehensive Plan. The City should conduct studies periodically to identify and monitor prime growth areas within the five-mile planning area, particularly adjacent to U.S. 281 and around the airport and landfill, where the City's land use management capabilities are most needed. These studies should consider anticipated infrastructure improvements that may create an opportunity or demand for new urban development. Based on these studies and evaluation of potential annexation options, an annexation plan should be developed and periodically updated, which would become the basis for developing annual or periodic annexation proposals. The annexation plan should identify specific properties targeted for eventual incorporation, and should be based on careful research as to the available utilities and infrastructure and existing land use in the area. Potential constraints to the development of infrastructure or extension of services should be a primary consideration, such as floodplain areas. Coordination with other utility providers may be necessary to determine future service areas and the potential need for service agreements.

The annexation planning process should be conducted in conjunction with annual review and updates to this Comprehensive Plan. The Future Land Use Plan (Figure 3.2) and other aspects of the Comprehensive Plan should be updated, as needed, to support the City's annexation program. Timely preparation of an annexation plan is essential to identify properties within a

[6] Chapter 43, Municipal Annexation, of the Texas Local Government Code

designated urban area that are in the City's interest to annex prior to development.

In addition to preparing for City-initiated annexations, the City should establish clear policies and guidelines to determine when future land owner petitions for annexation will be accepted, including considerations such as:

1. the results of a fiscal impact assessment;
2. proximity to the City's existing service area and the feasibility of extending adequate facilities and services in a timely manner;
3. capital budget limitations; and,
4. intangible costs and benefits.

Annexation Policies - As a general policy statement, annexation should occur prior to or concurrent with development to properly plan for and coordinate the extension of adequate public facilities and services. The following policies should be considered in guiding the City's decisions for annexing additional territory:

Policy 1: Territory will be annexed in strict adherence to a growth plan and in accordance with the policies of this Comprehensive Plan. Only property within a defined "urban area" will be considered for annexation.

Policy 2: The long-term pattern of growth will be anticipated and effectively managed in a fiscally responsible manner, while balancing the needs of current residents and existing infrastructure investments.

Policy 3: Future growth will be closely coordinated with infrastructure investments, compatible with existing development, and environmentally sensitive.

Policy 4: An annexation plan will be prepared and maintained with associated service planning for gradual expansion of the corporate limits and extension of municipal facilities and services, where determined feasible and beneficial to the City. The plan will be periodically updated to account for changing development conditions and new infrastructure development.

Policy 5: In order to maximize the efficiency of the existing infrastructure, growth will be directed to developable and under-utilized areas within the current corporate limits before additional territory is considered for annexation.

Policy 6: Following infill of undeveloped portions of the corporate limits, the focus of the annexation strategy will be toward the growth areas at the fringe of the urban area to extend municipal services and manage development quality.

Policy 7: Fiscal impact analyses will be used to assess the projected costs of providing municipal services and weigh them against the anticipated revenues of each annexation proposal, whether initiated by the City or a

property owner. Fiscal impacts will be evaluated for a multi-year timeframe, recognizing that first-year costs may exceed revenues because of up-front service extension costs and capital expenditures, as well as the lag time before initial collection of taxes and fees. Intangible benefits of proposed annexations will also be evaluated.

Policy 8: Annexation authority will be utilized to extend the City's jurisdiction to encompass critical areas, such as major transportation corridors, public facilities, and areas provided municipal services subject to the policies of this plan, which may require regulatory protection and control of development.

Policy 9: Where short-term annexation is not feasible, the option of negotiated agreements with land owners, developers, or other entities in lieu of annexation may be considered to provide for interim service arrangements, cost-sharing or fee mechanisms, and potential adherence to development guidelines to ensure desired development outcomes in areas subject to possible future incorporation.

Annexation Criteria - Important criteria for use in considering whether annexation of land is warranted and fiscally responsible include:

- The subject parcel(s) are contiguous to the corporate limits.
- The land requested for annexation is certified to be within the City's utility service area, with proven feasibility of efficiently extending water and sewer mains, streets and drainage improvements, and other essential municipal facilities.
- All parcels may be adequately served by municipal police, fire, ambulance, and road maintenance meeting City standards.
- All public improvements, off-site as well as on-site, necessary to serve the density of the annexed area will be constructed and financed in accordance with City standards and policy.
- As determined by the City, the actual financial impact for providing police, fire, road maintenance, and other public improvements is favorable to the tax base and offsets the necessary costs.

Chapter Four
Transportation

The transportation system is made up of a network of corridors, including roads and trails, that connect neighborhoods to business districts, employment centers, and open spaces. These corridors provide the infrastructure framework along which development occurs. It also plays a critical role in defining the character of the community and in turn, its livability.

The purpose of this transportation chapter is to address area-wide mobility on all levels, from sidewalks and trails, to local streets and neighborhood access, to arterial roadways and highways. The objective is to establish a system to accommodate local and regional travel demand through the Year 2025 and beyond. While the primary focus of this system is auto-oriented transporation, thoughtful consideration is also given to other modes, including pedestrian and bicycle circulation, public transit, and air transportation.

The transportation element of this plan is closely coordinated with each of the other elements to create an efficient and effective area-wide transportation network that ensures safe and efficient movement of people and goods. The transportation network is visualized by the Thoroughfare Plan, which is the long-term plan for developing an overall system of thoroughfares for the City and its two-mile extraterritorial jurisdiction (ETJ). The Thoroughfare Plan serves as a guide for securing needed rights-of-way and upgrading and extending the network of streets, roads, and highways in a coordinated and timely fashion to ensure good circulation and access.

KEY TRANSPORTATION ISSUES

Key transportation issues were identified through active participation of the Citizens' Delegation. This group of citizens was tasked with providing information and comments regarding transportation-related issues. As representatives of the community, the Citizens' Delegation was able to bring forward issues, problems, and opportunities that people living and working in Edinburg experience on a daily basis. This local knowledge was coupled with input obtained through interviews with key stakeholders. Issues were also identified through the citizens' questionnaire distributed as part of the Parks and Recreation Master Plan process that ran parallel to the development of this Comprehensive Plan. Input was also received during the Citizens' Congress, where members of the community engaged in focus group discussions to identify community issues. Finally, an examination of local planning documents, such as the Metropolitan Transportation Plan

(MTP), was useful in identifying transportation issues that needed to be addressed through this plan.[1] Based on the aforementioned public outreach and research activities, local transportation issues were identified, as described below.

Improved International, Regional, Intra- and Inter-State Mobility

Edinburg's location has been and will continue to be integral to its success. The community is located at the intersection S.H. 107 and U.S. 281 (otherwise known as Interstate 69 or the NAFTA Highway). Edinburg is the northern-most city in Hidalgo County, and is commonly referred to as the "gateway city" to The Lower Rio Grande Valley because, as its name suggests, it is positioned as the gateway for trade between the U.S. and Mexico. The NAFTA Highway allows northern suppliers in Edinburg to provide goods to the Mexican maquiladoras, which are just south of the U.S./Mexico border. The NAFTA Highway also provides direct access to persons traveling back and forth between Edinburg (and other locales in South Texas) and Mexico. The opportunities that this highway presents for international, as well as regional, intra- and inter-state transportation can not be overstated. It is highly plausible that the highways will continue to provide growth and economic development opportunities well beyond the planning period of this plan.

The User Fee Airport and Foreign-Trade-Zone designations will contribute to the future development of the Edinburg International Airport, and in turn, the economic development of the community.

Further to the automobile, air transportation is a key component of Edinburg's long-term economic sustainability. The Edinburg International Airport is comprised of 580 acres of land. In 2001, the City applied for a grant to make improvements that would enhance the airport's capacity as a general aviation and air cargo facility. In 2002, the City obtained funding for infrastructure improvements (i.e. water, roads), entrance improvements (i.e. controlled access), development of a 165-acre industrial park, design and construction of a runway extension (2,200 linear feet), and construction of a 50,000 square foot air cargo facility. These projects are currently in various stages of completion. Water service has been extended to the area. Road construction and entrance improvements will be underway in the future, and the industrial park has been designated by the City. The cargo facility is not yet

[1] The Hidalgo County MPO includes all of the urbanized area of the county, including the cities of Alamo, Donna, Edinburg, Hidalgo, McAllen, Mercedes, Mission, Palmview, Pharr, San Juan, and Weslaco. Member agencies also include the Texas Department of Transportation (Pharr District) and Hidalgo County.

constructed, however, the airport was designated as a User Fee Airport in 2001 by the U.S. Customs Service. This designation allows Customs to be made available on a fee basis to process aircraft and its passengers and cargo upon entry into the U.S. The airport is the only one in South Texas to have this designation, making it unique to the area. The airport has also been designated as a Foreign-Trade-Zone. These designations will contribute to the future development of the airport, and ultimately allow plans for it to become a fully operational international commercial air cargo center.

A User Fee Airport (UFA) is a small airport which has been approved by the Commissioner of Customs and Border Protection (CBP) to receive, for a fee, the services of a CBP officer for the processing of aircraft entering the United States and their passengers and cargo.

The Southern Pacific Railroad, established in 1927, provides another transportation alternative. The railroad has had a significant impact on the community. It was responsible for the building boom that occurred in the late 1920s at which point a hospital, country club, and several schools were built. While highways and trucks have largely superseded rail transport in current times, the railway still remains a viable transportation option. Rio Valley Railroad, Southern Pacific, Border Pacific, Brownsville Rio Grande International, Union Pacific, and Ferrocarriles Nacionales de Mexico (international) provide service to the Metropolitan Statistical Area (MSA).

Efficient, Safe, and Convenient Local Transportation Network

The local transportation system is made up of a network of arterial, collector, and local roads that are designed with different traffic volume capacities and functions to move traffic within and around the community. Each arterial, collector, and local road connection contributes to the overall connectivity of the network. Connectivity is a key to providing an efficient, safe, and convenient roadway network for vehicular traffic. Connectivity is also critical to providing a network of sidewalks and trails that conveniently allow people to move safely and efficiently throughout the community by walking or cycling.

Roadway connections must be made from one subdivision to ensure continuity in the road network and safety. Sidewalks must also be built concurrent with the development of new development to provide safe access for pedestrians.

The continuity of the roadway network is well defined in the established areas of the community by nature of the arterial roads and the grid of collector and local residential streets. This street pattern is apparent in the original town area. However, in the outer edges of the community, newer subdivisions are being designed with a curvilinear street pattern that includes cul-de-sacs and loops. While this pattern is arguably better for reasons of safety and aesthetics, concerns are typically raised regarding connectivity. Connectivity is further exacerbated through roadways that are not connected from one neighborhood to another. While development is occurring in small phases in response to the housing market, it must occur in a planned manner to ensure adequate roadway continuity and integration with the existing

Street maintenance is critical to providing a safe and efficient multi-modal transportation network.

Railroad crossings present safety issues for pedestrians, cyclists, and motorists.

Drainage canals can present problems in terms of connectivity between neighborhoods unless appropriate bridge connections are built for pedestrians, cyclists, and motorists.

street network. Sidewalk development and public access easements must also occur at the same time as road development during the subdivision planning process to ensure accessibility, convenience, efficiency, and safety.

Maintenance and repair of street, sidewalk and trail surfaces, lighting, and other street furniture such as bus shelters and benches, also contribute to a safe and efficient transportation network that can be used by all persons. The challenge is to ensure there is enough operation and maintenance dollars allocated on an ongoing basis to meet maintenance and repair requirements, and to ensure that adequate and aesthetically pleasing street furniture enhance the streetscape.

The railroad presents a challenge in terms of providing an efficient, safe, and convenient street network. Because roads intersect with rail tracks throughout the City, they must be designed to include adequate safety provisions to ensure safe crossings for pedestrians, cyclists, and motorists both within the City limits and the ETJ. Signal crossings, signage, and pavement markings are ways to provide for safe intersection crossings. These safety measures currently need to be enhanced within the City limits and the ETJ. Further to the railroad presenting a challenge, it also presents an opportunity. Segments of the rail line (e.g. along Russel Road) are no longer in use. These segments present an excellent opportunity to provide a linear connection to existing or new trails, thereby enhancing the trail network within the City. This "rail-to-trail" opportunity would be eligible for funding through the Texas Parks and Wildlife Department, which administers the National Recreational Trail Fund under the approval of the Federal Highway Administration[2].

Drainage and irrigation canals also present a challenge to the transportation network. Connectivity between neighborhoods can be impeded by canals unless appropriate provisions are made for bridges. The problem occurs when a developed subdivision and an undeveloped tract of land are separated by a canal. Without the construction of a bridge, it is impossible for road connectivity to be achieved, and in turn, the mobility of pedestrians, cyclists, and motorists is comprised. Similar to the case of the unused rail tracks, the canal rights-of-way are hike and bike trail opportunities that should be explored further through the Parks and Recreation Master Plan. It is acknowledged that there are both practical and policy issues associated

[2] For more information on the National Recreational Trail Fund, go to: http://www.tpwd.state.tx.us/grants/trails/.

with the use of canal rights-of-way. However, their use has been accomplished in other locales signifying possible resolution of these issues.

Traffic Control and Parking

Unimpeded traffic flow is a key indicator of an efficient transportation network. There are many factors that can impede efficient flow, ranging from traffic control systems such as traffic lights and stop signs, to road design and parking.

The Hidalgo County MPO has an established congestion management system (CMS) to monitor the transportation network in the County. The goal of the monitoring system is to ensure optimal transportation system performance by identifying congested areas and related transportation deficiencies, and then use this information to develop strategic improvement projects. The MPO produced a top 20 priority list of congested areas based on a spring 2004 traffic study. While Edinburg was not listed in this priority list, congested roadway segments in Edinburg were identified in the MTP. These areas included segments of Canton Road, FM 1925, I Road, Jackson Road, McColl Road, S.H. 107, Sugar Road, Trenton Road, U.S. 281, and Business 281. Recommended improvements to improve traffic flow for these areas included updating signal timing, road widening, multi-jurisdictional coordination between the Texas Department of Transportation (TxDOT) and municipalities, incorporating a pedestrian signal, undertaking future signal installation studies, corridor study, and access management through driveway reduction.

A Congestion Management System (CMS) a systematic process required by the Transportation Equity Act for the 21st Century (TEA-21) for all large metropolitan areas that establishes criteria, potential solutions, and proposed actions to improve effectively the overall traffic flow of the roadway system and other transportation modes.

Congestion can be controlled through traffic control systems such as traffic lights and stops signs. In order to be effective, traffic lights must be in good working condition and timed appropriately to the volume of traffic that occurs during different periods of the day. Similarly, stops signs must be in clear view of drivers, meaning that they are well placed, legible, and free from obstructions that might impede view of the signs. To ensure continuous and safe flow of traffic in and around the City, these traffic control systems must be inspected on a regular basis and updated as required.

Road design is an additional way that traffic can be controlled. Road design and more particularly, access management, play a key role in traffic circulation. For example, congestion can be caused when multiple driveways access major roadways that are designed for higher volumes and speeds of traffic. A solution to this problem is through shared driveways (or shared access), which effectively reduce the number of breaks in traffic since

motorists have reduced turn opportunities on and off of major roads into/out of abutting commercial and industrial properties. Similarly, cross access can also be effective in minimizing traffic problems. Cross access provides access among commercial and industrial properties, thereby eliminating the need for motorists to use major roads as the primary point of access to adjacent lots. As an alternative, access easements can be secured through subdivision regulations to allow for marginal access roads. This option separates through- and local-traffic by allowing access to residences and other buildings by way of a minor road that diverts local traffic from the major roadway.

The community has made use of shared and cross-access design alternatives, as well as marginal access roads, but more efforts could be taken to improve access management along highly trafficked thoroughfares such as S.H. 107 and Business 281. S.H. 107 in particular, would greatly benefit from shared and cross access improvements to reduce traffic congestion that is caused, in large part, by the commercial and industrial land uses along this corridor. Furthermore, the subdivision regulations should be amended to prohibit residential driveway access onto arterial roads.

The chicane, raised cross-walk, and curb extension (seen above) are examples of traffic control (or calming) techniques that are achieved through design interventions.

Traffic control (or calming) can be achieved through various design techniques including, but not limited to, traffic circles, chicanes, raised cross-walks, curb extension/road narrowing, pavement markings, and warning signage, as described below:

- **Traffic circles (or roundabouts)** – A traffic circle includes a raised island in the center of an intersection, around which motorists must steer counter-clockwise to get to their intended destination. Traffic circles are beneficial because they reduce angle collisions and delays at stop signs and traffic signals. The latter is advantageous in terms of traffic flow, but also because it reduces traffic idling, which impacts air quality and energy consumption.
- **Chicanes** – A chicane is a series of bump-outs that alternate from one side of the road to another. They are effective in reducing speeds while maintaining traffic flows because motorists are required to steer around the alternating bump-outs.
- **Raised cross-walks** – A raised cross-walk is a raised section of roadway with a color impressed concrete top. The raised cross-walk incorporates a marked pedestrian crossing. This two-pronged approach to traffic control can be an effective way to reduce speeds and enhance safety around community centers, schools, parks, and other public facilities. An

example of a raised cross-walk can be seen in front of the Edinburg Community Center and South Park.

- **Curb extension/road narrowing** – This approach involves an intrusion of the curb into the roadway, either between intersections or at an intersection. This traffic control system slows motorists through a reduction in pavement width, while at the same time, providing a shorter crossing distance for pedestrians should the curb intrusion be placed at an intersection.
- **Warning signage -** Warning signage may include warnings for play areas, children playing, seniors, etc.

Parking also plays a critical role to ensure continuous traffic flow. High trafficked areas that receive peak flows during distinct times of the day require careful attention. For example, the University of Texas-Pan American has commuter students from surrounding municipalities. As such, traffic flows can be high during the academic year when classes are scheduled. Overflow traffic and parking in neighboring residential areas is of concern. Designing rights-of-way to accommodate on-street parking along major thoroughfares can be effective in terms of providing additional space to accommodate parking requirements off-site.

High traffic areas such as S.H. 107 and U.S. 281 could benefit from congestion control. According to the MTP 2004 recommendations, traffic congestion problems along S.H. 107 should be addressed by updating traffic signal timing. The MTP also recommended a corridor study for U.S. 281. Over the next twenty years as growth and development occurs, it will be important for the City to anticipate and monitor traffic volumes to ensure that adequate traffic control is provided.

Accessible Alternative Transportation Modes

A complete transportation system includes more than highways and streets that support automobile transit. Other transportation modes, such as air transportation, bus transport, rail and freight transport, public transit, bicycling, and walking must also be considered. A combination of these modes, which collectively form a complete and diverse (or multi-modal) transportation system, is needed to adequately support the community's transportation needs.

Transportation needs will vary among persons within the community based on determinants such as age, income, and poverty status. As identified in Chapter One, Gateway to the Future, the community's population is

Bicycling can be promoted as an alternative mode of transportation through adequate provision of bike lanes along street right-of-way.

comprised of predominantly younger persons. In fact, 54.54 percent of the population is under 30 years of age, and 9.86 percent of the population is represented by persons 0 to 4 years of age. These statistics indicate that automobile transportation may not be an option, but rather walking, biking, and public transit could be the transportation modes of choice - and/or necessity. Of further consideration is the fact that 29.20 percent of residents live below the poverty level. As such, the ability to purchase and maintain a car may not be feasible, again suggesting a propensity toward other forms of transportation. Persons with disabilities and the elderly may also have a need to use transportation modes that are alternatives to the car due to health issues, such as sight or hearing impairments.

Edinburg provides an alternative to automobile transportation via public transit. The community is served by Rio Metro. According to the MTP, service provided is not fully meeting the needs of its users. Feedback from the public indicated that people wanted Rio Metro service on additional days, both weekdays and Saturdays. The MTP noted that this request was widespread enough to warrant further attention and could potentially justify restructuring the system. The MTP also highlighted that over 70 percent of Rio Transit riders throughout the outlying rural areas that were surveyed requested improvements, in particular, additional days of service including weekend service, mostly on Saturday. Again, it was noted that this concern requires attention and may justify a significant restructuring of the system.

An examination of Bureau of Transportation Statistics (2000) reveals that the McAllen-Edinburg-Mission MSA had 267,000 annual unlinked passenger trips via The Lower Rio Grande Valley Development Council (LRGVDC) transit agency bus service. An examination of ridership on Rio Metro reveals that ridership has not met forecast predictions, although growth has remained steady. In the case of Rio Transit, six of its seven routes lost ridership from 2000 to 2002. This decrease in ridership could be attributed to many factors, including the establishment of Rio Metro, which averages a trip approximately once an hour, two or three days a week, as compared to Rio Transit routes, which operate only three or four trips a day, and some only two or three days per week.

In order for ridership to increase, bus vehicles must be in sufficient supply to provide frequent and convenient service. Furthermore, the land development pattern must be such that it facilitates public transit. Curvilinear street patterns make it difficult to plan efficient bus routes, while at the same time making accessibility difficult for riders. Lack of convenience can dissuade

people from using public transit, thereby creating an increased dependency on automobiles.

Sidewalks and trails also contribute to the local transportation system by offering safe walking connections within and between neighborhoods. Requiring sidewalks and trail linkages in new developments and expanding the existing system will further enhance the transportation alternatives in the community. Further to the benefit of additional transportation choices, facilitating physical activity through the construction of sidewalks and trails has health benefits. This is important since 15 percent of children and adolescents aged six to 19 years old are considered overweight, and 60 percent of adults in the U.S. do not get enough physical activity to provide health benefits.[3] Increasingly, it is being recognized that community residents value physical activity opportunities.[4] This data suggests that efforts to install sidewalks and trails will be well received.

Sidewalks and trails offer safe walking connections within and between neighborhoods – providing transportation choices and facilitating physical activity.

Environmental Enhancement, Energy Conservation, and Improved Quality of Life

Environmental quality has been a source of concern along the U.S./Mexico border for some time. This is partially attributed to the maquiladoras, which are scattered throughout the northern Mexican region. Many of the maquiladoras have no air pollution prevention regulations or plans in place. If regulations or plans exist, they are often poor or outdated, thereby contributing to poor environmental conditions, locally and beyond.[5] Focusing simply on transportation, it is important to link the volume of traffic crossing the border to already existing air quality problems. Idling cars at border crossings and the sheer number of vehicles going back and forth impacts air quality and energy consumption. Therefore, the benefits of managing traffic congestion and improving mobility include the improvement of air quality and the reduction of fuel consumption. Poor air quality impacts health, particularly for those suffering from respiratory diseases. As such, efforts to improve environmental quality and conserve energy can have spin-off benefits in terms of improving quality of life and livability.

[3] Centers for Disease Control and Prevention, www.cdc.gov; Preventing Chronic Diseases: Investing Wisely in Health, Preventing Obesity and Chronic Diseases Through Good Nutrition and Physical Activity, http://www.cdc.gov/nccdphp/pe_pa.htm, Internet downloaded, September 2004.

[4] International City/County Management Association, www.icma.gov; Active Living Approaches by Local Government, 2004, http://www2.icma.org/main/ld.asp?ldid=18012&hsid=1&tpid=31, Internet downloaded, September 2004.

[5] Hidalgo County Metropolitan Planning Organization, Metropolitan Transportation Plan, 2004.

Design details contribute to the appearance of the community and provide a sense of place.

Development that perpetuates automobile use does little to achieve a balanced transportation system.

Community Form and Character

While transportation infrastructure is commonly viewed purely for its function of moving traffic, it is strongly linked to the growth of a community. The extension and improvement of roadways (and the availability of utilities) commonly act as a development trigger, providing the framework for future development. As such, transportation improvements must be closely coordinated with the community's growth plan to ensure improvements are consistent with growth policies and future development intentions.

While transportation is strongly linked to growth and development, it also contributes to the form and character of a community. Transportation planning can impact the degree to which the landscape is protected and open lands are preserved. Design details such as the use of landscaped medians for traffic management, or the design of bridges, overpasses, and retaining walls can contribute to the appearance of the community. Therefore, it is essential that transportation improvements be planned and designed with both form and function in mind.

Conversely, how land use is planned and developed can impact transportation. Development that perpetuates automobile use, such as drive-through water stations, banking, and pharmacies, does little to achieve a balanced transportation system that considers all forms of transportation in its design, including walking, biking, and public transit.

GOALS AND OBJECTIVES

The following goals, objectives, and recommendations are designed to address the aforementioned issues.

GOAL 4.1: An efficient local transportation network that facilitates safe and convenient movement of people and goods.

Objectives and Actions

- ***Continuously improve and extend the network of arterial streets to serve both the short- and long-range transportation needs of the community.***
  1. Acquire rights-of-way in adherence with the City's land use and growth policies (refer to Chapter 3, Land Use) to ensure that a sufficient amount of land is dedicated to meet transportation needs through roadways, sidewalks, and trails, while also meeting community character objectives through gateway monuments, signage, and landscaped medians. Further to acquiring rights-of-way within the City limits, sufficient rights-of-way should also be secured

in the ETJ in advance of development, and concurrent with any building permit approvals. Additional rights-of-way should be acquired at the intersections of arterial streets to accommodate a left-hand turning median and free-flow right-hand turns as traffic volumes warrant. Plan to acquire sufficient right-of-way in high volume traffic areas to accommodate acceleration and deceleration lanes, yield-only turn lanes, and a wide directional turning median. Medians should be installed pursuant to securing sufficient rights-of-way, concurrent with improvement and/or extension of each designated arterial roadway.

2. Adopt new design standards as alternatives to those listed by the MPO to provide alternative rights-of-way and pavement widths. Exceptions to design standards should be permitted in circumstances where topography or natural features prevent standards from being met.
3. Adopt access management regulations to restrict the number, location, and spacing of driveways; street intersections; medians and median openings; marginal access roads; turn lanes; and acceleration/ deceleration lanes at major intersections. The regulations should require marginal access roads and/or cross access easements along all commercial frontage abutting arterial and collector roads to minimize the number of driveways. The number of residential streets with access to arterial streets should be restricted by requiring marginal access streets or collector roadways located no less than 1,320 feet apart. Plans should be made to manage driveway locations at University Drive, between Sugar Road and Highway 281, where traffic volumes are particularly high.
4. Coordinate with the Texas Department of Transportation (TxDOT) and Hidalgo County to ensure that any new bridges are designed and constructed to a standard that will accommodate a minimum of five travel lanes, with increased weight limits to support trucks and over-sized equipment.

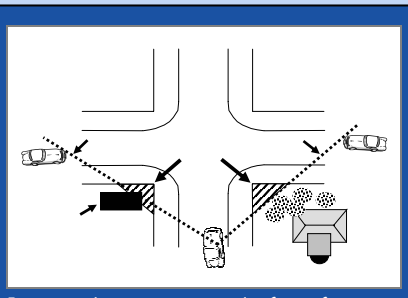
- ***Provide continuous collector roadways within and between neighborhoods and throughout the community.***
  5. Extend collector roads to arterial roads to increase connectivity within and between existing subdivisions. This can be achieved by requiring, concurrent with subdivision approval, continuous collector roadways between all arterials, aligning with existing collector roadway segments.

The Federal Highway Administration defines access management as "the process that provides access to land development while simultaneously preserving the flow of traffic on the surrounding system in terms of safety, capacity, and speed" (source: MTO, 2004).

6. Conduct traffic studies on all two-lane east-west collectors to determine whether they warrant an increase in the number of traffic lanes to match intersecting north-south collectors.

- ***Provide a safe transportation network.***

7. Install railroad crossing arms at all road intersections with the railroad throughout the ETJ. To enhance safety, applicable pavement markings and signage should also be installed at all intersections within the City limits and ETJ.
8. Periodically conduct signal warrant studies as area travel volumes increase with new development. In areas that are already managed by traffic signals, signal timing should be reviewed, particularly in congested areas, to determine if timed traffic signals are appropriate relative to the volume and peaks in traffic flow. Adjustments should be made to traffic signals so that they are timed accordingly. Pedestrian and bicycle actuated traffic signals should be installed at intersections near schools, parks, and other areas with high pedestrian traffic.
9. Conduct regular safety inspections to ensure that there are clear views of all traffic control devices (e.g. traffic signals, street signs). The inspections should include an appraisal of all traffic control devices including their placement, visibility, and condition. Visual obstructions within the site distance triangle should be strictly enforced. Repair, replacement, and relocation of traffic control devices should occur subsequent to safety inspections.
10. Improve wayfinding in the community by improving street signage. The peripheral areas in the City limits and ETJ are particularly in need of street signage improvements. Worn signage should be replaced and new signage installed where warranted. The City should undertake an inventory and condition assessment of its signs in order to determine priorities for improvement.
11. Periodically conduct travel speed studies to determine appropriate speed restrictions, particularly in school zones and other pedestrian areas. Street pavement markings and signage for all school safety zones should be improved and regularly maintained. Raised cross-walks should be installed along all streets that front onto public facilities, such as schools, but also including municipal parks, library, and community center. Projects that are on public property and within a two-mile radius of a school may be eligible for Safe Routes to School Program funding to help finance traffic calming measures,



Intersections must remain free of any visual obstructions within the line of sight of vehicles approaching the intersection.

crossing improvements, and other initiatives to provide a safe transportation network in school zones[6].

12. Install traffic calming devices to slow traffic in high speed areas. This is particularly useful in neighborhoods around parks and schools to either slow or divert traffic. This may also be very useful as a means for preserving the integrity of neighborhoods around UTPA as student enrollment and, hence, traffic and parking increase.
13. Consider adding pavement striping in areas where the right-of-way width of an arterial or collector street exceeds the standards required based on road classifications outlined in the Thoroughfare Plan. The striping could be used to delineate a narrower pavement width, and the excess pavement could be turned over for an alternate use, such as a hike and bike trail. Using pavement striping could be particularly effective in improving safety along roadways where, due to the timing of development, inconsistent road widths prevail. Eliminating the need for drivers to adjust to alternating narrow and wide road widths on a single stretch of roadway could potentially provide added safety to motorists, cyclists, and pedestrians alike.

GOAL 4.2: An efficient traffic control system with convenient parking.

Objectives and Actions

- ***Optimize the traffic signal system to increase efficiency.***
  1. Review signal timing in congested areas to determine if timed traffic signals are appropriate relative to the volume and peaks in traffic flow. Based on results of the traffic signal system studies, more green time should be provided for heavier traffic movements by adjusting signal timing and offsets in high traffic areas.
- ***Adjust current parking policies to better manage the existing parking supply.***
  2. Provide dedicated revenue to assist in maintenance and upkeep of City-owned parking facilities. The existing parking fine structure should also be modified to add a sliding scale for repeat offenders, and in turn, reduce the rate of parking violations. Current policies for fee structure and enforcement of loading zones should be reviewed to ensure compliance with the intent of the loading zones. These efforts will contribute to a reduction in traffic congestion, particularly in

[6] For more information on the TxDOT program, go to: http://www.dot.state.tx.us/trafficsafety/srs/default.htm.

high traffic areas such as the Courthouse Square and University Drive.

- ***Identify parking capacity improvements in the downtown area to provide for the parking needs of residents, customers, and employees.***
  3. Update the early 1990s parking study to include an updated inventory of both on- and off-street parking spaces. The number of parking spaces should be compared to the parking demand of the current and expected businesses and future residential/commercial development to identify a surplus or deficiency. The location of parking spaces and their restrictions (hours and duration) must be re-evaluated to identify necessary policy modifications or needed parking improvements. The update should document the options and solutions to address any current or projected deficiencies, including an elevated parking structure and the purchase/lease of land or an existing parking facility to replace or supplement the existing parking lot in the Courthouse Square.

GOAL 4.3: A network that supports alternative transportation modes.

Objectives and Actions

- ***Promote walking and bicycling as viable alternative transportation modes.***
  1. Adopt roadway cross-sections with a sufficient right-of-way width to accommodate sidewalks for pedestrian activity throughout the community. The subdivision regulations should be amended to include an additional requirement for sidewalks to be installed on both sides of all minor residential streets. A condition inventory of sidewalks should be conducted to assess sidewalk condition and maintenance requirements. The results of the inventory should be used to identify prioritized improvements within a capital improvement program (CIP). Funding for the construction and maintenance of sidewalks may be provided through a development fund contributed to by developers and builders based on a percentage of build-out.
  2. Amend the subdivision regulations to require public access easements within developments that abut public parks and existing and planned trail segments to allow safe access to recreation opportunities. Pedestrian safety within neighborhoods should also be enhanced through the implementation of traffic-calming improvements to reduce speeds and discourage "cut-through" traffic.
  3. Install medians/esplanades in arterial streets for use as a pedestrian refuge to shorten the unprotected distance across wider roadways

(e.g. Jackson Road) that lead to pedestrian accessed public places such as parks, schools, and community center. Further improve access by installing accessible ramps for persons with disabilities; marked, signed and/or signaled pedestrian crossings; and pedestrian-actuated signal detectors at key locations, e.g. schools, library, public buildings, throughout the community.

4. Develop new bike lanes that connect to existing bike lanes in the City and to McAllen and Pharr. For example, extend the bike lane eastward on Monte Cristo Road, and then south toward Municipal Park and other public use destinations (e.g. neighborhood and community parks) in south Edinburg. Also, extend the existing bike lane on Jackson Road northward to Monte Cristo Road. Develop an off-road hike and bike trail along one or more of the drainage/irrigate canals. Consider entering into a partnership with Hidalgo County wherein the City would maintain the drainage canals, provided the County constructs the hike and bike trails. Funds should be allocated on an annual basis to hike and bike public education and promotion activities (similar to the Chamber of Commerce-sponsored annual bicycle event) through the Parks and Recreation Department budget and private funding sources. The objective of education and promotion would be to increase physical activity among citizens, including the use of hike and bike trails, and to educate citizens about bikeway safety (e.g. safe movement of automobiles and bicycles through intersections).
5. Establish an escrow for situations where the right-of-way width of an arterial or collector exceeds the standards required, based on road classifications outlined in the Thoroughfare Plan. Developers would be required to deposit an amount of money equivalent to that which would typically be spent on road widening. The escrow would be used to fund improvements, including road maintenance and/or construction of a hike and bike trail.

- ***Provide for expanded air transportation services.***

6. Use the results of the surveys and studies that have been completed to update the Edinburg International Airport Master. The plan should be reviewed on a regular basis, and amendments made to address changing conditions. An airport marketing plan should be developed to promote the use of the Edinburg International Airport to persons and businesses throughout South Texas. Assistance should be sought from the University of Texas-Pan American and/or other professional sources to develop an airport marketing plan to promote the airport at regional, state-wide, and international levels.

Improvements to public transit facilities should be considered to increase ridership.

- ***Seek ways to expand public transit services and improve alternative transportation options for residents of all ages, incomes, and abilities.***
  7. Work with the LRGVDC to coordinate Rio Metro service and provide additional days of service on a more frequent basis throughout the day. To ensure additional days of service are met with an increase in the number of riders, work with the LRGVDC to develop a marketing campaign that will improve the dissemination of transit information to make it easier for potential riders to learn about the system. Other partnerships that should be considered include the University of Texas-Pan American, Edinburg Consolidated Independent School District (ECISD), and other local transportation providers, such as daycares and medical centers. These partnerships should be examined to identify ways to maximize cost efficiencies through joint service provisions, shared fueling and maintenance facilities, or other beneficial arrangements. Furthermore, steps should be taken to enhance public transit facilities for users. Improvements such as shade by way of mature trees and/or shelters, benches, and water fountains are each essential to improve comfort and aesthetics, ultimately with a view to increasing ridership.

GOAL 4.4: A transportation network that enhances the environment, conserves energy, and enriches residents' quality of life.

Objectives and Actions

- ***Seek ways to enhance the environment, increase energy conservation, and enrich quality of life for people living and working in Edinburg.***
  1. Encourage transportation alternatives to the single occupant vehicle. This may be achieved, in part, by working with the LRGVDC to promote public transit use through marketing and information transfer activities. The City should work with the LRGVDC and other partners to hold a city-wide "ride-to-work" campaign to promote cycling and bus transit as alternatives to the automobile.

GOAL 4.5: Transportation improvements that enhance community character.

Objectives and Actions

- ***Ensure that all transportation projects include sufficient green space and other enhanced aesthetics.***
  1. Amend the design standards for the right-of-way width of arterial streets to acquire sufficient additional rights-of-way to include

increased green space and buffer zones from adjacent land uses. Additional rights-of-way should also be acquired at the intersections of arterial streets to encompass a triangular area that may be used to buffer adjacent uses and add green space. Consideration should be given to narrowing the pavement width of collector and residential streets and using the extra right-of-way width for sidewalks, trails, neighborhood-scale street lighting, tree preservation, landscaping, and open space. Additional rights-of-way should be acquired to accommodate gateway monuments, additional open space, and enhanced landscaping at the community entrances along U.S. 281 (north and south) and S.H. 107 (east and west).

2. Adopt standards for preserving tree lines and mature individual trees when planning the alignments of new roadways. Enhanced development standards for tree preservation, landscaping, buffering, screening, and property maintenance should be required along each arterial roadway to improve the appearance and aesthetics of the community's primary roadway corridors. To further enhance roadway corridors, the City should coordinate with TxDOT in the design of future interchanges/major intersections, bridges and overpasses, retaining walls, signage and lighting standards, and other improvements to include consideration of enhanced aesthetics and community character.

This gateway treatment at the intersection of Owassa and McColl Road is an excellent example of entry monumentation.

TRANSPORTATION MODES

As described in Goal 4.3 and its associated objectives and actions, it is important for the community's transportation network to support alternative transportation modes. Edinburg is fortunate in that it has a multi-modal system. In other words, it has a full range of transportation alternatives that together, form the local and regional transportation system. The community's multi-modal system currently includes single occupant vehicles, multiple occupant vehicles (i.e. public transit), walking, bicycling, rail transportation, and air transportation. The existing improvements and services and the opportunities for network enhancements are discussed below.

Auto-Oriented Transportation Planning

Transportation is predominantly auto-oriented. Single occupant vehicles, followed by multiple occupant vehicles (i.e. public transit), are the transportation modes of choice. The way roadways are designed to channel traffic and support fluctuating volumes throughout the day is critical to

ensuring an efficient transportation system. This will become more apparent as growth and development continues to occur.

Roadway Cross Sections

Roadway classifications reflect the functions that roadways serve as part of the street network. The cross section of a roadway is related to traffic volume, design capacity, and level of service (LOS). In the Subdivision Ordinance (Section 15504, Definitions), the City's classifications include arterial, collector, and local streets. A summary of design standards is provided in **Table 4.1, Pavement Widths and Rights-of-Way**. Each cross section identifies minimum dimensional criteria for right-of-way and pavement width.

Table 4.1, Pavement Widths and Rights-of-Way

Road Classification	Minimum Right-of-Way	Minimum Pavement Width
Freeways	350 feet	152 feet
High Speed Principal Arterial	150 feet	76 - 84 feet
Principal Arterials	120 feet	84 feet
Minor Arterials	100 feet	66 feet
Collector Streets	80 feet	44 feet
On-site Local Streets	50 feet	29 feet

Source: Metropolitan Transportation Plan

In the administration and enforcement of the Thoroughfare Plan, special cases and unique situations will occasionally arise where physical conditions and development constraints in certain areas conflict with the need for widening of designated thoroughfares to the planned right-of-way width and roadway cross section. Such special circumstances require a degree of flexibility and adaptability in the administration and implementation of the plan. According to the subdivision regulations, in cases of limitations or physical barriers, the City Engineer shall determine the adequate rights-of-way alignment and dedication. Otherwise, standard roadway cross-sections should be used in all newly developing areas and, whenever possible, in existing developed areas.

Applying a broad brush of standards for development within the City versus the ETJ may be problematic since the character may be auto-urban in some places, suburban in others, and rural countryside or agricultural in the outer areas. Standards for development within the City limits, with rare exception, should reflect its auto-urban and suburban character, with provision for curb and gutter construction, sidewalks, street lighting, signage, and sufficient open space. In the ETJ, where the character of development is suburban estate, rural countryside or agricultural, for example, the standards must be varied to mirror the character, yet be both reasonable and feasible. Sidewalks are not necessarily associated with suburban estate or rural countryside

development, but are nonetheless appropriate for auto-urban areas with typical lot sizes (6,000 to 9,000 square feet) and street patterns. In the case of the estate subdivision (minimum one-acre lots) or rural countryside development (minimum five-acre lots) a trail that builds upon the character of the natural environment may be more appropriate to accommodate pedestrian activity as compared to sidewalks.

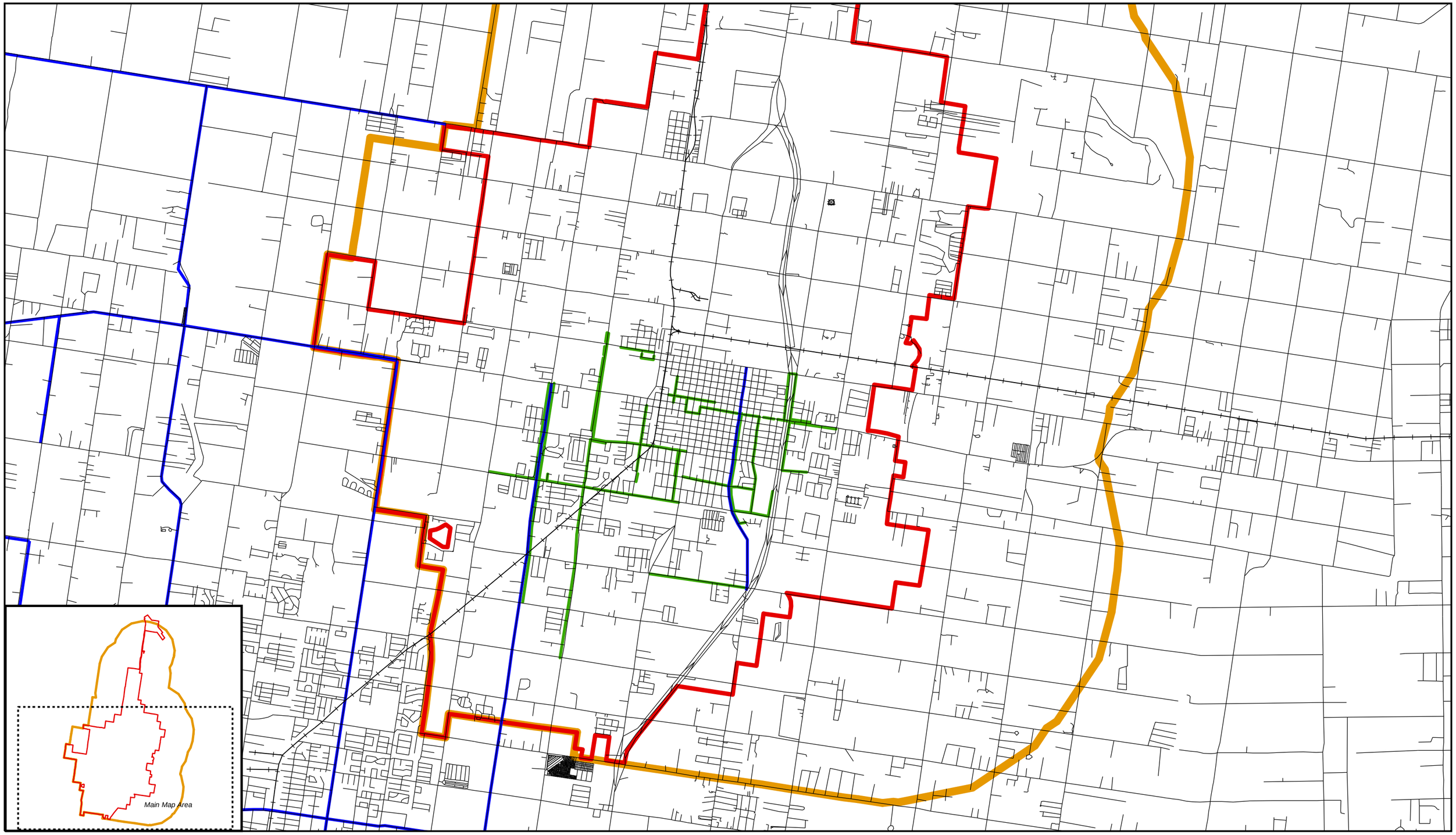
Public Transportation

Public transportation, in the form of bus or van transit, is ideal for many demographic groups, including the elderly, young, and persons on a limited or "fixed" income. Since the target users for public transportation are generally quite specific, the challenge is to generate sufficient demand for public transportation such that quality service (i.e. frequent trips, multiple stops, affordable fares) can be provided.

Evidence that the quality of public transit could be improved was brought forward in the MTP. The plan revealed that the public indicated it wanted service on additional days, both weekdays and Saturdays. While additional service is preferred, it is important to note that ridership has yet to meet the forecasts even though growth has been steady. This being the case, while desirable for the users, it is difficult to justify service expansion without a requisite increase in ridership to make it feasible.

Pedestrian and Bicycle-Oriented Transportation Planning

Sidewalks and crosswalks are part of the City's transportation system that serve the needs of pedestrians throughout the community. As noted in **Figure 4.1, Existing Sidewalks and Bike Lanes**, the City has a deficit of sidewalks. There are no sidewalks north of Richardson Road, indicating that north Edinburg, in particular, is in substantial need of sidewalk construction to allow for safe pedestrian mobility. Subdivision regulations must be enforced to ensure that the design of rights-of-way in new subdivisions provide adequate space for sidewalks, and that these sidewalks are being built. In already developed areas, provided sufficient right-of-way exists, the City should install sidewalks on a priority basis. Priority should be given to areas surrounding public facilities such as parks, schools, and the community center, where safe pedestrian routes would benefit a large number of persons, including children. Cross-walks throughout the community are in short supply. Therefore, sidewalk construction must be coupled with efforts to install cross-walks to ensure that pedestrians who use sidewalks are able to



Legend

- Existing Sidewalk
- Existing Bike Lane
- Roads
- Rail Lines
- City Limits
- ETJ Boundary (2 mile)

UTPA The University of Texas-Pan American

Lane Kendig, inc.

Figure 4.1, Existing Sidewalks and Bike Lanes

miles 0 0.5 1 2 3

cross streets safely. Again, construction priority should be given to areas surrounding public facilities.

Eliminating barriers to pedestrian mobility is an important feature in planning and developing an effective pedestrian network. Locally drafted and administered ordinances must restrict obstacles on sidewalks, such as parked vehicles and trailers, which are hindrances to pedestrian mobility and safety. Roadways also impose barriers. For example, U.S. 281 and Business 281, in particular, as well as arterial roadways, railroads, and canals, impose barriers to pedestrian access and mobility. These barriers must be overcome by access improvements and other provisions made during the course of roadway and subdivision design. Fully integrating neighborhood schools and parks, as well as neighborhood convenience retail centers into residential areas will result in increased accessibility, and opportunities for walking and bicycling in lieu of using the automobile for short trips.

Modern subdivision street patterns, such as those existing north of Schunior Street and south of Sprague Street are more auto-oriented than the community's older neighborhoods that have a traditional grid street pattern. The established, traditional neighborhoods accommodate automobiles, but also offer mobility solutions for pedestrians. The north-south, east-west grid pattern allows superior wayfinding through an interconnected street system that provides more direct travel routes compared to conventional loop and cul-de-sac street pattern design. That said, there is a deficiency in the amount of sidewalks, off-street trails and walkways, linear parks and connections, and crosswalks in these neighborhoods. Therefore, while the physical layout of the streets is conducive to pedestrians and cyclists, the design provisions have not been implemented to fully realize this opportunity.

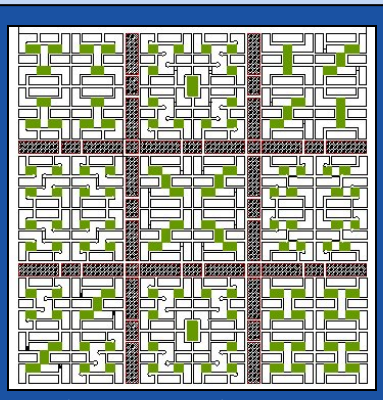
A key to a good pedestrian-oriented transportation network is a series of well-connected and continuous paths that provide safe and aesthetically pleasant transportation choice. However, climate must also be considered in the design of a pedestrian network. Edinburg's hot summer temperatures require that paths have ample shade, rest opportunities (e.g. benches), and water fountains to provide comfort and safety to pedestrians.

The following outlines key recommendations for street design in consideration of pedestrians and cyclists:

- Cul-de-sac streets should be carefully managed to ensure they are not over used, which will help to maintain connectivity. The exception to limiting cul-de-sac streets is when pedestrian linkages are provided.

These links may take the form of public access easements and walkways connecting one street to the next through a greenway.

- Mid-block connections in the form of public access easements and walkways should be required to provide linkages between blocks and, particularly, to common facilities, such as parks and open areas.
- Narrower street standards should be applied to new construction. Narrower streets promote slower speeds and, therefore, typically discourage through-traffic. The spin-off effects of reduced speeds and through-traffic may be an increased propensity to engage in walking and biking activities.
- To increase internal connectivity, street block length should be limited to 800 feet (versus the current maximum block length of 1,300 feet) and cul-de-sac streets should be no longer than 600 feet.
- Further to requiring the installation of sidewalks on both sides of a minor residential collector street, with exceptions noted in the subdivision regulations, the installation of sidewalks should also be required on all other minor streets. Sidewalks should be required to be built concurrent with street construction, with special provisions to protect their condition and integrity during the process of home construction.
- Sidewalks should be installed along street corridors on a priority basis in areas where they are not currently available. Trade-offs may be permitted in suburban estate developments to allow off-street trails in lieu of sidewalks, thereby meeting the needs of walkers and cyclists.
- Shading should be planted along streets to provide relief to pedestrians and cyclists. Shade trees for The Lower Rio Grande Valley that are appropriate for thin line, or avenue, planting include Hardy Australian Pine *(Casuarina lepidophloia)*, Brazilian Pepper *(Schinus terebinthifolius)*, Retama *(Parkinsonia aculeata)*, and Carob Tree *(Ceratonia Siliqua)*. Attention to street furniture such as awnings, bus shelters, and water fountains must also be considered given local climatic conditions.
- On-street bikeways and off-street bicycling and jogging trails should be developed in accordance with the City's Parks and Recreation Master Plan to link major attractions and destinations throughout the community, including neighborhoods, parks, schools, churches, the Edinburg Public Library, the community center, major employment centers, and shopping areas.



Canada Mortgage and Housing Corporation (CMHC) developed the Fused Grid to improve connectivity within and between neighborhoods. The concept involves a fusion of the grid and conventional street pattern designs. Open space provides connections between loops and cul-de-sacs, allowing for enhanced connectivity and aesthetic quality.

- Canal rights-of-way across the community present opportunities for future off-street bicycle and pedestrian trails to connect with existing or new sidewalks. These opportunities should be pursued in concert with policies outlined in the Parks and Recreation Master Plan, and in accordance with its priorities for implementation.

CONNECTIVITY

The Thoroughfare Plan places a strong emphasis on connectivity within the transportation network. The rationale for increased connectivity lies in the benefits associated with a better connected system of streets, trails, and sidewalks. Benefits may include improved emergency access and response times; lower utility distribution costs; improved circulation for motorists, cyclists, and pedestrians due to reduced trip lengths and increased travel options; and, more efficient public transit service.

Pedestrian and Bicycle Connectivity – Efforts to improve connectivity should, in general, lead to improved connectivity for pedestrians and bicycles. Specific efforts to create transportation options for pedestrians and cyclists include examples such as the "live-end streets" concept. This approach links cul-de-sacs, typically dead-end streets, with pedestrian paths[7]. Similarly, the Fused Grid design concept provides connections from loops and cul-de-sacs, through open space areas, to destinations such as other residential areas, retail shopping, schools, etc.[8]. It is recommended that where loops and cul-de-sacs are permitted, the City should create pedestrian and bicycle linkages to ensure connectivity. Spin-off benefits would include increased green space, more recreational opportunities and associated health benefits, and enhanced stormwater runoff storage capability.

Gated Communities and Private Roads - Gated communities and private roads do not allow public access. In effect, this disconnects properties and neighborhoods from the community, limiting access to only those who own property within the gated community or on a private road. This presents potential problems for emergency services (i.e. fire, ambulance, and police) access, raises questions about social equity and community integration, and connectivity. It is recommended that the City prepare standards and criteria for the acceptance and approval of private streets and gated subdivisions.

[7] This concept was developed by Mark Childs, and referenced in Handy, Susan, Robert G. Paterson and Kent Butler. Planning for Street Connectivity: Getting from Here to There. American Planning Association: Chicago, May, 2003.
[8] Pidgeon, Chris. Applying Fused Grid Planning in Stratford, Ont. CMHC: Ottawa, November, 2004.

Block and Street Lengths and Intervals Between Street Connections – Blocks are defined by intersections with through streets. As such, a long block will have a greater distance between two intersections that create its start and end, versus a short block, which will have a short distance interval between street connections. The length of blocks impacts the connectivity of the street network. Safety is also impacted by block length as evidenced by the fact that shorter blocks require motorists to stop at more frequent intervals for stops signs thereby reducing their speed. In order to limit the length of blocks, it is recommended that through-streets should be provided no more than 1,320 feet along arterial streets and no more than 660 feet along collector and local street intersections. The subdivision ordinance should also be revised to include new standards for street lengths to enhance connectivity and safety.

Decreasing Minimum Street Widths and Rights-of-Way – Connectivity requirements can be met with resistance by developers who will incur the added expense of increased road length to meet connectivity requirements. However, decreasing the minimum street width standards and rights-of way allows for some compensation recovery. In fact, most cities that have adopted street connectivity ordinances also reduce minimum required streets widths and rights-of-way, while continuing to provide for adequate street widths to accommodate fire apparatus. This approach allows developers to benefit from a reduction in the potential costs associated with connectivity requirements. The added benefit of narrower standards is improved quality of life. Narrow streets tend to result in slower speeds, which in turn, lead to reduced through-traffic. The argument can be made that a reduction in through-traffic can give way to increased pedestrian and bicycle activity. This example clearly illustrates the interrelationship between transportation modes and the positive spin-offs that can be obtained through the adoption of a connectivity ordinance.

THOROUGHFARE SYSTEM PLANNING

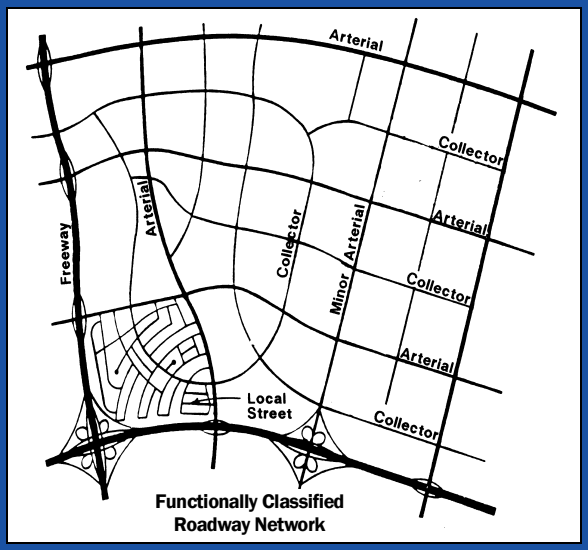
A thoroughfare plan is designed to provide for the future travel needs of an urban area through a plan that ensures the development of the most appropriate street system, including both existing and planned streets. The objective of the Thoroughfare Plan is two-fold:

- To ensure that adequate right-of-way is preserved on appropriate alignments and of sufficient width to allow for the orderly and efficient expansion and improvement of the thoroughfare system; and,

- To provide safe, multi-modal transportation opportunities without undue need for excessive road construction, and in turn, long-term maintenance requirements and associated costs.

The Thoroughfare Plan shows proposed alignments for planned new roadways and roadway extensions. However, actual alignments will vary depending on the design and layout of development and necessary amendments to, and refinement of, the Thoroughfare Plan. Requirements for rights-of-way dedication and construction of street improvements should apply to all developments within the community and it's ETJ.

While other elements of the plan look at foreseeable changes and needs over a 20-year period, thoroughfare planning requires an even longer-range perspective, extending into the very long-term future. Future changes in transportation technology, cost structure, service demand, and long-term shifts in urban growth and development patterns require a long-term, visionary approach to thoroughfare planning and decision-making. Given this time frame, it follows that some elements of the plan may be modified over time. For example, the thoroughfare system may require new rights-of-way than that which were planned. With time, one or more roads designated as collectors may not be widened to meet a collector road standard due to physical constraints or right-of-way limitations. Despite these uncertainties and flexibility in application, the thoroughfare plan maintains its usefulness. For example, while a collector street may not reach its full capacity, its designation as a collector road signifies its traffic-handling role in the overall street system and the importance of maintaining its good condition to maximize traffic handling capacity in light of the inability to undertake improvements to allow for an optimal width and cross section.



A typical thoroughfare network includes various classifications of roads, each with a design function within the overall transportation system.

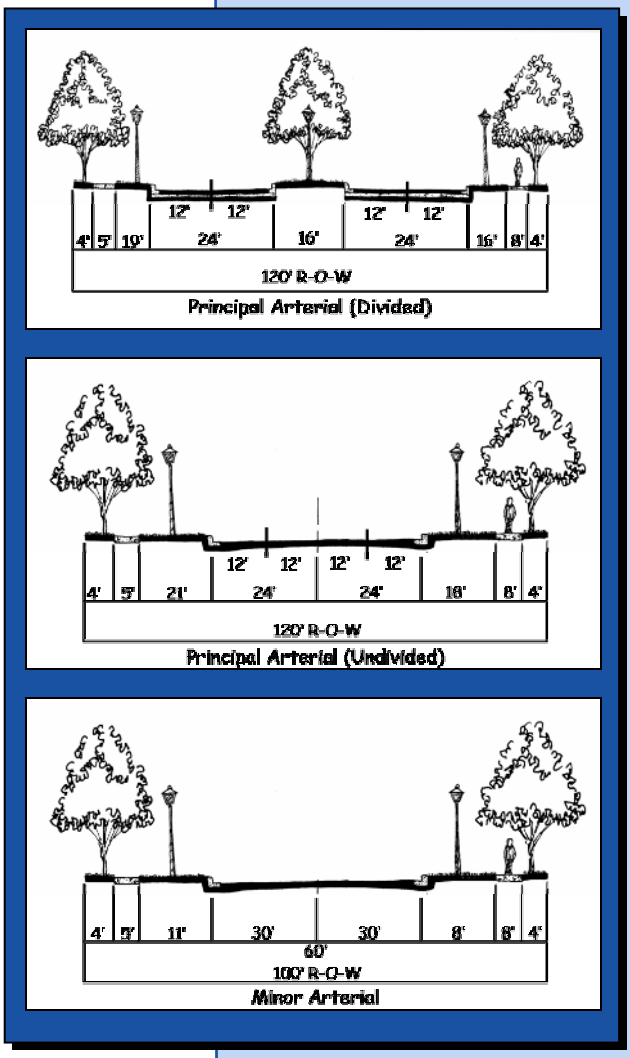
Thoroughfare Plan

The Thoroughfare Plan will affect the growth and development of the community since it guides the preservation of rights-of-way that are required for future improvements. As a result, the plan has significant influence on the pattern of traffic movement and the desirability of areas for future development.

The community's thoroughfare system of arterial and collector streets is displayed in **Figure 4.2, Thoroughfare**

Plan. The plan shows approximate alignments for planned thoroughfares that will be considered in platting of subdivisions, right-of-way dedication, and construction of major roadways within the City and its ETJ.

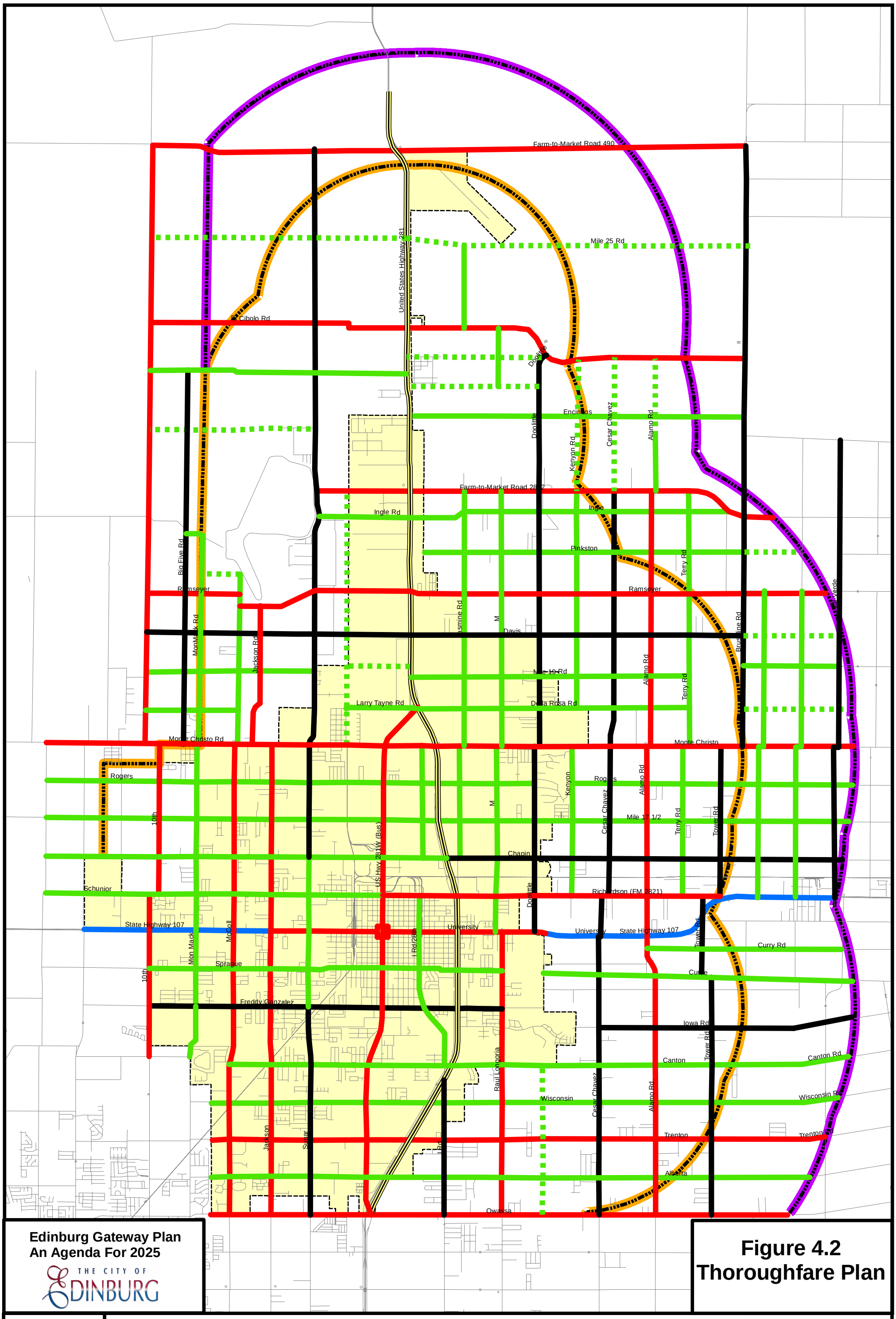
It is noted that the Thoroughfare Plan does not show future local streets. The rationale behind this omission is that local streets function principally to provide access to individual sites and parcels. As such, the future alignments of local streets are dependent upon individual land development plans and can not be set forth in a thoroughfare plan. Alternatively, local street alignment should be determined by the City in conjunction with developers as part of the subdivision development and approval process. Similar to local streets, collector street alignments depend on the surrounding street system and individual development concepts. As such, future collector streets are not identified in the Thoroughfare Plan. Collectors should be located on a case-by-case basis, taking into account the most efficient way to connect arterial streets with other collectors and local streets.



Classification of Roadways

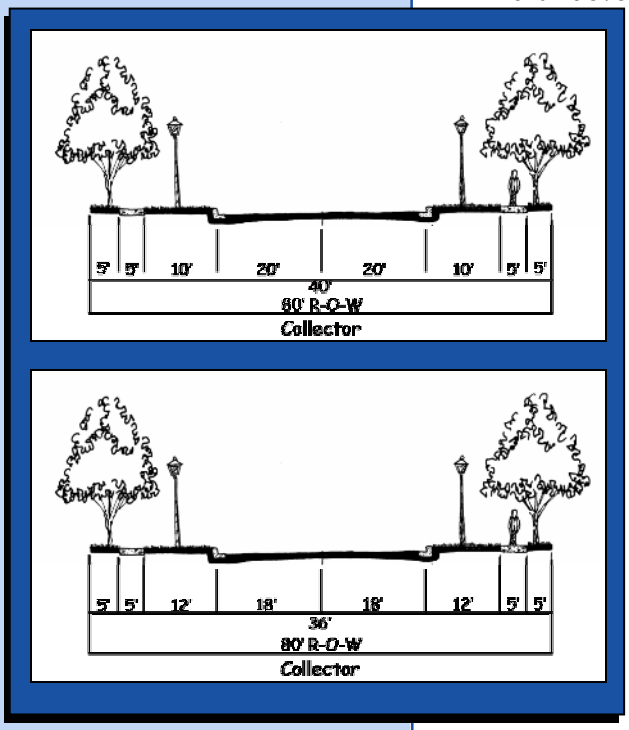
Roads are grouped into functional classes according to their traffic movement and land access roles. The functional classification of roadways includes freeways, high speed principal arterials, principal arterials, minor arterials, collectors, and minor streets. Characteristics of each functional class of roadway differ to meet the corridor's intended purpose. The City uses the design standards that are set forth in the Hidalgo County Thoroughfare Plan, as described below, and as illustrated in Table 4.1, Pavement Widths and Rights-of-Way.

- **Freeways** - A freeway requires a right-of-way of 350 feet. Within this right-of-way is a 152-foot pavement section with six, 12-foot moving lanes; four, 12-foot access lanes, and a 48-foot median.
- **High-Speed Principal Arterials** – Existing standards require high-speed principal arterial roads to have 150 feet of right-of-way. Included in this right-of-way is pavement with a width ranging from 76 to 84 feet, accommodating four or five moving lanes and a 48-foot median. There are no changes or alternatives proposed for this classification.
- **Principal Arterial Streets** – Existing standards require 120 feet of right-of-way, with a pavement width of 84 feet to


Farm-to-Market Road 490
Mile 25 Rd
United States Highway 281
El Cibolo Rd
Doolittle
Encinitos
Cesar Chavez
Alamo Rd
Kenyon Rd
Farm-to-Market Road 2812
Ingle Rd
Ingle
Pinkston
Terry Rd
Big Five Rd
Ramseyer
Mon Mack Rd
Jackson Rd
Jasmine Rd
Davis
Mile 19 Rd
Larry Tayne Rd
Della Rosa Rd
Monte Christo Rd
Monte Christo
Rogers
10th
Kenyon
Mile 17 1/2
Tower Rd
Chapin
US Hwy 281W (Bus)
Schunior
Richardson (FM 2821)
State Highway 107
University
McColl
I Rd/28th
Mon Mack
Sprague
Freddy Gonzalez
Iowa Rd
Canton
Canton Rd
Raul Longoria
Wisconsin
Wisconsin Rd
Jackson
Sugar
Trenton
Trenton Rd
Alberta
Owassa
Curry Rd
Curry
Legend
Expressway 350'
Principal Arterial 120'
Collector 80'
2 Mile ETJ
City Limits
High Speed Arterial 150'
Minor Arterial 100'
Prop. Collector 80'
3 1/2 MileETJ
Edinburg Gateway Plan
An Agenda For 2025
THE CITY OF EDINBURG
Figure 4.2
Thoroughfare Plan
Edinburg PLANNING & ZONING
1 inch equals 6,000 feet

accommodate at least four, 12-foot moving lanes and a 16-foot median. This plan proposes two alternatives for a principal arterial, including divided and undivided sections. Both alternatives include four, 12-foot travel lanes. The divided alternative includes an additional 16 feet of width to accommodate a raised median providing for decorative street lighting, landscaping, and green space, as well as a turning lane at intersections. The undivided alternative includes four, 12-foot travel lanes. Both alternative cross-sections provide for an eight-foot trail on one side and a five-foot sidewalk on the other.

- **Minor Arterial Streets** – The City's standards for minor arterials include 100 feet of right-of-way with a 66-foot pavement section for at least four, 11 to 12 foot moving lanes and a 16-foot median. This plan proposes an alternative cross-section within 100 feet of right-of-way, with 60 feet of pavement, an eight-foot trail on one side and a five-foot sidewalk on the other. The narrowed street pavement width compensates for the addition of an eight-foot trail.
- **Collector Streets** - The City's standards for collector streets require a 44-foot pavement section within 80 feet of a right-of-way. This plan proposed two alternative cross-sections, including one with 40 feet of pavement and one with 36 feet of pavement, both of which include sidewalks on both sides and increased green space. As an alternative for rural development, it is proposed that collector roads may be designed without sidewalks or curb and gutter. This would permit development to maintain the look and feel of a rural area. In this character of development, significant green space and an interior trail system would be necessary to compensate for the loss of sidewalks. Pavement widths remain unchanged; however, rights-of-way would have to account for the increased space required for open or covered ditches.



- **Minor Streets** - The subdivision ordinance defines a minor street as a local street that is used primarily for direct access to abutting residential property. The ordinance requires that on-site minor streets shall have a right-of-way of at least 50 feet and a pavement width of 29 feet minimum. The subdivision regulations indicate that sidewalks shall be installed on minor streets connected to minor residential collectors. As an alternative, it is recommended that the subdivision regulations be amended to include an additional requirement for sidewalks to be installed on both sides of

all minor residential streets, with a reduced pavement width to offset the additional costs. This plan also proposes an additional standard wherein the City may consider a sidewalk on only one side of the street, thereby providing additional green space within the right-of-way. Local streets may also be adapted to a suburban estate or rural countryside character to include an open or closed ditch system and trails, as opposed to curbs, gutters, and sidewalks. As with collectors, the advantage is a preservation of rural character, while the disadvantages include a reduced standard for rural development and, potentially, less effective stormwater management.

The purpose of the economic element is to provide the city with a framework for economic growth. Edinburg's location in the Lower Rio Grande Valley, as well as its proximity to Mexico, offers significant opportunities. The strategies in this plan will help define Edinburg in the minds of businesses and residents throughout the region. Sound economic development policies will enhance Edinburg's ability to capture regional job growth and business expansion while maintaining its capacity to provide public services for current and future residents.

A common understanding of economic development helps clarify intent and purpose. With this in mind, we encourage a definition that acknowledges the importance of collaboration and partnership. Economic development is *the use of public resources to stimulate private investment*. In other words, effective policy for Edinburg should be judged by how well public resources can create a response from private investors. This response can certainly be measured in jobs, but also in capital investment (land and buildings), technology, and spin-off (cluster) benefits.

APPROACH

This chapter builds on information compiled and analyzed by the consultant team with input from city officials and other key stakeholders. This document is a direct result of these discussions and of additional research conducted by members of the consultant team.

To understand the opportunities available to Edinburg, an economic assessment of the area was conducted. The purpose of the assessment was to identify Edinburg's unique economic strengths and weaknesses in the context of Hidalgo County, as well as the larger regional economy. The analysis focuses on those factors that define the community's overall business climate, such as available skilled labor and community population, current industries and major employers, and land use.

To complete this assessment, we relied on the most current and accurate data sources (proprietary and public) covering those attributes of greatest concern to business leaders, site selectors, and other economic decision makers. The quantitative analysis was supplemented by discussions with area business leaders, and members of the development community.

SWOT of the Community

An economic development SWOT Analysis (Strengths, Weaknesses, Opportunities, and Threats) was conducted for the Edinburg area. This analysis was based on a review of economic and demographic characteristics, discussions with area business leaders, and the team's experience working with communities across the country. Displayed in **Figure 5.1, Edinburg Area SWOT**, are the primary findings of this analysis.

Figure 5.1, Edinburg Area SWOT

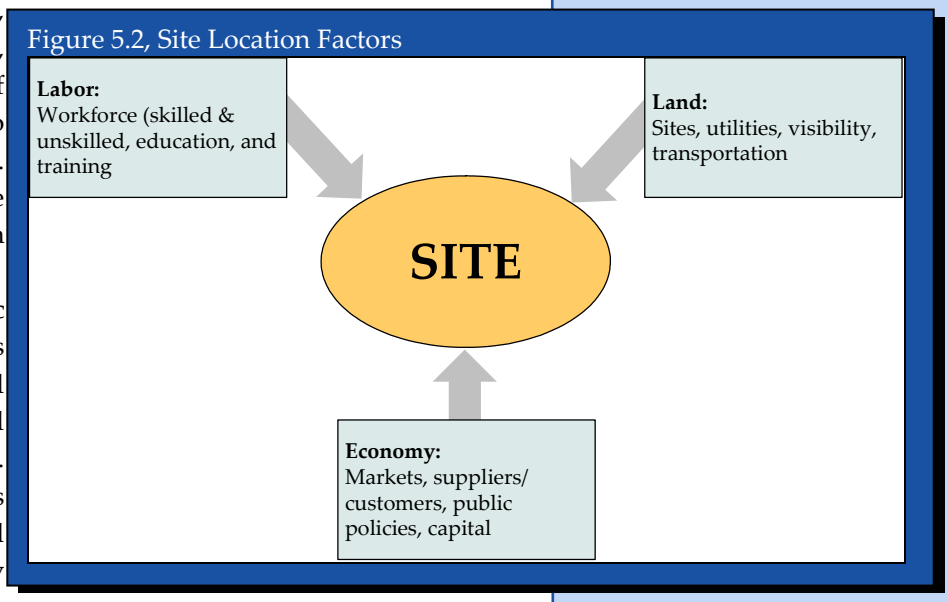
STRENGTHS	OPPORTUNITIES
➢ **Population/Workforce:** • Strong population growth • Large regional labor pool ➢ **Economy:** • UT-PanAm • Manufacturing base • Retail growth • Healthcare growth • County seat ➢ **Infrastructure/Business climate:** • Airport • Land availability • U.S. 281 • Proximity to border crossings & port ➢ **Quality of Life/Image:** • UT-PanAm • Parks/Recreation	➢ **Downtown/University:** • Downtown revitalization/redevelopment • Future of county courthouse • Leverage University for economic development ▪ Growth in enrollment ▪ Research opportunities ➢ **Tourism/Retirement:** • Winter Texans • Parks & recreation ➢ **U.S. 281 Corridor:** • Air cargo airport • Renaissance Industrial Park • Canton/U.S. 281 intersection ➢ **Healthcare/Medical:** • Regional Health Academic Center (RHAC) • Edinburg Regional Medical Center ➢ **Commercial/Retail:** • SW Edinburg/Growth from McAllen
WEAKNESSES	**THREATS**
➢ **Population/Workforce:** • Low educational attainment levels • Workforce skills unmatched with employment opportunities • High unemployment rate • Quality of education (needs improvement) ➢ **Economy:** • Many local employment opportunities offer low wages • Area is overly reliant on public sector employment ➢ **Infrastructure/Business climate** • Infrastructure needs improvement (primarily water and streets) • Area is dependent on water districts • Incentives policy ➢ **Quality of life/image** • Lack of identity and gateways to the community • Downtown (aesthetics, parking, etc.) • Lack of design standards for new development • Existing chemical plants near railroad tracks	➢ **Rapid Growth:** • Strains on infrastructure ▪ Traffic congestion ▪ Water supply ➢ **Economy:** • Global competition

SITE LOCATION Factors

Site location factors can be subdivided into three general functional categories, as shown in **Figure 5.2, Site Location Factors**. The factors include:

- **Labor** - Specific characteristics, including labor (i.e. availability, wage rates, and level of qualifications) and access to educational infrastructure (i.e. higher education and workforce development programs) play an important role in site selection.
- **Economy** - Economic considerations, including access to markets (local, regional, and global), suppliers and customers, public policies (e.g. incentives, taxation, regulations etc.), and availability of capital (investment, venture) strongly affect site location decisions.
- **Land** - Factors, such as availability of suitable sites, utilities, visibility/prestige, and access to transportation (such as the proximity to highways and airports) also have an important effect on a site's suitability.

Figure 5.2, Site Location Factors



TARGETS for the Community

The selection of target industries should be considered as much art as science. Our selection process includes the analysis of multiple factors, such as local, regional, and global industry trends; potential for industrial linkages; regional labor availability and skill sets; existing assets (e.g., industrial parks, available buildings, infrastructure); proximity to markets; and, business climate (e.g., tax rates, permitting). In determining suitable targets for Edinburg, land use and the City's development patterns were also taken heavily into account.

Listed in **Figure 5.3, Target Selection Matrix** are the target industries that represent the best opportunities for business retention, expansion, and attraction activities in the Edinburg area.

Table 5.3, Target Selection Matrix

	LABOR	ECONOMY	LAND	SCORE
Administration/ Call Centers	+	+	+	+++
Specialty Foods	+	+	+	+++
Electronics	=	+	+	++
Automotive	=	+	+	++
Logistics/ Distribution	=	+	+	++
Medical/Health Care	=	+	+	++
Professional & Financial Services	=	+	+	++
Retail/Entertainment/ Tourism	+	+	+	+++

\+ Advantage
= No Advantage or Disadvantage
\- Disadvantage

ADMINISTRATION/CALL CENTERS

Land Use Considerations:
- Flex/office space (single story)
- Ample parking
- Inexpensive land and buildings
- Telecom infrastructure

NAICS	DESCRIPTION
514-	Information services & data processing services
561-	Administrative & support services
454-	Nonstore retailers

Why Target?
- Industry potential for continued growth
- Potential sales tax benefits if retail related
- Provides training in PCs and customer service

Why Edinburg?
- Large number of Spanish speakers
- Industry well-established in Lower Rio Grande Valley
- Competitive wage rates
- Numerous sites, especially southern and southwestern portions of city

Niche Opportunities
- Spanish-speaking CRM firms
- Sales tax generating operations
- Expansion of existing regional operations

Strategic Considerations

Call center employment has grown remarkably during the last decade. While employment growth has slowed somewhat in recent years due to the

increased usage of the Internet for providing the same services, it is doubtful the web will entirely replace person-to-person services by telephone. International competition from developing countries, like India, has also dampened growth. Much like manufacturing firms, customer support companies continue to seek lower cost alternatives to the relatively high-cost labor force in the U.S.. Still, Texas and other Southwestern states in the Central Time zone remain attractive for customer relationship management (CRM) firms seeking a Spanish-speaking workforce, but still desiring the security of a U.S. location. Regardless, customer support is a relatively "footloose" industry that is neither capital nor wage intensive. Aside from a low-wage workforce, firms only require good telecommunication connections and inexpensive office/flex space. As a result, recruitment prospects within this industry remain abundant.

SPECIALTY FOODS

Why Target?

- Industry potential for continued growth
- Substantial export potential
- Large number of prospects

Why Edinburg?

- Existing agricultural base in the Lower Rio Grande Valley
- Proximity to regional consumer and international markets
- Relationship to transportation target
- Ample land available, especially along northern end of U.S. 281 corridor

Niche Opportunities:

- Value-added from local products
- Export/import oriented food products

Strategic Considerations:

The food processing industry remains one of the few manufacturing sectors expected to increase employment in the U.S. during the next decade. This is, in large part, a result of growing U.S. and international consumer demand stemming from overall population growth. Food processing, however, is undergoing a significant degree of transformation. This is the result of two primary trends: shifts in U.S. consumer preferences and increasing globalization. U.S. consumers' food preferences are becoming fractured as America is no longer a homogenous marketplace where Wonder Bread, Oscar Mayer, and Folgers dominate. While these products remain recognized household name brands, others such as Great Harvest, Hebrew National, and Starbucks have risen to become formidable forces. Their emergence is a direct reaction to the increasing market segmentation within the U.S. Still, time

Land Use Considerations:

- Access to transportation infrastructure (highways, rail, seaports)
- Inexpensive land and buildings
- Water/wastewater

NAICS	DESCRIPTION
115-	Support activities for agriculture
311-	Food manufacturing
312-	Beverage product manufacturing

constraints on American households have risen dramatically in the last 20 years allowing families fewer opportunities to cook traditional meals, resulting in the increased consumption of prepackaged foods.

ELECTRONICS

Land Use Considerations:
- Access to transportation infrastructure (airport, highway)
- High visibility/prestige locations

NAICS	DESCRIPTION
334-	Computer & electronic products
335-	Electrical equipment, appliances, & components

Why Target?
- Renewed growth expected
- Higher-wage manufacturing jobs
- Export-oriented industry

Why Edinburg?
- Proximity to regional maquiladora complex & electronics suppliers
- Industry linkages
- Available industrial properties

Niche Opportunities:
- Contract manufacturing
- Defense/security-related electronics
- Biomedical-related electronics
- Automotive-related electronics

Strategic Considerations:

Most cutting-edge technology sectors rely heavily on research and development. Therefore, they often require access to highly-skilled workers and major research universities. Electronics manufacturing involves the assembly of standardized electronic components as inputs in more value-added products, such as cell phones or PCs using tried and true technologies. As a result, contract manufacturers are more interested in locations that offer access to trainable labor working at reasonable wages. While contract manufacturing workers generally earn about 50-60 percent lower than their peers in other tech-related manufacturing, they still earn higher pay than most other production workers with similar skills.

Electronics manufacturers are less constrained in site location decisions than other technology firms and manufacturers due to flexibility gained through the light weight of their products and resulting lower transportation costs. As a result, lower cost labor markets in Mexico and China have successfully served the electronics industry for several years.

The outsourcing for electronics manufacturing is also a strong trend. For example, companies such as Motorola outsource the production of pagers and cell phones to focus more on higher-end production in shop. Name brand high-tech firms are establishing key strategic outsourcing relationships with vendors who are given extensive flexibility in production methods and

location decisions. In effect, the ownership of major functions and processes are transferred to a third-party, except in areas of intellectual property and patents.

AUTOMOTIVE

Why Target?

- Migration of industry toward Texas and the Southwest
- Higher wage jobs
- Export-oriented industry

Why Edinburg?

- Proximity to regional maquiladora complex and automotive suppliers
- Industry linkages
- Location of Toyota plant
- Available industrial properties, especially along northern end of U.S. 281 corridor

Niche Opportunities:

- Stampings
- Injection molding
- Electrical control units, instrumentation, and other electronics

Strategic Considerations:

More and more, the automotive industry is looking south when selecting locations for new facilities. Between the maquiladoras in Mexico and the development of a southern industrial corridor stretching from Texas to the Carolinas, auto manufacturers, both foreign and domestic, are looking beyond their traditional locations and choosing to build in the South. Of the 12 auto assembly plants constructed or announced in the United States since 1990, eight have been in the South. Of particular note, each of these new southern automotive plants is foreign-owned, pointing to the increased globalization affecting the industry. While overall national employment in the automotive industry is expected to decrease during the next decade, the majority of job losses will occur in older plants as more efficient and cost effective factories are brought on line, especially in the southern U.S.. Due to a number of factors, Midwestern operations are in the most danger of shutting down. As a result of the automotive industry's shifting center of gravity toward the South, supplier facilities are expected to join their customers in this migration at an increasing rate. To further highlight the overall southern migration of the industry, prior to 1950, 78 percent of all North American auto assembly plants were built in the Midwest and Northeast. Since 1990,

Land Use Considerations:

- Access to transportation (rail, highways)
- Level sites with ample room for expansion
- Abundant skilled labor

NAICS	DESCRIPTION
332-	Fabricated metal products
333-	Machinery
336-	Transportation equipment

however, 78 percent of all new facilities have been destined for the southern U.S. or Mexico.

LOGISTICS/DISTRIBUTION

Land Use Considerations:
- Large tracts with access to multi-model transportation infrastructure
- Proximity to markets
- Access to manufacturers

NAICS	DESCRIPTION
484-	Truck transportation
485-	Transit & ground passenger transportation
488-	Support activities for transportation
493-	Warehousing & storage

Why Target?

- Industry potential for continued growth
- Appropriate match between local worker skills and industry needs

Why Edinburg?

- Proximity to major north-south highways and international border
- Gateway from the Valley to the north
- Favorable weather
- Existing workforce and educational programs available in the region
- Available land with excellent access to transportation amenities

Niche Opportunities:

- Logistics for specialty foods, automotive, electronics
- Air cargo handling, storage, inspection
- Regional distribution
- Export/import oriented logistics

Strategic Considerations:

Over the last decade, the U.S./Mexico border region has emerged as the new industrial heartland of North America. An exponential increase in trade between the U.S. and Mexico due to NAFTA has largely been the catalyst for this shift. The U.S. Department of Commerce states Texas surpassed New York and California in 2002 to become the nation's leading export state. While changes in the domestic economy are forcing logistics and distribution service providers to relocate to the South, more fundamental shifts are occurring within the industry. Increased global trade, containerization, just-in-time inventory management, and technology are driving these changes. Their primary goal is process optimization to increase efficiencies through standardization in packaging and the increased use of technology. Also, firms are beginning to cluster their activities geographically, prompting a new trend in the development of multi-modal logistics parks. Another major trend is the increased outsourcing of services by manufacturers to maintain low inventories in-house, prompting the proliferation of third-party logistics providers.

MEDICAL/HEALTHCARE

Why Target?

- Industry potential for continued growth
- Career advancement opportunities
- Includes relatively high-wage occupations

Why Edinburg?

- Existing medical and research facilities in region (RHAC & Edinburg Regional Medical Center)
- Existing workforce and educational programs available in the region
- Aging population and potential to connect to retirement market related to quality of place and recreation strategies
- Available suitable properties, especially along Trenton Road corridor

Niche Opportunities:

- Health care to serve local and regional market
- Winter Texans and other retirees
- Specialized care and research related to the unique demographics in the Valley

Strategic Considerations:

Access to healthcare, both primary care and emergency care, is viewed as both a quality of life issue for residents and an economic issue for communities. The presence of healthcare facilities is also seen as key in location decisions. While access to healthcare is an important factor in corporate location decisions (67.2 percent of respondents in Area Development's annual corporate survey rated health facilities as "important" or "very important" in 2002—up from 65.3 percent in 2001), it is less critical than other business-related factors, such as availability of skilled labor (90.9 percent) and highway accessibility (86.6 percent). With the continued loss of manufacturing jobs, communities are becoming increasing reliant on the healthcare industry as a source for employment and tax revenue diversification.

Land Use Considerations:

- Access to other health care providers
- Proximity to growing population, especially upper income
- Access to roadways
- High visibility/prestige locations

NAICS	DESCRIPTION
621-	Ambulatory health services
623-	Nursing & residential care facilities

PROFESSIONAL & FINANCIAL SERVICES

Why Target?

- Potential for continued growth
- Economic diversification
- Upper wage professional jobs
- Establish Edinburg as regional employment center

Land Use Considerations:
- Access to high traffic counts
- Growth and higher income areas
- High visibility/prestige locations

NAICS	DESCRIPTION
522-	Commercial banking & credit unions
525-	Funds, trusts, & other financial vehicles
531-	Real estate
541-	Professional, scientific, & technical services

Why Edinburg?
- Strong population growth trends
- Potential supply of educated workers from UT-PanAm
- Link Edinburg's growth with northern McAllen
- Available land for development in path of growth

Niche Opportunities:
- Financial activities (e.g., retirement funds management)
- Business and professional services
- Real estate support offices

Strategic Considerations:

Professional and financial services have been among the primary generators of employment growth and economic vitality for the last 20 years and are expected to remain critical drivers for the foreseeable future. While overall manufacturing employment in the U.S. has remained stagnant since the early 1970s, services employment has tripled. In other words, the U.S. has transitioned from an economy based on the manufacture of products to one that provides services.

With the exception of technical services (such as the third-party testing services mentioned previously), which typically follow a specific customer base, this industry cluster is driven largely by two factors: proximity to customers, access to an educated class, and quality of life considerations. Additionally, the presence of a well-developed business and data services sector is critical to the development of other sectors, as technology and information comprise an increasing share of the value of all products and services. This trend will only increase as technological advances continue to revolutionize both "high-tech" and traditional industries alike.

RETAIL/ENTERTAINMENT/TOURISM

Land Use Considerations:
- Quality of life amenities (recreation, shopping, cultural)
- Nearby natural amenities and adequate accommodations
- High traffic areas

Why Target?
- Potential for continued growth
- Sales tax benefits
- Raise the community's regional profile
- Aid the redevelopment of downtown
- Strengthen quality of life amenities

Why Edinburg?
- Large number of "Winter Texans" in Lower Rio Grande Valley
- Area recreational amenities and parks
- Favorable weather

Niche Opportunities:

- Destination retail
- Full-service restaurants
- Eco-tourism and birding
- Downtown Edinburg (culture, arts, heritage tourism)

Strategic Considerations:

The retail trade and entertainment sectors have been among the leading national job creators during the last several years, driven by increased consumer spending and population growth, especially in Sunbelt locations. While these industries are not known for offering high wage jobs, they remain important to municipalities for their contributions through the sales tax.

In addition, retail and entertainment are increasingly being viewed as amenities that a community can not do without, especially in suburban areas. When searching for a new home, potential residents (both singles and families) strongly take the available shopping in an area into consideration. As a result, employers—who are interested in retaining and recruiting workers—have come to realize the importance of available retail and entertainment amenities.

Edinburg's and the Valley's existing attractions, including migratory birds and proximity to Mexico, provide significant opportunities to capitalize on trends, such as the growth in ecotourism and cultural tourism. "Winter Texans"—who, according to a 1997 study by the Texas Department of Economic Development are typically less interested in specific entertainment and attractions, and are "significantly more interested" in nature activities and sightseeing—represent another potential target.

NAICS	DESCRIPTION
713-	Amusement & recreation industries
721-	Accommodation
722-	Food services & drinking places
44-45	Retail trade
487-	Scenic & sightseeing transportation

VISION & GOALS for the Community

Economic development goals, strategies, and actions must be driven by an overriding vision for the community. While conceptually this makes sense, its more practical value is in directing resources. Successful vision statements are bold and provide direction for formulating goals and strategies.

Edinburg currently is positioned within the Lower Rio Grande Valley as just one of a number of communities benefiting from the region's strong population growth and strategic location across the river from northern Mexico. For the community to stand apart from the competition, it must embrace its key competitive advantage, The University of Texas-Pan American.

Thanks to ongoing enrollment growth and emerging research, such as the Regional Academic Health Center-Medical Research Division, Edinburg has the opportunity to uniquely position itself in the Lower Rio Grande Valley as a center for medical research.

The following economic development vision statement for the community builds on the concept of healthcare related research to incorporate the necessary elements that will ensure Edinburg takes full advantage of—an enjoys the benefits of—this competitive advantage:

> *Edinburg will be the University and healthcare research center for the Lower Rio Grande Valley, offering professional opportunities and quality of life amenities to attract and retain the talent necessary to support these activities.*

To support the realization of this bold economic development vision for Edinburg, several goals must be met:

- Strengthen the economy
- Enhance quality of place
- Develop a pool of talent

Focusing on economy, quality of place, and talent enables Edinburg to address the key long-term challenges to the community's attractiveness to both residents and businesses.

STRATEGIES & ACTIONS for the Community

I. ECONOMY

A. The University of Texas-Pan American

GOAL 5.1: Promote and expand healthcare-related research activities at the RAHC and UTPA.

Rationale:

The presence of the Regional Academic Health Center's Medical Research Division facility in Edinburg provides the community with a unique economic development niche within the Lower Rio Grande Valley: the center for medical research in the region and northern Mexico.

If Edinburg can successfully position itself as the center for medical research in the Valley, it will reap tremendous long-term economic benefits. Due to the unique attributes—and challenges—of the Lower Rio Grande Valley's population, the facility can expect to receive significant funds for research in these areas. Spending on University research is

especially important due to its ability to attract high quality faculty, staff, and students from around the nation. In addition, University research is now recognized as a key driver for local economic development due to the potential of commercialization of research, spin-off startups, and associated wealth creation throughout the community.

Opportunities:

- Diabetes and infectious disease research
- Pharmaceutical research
- Collaboration with area medical hospitals
- Technology transfer/commercialization

Actions:

1. Obtain "buy in" from key stakeholders who can positively influence research occurring at the RAHC.
2. Focus on quality of place and other factors to ensure that Edinburg can attract the necessary talent.
3. Ensure availability of land adjacent to RAHC to allow for any future expansions and allow for ancillary activities to be located near core research.

GOAL 5.2: Leverage the University's growth and other research opportunities.

Rationale:

Universities act as their own economic engine in a community, largely immune from cyclical conditions. Although land and buildings on a campus are not taxable, a University's local economic impact is nearly incalculable due to the strong indirect and intangible benefits a community receives due to school's presence. These benefits include technology transfer/commercialization, improved community image, student spending, educated workforce, etc.

As a result, Edinburg should continue to fully embrace and support UTPA's enrollment growth and positioning within The University of Texas System. That support should be provided at both the statewide, legislative level, and at the local, community level. In other words, the City should provide legislative assistance when possible and should act as a facilitator between the community and the University.

In addition, UTPA enjoys a number of outstanding graduate and research programs that - if effectively leveraged - present Edinburg with additional opportunities for long-term economic diversity and vitality. Finally, the University's Mexican-American majority population could

allow the University to be uniquely positioned among all major universities in the nation.

Opportunities:

- Engineering
- Business
- Enrollment growth
- Mexican-American student body

Actions:

1. Leverage UTPA to encourage entrepreneurial development in Edinburg.
2. Consider joint-marketing efforts between community and University.
3. Continue to support planned enrollment and physical plant expansions at UTPA.

B. Business recruitment/retention

GOAL 5.3: Establish a services-oriented employment center on the southern portion of the U.S. 281 corridor.

Rationale:

Recent trends in Hidalgo County point to the continuation of development patterns from southern portions of the county toward Edinburg. As McAllen reaches build out, developers and employers will begin looking for alternative sites in the area. Recent trends indicate they are increasingly viewing Edinburg as a viable alternative. Available properties along the U.S. 281 corridor have the potential to provide a major catalyst for economic vitality in the community.

While new investment in Edinburg should certainly be encouraged, managing growth and maximizing its positive impact should be at the core of the City's approach to development along U.S. 281. This means that the City should remain mindful of the quality of development along this corridor, recognizing that the types of development will project the image that most people will have of Edinburg.

The southern portion of the U.S. 281 corridor, however, is not just the primary visual medium of Edinburg to most regional businesses and residents. It also presents the community with its best opportunity for attracting a high impact services- and/or retail-oriented employment center.

Opportunities (targets):

- Professional and financial services
- Administration/call centers
- Regional retail destination
- Medical/healthcare

Actions:

1. Establish a formal vision and plan for the U.S. 281 corridor.
2. Identify potential sites (e.g. Trenton/U.S. 281 interchange) for priority development.
3. Encourage retail and office uses along the southern portion of the U.S. 281 corridor.

GOAL 5.4: Leverage existing industrial parks, zones, and the airport for industrial and logistics recruitment.

Rationale:

Targeting "primary" employers to Edinburg will provide an excellent complement to other diversification efforts, especially professional services and healthcare related employers. A focus on these types of employers is a complement to the services and healthcare related firms, because its focus is to also provide job opportunities for workers with lower educational attainment level. In addition, they have the potential to increase exports from Edinburg.

As identified in the target industries section, the best opportunities for "primary" industry recruitment include companies from the specialty foods, electronics, automotive, and logistics/distribution sectors. The City should prioritize the northern U.S. 281 corridor as the preferred location for new industrial development due to this area's ability to provide excellent transportation access (highway and airport), as well as the abundance of suitable properties and an existing industrial park (108-acre North Industrial Park).

This focus on the northern end of the U.S. 281 corridor also provides the City with an opportunity to establish an enhanced northern gateway to Edinburg, strengthening its image as a new employment center for the Lower Rio Grande Valley. In addition, this northern industrial focus will also support efforts to transform Edinburg International Airport and adjacent properties into a stronger competitive advantage given its Foreign Trade Zone designation.

Opportunities (targets):

- Specialty foods
- Electronics
- Automotive
- Logistics/distribution

Actions:

1. Market North Industrial Park and Edinburg International Airport directly and indirectly to target industries.
2. Consider enhancing the website and other literature to lead with specific development opportunities, especially the Edinburg International Airport and the North Industrial Park.
3. Continue to ensure adequate infrastructure and water supplies to ensure the long-term success of industrial development in priority sites.
4. Consider the acquisition of other sites and properties north of Edinburg to ensure continued availability of space to meet long-term demands of industrial/logistics users.
5. Work with property owners in area with the consideration of jointly developing and/or marketing sites for potential industrial/logistics users.
6. Explore partnerships with area educational and workforce training assets to support labor demands of industrial/logistics employers.

GOAL 5.5: Retain and expand existing employers.

Rationale:

Many judge industrial recruitment as the most important role of economic development. However, additional important opportunities for cultivating economic growth and vitality may lie closer to home. "Economic gardening" is the most overlooked - but often most important - activity an economic development practitioner can conduct. In other words, ensuring the continued survival and prosperity of local employers is crucial to sustaining a vibrant local economy.

While this may include abatements for capital improvement to local plants, it can also be as mundane as guaranteeing adequate infrastructure maintenance. Another crucial factor for local employers is the certainty of an available supply of skilled workers. As a result, supporting area workforce development programs should be a high priority for economic development in Edinburg.

Opportunities:

- Small and existing business outreach program
- Workforce development needs
- Incentives for local employers

Actions:

1. Place periodic calls with existing businesses.
2. Maintain an inventory of existing businesses.
3. Continue to provide support to small businesses.
4. Develop networking opportunities for local business owners.
5. Continue to work with area educational and workforce training assets to support labor needs of existing employers.
6. Continue to provide tax incentives and other assistance for existing businesses seeking to expand or upgrade their operations.
7. Examples of Texas communities with successful retention and expansion programs include Carrollton, Conroe, and Round Rock.

II. QUALITY OF PLACE

A. Central City

GOAL 5.6: Strengthen ties between the University, surrounding neighborhoods, and downtown areas.

Rationale:

UTPA is, without a doubt, Edinburg's greatest asset for fostering an identity as a community with a strong sense of place. Despite this potential, Edinburg's downtown and central city neighborhoods seem essentially untouched by the University's significant presence. An overall lack of a "college town feel" in Edinburg is a primary detractor to the community developing an identity for a high quality of place in the region.

In addition, UTPA is currently undergoing—and is expected to continue—significant enrollment increases, which has placed pressure on surrounding neighborhoods. While increased traffic and property appraisals are indeed be a nuisance to area residents, it remains in Edinburg's long-term interest to remain friendly to the University's growth.

Opportunities:

- Coordinated planning efforts
- Community outreach by UTPA
- Mixed housing types (e.g. apartments, townhomes, lofts, high-rise, and affordable)
- Pedestrian- and bicycle-friendly environment

Actions:

1. Establish institutional cooperation between the University and the City, linking land-use planning activities.
2. Establish a stronger dialogue between the goals of the University and surrounding neighborhoods.
3. Develop a vision for downtown with a focus on building a concentration of unique retail, eating, and entertainment amenities.
4. Investigate options for establishing mechanisms to help attract private investment.
   - Explore opportunities for private/public partnerships.
   - Consider the establishment of a business improvement district and/or a tax increment finance (TIF) district.
   - Evaluate current building codes to ensure they do not hinder traditional downtown-style development.
5. Pursue catalytic or destination projects for downtown.
   - Continue to support the expansion of UTPA, the establishment of new municipal complex, and other major projects that can act as anchors for development.
   - Focus on building a concentration of unique retail, eating, and entertainment amenities in downtown as a draw for current and future residents.
6. Improve signage along U.S. 281 corridor indicating location, entertainment, retail, and other opportunities in downtown Edinburg.

GOAL 5.7: Promote retail and entertainment activities in downtown Edinburg and along University Drive.

Rationale:

In addition to the establishment of more integrated development patterns between the University and surrounding neighborhoods, the establishment of a vibrant, central city attractive to students, visitors,

and residents will be a vital factor in improving the overall quality of place in Edinburg.

Establishing the downtown area as a destination for a unique retail and entertainment experience not only offers the potential for increased sales and property tax collections for Edinburg, but also can improve students' emotional ties to the community. In other words, by fostering a more attractive environment to younger people, Edinburg is more likely to retain recent graduates as long-term residents in the community.

By focusing attention on the downtown and adjacent areas, Edinburg will send a clear signal to the development community that it is willing and able to work as a partner in the creation of investment opportunities for the private sector.

Opportunities:

- University/downtown redevelopment corridor
- Boutiques, specialty retail
- Full-service restaurants; cafes
- Arts and entertainment venues
- Mixed-use developments

Actions:

1. Redevelop University Drive corridor linking UTPA to the downtown.
   - Identify boundaries of the redevelopment corridor to include the downtown, University, and adjacent residential areas.
   - Update zoning to allow for and encourage mixed-used (commercial/residential) development projects within the University/downtown redevelopment corridor.
   - Improve infrastructure to make the corridor more pedestrian and bicycle friendly with considerations for the expansion of sidewalks, establishment of bicycle lanes, and the improvement of signage, street furniture, and shade trees.
2. Make downtown a focal point for growth in Edinburg.
   - Ensure development of municipal complex establishes linkages between the University campus area and downtown.
   - Establish storefront rehabilitation program in downtown Edinburg.
   - Identify and develop inventory of available downtown space and market to potential employers.

- Investigate potential for developing an entertainment district in downtown.
- Leverage UTPA to encourage arts and entertainment activities in downtown.

3. Encourage the beautification and revitalization of neighborhoods adjacent to the downtown and University campus.
4. Raise the awareness of downtown among the University community through a communication campaign.

B. Parks and Recreation

GOAL 5.8: Improve parks and other recreational amenities in and around Edinburg.

Rationale:

Much like downtown redevelopment, parks and green spaces are being rediscovered as essential assets for a community. Not only do they provide much needed venues for outdoor recreation for children and families, they also improve the overall appearance of the community. Paying attention to the development and maintenance of a high quality parks system can provide Edinburg an additional opportunity to set itself apart from competing communities throughout the Lower Rio Grande Valley.

A city's parks system is an essential component to providing a positive visual perception of a community, making it more attractive to prospective residents and endearing it to current ones. In other words, parks and recreation facilities should no longer be considered amenities. Instead, they should be considered critical factors in selling a community to skilled and talented workers that will make local employers more competitive. Unfortunately, the maintenance and expansion of a City's parks system often gets short shrift during periods of tight budgets.

Opportunities:

- Linked greenbelts
- Recreation facilities
- Outdoor community venues
- Eco-tourism and birding

Actions:

1. Consider a parks system that incorporates the irrigation canals, connecting neighborhoods throughout the community.
2. Coordinate planning with the University to establish bike paths

for students.

3. Investigate the potential for developing outdoor venues to hold communitywide events.

III. TALENT

A. Edinburg Consolidated Independent School District (ECISD)

GOAL 5.9: Support excellence in the K-12 public school system.

Rationale:

The importance of a local school system in economic development cannot be understated. Employers need to be assured of access to trainable workers' company executives and rank-and-file workers strongly desire an excellent education for their children; and homebuyers and the development community recognize their investments are affected by the quality of a school district. As a result, it is imperative that Edinburg remains supportive of the local school district and establishes excellence in education and workforce training as long-term goals.

Communicating the community's economic development goals with the school district will also enable it to remain responsive to the changing needs of existing businesses and future employers in Edinburg. In other words, the coordination of school district programs with target industries (e.g. healthcare, manufacturing, and professional services) can provide a key competitive advantage for the community.

Opportunities:

- Allied health, nursing
- Math, sciences, and engineering
- Vocational studies, internships, and apprenticeships

Actions:

1. Continue to promote Edinburg Consolidated Independent School District (ECISD) throughout the Lower Rio Grande Valley.
2. Coordinate vocational, technical, and other professional training programs with community's target industries.
3. Consider strengthening institutional cooperation between the school district and University.

B. The University of Texas-Pan American

GOAL 5.10: Promote and expand healthcare-related training programs at UTPA.

Rationale:

While the RAHC and other healthcare related research activities will have the potential to provide an important catalyst for long-term economic vitality in Edinburg, the provision of training professionals that can serve as a workforce for healthcare providers and potential startups is equally crucial.

Fortunately, UTPA is already uniquely positioned to fill the needs of existing area healthcare providers and future medical research related employers. For example, 61 percent of UTPA students who apply to medical schools are accepted as compared to the state average of 37 percent. In addition, UTPA ranks first among all institutions of higher education in the nation in terms of the number of bachelor's degrees awarded to Hispanics in Health Sciences and second in Biological Sciences. Finally, UTPA offers the only physicians assistant program in Texas outside a medical school.

Opportunities:

- Healthcare training
- Other programs related to healthcare and medical research

Actions:

1. Support and expand healthcare related programs (e.g. Health Sciences, Biological Sciences, and Physician Assistant Program).
2. Enhance communication between city and University departments.
3. Consider aligning course offerings with economic development targets and opportunities.

GOAL 5.11: Promote activities and programs at UTPA that support economic vitality in Edinburg.

Rationale:

To support the diversification and long-term vitality of Edinburg's economy, a supply of talented workers must readily available to prospective employers. Thanks to UTPA, firms located in Edinburg have the first opportunity to access the wide variety of recent graduates.

UTPA ranks fourth in the nation in terms of the number of bachelor's degrees awarded to Hispanics in Business and Marketing and fifth in Mathematics. UTPA is one of only a half dozen schools to offer a Ph.D. in Business Administration with an emphasis in International Business. In addition, the University' also enjoys an award winning Mechanical Engineering program. These programs have to capacity to fuel much of the skilled workforce requirements in a number of Edinburg's target industries, including Professional & Financial Services, Administration/Call centers, Electronics, and Automotive.

Not only does UTPA offer existing and future employers access to the talent they need to remain competitive, but the Office of Center Operations and Community Services (CoSERVE) located on campus assists startups and business expansions throughout the area.

Opportunities:

- International business
- Finance
- CoSERVE
- Science and Engineering

Actions:

1. Support and expand programs to support targets.
2. Enhance communication between city and University departments to coordinate goals.
3. Consider aligning course offerings with economic development targets and opportunities.

Chapter Six
Utilities

This element of the Comprehensive Plan focuses on three components of the City's public utilities system – drainage, water, and wastewater. The drainage component draws from a Drainage Study that was conducted with a view to creating a long-term Drainage Master Plan for the Northwest portion of the City of Edinburg (Rooth Road to Closner, University Drive to Monte Cristo Road). A sequence of design components were evaluated as part of the plan development process. Upon evaluation of these design components, existing conditions became known; which in turn, were used to identify the necessary future infrastructure requirements. The water component speaks to the Water Master Plan that was developed; defining specific steps to provide a reliable water supply for Edinburg to the Year 2014. A more general discussion of the requirements for the water system to the Year 2025 is also included. Finally, the wastewater component draws from the Wastewater Collection System Master Plan that was developed to evaluate the service area needs for the wastewater collection system's interceptors and pumping facilities, and in turn, recommend improvements that serve as the basis for the design, construction, and financing of facilities to meet anticipated regulatory requirements, residential and commercial growth, and system reliability needs.

DRAINAGE

The latest census indicates a Year 2000 population in excess of 48,000 persons and a projected Year 2010 projected population in excess of 55,000 persons. As noted in the **Community Snapshot**, Edinburg's population is projected to reach 105,307 persons by the Year 2025. The downside of this population growth is the stress that has been placed on existing infrastructure as evidenced by the fact that many areas of Edinburg endure standing water during frequent storms due to lack of outfall points. Short-term planning will only compound these drainage problems as the local population continues to expand, both in area and size. As such, there is a need to develop a plan for a master storm drain system.

The construction of other public utilities, such as sanitary sewer, water supply, and transportation is required for each development. These utilities are incorporated into an overall management system. To date, the management of urban storm drainage has not been as well planned. Recent efforts by the City, however, to develop smaller area drainage plans has begun to achieve a level of drainage planning commensurate with

development. Still though, additional work remains. A carefully planned storm drainage system will inevitably prove to be advantageous upon occurrence of a less frequent, yet more intense storm event.

Objective and Scope

To address the aforementioned issues and need, a drainage study was undertaken to analyze the existing Edinburg drainage system and, in turn, create a drainage master plan to accommodate future development in Northwest Edinburg.

The objective of the drainage master plan is to provide a plan for the construction of drainage infrastructure to take place in an orderly manner, while being sufficiently flexible to meet changing needs and criteria over the long-term.

The Drainage Master Plan scope is defined as follows:

- Identify governing agencies that regulate drainage within the City;
- Identify drainage patterns in Northwest Edinburg;
- Identify existing structures, developments, and future land use located within the Northwest Edinburg drainage area;
- Determine future goals for the drainage system;
- Determine design criteria that will meet standard flood protection measures;
- Recommend drainage infrastructure improvements; and,
- Discuss potential funding resources for capital drainage improvements.

Governing Agencies

As part of developing a drainage master plan, it is necessary to identify which governing agencies affect drainage guidelines. The following is a list of governing bodies that influence the master plan:

1. City of Edinburg
   a. City Engineer
   b. City Staff
   c. Planning and Zoning Commission
   d. City Council
2. Federal Emergency Management Agency
3. Hidalgo County Irrigation District #1
4. Texas Department of Transportation
5. Edinburg Consolidated Independent School District

Existing Conditions

To document existing conditions in the community, an inventory was developed based on the existing storm-drain control infrastructure, as well as **Figure 3.1, Existing Land Use**. It was determined that the land use within the Northwest Area is comprised of agricultural, residential, and commercial uses. These land uses are estimated as follows:

- Agricultural - 2,800 acres
- Residential - 3,790 acres
- Commercial - 600 acres

The areas of interest are predominantly agricultural and residential. These areas are serviced by drain lines varying in size from eight to 18 inches in diameter and open drain ditches.

A total of 32 drainage areas (sub-basins) were identified, as presented in **Table 6.1, Drainage Areas**. The sub-basins were delineated using natural land features and fabricated obstructions, which isolate the flow of storm runoff in these areas. These sub-basins correlate to 32-stormwater outfalls. The majority of the surface flow follows a northeast direction. As such, the existing infrastructure is built on an east-west direction to capture the runoff. Drainage of these basins is currently conveyed via three Drainage District No. 1 ditches (J-08-00 Drain Ditch, West Main Drain, and North Main Drain). A series of small City-owned and Irrigation District-owned drainage ditches alleviate some of the drainage as well. The "main" drainage ditches necessary for handling stormwater runoff are in place, however, lateral drain ditches are necessary to make the entire system operate smoothly.

Future Land Use

As illustrated in **Figure 3.2, Future Land Use**, much of the areas bound between Monte Cristo Road and University Drive will be residential in use, except for the existing commercial corridors.

The assumptions noted in **Table 6.2, Assumptions**, are considered in the calculations used to quantify the impacts proposed development will have on the outfall system.

Table 6.1, Drainage Areas

Basin Classification Number	Drainage Area	Existing Q (cfs)	Storage Volume Required (cf)
1	240.00	62.48	732,479.00
2	240.00	62.48	732,479.00
3	160.00	41.66	488,319.00
4	466.00	121.32	1,422,230.00
5	186.00	48.42	567,671.00
6	240.00	62.48	732,479.00
7	240.00	62.48	732,479.00
8	120.00	31.24	366,240.00
9	170.00	44.26	518,839.00
10	240.00	62.48	732,479.00
11	538.00	140.07	1,641,974.00
12	168.00	43.74	512,735.00
13	269.00	70.03	820,987.00
14	85.00	22.13	259,420.00
15	129.00	33.58	393,708.00
16	214.00	55.71	653,127.00
17	120.00	31.24	366,240.00
18	240.00	62.48	732,479.00
19	160.00	41.66	488,319.00
20-A	330.00	85.91	1,007,159.00
20-B	400.00	104.14	1,220,799.00
21	58.00	15.10	177,016.00
22	120.00	31.24	366,240.00
23	130.00	33.85	396,760.00
24-A	40.00	10.41	122,080.00
24-B	28.26	7.36	86,237.00
25	120.00	31.24	366,240.00
26	101.00	26.29	308,252.00
27	162.00	42.18	494,423.00
28	600.00	156.21	1,831,198.00
29	120.00	31.24	366,240.00
30	80.00	20.83	244,160.00

Source: Melden & Hunt, Inc.

The overall composite map showing existing and proposed structures is presented in **Figure 6.1, Composite Map**.

Table 6.2, Assumptions

Land Use	Impervious Coefficient	Projected Area to be Developed (%)
Low Density Residential	0.15	10%
Medium Density Residential	0.5	75%
Commercial and Business	0.9	15%

Source: Melden & Hunt, Inc.

Drainage System Goals

The overall goal of this drainage system is to provide an efficient system that will properly convey future storm runoff from developed areas. The planned infrastructure must be capable of navigating and discharging the acceptable amount of natural rainfalls, and addressing additional runoff generated by post-development conditions.

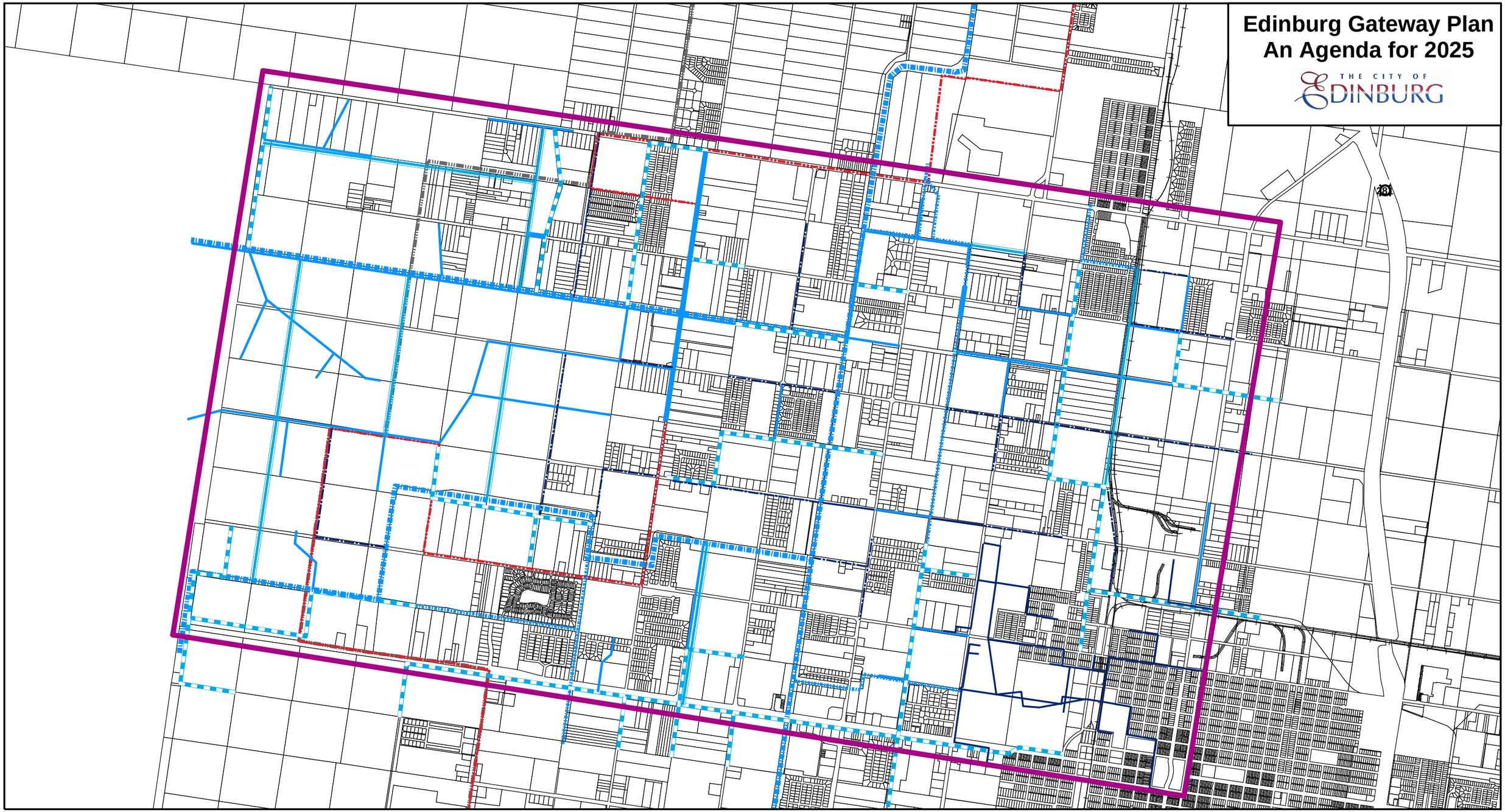
The 32 sub-basins, the area served by each sub-basin, the flow based on a 25-year storm event, and the junction point for each corresponding outfall are illustrated in **Figure 6.2, Drain Area Map**.

In addition to evaluating alternate drainage schemes, other issues need to be explored in order to achieve an efficient drainage system, including:

- **Design Criteria and Policies** – Design criteria and policies provide immediate guidance and consistency, and are essential to achieving drainage system goals. They are designed to provide for the public's welfare and safety while ensuring orderly development.
- **Development Friendly** - The drainage master plan needs to be attractive to developers such that economic development will continue to occur to meet growth demands in the community and surrounding area.
- **Fairness/Equity** - The drainage outfall system must be available for all developments inside the master planned boundaries. Drainage release will be available within a quarter mile from any potential development in the area.
- **Improvement Potential** - The ease with which the drainage system can be improved to meet increased demands over time will be key to the success of the drainage system.
- **Cost Effectiveness** - The overall benefits of the drainage system must outweigh the investment cost.
- **Maintenance** – Maintenance includes the labor and equipment costs associated with upkeep of the drainage system. These costs over the short- and long-term must be considered as part of a comprehensive assessment.

Edinburg Gateway Plan
An Agenda for 2025

THE CITY OF EDINBURG



Legend

- Existing Drain Ditch (Drainage Dist. #1)
- Existing Drain Ditch (Irrig. Dist. & City)
- Existing Irrigation (Underground)
- Existing Irrigation (Open Canal)
- Existing Storm Sewer Line (City)
- Proposed Drainage Ditch
- Proposed Storm Sewer Line
- Roads
- Rail Lines
- City Limits
- ETJ Boundary (2 mile)
- Limits of Study

LAND INFORMATION SYSTEMS CENTER

UTPA
The University of Texas-Pan American

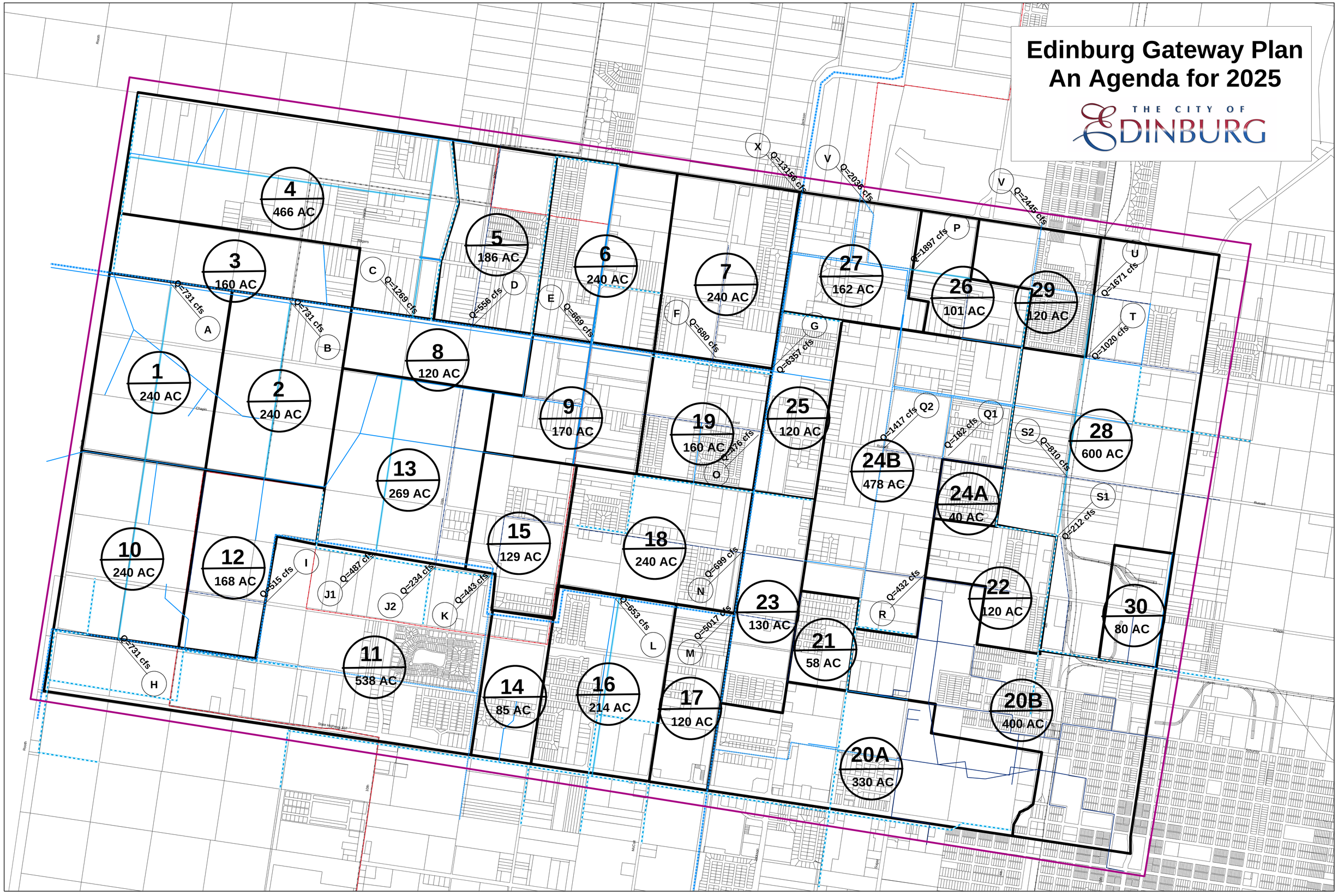
Lane Kendig, inc.

Figure 6.1, Composite Map

0 0.3 0.6 1.2 1.8 2.4 3 mi

Edinburg Gateway Plan
An Agenda for 2025

THE CITY OF EDINBURG



Legend

- Existing Drain Ditch (Drainage Dist. #1)
- Existing Drain Ditch (Irrig. Dist. & City)
- Existing Irrigation (Underground)
- Existing Irrigation (Open Canal)
- Existing Storm Sewer Line (City)
- Proposed Drainage Ditch
- Proposed Storm Sewer Line
- Roads
- Rail Lines
- City Limits
- ETJ Boundary (2 mile)
- Limits of Study
- XX / XX AC — Drain Area / Drain Area in Acres
- Q=XXX cfs / X — Flow Base on 25 Yr. Storm Event / Junction Point

DATA AND INFORMATION SYSTEMS CENTER

UTPA The University of Texas-Pan American

Lane Kendig, inc.

Figure 6.2, Drainage Area Map

0 0.25 0.5 1 1.5 2 2.5 mi

Proposed Design Criteria

Design criteria are necessary in order to comply with Hidalgo County's outfall system requirements, and achieve orderly construction of a planned drainage system. Detailed design criteria will provide immediate development guidance, standardize drainage analysis, and strengthen policies.

The stormwater collection system must consist of a system of small channels, gutters, inlets, and pipes that convey stormwater to the point of release. The design sequence can be separated into two distinct areas: the location of inlets and the sizing of pipes or ditches.

In theory, the optimum design frequency is that for which the cost of providing an additional increment of flood protection becomes less than the added benefits to be gained from such protection. In practice, the expense and difficulty of making this determination for individual cases is prohibitive. In Hidalgo County and Edinburg, Hidalgo County Drainage District (H.C.D.D.) No. 1 dictates the amount of allowable runoff allowed to flow into drainage systems within its jurisdiction. A formula has been calculated based on the H.C.D.D. No. 1 Runoff Curves for small tracts, farmland, and grassland. The formula is as follow: Q = Exp(-0.41452+0.794635*ln(acreage))

Storm drain systems should be based on the Hidalgo County Intensity Curves, based on Weather Bureau (NWS) Technical Paper No. 40 "Rainfall Frequency Atlas of the United States". The selection of the 25-year storm is based on the acceptance of risk that these facilities will be overloaded by large storms on the average of once in twenty five years. The consequence of such overloading is usually limited to street and lowland flooding however, it is rarely justifiable to design all stormwater collection systems to accommodate highly improbable storms.

The Rational Formula is as follows: Q = c i a

Where:
Q = Peak flow from the drainage area (cubic feet per second)
c = Runoff coefficient
i = Rainfall intensity (inches per hour)
a = Contributory drainage area (acres)

Inlet Location

Once an inlet location has been designated, it follows that a pipe must serve it. Inlets should be installed at depressions where water would otherwise have no outlet, and at points where the surface channel reaches capacity at peak flow. The rational formula provides the most useful technique for determining flow estimates for design purposes.

The rational formula is predicated on the assumption that in a rainfall of constant intensity, flow rises to a maximum at the time of concentration, at

which time flow is received at the outlet from the most remote point in the watershed. The rainfall intensity of a given recurrence interval decreases as the duration of the storm increases, as illustrated in **Table A-1, Hidalgo County Rainfall Intensity** in **Appendix A, Utilities**. Accordingly, the appropriate rainfall intensity for use in the rational formula is that intensity associated with storm duration equal to the time of concentration for the watershed. The minimum time of concentration for flow time to an inlet shall be ten minutes in a residential area and five minutes in a commercial area.

The runoff coefficient (c) is the most criticized aspect of the rational formula. It is intended to account for the multiple effects on peak flow of interception, infiltration, channel, and depression storage.

The capacity of the gutter contributing to the inlet can be estimated by applying the Manning's equation, as shown in the margin.

The spread of water into the street under peak storm conditions is a variable governed by design considerations. For instance, on a residential street the permissible spread may be as much as top of curb whereas for a principal traffic artery it may be limited to the curb lane width. For crosswalks it may be held to two feet.

Manning's equation is as follows: $Q = \frac{1.49}{n} AR2/3S1/2$

Where:
Q = flow (cfs)
n = Manning's roughness coefficient (0.18)
A = Cross-sectional area of flow (sq ft)
R = Hydraulic radius (ft)
S = Longitudinal slope (ft/ft)

Pipe Sizing

The time of concentration is the flow time to the most remote inlet plus the time of travel in the pipe to the point of design. The runoff coefficient is a composite of all contributory drainage areas.

Normally, one proceeds from the upland towards the outlet, setting pipes at minimum depth consistent with profile constraints. Pipes are generally sized to flow full, according to Manning's equation, at design peak flow. Pipe sections that are designed to flow under surcharge should be engineered to ensure that the hydraulic grade line does not rise above the ground.

To reduce clogging problems, the minimum pipe size for storm drainage should be no less than 18 inches. There should be no reduction in pipe size in the downstream direction, and the flow velocity within the pipe should be calculated to be no less than three feet per second and no greater than ten feet per second. Pipes with flow velocity greater than ten feet per second must be required to have retards on the downstream side. The formula acceptable for the design of retard spacing is shown in the margin.

$L = \frac{1.0'}{S1 - S2}$

Where:
L = distance required between retards in feet
S1= actual slope of channel or pipe (ft/ft)
S2= slope of proposed channel or pipe for velocity of 10 fps in ft/ft

S2 = (NV)2 / (1.486 R2/3)2

Where:
V = 10 fps
N = 0.035

Manholes or junction boxes should be provided at pipe junctions, bends, and in straight sections such that the maximum distance between points of access is 500 feet. Inlets are appropriate points for pipe junctions. At junction points, the mainline pipe invert should be dropped to account for losses due to bends and convergent flows.

Artificial Channels

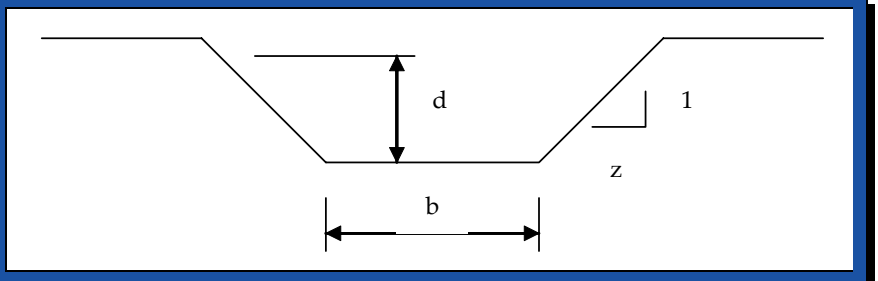
Artificial channels, which convey surface storm flows, are essential components of the stormwater management system. Three prime concerns govern their design, including: maximum design flow, erosion control, and construction and maintenance demands

The consequence of failing to provide sufficient capacity is flooding. The consequences of excessive channel degradation are eventual undermining of facilities near the channel, and abnormally high contributions of sediment downstream.

Two frequently occurring types of artificial channels in Hidalgo County are trapezoidal channels for flows exceeding approximately 100 cubic feet per second (cfs) and swales/bar ditches for flows less than 100 cfs, which also have a trapezoidal geometry.

Trapezoidal Channels

The maximum permissible velocity ($V_{max.}$) and the Manning roughness coefficient (n) are properties of the channel lining under construction.



Where:
Q = flow
S = slope
B = channel width
Z = side slope
D = depth

For the purpose of this drainage study, the channel width (b) varies depending on the amount of storage required and the design flow within the channel; side slopes were set to 1 foot of rise for every 1.5 (z) feet of run. The velocity of the channel and the slope were set as to maintain 2 feet per second (fps) based on a 25 year-storm frequency.

Channel installation costs accrue chiefly from three sources including,

land taken by the channel, excavation required to provide the specified cross-section, and the installed cost of the channel lining, if required. Most channels of significant length behave as if flow were uniform, in which case Manning's equation applies.

If land cost is not extremely high, the trapezoidal channel will be the most economical option. In the event that land value is extremely high, it is probable that complete enclosure of the channel in pipe would be the most economical approach.

A hydraulically efficient channel may result in flow at excessive velocity. High velocity flow enlarges the channel by eroding the banks, causing the channel to become wider (smaller slopes); hence shallower with consequent damage both alongside the channel and downstream. The maximum permissible cross-sectional velocity is based on the premise that each channel is sensitive to some average velocity of flow, dictated by vegetative cover, design, maintenance, and runoff frequency.

As illustrated in **Table 6.3, Basin Improvement Requirements**, there are numerous basin improvement requirements.

Drainage Master Plan Alternatives

Following examination of **Figure 3.2, Future Land Use**, and establishing design criteria, the next step in developing the drainage master plan is to formulate and analyze alternatives. Three alternatives are outlined below.

1. **Underground Pipe Network System** - An underground drainage outfall system was explored as an alternative. Findings related to this alternative are as follows:
   - A pipe system's carrying capacity is limited, leading to high retention costs.
   - The system's ability to upgrade in order to meet changing demands is restricted.
   - Maintenance costs are higher because underground pipe networks require retention ponds.

In summary, an underground network is more expensive to maintain, less economically attractive for development, with limited upgrade ability, and more expensive building costs. On the upside, this alternative allows for an improved appearance and character of the community.

The equation for flow and velocity are:

$Q=VA$ where
$V = 1.49R^{3}S^{2}$
Hence
$Q = 1.49AR^{3}S^{2}$

Where:
Q = channel flow (cfs)
V = cross-section average velocity (fps)
n = Manning's roughness coefficient (0.35)
A = Cross-sectional area of flow (sq ft)
R = Hydraulic radius (ft)
S = Longitudinal slope (ft/ft)

Table 6.3, Basin Improvement Requirements

Basin	Improvements Required	Size (ft) *			Length (LF)
		bottom	top	depth	
1	Drain Ditch No. 1	14	44	10	3800
2	Drain Ditch No. 2	14	44	10	3800
3	-	-	-	-	-
4	Drain Ditch No. 3	30	60	10	5500
5	42" Storm Sewer Pipeline	-	-	-	3800
6	48" Storm Sewer Pipeline	-	-	-	3800
7	42" Storm Sewer Pipeline	-	-	-	2600
8	-	-	-	-	-
9	42" Storm Sewer Pipeline	-	-	-	2535
9	36" Storm Sewer Pipeline	-	-	-	1165
10	Drain Ditch No. 4	14	44	10	3700
11	-	-	-	-	-
12	36" Storm Sewer Pipeline	-	-	-	4100
13-J1	Drain Ditch No. 5	13	43	10	3700
13-J2	30" Storm Sewer Pipeline	-	-	-	3700
14	-	-	-	-	-
15	36" Storm Sewer Pipeline	-	-	-	2400
16	Drain Ditch No. 6	12	42	10	3700
17	-	-	-	-	-
18	48" Storm Sewer Pipeline	-	-	-	3700
19	30" Storm Sewer Pipeline	-	-	-	2600
20A	-	-	-	-	-
20B	-	-	-	-	-
21	30" Storm Sewer Pipeline	-	-	-	3100
22	42" Storm Sewer Pipeline	-	-	-	2400
23	-	-	-	-	-
24A	27" Storm Sewer Pipeline	-	-	-	1300
24B	30" Storm Sewer Pipeline	-	-	-	2600
25	-	-	-	-	-
26	Drain Ditch No. 7	15	33	6	1300
27	-	-	-	-	-
28-S1	33" Storm Sewer Pipeline	-	-	-	2400
28-S2	36" Storm Sewer Pipeline	-	-	-	3500
28-T	33" Storm Sewer Pipeline	-	-	-	2400
28-U	33" Storm Sewer Pipeline	-	-	-	1300
28	Drain Ditch No. 8	40	70	10	5100
29	-	-	-	-	-
30	-	-	-	-	-

* All drain ditches shall have side slopes of 1.5 to 1.0 Source: Melden & Hunt, Inc.

2. **Drainage Discharge Ditch System** - This alternative would allow each development to discharge a portion of its runoff and retain the remainder on site. The master planned ditch would be sized to carry and discharge the current allowable runoff. This is not a favored alternative for the following reasons:
   - There is a limitation on the buildable land area without proactive policies and development provisions to offset or effectively reward those who select this option.
   - The City's Maintenance Department would be required to maintain numerous storage ponds scattered throughout Northwest Edinburg.
   - The system would not be equipped for conversion to accommodate changing demands.

   Similar to Alternative No. 1, this option allows achievement of other objectives of this plan, including on-site amenities and green space as well as improved aesthetics (assuming effective maintenance and enforcement).

3. **Drainage Storage Ditch System** - The master planned ditch would be large enough to discharge the current allowable runoff and store excess storm water brought on by new construction. This alternative is economically favorable for the following reasons:
   - The system is more economically attractive for development.
   - Maintenance is more economical.
   - The system is easily upgraded to meet increased demands. For example, the City would have the option to enlarge the ditch to handle the 100-year storm by widening the ditch - without altering the depth - to increase storage volume.

In order to compile a ditch design, a sequence of design components were analyzed and established. The methodology for designing this master planned ditch is as follows:

1. **Horizontal Alignment** - Visual inspection and review of aerial photos established several alignments. A strategic layout also considered property division, service area, and the alignment needed to provide drainage release for quarter mile wide sections on either side.
2. **Vertical Alignment** - Crossings and earthwork were analyzed for each alternate alignment.
3. **Hydrology and Hydraulic Calculations** - These calculations established slopes, depths, and cross sections.

4. **Right of Way Map** - The required space needed in order to construct and maintain the master planned ditch was mapped.

Construction Plan for Master Drainage Facilities

There are several approaches that may be considered for the construction of a master planned facility. The focus of this section is to determine the procedure for obtaining funds from the users who will benefit from the placement of this facility. Three alternatives include:

Alternative I - The City would construct the entire planned outfall system for this area. The costs could be recovered by the following methods:

- An assessment district may be established that would assess each lot a drainage fee, which would be collected at the building permit stage. The amount to be collected would depend upon the user benefit ratio and the land use. A more detailed future land use plan would need to be developed and adopted in order to determine a Fee Schedule.
- Each developer would pay his or her proportional share of the construction costs for the outfall system. It is recommended that payment be made either at the subdivision recording stage or before issuing building permits. The costs would be a function of acreage and land use density.

There are concerns that make this alternative impractical since it is an expensive undertaking. In addition to the costs associated with construction, the City would also continue to be responsible for maintaining a drainage system that is expensive and underused.

Alternative II - This would involve the City initiating the construction of the master planned system by digging a pilot ditch and acquiring appropriate right-of-way. After this initial step, developers would be responsible for acquiring sufficient right-of-way and paying their proportionate share of the costs for building the planned outfall system or the construction thereof. The strong points supporting this alternative are as follows:

- This alternative would promote growth in Northwest Edinburg at minimal costs. This alternate is favorable since it keeps the upfront costs low and promotes economic development.
- The City would recover its expenses for constructing the interim drainage plan much sooner compared to Alternative I.

- The master plan could be installed in an orderly manner. In addition, this plan would be flexible and capable of being upgraded to meet changing needs and criteria.

This alternative would become complicated upon attempting to acquire the right-of-way and determining the order in which the master plan is implemented. The coordinated effort to gradually secure right-of-way and determine which subdivider would receive immediate benefit could create conflicts for the City.

This order is not rigid and deserves to be modified if demand warrants. In other words, a detailed placement order would take shape concurrently with proposed development.

Alternative III - The City would hold each subdivider responsible for contributing his/her portion of the costs for installing the master drainage system. Attaching an offsite drainage participation requirement as a condition for subdivision approval would make this alternative enforceable. This alternative is similar to Alternative II, with the exception that the City would not construct a pilot ditch. An interim drainage plan would need to be devised that would require builders to temporarily store their excess rainwater and use existing drain lines.

The only strong point that favors this alternative is that there are no up-front costs to the City. However, there are many reasons why this alternative is not worth pursuing, as identified below.

- It is apparent that the interim drainage plan would be substandard and discourage development. It is unlikely that developers would consider using up some of their buildable lot area to temporarily store excess runoff as well as pay their portion for using the master outfall system; especially in cases where there is no period for the outfall system to become available.
- In the event a builder considered subdividing and building, this could leave the City open to negotiate other development issues. If this happened, it could create division between the City and individual developers. Inevitably, this would weaken policies and plans for future development.

Illustrated in **Figure 6.3, Proposed Ditch Right-of-Way and Storm Sewer Pipe Sizes**, is the proposed ditch right-of-way and storm sewer pipe sizes necessary to effectively convey storm water runoff in Northwest Edinburg.

Edinburg Gateway Plan
An Agenda for 2025

THE CITY OF EDINBURG

PROP. 180.00' R.O.W. DITCH NO. 3
PROP. 180.00' R.O.W. DITCH NO. 3
PROP. 54" DISCHARGE
PROP. 54" DISCHARGE
PROP. 66" DISCHARGE
PROP. 42" STORM SEWER
PROP. 48" STORM SEWER
PROP. 42" STORM SEWER
PROP. 148.00' R.O.W. DITCH NO. 1
PROP. 148.00' R.O.W. DITCH NO. 2
PROP. 126.00' R.O.W. DITCH NO. 7
PROP. 27" STORM SEWER
PROP. 33" STORM SEWER
PROP. 36" STORM SEWER
PROP. 42" STORM SEWER
PROP. 30" STORM SEWER
PROP. 33" STORM SEWER
PROP. 30" STORM SEWER
PROP. 30" STORM SEWER
PROP. 146.00' R.O.W. DITCH NO. 5
PROP. 27" STORM SEWER
PROP. 36" STORM SEWER
PROP. 200.00' R.O.W. DITCH NO. 8
PROP. 148.00' R.O.W. DITCH NO. 4
PROP. 36" STORM SEWER
PROP. 36" STORM SEWER
PROP. 48" DISCHARGE
PROP. 48" STORM SEWER
PROP. 33" STORM SEWER
PROP. 42" STORM SEWER
PROP. 54" DISCHARGE
PROP. 54" DISCHARGE
PROP. 30" STORM SEWER
PROP. 146.00' R.O.W. DITCH NO. 5

Legend

- Existing Drain Ditch (Drainage Dist. #1)
- Existing Drain Ditch (Irrig. Dist. & City)
- Existing Irrigation (Underground)
- Existing Irrigation (Open Canal)
- Existing Storm Sewer Line (City)
- Proposed Drainage Ditch
- Proposed Storm Sewer Line
- Roads
- Rail Lines
- City Limits
- ETJ Boundary (2 mile)
- Limits of Study

DATA AND INFORMATION SYSTEMS CENTER

UTPA The University of Texas-Pan American

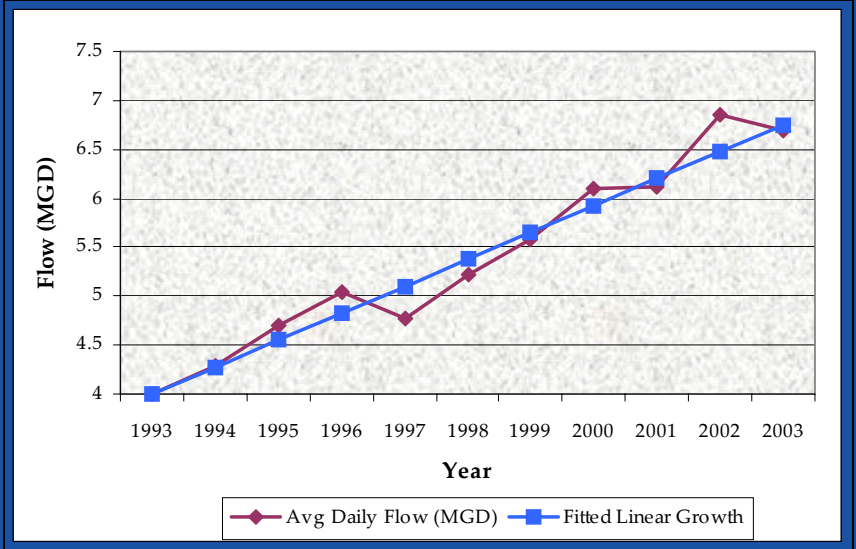
Lane Kendig, inc.

Figure 6.3, Proposed Ditch Right-of-Way

0 0.25 0.5 1 1.5 2 2.5 mi

WATER

Figure 6.4, Fitted Line of Average Daily Flow



Source: Melden & Hunt, Inc.

For over seventy years, Edinburg has enjoyed a safe, good quality, water supply. As noted in **Figure 6.4, Fitted Line of Average Daily Flow**, the average daily flow has increased steadily from 1993 through to 2003. However, the community's water system faces challenges of aging infrastructure; population and economic growth, and in turn, greater demand; and new regulations to address contaminants.

In planning for the long-term water needs of the community, the following questions must be answered:

- How much additional water production is required?
- Where should additional treatment capacity be built?
- What additional water distribution improvements are needed for growth?
- What repairs or upgrades are needed for the existing system?
- What are the additional raw water requirements?

It is important to note that they questions cannot be answered in isolation, but rather, must be answered in an integrated fashion due to the complexity and interdependency of Edinburg's water system.

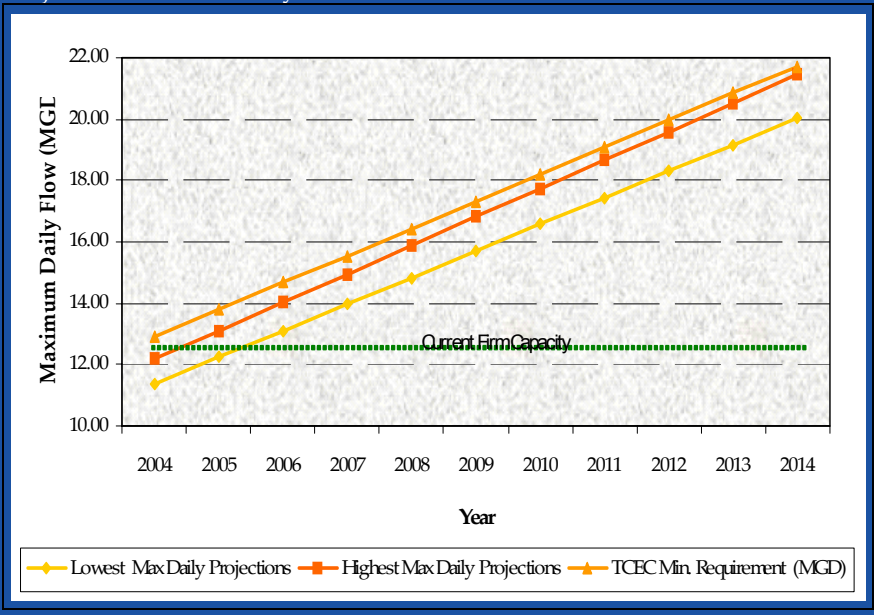
Water Supply Requirements

Many components of Edinburg's water system have been in use for 50 to 75 years and are nearing the end of their useful life. This is true in the case of train #1 of the existing water treatment plant. Adding to the challenge of aging infrastructure is the increase in water demand. In the last ten years, Edinburg's water demand has increased at a sustained growth rate of 5.25 percent. The Water Master Plan assumes that this rapid rate of growth will continue for at least the next ten years. As growth continues in southwest, north, northeast, and northwest Edinburg, the City must act to meet the corresponding increase in water demands. At the same time, new regulations

regarding contaminants such as cryptosporidium, total organic carbon, and trihalomethanes will present new challenges in treatment at both the existing water treatment plant and at any new water treatment plans constructed for the system.

Utilities must have the ability to meet maximum day demands. As one would expect, maximum day demands for Edinburg typically occur between the months of July and September. Currently, Edinburg has a firm capacity of 13.0 million gallons per day (MGD). This capacity is the result of 10.0 MGD existing plant capacity, 2.0 MGD contract with McAllen, and the 1.0 MGD contract with Sharyland WSC. While an agreement with North Alamo Water Supply Corporation (WSC) provides additional water, the agreement is on a standby basis and will likely not be considered as firm capacity by Texas Commission on Environmental Quality (TCEQ). As illustrated in **Figure 6.5, Comparison TCEQ Required Minimum Capacity with Acutal Projected Maximum Day Demands**, over the ten-year planning period Edinburg will need an additional 8.50 MGD of treated water to meet maximum day demand requirements.

Figure 6.5, Comparison TCEQ Required Minimum Capacity with Actual Projected Maximum Day Demands

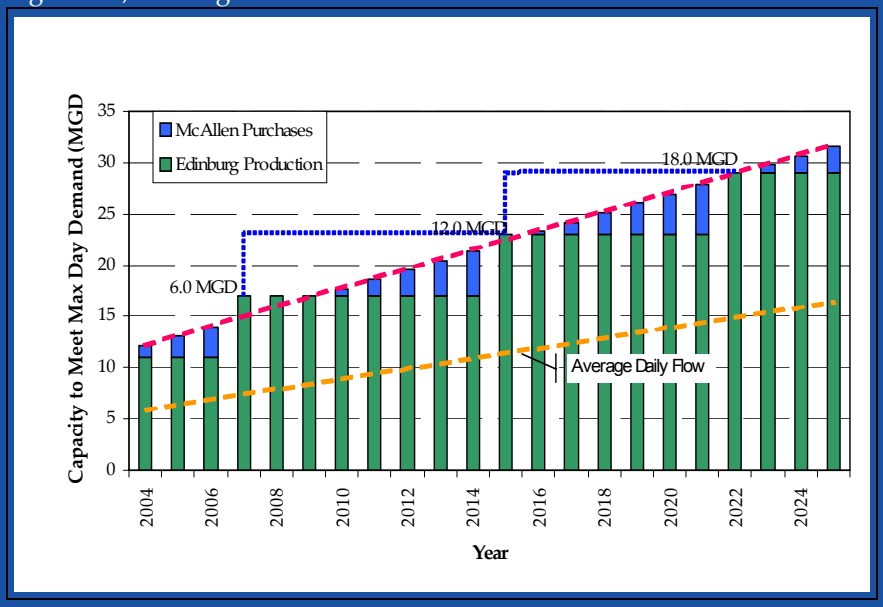


Source: Melden & Hunt, Inc.

Proposed Water Treatment

In order to meet the maximum day demand, Edinburg, at a minimum, will need to construct a 6.0 MGD water treatment plant, in addition to its current 10 MGD plant and contracts with McAllen, Sharyland WSC, and North Alamo WSC. This new water treatment will not require expansion through the 10-year planning period, as illustrated in **Figure 6.6, Phasing of 6.0 MGD Initital Mode**. The expansion can be delayed and finished water purchases can be reduced by making improvements to the existing water treatment plant. With improvements to the plant hydraulics and the addition/upgrade

Figure 6.6, Phasing of 6.0 MGD Initial Mode



Source: Melden & Hunt. Inc.

of several processing units, the existing plan can be expanded to 12.73 MGD, which includes the decommissioning of train #1 of the existing plant.

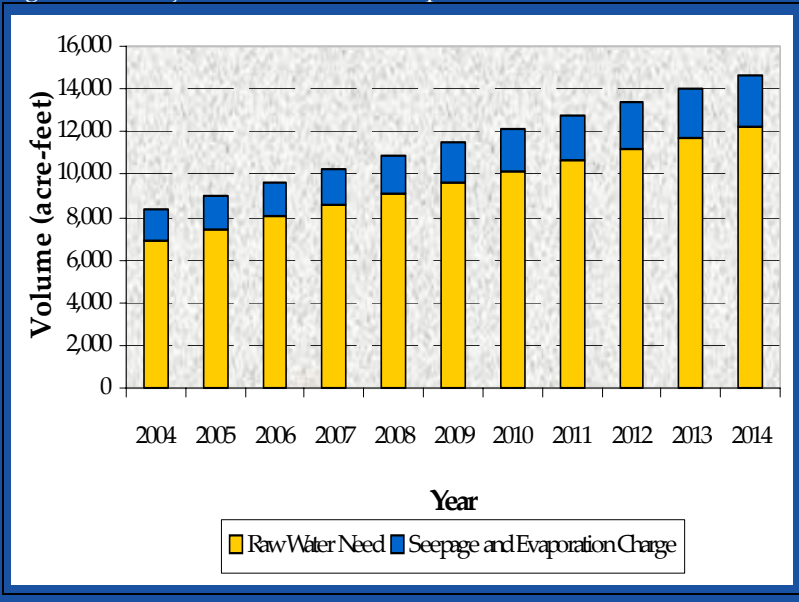
The new water treatment plant should be constructed at a location that is adjacent to the existing raw water reservoir. Besides the readily available raw water, this location is excellent in terms of connection to the existing distribution system and its central location in the area where Edinburg's future growth will likely occur.

Regarding treatment technology, a conventional process with high-rate pretreatment is the recommended treatment technique. The high-rate pretreatment is accomplished using solids-contact reactor-clarifiers. These proprietary units can be operated at higher rates than is normally allowed for conventional processes. The solids-contact reactor-clarifiers combine two processes into a single unit. This translates to space savings because of the smaller basin volume as well reduced construction costs. This process is proven with source waters similar to those for this facility. In fact, local experience has shown that the solids-contact reactor clarifiers have produced better results than the conventional flocculation sedimentation systems. The remainder of the processing units will be similar to the existing system with the exception of sludge dewatering and disposal. Dirty filter backwash water and the settled material from the pretreatment process will both be equalized and clarified in the wash water settling basin, and then recycled to the raw water reservoir. Sludge from the wash water settling basin will be sent to a belt filter press to separate the water from the sludge. Disposal of sludge can be at a permitted off-site facility or the site itself can be permitted.

Raw Water

Edinburg has an allocation of 7,981 acre-feet of raw water. Through subdivision exclusion, Irrigation District #2 has made 936 acre-feet (2003 values) available to Edinburg. District #2 makes the water available each year for a cost of $50.00 per acre-foot. It is important to note that District #2 will give Edinburg the first opportunity for the excluded water within Edinburg's jurisdictional area; however, should Edinburg opt not to purchase this water, then the water is made available to others. On the other hand, District #1 does not make raw water available to Edinburg through subdivision exclusion. As illustrated in **Figure 6.7, Projected Raw Water Requirements**, Edinburg will need to secure additional raw water over the course of the planning period.

Figure 6.7, Projected Raw Water Requirements



Source: Melden & Hunt, Inc.

By the end of the planning period, 2,916 acre-feet will be available from Irrigation District #2 by exclusion. The exclusion of water from Irrigation District #2, along with the existing 7,981 allotment, will only meet the needs until the Year 2006, at which time arrangements for additional raw water will be required. In order to have enough water for the duration of the planning period, an additional 3,792 acre-feet is needed. If a long-term contract or purchase of raw water for the full 3,792 acre-feet is made, then this effort should be accomplished on or before the Year 2007. Edinburg should delay securing these additional water rights as long as possible since there may be legislative or other changes that might impact the raw water market.

Water Capital Improvement Plan

A Captial Improvement Program (CIP) is a planning tool to provide strategic guidance and some predictability in planning, construction, and budgeting over the long-term. The Water CIP, as identified in **Table 6.4, Water Capital Improvement Program**, identifies specific steps to provide a reliable water supply to the Year 2014. A more general discussion of the requirements for the system to the Year 2025 is also included.

Table 6.4, Water Capital Improvement Plan

Item	Description	Year	Cost
1	Purchase property for water treatment plant	2004	$500,000
2	Design and construct 6.0 MGD water treatment plant	2004	$9,250,000
3	Design and construct 330 L.F. of 12" water line on Faye Street from 15th Street to 16th Street.	2005	$12,000
4	Design and construct 950 L.F. of 12" water line on 16th Street from Mahl Street to alley south of McIntyre.	2005	$42,000
5	Design and construct main transmission line to connect water treatment plant to existing distribution system	2006	$1,533,000
6	Secure 50 year contract from Hidalgo County Irrigation District #1 to provide an additional 3,792 acre-feet of raw water	2007	$3,792,000
7	Decommission Train #1 of the existing water treatment plant and upgrade existing plant to treat 12.73 MGD	2008	$3,611,000
8	Design and construct 1.5 MG elevated storage tank in the vicinity of Jackson and Chapin	2010	$2,850,000
9	Miscellaneous water line distribution work to fill in gaps between developer contribution to improve system operations	2011	$110,000
10	Miscellaneous water line distribution work to fill in gaps between developer contribution to improve system operations	2012	$90,000
11	Miscellaneous water line distribution work to fill in gaps between developer contribution to improve system operations	2013	$90,000
12	Begin design of water treatment plant expansion	2014	$120,000
		TOTAL	**$22,000,000**

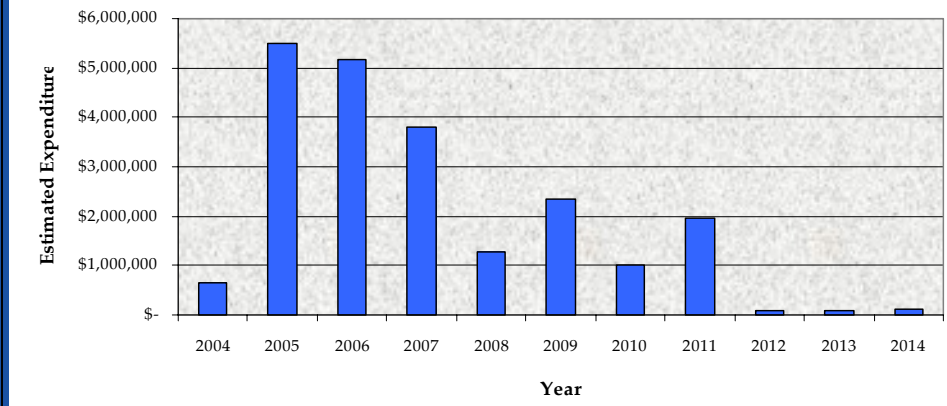
Source: Melden & Hunt, Inc.

The Water CIP is an essential plannning tool since it outlines the proposed infrastructure investments based upon the assessment of the current conditions, needs, and infrastructure demands that are set forth in the Water Master Plan, and as noted in this plan element. Further, the CIP establishes priorities for the City to fiscally meet infrastructure demands. It is recommended that the City adopt the Water CIP so that planning and development may occur in a strategic and coordinated manner. As seen in **Figure 6.8, Forecasted Expenditures**, the CIP includes forecasted expenditures so that the City can budget appropriately to meet planning and development strategies.

One of the top priorities identified in the Water CIP is the construction of a new 6.0 MGD water treatment plant. This facility will require the purchase of

approximately 10 acres of land adjacent to the existing reservoir. Once the new plant is in operation then a capital improvement project should be started to upgrade and expand the existing water treatment plant. Regarding required distribution improvements, the existing water distribution system will support much of the future growth. There are two gaps in the existing distribution system near the existing water treatment plant that need to be closed, and some major distribution lines will need to be installed to connect the proposed new water treatment to the existing distribution system. Furthermore, Edinburg will need to secure an additional 3,792 acre-feet of water rights within the next three years. In the Year 2010, Edinburg will need to construct a 1.5 million gallon elevated storage tank somewhere in the vicinity of the intersection of Jackson and Chapin. Finally, in the latter years, Edinburg should budget for projects to fill in water distribution system gaps left by development as may be necessary to improve system operations.

Figure 6.8, Forecasted Expenditures



Source: Melden & Hunt, Inc.

WASTEWATER

The Wastewater Collection System Master Plan effort was driven by a significant increase in population during the last decade, and a concern for adequate facilities to best serve the City. The plan focused on evaluating the service area needs for the wastewater collection system's interceptors and pumping facilities. The purpose of this section is to present the results of a comprehensive wastewater collection system master planning evaluation of the City's wastewater collection system. The recommended improvements serve as the basis for the design, construction, and financing of facilities to meet anticipated regulatory requirements, residential and commercial growth, and system reliability needs. Implementation of the recommended improvements will provide an adequate and dependable wastewater collection system for the City through to the Year 2015.

Data Compilation

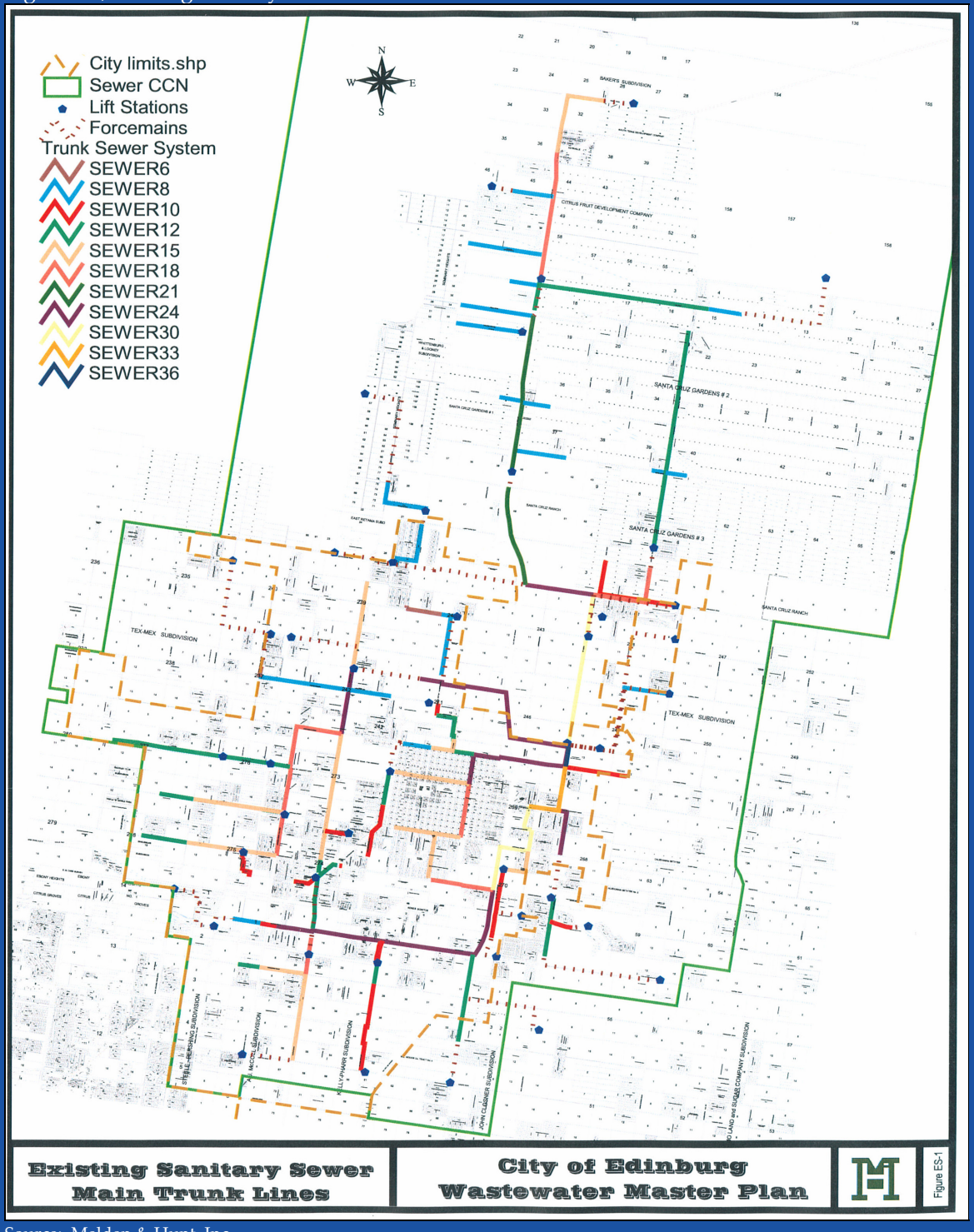
The planning effort began with a review of the existing collection system data. The data was used to create a dynamic hydraulic model of the collection pipelines and lift stations that, in turn, was used to assess both dry and wet weather capacities of the system. The available information was incomplete and outdated. As a result, only main trunk lines within the system were modeled. Sewer systems are typically skeletonized for modeling; therefore, the lack of data will not impact the modeling of the main interceptors of the Edinburg wastewater collection system. Attribute data for sewer lines modeled was not available; therefore, some assumptions had to be made in development of the model.

The baseline model of the collection system is presented in **Figure 6.9, Existing Sanitary Sewer Main Trunk Lines**. The model serves two purposes. First, it permits the simulation of storm events and prediction of overflows within the existing system. Secondly, it provides a vehicle for modeling improvements and additions to the existing system to alleviate overflows and accommodate growth. This model was, and can continue to be, a tool for planning Edinburg's wastewater collection system.

Wastewater Service Areas and Flows

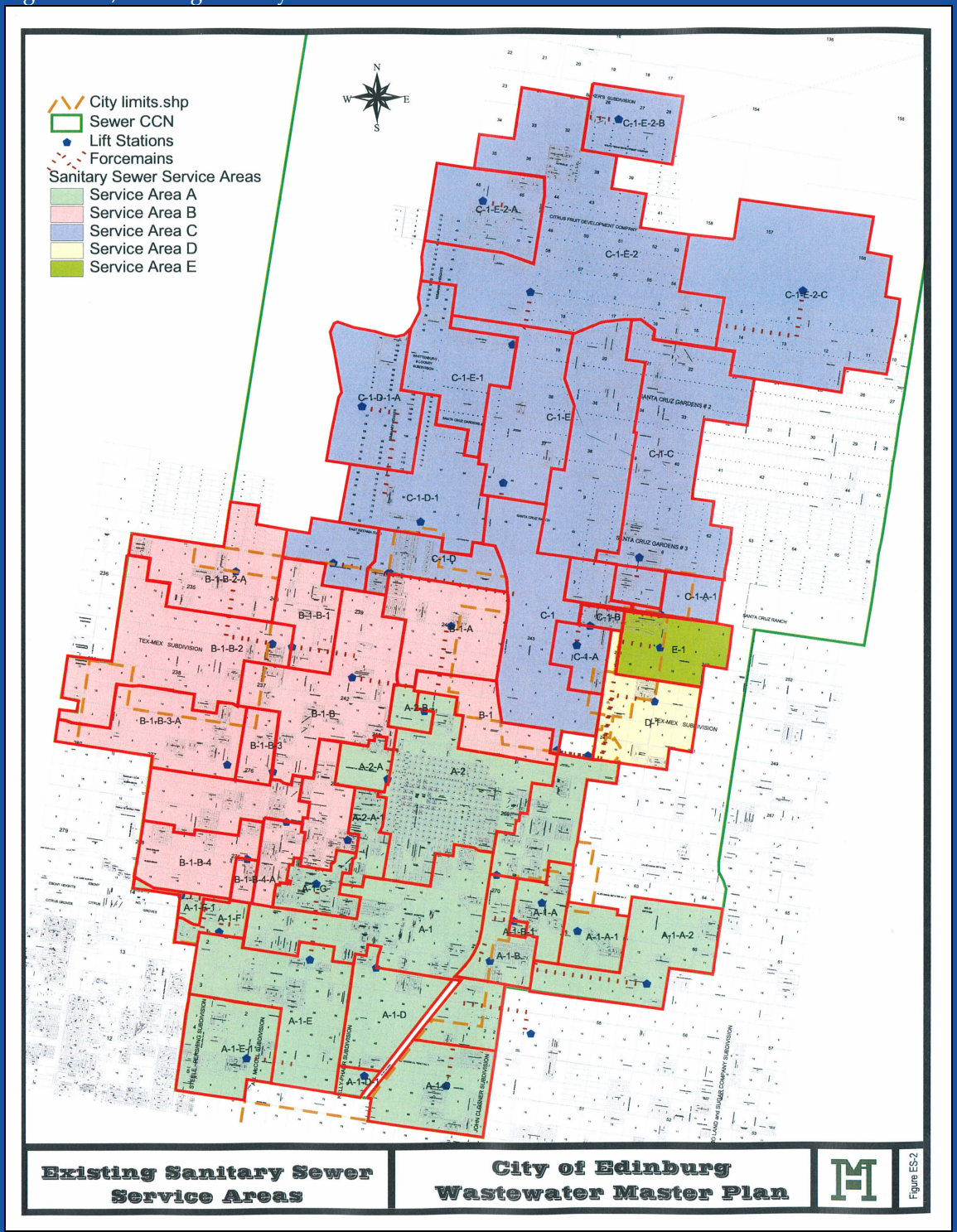
The Edinburg wastewater collection and conveyance system consists of five major drainage basins. For the purpose of illustration these basins have been labeled A, B, C, D, and E. Each of these basins outfall into the main wastewater treatment plant lift station. Further, each of these basins have sub-basins where lift stations are used to collect and lift wastewater to the main basin. Displayed in **Figure 6.10, Existing Sanitary Sewer Service Areas**, is a graphic illustration of all of the existing service areas that collect and convey wastewater to the Edinburg wastewater treatment plant.

Figure 6.9, Existing Sanitary Sewer Main Trunk Lines



Source: Melden & Hunt, Inc.

Figure 6.10, Existing Sanitary Sewer Service Areas



Source: Melden & Hunt, Inc.

Total flow in the system was determined based on estimating the sources of inflow. The flow in a sewer system is composed of three types of inflow:

- Base wastewater flow generated by homes, businesses, UTPA, etc.;
- Dry weather infiltration due to normal groundwater levels; and,
- Infiltration and Inflow due to rainfall and high groundwater levels.

Base wastewater flow (BWWF) is considered to be domestic or sanitary wastewater from residential, commercial, institutional sources (schools, churches, hospitals, etc.), and industrial wastewater sources. Population and land use govern flow generation, and the BWWF varies throughout the day in response to personal habits and business operations. For this study, it was necessary to determine the loading in terms of average gallons per day (gpd) per acre for each of the three land use classifications in order to assign representative BWWF values to the individual sub-basins. The average BWWF/acre of residential development is approximately 495 gallons per day per acre. A comparison of estimated BWWF for residential development was compared to flow data from a lift station servicing a residential development. The comparison served to confirm the estimated BWWF.

Groundwater Infiltration (GWI) is defined as groundwater entering the collection system through leaks in pipes, pipe joints, and manhole walls. The magnitude of GWI depends on the depth of the groundwater table above the pipelines, the percentage of the system that is submerged, and the physical condition of the sewer system. Since BWWF is generally minimal during late night/early morning hours, the GWI was evaluated by observing flows during late night/early morning hours during periods with no wet weather influence. The evaluation revealed that GWI did not appear to be a significant component of the total flow to the wastewater treatment plant.

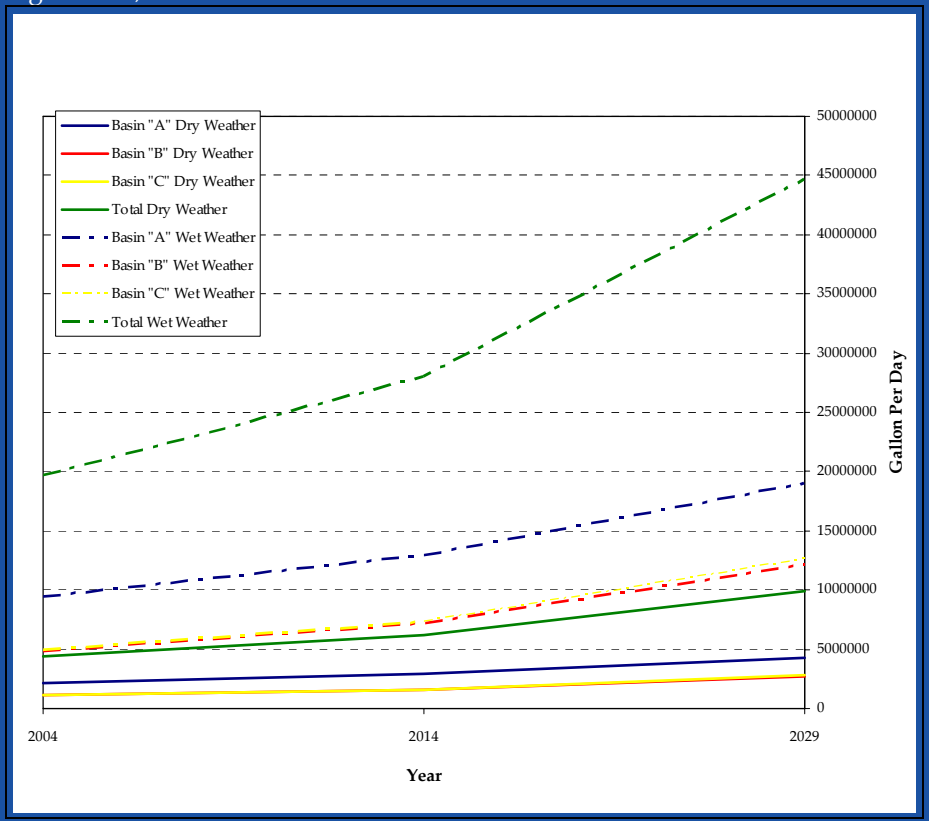
Rainfall Dependent Infiltration/Inflow (RDII) is storm water that enters the collection and trunk sewer system in direct response to the intensity and duration of rainfall events. RDII can be further broken down into storm water inflow (SWI) and rainfall-dependent infiltration (RDI), based on the pathways through which the flow enters the sewers or manholes. SWI reaches the collection system by direct connections rather than by first percolating through the soil. SWI sources may include roof downspouts illegally connected to the sanitary sewers, yard and area drains, holes in manhole covers, cross-connections with storm drains, or catch basins. RDI includes all other rainfall-dependent flow that enters the collection system, including stormwater that enters defective or open cleanouts, defective pipes, pipe joints, and manhole walls after percolating through the soil. For this study,

RDI and SWI were treated collectively as RDII. A unit hydrograph was used to develop a wet-weather flow pattern for each of the sub-basins. The RDII flow was then distributed into components of the collection system within the sub-basin.

The development of these flows was necessary for the creation of a computer model, which was used to analyze the collection system for dry and wet conditions for both existing and future growth conditions. While the Wastewater Master Plan has a 10-year planning period, the future growth conditions considered both the 10- and 25-year periods. The rationale behind consideration of the 25-year period was to ensure that any recommended capital improvements for the 10-year period would serve beyond the 25-year period.

Figure 6.11, Wastewater Flows shows the average daily dry weather and the peak period wet weather flow for the years 2004 through 2029 for each major basin, as well as the total projected flow to the wastewater plant.

Figure 6.11, Wastewater Flows



Source: Melden & Hunt, Inc.

Collection System Assessment

The following details the investigation and evaluation of the City's existing collection system. This evaluation includes assessment of each component's current capacity and identification of existing deficiencies. Potential alternatives for each component to handle projected wastewater flows over the planning horizon are also identified.

The collection system model was used to analyze peak dry weather flows throughout the trunk sewer system. The results indicate that the existing wastewater collection system has

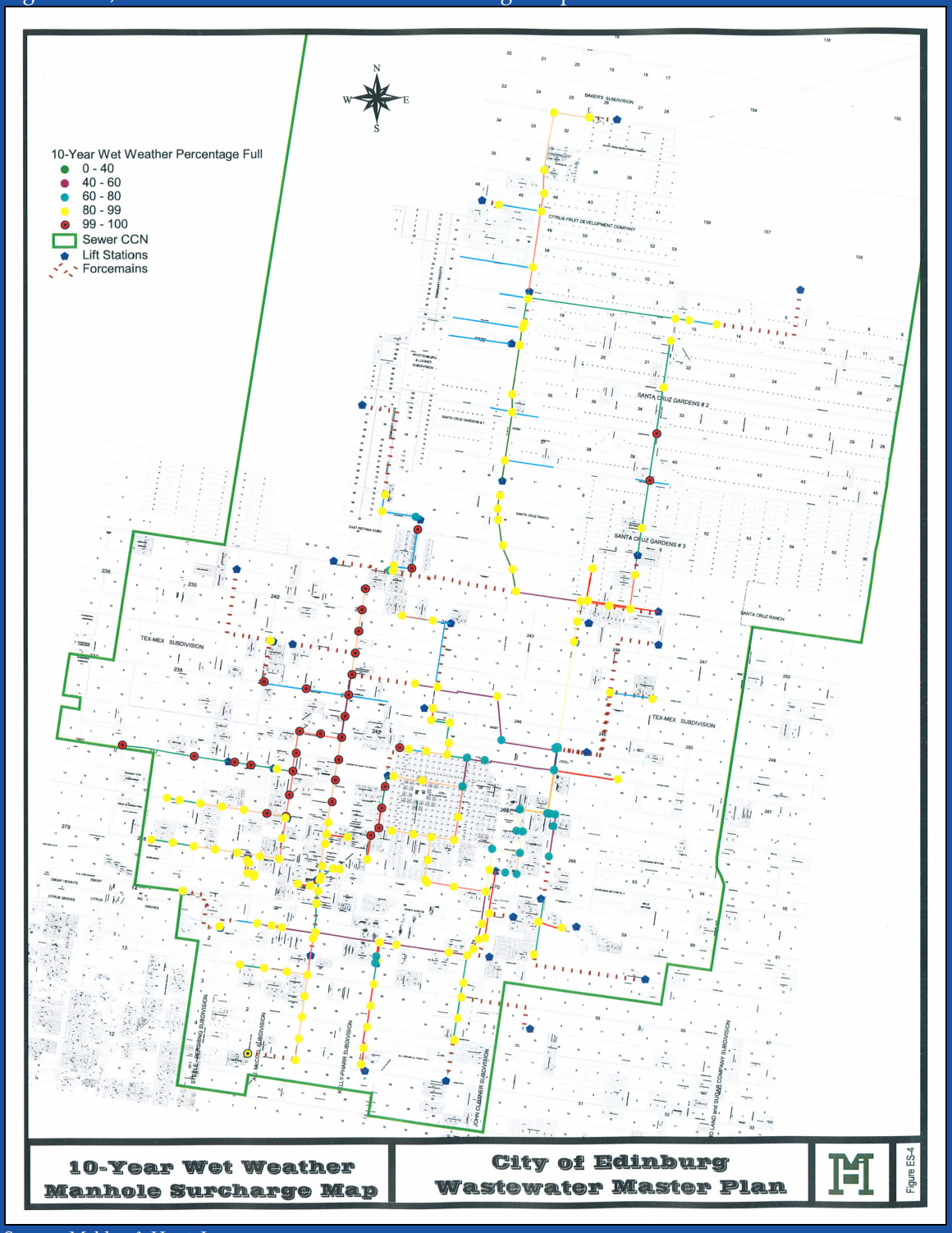
the capacity to collect and convey dry weather flow both now and 25 years into the future. As may be expected, wet weather flows dictate the capacity requirements of the collection system. In the interest of brevity, the remaining discussion will be limited to wet weather flow conditions.

The system must be capable of conveying wet weather flow without overflow as required by the Environmental Protection Agency (EPA). Computer hydraulic model analyses were performed to determine potential wet weather problem areas in the study area. Analyses were performed for the 5-year return period planning storm. The wet weather analysis identified trunk sewers in the planning area that were predicted to experience surcharges or overflows under these conditions. It is important to understand that wet-weather sewer surcharging in and of itself, is not considered to be a major operational problem. However, sewer surcharging that results in overflows should be corrected by infrastructure improvements. It is the Engineer's opinion that a performance standard should be set to accommodate wet weather flows within the collection system that provide at least 1 foot of freeboard (distance between the manhole rim and peak flow level). This performance standard would minimally fulfill EPA requirements which disallow sewer system overflows during a 5-year storm event.

For existing conditions, there are five areas that are surcharged during wet weather flow three hours after the beginning of the storm event. One of the five areas experiences overflow. Specifically, there is overflow at the end of an 8-inch line servicing Lull Subdivision. Besides servicing Lull Subdivision, this line receives and transports wastewater from Lift Station #37 to Lift Station #27. Also, there is a 10-inch line along Chapin Street from Jackson to McColl that does not overflow but is significantly surcharged. Finally, the other three areas indicated are not significantly surcharged. Edinburg staff has indicated that they have had overflows on the 24-inch line at Canton and Sugar Road. The model does not predict overflows for existing wet weather conditions at this location. These overflows are likely the result of collapsed manholes and debris or other restrictions within the existing 24-inch line. It is recommended that the City thoroughly clean and televise this line to determine its condition.

A future wet weather analysis was performed on the existing collection system by increasing the flow rates from the various sub-basins to account for growth within the sub-basin. As would be expected, the areas previously mentioned as surcharging get worse with the increased loading. Shown in **Figure 6.12, 10-Year Wet Weather Manhole Surcharge Map** are the areas

Figure 6.12, 10-Year Wet Weather Manhole Surcharge Map



Source: Melden & Hunt. Inc.

where manholes will overflow under a ten-year wet weather condition unless improvements are made. Note that a large area of overflow will begin to occur in the vicinity of Sugar Road and University Drive. This is not unexpected since much of the western growth area flows into the existing main trunk system through this area to Lift Station #4. Lift Station #4 is not adequately sized to accommodate a ten-year wet weather flow. As a result, the wetwell surcharges to cause the backup of all main trunk systems connecting to this lift station. This figure also shows that manholes along Doolittle Road, in the vicinity of Davis and Ramseyer Road, begin to overflow under a ten-year wet weather condition. The twelve-inch line along Doolittle Road serves a large sub-basin, so this line will need to have a relief line to redirect some of the wastewater flow. It is also interesting that this figure shows that ten years from now, the 24-inch line along Canton Road, from Sugar Road all the way to Expressway 281, does not surcharge. However, the section of 24-inch line that runs north along the Expressway, from Canton to Freddy Gonzales, where it connects into a 30-inch line, does begin to surcharge.

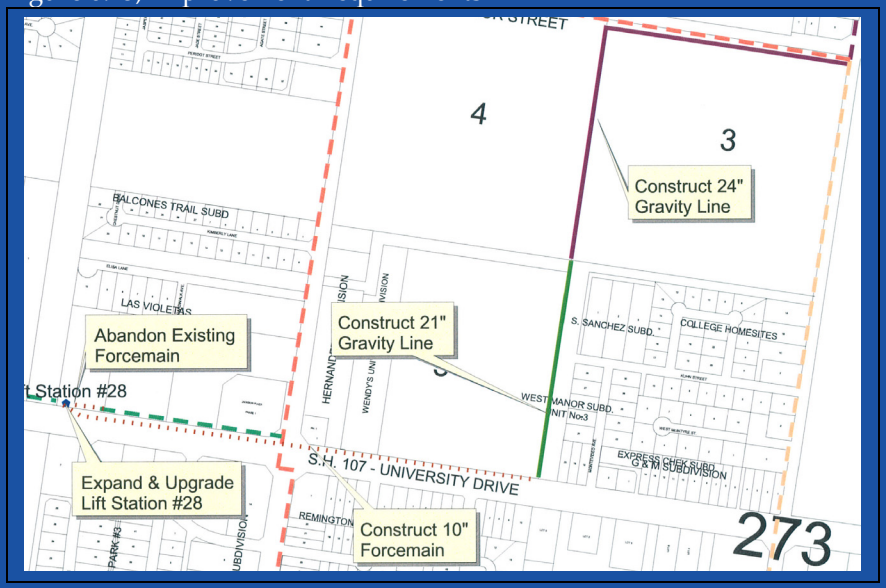
The sanitary sewer model indicates that the existing area of overflow (Lull Subdivision) can be corrected by laying a relief sewer. An eight-inch relief sewer should be constructed from the manhole at the northeast corner of the subdivision, which receives flow from Lift Station #37, to a manhole on the northwest corner of the subdivision (Figure ES-5).

The problem area along Chapin Road, from Jackson to McColl, can be corrected for future overflow conditions by constructing a deep 18-inch gravity sewer line from Lift Station #39 to Lift Station #20. This will not only correct the overflow problem, but it will also result in the elimination of Lift Station #39.

Several improvements will be required to address the large area of overflows that will begin to occur in the vicinity of Sugar Road and University Drive as a result of growth in western Edinburg. The improvements required are as follows:

- **Lift Station #4** – An upgrade and expansion will be required. A sixteen-foot diameter wetwell will need to be installed to provide additional wetwell storage capacity. The existing pumps should be replaced with four new pumps. This will provide for three operational pumps with one spare. Two of the four pumps should be equipped with variable frequency drives.

Figure 6.13, Improvement Requirements



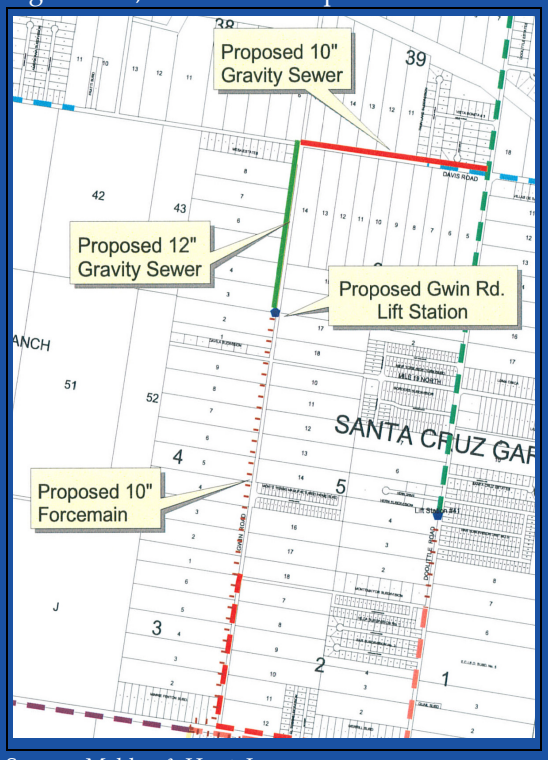
Source: Melden & Hunt, Inc.

- **Lift Station #28** – Improvements will be required in order to address future wet weather flows. Like Lift Station #4, a sixteen-foot diameter wetwell will need to be installed at the Lift Station #28 location to provide additional wetwell storage capacity. Two new pumps will need to be installed at this lift station. In order to meet future flow conditions, improvements on Lift Station #28 will also require the construction of a new 10-inch diameter force main. The 10-inch force main will be approximately 2,465 feet in length and will connect the lift station to a 21-inch gravity sewer line on University Drive that will now be discussed as part of a proposed relief sewer system. In addition to Lift Station improvements, additional gravity sewer system improvements will also be necessary. As illustrated in **Figure 6.13, Improvement Requirements**, the proposed construction includes a 24" gravity relief sewer along Schunior Road, starting at Sugar and going east 1,320' to the corner of blocks 3 and 4. Then continue the 24" sewer south another 1,320' and transition to a 21" sewer and construct another 1,320' to University Drive.

  Questions may arise related to the size of the proposed lines suggested in Figure 6.13, Improvement Requirements. It is important to remember that the proposed 10-year improvements have been sized based upon satisfying the capacity needs of the system over the next 25 years.
- **8th Avenue** - An 8-inch relief sewer will need to be constructed along 8th Avenue, from Schunior to Van Weck Street, in order to address future wet weather flow conditions.

- **Gwin Road** - Wet weather overflow problems will likely begin to occur on Doolittle Road, near the intersection of Davis Road, within the next ten years. To address this problem, a new lift station will need to be constructed on Gwin Road. While the proposed new lift station and force main can be significantly reduced in size to address only the ten-year wet weather flow, it is recommended that this new facility be constructed to satisfy 25-year wet weather flow requirements. Therefore, the following proposed improvements are those necessary to meet the needs of a 25-year wet weather flow. The proposed Gwin Road Lift Station should be constructed with a 16-foot diameter wetwell with two pumps. The force main needs to be 10-inch and approximately 5,520 feet in length to connect the Lift Station to an existing 30-inch line located at Monte Cristo and "M" Road. Finally, a 10-inch gravity relief sewer will need to be constructed along Davis Road from Doolittle to Gwin Road. Then a 12-inch gravity sewer line will need to be directed south approximately 2,250 feet along Gwin Road. to connect to the proposed Gwin Road. Lift Station. Displayed in **Figure 6.14, Gwin Road Improvements,** is a graphic depiction of the proposed Gwin Road improvements.

Figure 6.14, Gwin Road Improvements



Source: Melden & Hunt, Inc.

For 10-year wet weather flow conditions, with the above suggested improvements, the computer model shows that while many of the manholes remain surcharged, none are overflowing as they were prior to the improvements. The manholes illustrated in red in Figure 6.12, 10-Year Wet Weather Manhole Surcharge Map indicate good targets for the Edinburg Utility Staff to monitor during wet weather events. Gauging these targets will be a useful tool for determining when to initiate capital improvement projects. Further, Edinburg should also consider contracting an infiltration/inflow study of the sanitary sewer collection system. A study of this nature often provides useful information for the reduction of infiltration/inflow, which can offer to delay the implementation of the suggested projects.

Regarding long range (25-year) considerations, continued long-term growth in west Edinburg will ultimately require some significant improvements to the collection system in order to collect and convey wet weather wastewater from West Edinburg to the existing wastewater treatment plant site.

Currently, Lift Station #4 pumps into a 24-inch gravity line that connects this major lift station to the wastewater treatment plant. The 25-year wet weather hydraulic analysis reveals that this 24-inch line surcharges to the point of overflow. Since most other major trunk lines in the vicinity of the 24-inch line are heavily loaded, the use of a relief sewer is not available. One of the best options to improve the system in the future is to construct a 36-inch gravity sewer line from the wastewater plant to Lift Station #4. Besides addressing 25-year wet weather flows, this option will allow the elimination of Lift Station #4 and Lift Station #2. Improvements will also be required within sub-basin A-1. Sub-basin A-1 is the Canton Road system that flows by gravity to the wastewater treatment plant. The best option to address 25-year wet weather overflows within this sub-basin is to construct an 18-inch relief sewer along Canton Road from Business 281 to the Fairhaven lift station. This option will also require the installation of two new pumps and motor controls for the Fairhaven lift station in order to accommodate the additional flow. Finally, a 16-inch force main will need to be constructed from the lift station to the wastewater treatment plant.

Regarding development considerations, there are gaps that remain between existing service areas and the Sewer CCN boundary, meaning future development will likely occur to fill in these gaps. As one can clearly see in Figure 6.10, Existing Sanitary Sewer Service Areas, the areas that remain without major collection systems are along the far east and west sides of the CCN boundary. Future development construction will include large collection lines as well as four new lift stations. Edinburg's Sewer CCN extends to San Manuel. The development of preliminary plans to provide an organized sanitary sewer collection in the northern part of Edinburg's service area is beyond the scope of this planning effort. It is likely that servicing this northern part will require the sighting of a new wastewater treatment plant facility.

Ten-Year Capital Improvement Plan (CIP)

Edinburg has made some good decisions related to its wastewater collection system infrastructure. This is evidenced by the size of the main west to east conveyance system installed in the 1980s. Not only has this main system served over the last 25 years, it has the capacity to serve another 25 years with some improvements. Foresight in this previous work means that Edinburg will not need to make significant capital improvements to the wastewater system for the next 10 years. Some improvements will be required in the next ten years to prevent overflows during wet weather conditions. The

implementation of some of the suggested improvements can be delayed if Edinburg implements an aggressive program to decrease infiltration/inflow into the collection system.

The proposed 10-year CIP for the wastewater collection system is identified in **Table 6.5, 10-Year CIP**. The CIP primarily consists of projects to provided wet weather relief sewer systems. These projects mainly involve the construction of gravity sewer lines installed to reroute flow of a surcharged system such that the level the system is surcharged does not reach overflow. Lift Station #4 and Lift Station #28 will need to be upgraded, and an entirely new lift station will need to be constructed on Gwin Road.

Table 6.5, 10-Year CIP

Capital Improvements	Cost
Televise and clean the main gravity sewer line that begins at the wastewater treatment plant and runs all the way to the intersection of Canton and Sugar Roads. Rehabilitate the manholes on this main gravity line.	$215,000
Construct an 8″ gravity relief sewer in Lull Subdivision to relieve the line receiving flow from Lift Station #37	$33,000
Construct 18″ gravity sewer line on Russell Rd. from Lift Station #39 to Lift Station #20. Demolish Lift Station #39 to remove from service.	$228,000
Expand and upgrade Lift Station #4 with the addition of a 16′ diameter wetwell. Replace the three existing pumps with three new pumps having greater capacity. Provide a fourth pump as a spare. At design each pump should have a capacity of 2,200 gpm. At run-out each pump should deliver 2,900 gpm. Two of the four pumps should be equipped with variable frequency drives.	$316,000
Construct a 24″ gravity relief sewer along Schunior Rd. starting at Sugar and going east 1,320′ to the corner of blocks 3 and 4. Then continue the 24′ sewer south another 1,320′ and transition to a 21″ sewer and construct another 1,320′ to University Drive. Expand and upgrade Lift Station #28 with the addition of a 16′ diameter wetwell and the construction of a 10″ diameter forcemain from the lift station to the proposed 21″ gravity line that ends at University Drive.	$456,000
Construct 8″ gravity relief sewer along 8th Avenue from Schunior to Van Weck Street.	$16,000
Construct a 10″ gravity relief sewer along Davis Rd. from Doolittle to Gwin Rd. Then continue south approximately 2,250′ along Gwin Rd. with a 12″ gravity sewer to a lift station that will need to be constructed. The lift station will require a 16′ diameter wetwell equipped with two pumps. At design each pump should have a capacity of 450 gpm. At run-out each pump should deliver 800 gpm. A 10″ diameter forcemain will need to be constructed from the lift station to an existing 30″ gravity line located on Monte Cristo and "M" Road.	$608,000
Contract an infiltration/inflow study of the sanitary sewer collection system.	$163,000
TOTAL IMPROVEMENTS OVER 10-YEAR PERIOD	**$2,035,000**

Source: Melden & Hunt, Inc.

Chapter Seven
Implementation

Plans that are effective in achieving their goals and objectives include an implementation framework that outline the general strategies, directions, and priorities of the community. As such, the policy direction provided for in this plan is coupled with short- and long-term implementation strategies to help realize policies into actionable programs, development activities, and other strategic efforts by the City of Edinburg and its residents.

The purpose of this chapter is to integrate the different elements of the plan together in such a way as to provide a clear path for sound decision-making. This chapter outlines the organizational structure necessary to implement the plan, including roles and responsibilities, establishes a process for annual and periodic evaluation and appraisal of the plan, and sets forth a five-year action plan.

A Collaborative Approach

While this chapter lays out a framework for implementation, it is simply that. A framework alone will not ensure that the community's vision and the policies contained within this plan will be implemented. The City's leadership, including the Mayor, City Council, Planning and Zoning Commission, and the directors and staff of City departments, must be committed to the plan's implementation in order for it to be realized. Groups and individuals including citizens, landowners and developers, business owners and managers, civic clubs and organizations, and other key stakeholders are also critical to achieving complete implementation of the plan. Throughout the plan development process, the City carried out a public participation program that was designed to seek input from the public, but also, build a constituency of persons willing to make a commitment to implement the plan. This constituency must be maintained and empowered to implement the plan on an ongoing basis. Community leaders must pledge their support to maintain public involvement and enhance and maintain community awareness as the plan is implemented over the next 20 years. This can be achieved, in part, through advisory committees, public meetings, community workshops, open houses, public forums, newsletters, the City website, media releases, and public notices.

In order to successfully implement this plan and achieve the community's vision, horizontal and vertical integration must occur. In other words, the plan's recommendations must be integrated into governmental practices and

programs. For example, the recommendations should be widely used in decisions pertaining to infrastructure improvements; proposed new development and redevelopment; expansion of public facilities, services and programs; and the annual capital budgeting process. The plan must also be vertically integrated with the plans and programs of the State, the Lower Rio Grande Valley, Hidalgo County, and the Edinburg Consolidated Independent School District (ECISD). The involvement of these stakeholders may be through funding participation, planning coordination, project management and administration, regulation and enforcement, or shared provision of facilities and services, among other actions.

Integrating the Plan into Daily Operations

Each department, staff person, board, commission, and committee of the City has an obligation to use this plan in guiding their decisions and priorities. As such, the plan has been designed to be user-friendly with the intent that it can be used on a daily basis to guide the overall growth and economic development of the community. The plan is intended to guide staff in their efforts to manage their individual departments, annual work programs, and capital improvement projects. To ensure cross-fertilization throughout all municipal departments, the overall community vision and the goals and objectives articulated in each element of the plan should be referenced in other related studies and projects that are developed by the City. Components of the plan, including the Future Land Use Plan, Thoroughfare Plan, and Parks and Recreation System Plan must be used during the development review process, as well as during any decision-making related to investments in community infrastructure and the provision of municipal services.

While it is critical that the plan be highly visible within the City to ensure that it is considered in all municipal functions and operations, it must also be accessible to, and used by, the private sector as it makes investment decisions in the community.

Monitoring and Evaluation

Given the length of the planning period (20 years), it is critical that the plan be monitored to ensure that the goals, objectives, and recommendations reflect the community's needs and desires. The findings of such reviews may result in amendments to the plan. Amendments and recommended actions that

come forth should be viable and realistic as they relate to the City's adopted and approved plans, policies, programs, and budget.

Evaluation of the plan's progress toward implementing its policies and achieving its vision must also be undertaken on an annual basis. Generally, the vision and mission statements serve as benchmarks against which the City can measure its progress toward community development over the next 20 years. The goals and objectives of each plan element serve as specific measures against which the City can evaluate implementation progress. It is recommended that the results of the annual evaluations should be communicated to the City Council, and made public through the City website to ensure that citizen stakeholders are kept abreast of developments with the plan.

A key factor in successful implementation will be to attain early results. In other words, the City should seek to implement a significant component of its plan early in the implementation process so as to demonstrate success, build confidence, and continue momentum. In this implementation plan there are various recommendations for programs and activities that do not bear significant budgetary obligation. These programs and activities provide an immediate opportunity to make an impact on the community post-adoption, and in turn, on the successful implementation of this plan over the long-term. Success that is obtained through the plan should be acknoweldged so as to maintain its relevance as a decision-making tool.

The VISION is as follows:

Moving toward the Year 2025 and beyond, our vision is to manage growth in such a way that the livability of the community is enhanced, resulting in improved economic competitiveness, efficient land use to support adequate housing for different lifecycle stages and income levels, transportation choices including more opportunities for walking and bicycling, enhanced community places to foster citizen well-being and improved livability, protected natural areas, strategic and efficient use of community infrastructure, and improved aesthetic quality and community character - together creating a community that citizens want to call home.

KEY STAKEHOLDERS IN PLAN IMPLEMENTATION

City Council

City Council will play a central role in the plan's implementation program. Specifically, it will:

- Establish the action priorities and timeframes by which each action for every corresponding goal and objective of the plan will be initiated and completed.
- Consider funding commitments that will be required to realize the community's vision, whether it involves capital improvements, new facilities and expanded services, additional staffing, more studies, or programmatic changes such as the City's development codes and procedures.

- Offer final approval of projects/activities and associated costs during the budget process, keeping in mind the need for consistency with the plan and its policies.
- Provide direction to the Planning Commission, manage the Plan Administrator and departmental staff, and oversee the activities and progress of the Action Task Force.

Planning Commission

Concurrent with the approval of the plan, the City Council should clearly identify their expectations for the role of the Planning Commission in the management of the implementation program. As the appointed commission responsible for the community's growth and development, they must be given the ability to oversee implementation, and be empowered to make ongoing decisions. The role of the Planning Commision will be as follows:

- Recommend to City Council an annual program of actions to be implemented, including a recommendation for adequate resources and direction to successfully accomplish the actions.
- Prepare an Annual Progress Report for submittal and presentation to the Mayor and City Council (see Plan Evaluation for more detail).
- Ensure that the plan impacts daily decisions and actions by other stakeholders.

Action Task Force

While the Planning Commission will play a critical role, it can not expend all of its efforts toward ensuring continued implementation of the plan. As such, an Action Task Force should be appointed by City Council with the express purpose of ensuring that programs and activities are carried out to implement the plan. The Action Task Force's role will be to refine and prioritize the implementation plan and initiate action over the short-term, on the basis of annual work programs and five-year projected time frames.

Further to the actual implementation plan, the Action Task Force will be responsible for identifying specific actions beyond the information provided in this plan. The Action Task Force will determine methods or programs to be used to implement the proposed actions, specifically identifying which agencies and/or departments will be responsible for their implementation, estimating costs, identifying proposed sources of funding, and establishing timeframes in which the recommended actions will be accomplished.

On the basis of the above, the Action Task Force will present a proposal containing a recommended list of programs and actions to be implemented

annually, as well as a prioritized list of programs and actions to be implemented over a five-year period. Departments and organizations charged with completing tasks associated with these programs and actions can use the proposal in the budget process and in determining other needed resources. City Council and other governing bodies can use the Action Task Force's proposal for overall budget and resource decisions, as well as to establish benchmarks for departmental performance.

While appointed by the City Council, the Action Task Force will report directly to the Planning Commission, who in turn, will make recommendations to Council. Further to its interaction with the Planning Commission, the Task Force will interact directly with a committee of departmental managers who will provide the necessary technical input and guidance for the program tasks and activities.

Individual members of the Action Task Force should assume responsibilities in the areas of governance, infrastructure, economic development, planning, parks and recreation. The following describes the different areas of responsibility for individual Action Task Force members:

- **Governance** – The primary role of the group tasked with the governance aspect of implementation will be to ensure projects are consistent with the objectives and missions of other orders of government (e.g. Hidalgo County) and agencies (e.g. the ECISD and others). They will be charged with identifying opportunities to collaborate on projects that may be jointly funded, constructed, or operated, and will also be responsible for negotiating amenable terms and agreements, as necessary. Internally, the group responsible for coordinating with City Council on tasks requiring its direct involvement and decision-making powers.
- **Infrastructure** – The group responsible for the infrastructure component of implementation will be involved with all improvements or projects dealing with infrastructure. As such, this group will require technical knowledge, as well as expertise with utility and other infrastructure systems, including their funding methods. The recommended actions outlined in **Chapter 4, Transportation**, and those pertaining to facilities and service improvements in **Chapter 6, Utilities**, would be within the purview of this group.
- **Economic Development** – The group who focuses on implementation and economic development will play an active role in pursuing projects that contribute to the community's economic development. They will coordinate closely with the Edinburg Economic Development Corporation, as well as with local businesses and developers. It will be

critical for this group to coordinate with other implementation areas of focus so as to ensure maximum benefit to existing businesses and new investors in the community. The group would be responsible for implementing the recommendations contained in **Chapter 5, Economic Development**.

- **Planning** – The group responsible for the planning aspect of implementation will work closely with the Planning and Zoning Commission, assuming responsibility for implementing its projects and initiatives. They will coordinate closely with the Plan Administrator (see below), and maintain a line of communication with the community to monitor shifting priorities and needs. The primary responsibilities of this group are identified in the recommended actions in **Chapter 3, Land Use**.
- **Parks and Recreation** – The group responsible for parks and recreation implementation will be responsible for projects and improvements related to parks, hike and bike trails, public open space and natural areas preservation. The recommendations contained within the Parks and Recreation Master Plan would be within the purview of this group.

Staff

The capacity of the current planning staff to administer the plan and to provide the necessary support to the Planning Commission, Action Task Force, other City departments, and City Council is limited given existing responsiblities and commitments. As such, it is highly recommended that the City assign a staff person, or hire additional personnel to manage the administration and implementation of the Comprehensive Plan.

The Plan Administrator would be an independent staff member who would report directly to the City Manager and City Council. Generally, he or she would function as a department manager that would coordinate closely with planning and other muncipal departments, and provide direct support to the Action Task Force.

Citizens

The citizens of Edinburg played a key role in providing input into the plan through participation in the Citizens' Congress, stakeholder meetings, an open house, and as serving as memebers of the Citizens' Delegation. The public's interest and the general momentum of the plan process should not be allowed to subside, but rather enhanced through encouraged participation in the implementation of the plan. The Action Task Force should use stakeholder groups, public meetings, community workshops, design

charrettes, the municipal website, media releases, public notices, and newsletters to inform and actively engage citizens in plan implementation.

PLAN EVALUATION

Annual Progress Report

The Planning Commission must prepare an Annual Progress Report for submittal and presentation to the Mayor and City Council. This ensures that the plan is consistently reviewed, and allows for any identified need for minor plan updates and revisions, such as changes to future land use designations, implementation of actions, and review of plan consistency with ordinances and regulations[1].

The Annual Progress Report should be coordinated with the annual budgeting process so that recommendations can be made available early in the budgeting process, and requests for capital improvements and major programs can be reviewed in light of the plan's progress.

The Annual Progress Report should be written such that the status of implementation for each programmed task of the Comprehensive Plan is central to the report. Significant actions and accomplishments during the past year should be recognized, and recommendations should be made for needed actions, programs, and procedures to be developed and implemented in the coming year.

The Annual Progress Report should include proposed amendments that have come forward during the course of the year. In other words, proposed amendments to the plan shall be considered by the Planning Commission no more frequently than once every year. This allows proposed amendments to be considered concurrently so that the cumulative effect of all amendments may be understood. The exception to this approach would apply in the following circumstances:

- Resolution of an emergency condition or situation that involves public health, safety, or welfare;
- Technical, non-substantive corrections to the Future Land Use Plan which do not involve interpretations of the various land use designations contained within the plan;

[1] The identification of potential plan amendments by the Planning and Zoning Commission, City staff, citizens, property owners, community organizations, and other governmental entities, may occur on an ongoing basis.

- Resolution of a decision by an administrative agency or court of competent jurisdiction; and,
- Special use permits for essential public facilities.

Every year the Plan Administrator should maintain the annual list of amendments that have been suggested by the City staff, Action Task Force, and citizens. This list shall be made available to the public upon request. By the end of the second business week of June of each year, this list should be compiled into a preliminary docket. This docket should contain all proposals for formal site-specific amendments, and all proposals for suggested amendments.

The Plan Administrator should review the suggested amendments in the preliminary docket and prepare a report that outlines which suggested amendments should be included in the final docket. The City Council and Planning Commission may, but are not required to, hold a joint workshop to gather information on the preliminary docket and the Plan Administrator's report.

A noticed public meeting must be held by the Planning Commission to accept public comment on the preliminary docket. Following the hearing, the Planning Commission should prepare a report for submission to City Council. The report should include a recommended final docket that outlines specific amendments for consideration during the annual amendment process.

City Council should review and consider the Planning Commission's report and final docket in July of each year. City Council must hold a public hearing prior to adoption of the Planning Commission's recommended final docket. The final docket, as adopted by the City Council, should include all applications for formal site-specific amendments, and any proposals for suggested amendments which the City Council elects to consider during the annual amendment process.

The decision to adopt the final docket does not constitute a decision or recommendation that the substance of any amendment should be adopted. City Council must consider the Planning Commission's findings and conclusions, which shall include a recommendation to the City Council that the proposed amendment(s) be denied, approved, or approved with conditions or modifications.

Evaluation and Appraisal Report

An approved Comprehensive Plan can be reviewed at any time, however, City Council should hold a public meeting at least once every five years to determine whether the plan needs to be amended. Beginning in 2005, and every five years thereafter, an Evaluation and Appraisal Report should be prepared by the Plan Administrator, with input from the City staff, Planning Commission, and the Action Task Force. The objective of the Evaluation and Appraisal Report is to assess growth management indicators, evaluate implementation potential, identify proposed amendments, and if necessary, recommend amendments to the plan.

Growth management indicators that should be assessed include, but are not limited to, the following:

- The rate at which growth and development is occuring relative to the projections put forward in the plan;
- Shifts in demographics and other trends;
- The capacity of the City to provide adequate services;
- The area of urban land that is designated and zoned and its capacity to meet projected demand and need;
- The assumptions upon which the plan is based and whether they continue be valid;
- City-wide attitudes and whether changes (if any) necessitate amendments to the vision and mission statements, and goals of the plan;
- Inconsistencies between the plan and Hidalgo County Metropolitan Planning Organization (HCMPO) policies; and,
- Changes in circumstances that dictate a need for amendments.

Further to growth management indicators, it is necessary that factors which may impact implementation also be reviewed, as described below:

- Individual statements or sections of the plan must be reviewed and rewritten, as necessary, to ensure that the plan provides sufficient information and direction to achieve the intended outcome;
- Any conflicts between policies or objectives that have been discovered in the implementation and administration of the plan must be identified and resolved;
- As conditions change over time, it will be necessary to re-evaluate the timeframes for implementing the individual actions of the plan. Some actions may emerge as a higher priority given new or changed circumstances, while others may become less important to achieving the vision and development objectives of the City.

- Based upon organizational, programmatic, and procedural factors, as well as the status of previously assigned tasks, the implementation task assignments must be reviewed and altered to ensure timely accomplishment of the plan's recommended actions.
- Changes in laws, procedures, and missions may impact the ability of the community to achieve its goals. The review must assess these changes and their impacts on the success of implementation and, subsequently, suggest revisions to strategies.

The Planning Commission should complete its assessment of the plan by April 15th of each fifth year. Any amendments that are recommended by a majority vote of the Planning Commission should be forwarded to the Plan Administrator by May 1st of each fifth year.

The same annual review process as described above would be followed for consideration of amendments during years in the planning period when the plan is formally reviewed. The difference being that the list of amendments that is compiled by the Plan Administrator would contain all amendments recommended by the Planning Commission that were forwarded by May 1st of each fifth year. In addition, the final docket, as adopted by the City Council, would include, in addition to all applications for formal site-specific amendments and any proposals for suggested amendments which the City Council elects to consider during the annual amendment process, any amendments recommended by the Planning Commission during its five-year assessment of the plan that the City Council elects to consider during the amendment process.

By keeping the plan current and responsive to change through a five-year review process, the expectation is that the plan will continue to be relevant and useful to the Planning and Zoning Commission, City Council, and City staff throughout the course of the planning period.

IMPLEMENTATION

Implementation Tools

The intent of the implementation program is to set forth a realistic way in which goals and objectives of this plan can be launched into action. The following means may be used to implement the Plan:

- **Regulations** – The Comprehensive Plan includes numerous recommendations for amending the current development ordinances to

accomplish the community vision. The plan provides the policy framework to support these changes.

- **Economic Incentives** – The City's Future Land Use Plan may be used as a basis for determining how economic incentives will be offered. Business improvement areas, infill development areas, and redevelopment sites should receive economic incentives so that new economic development opportunities may be directed to areas that can be most efficiently serviced by utilities and infrastructure.
- **Internal and External Funding** – Implementation of the plan will require adequate funding, which may come from current revenue sources, a dedicated funding source, or outside grant funds from other orders of government. It is expected that annual appropriations and capital improvement funds will likely require reallocation to implement the plan's recommendations.

Implementation Program

The implementation program outlined below identifies the actions that are to be accomplished within the next five years. The priorities are established by the identified timeframe. To ensure accountability, a lead agency must be identified, who may coordinate with other agencies to accomplish the task, but who is ultimately responsible for its timely and successful implementation. The Plan Administrator will be tasked to work with these lead agencies to ensure plan implementation. For each action a primary source of funds must also be identified, which may be matched with other funds, such as state and federal grants, dedications, and in-kind services.

This action plan is designed for ongoing use by the Action Task Force, Planning and Zoning Commission, City Counicl, and City staff to report progress made in implementing the plan. To date, it is not yet complete, leaving the task of identifying the lead department or agency and source of funds to the implementors of this plan.

Action Recommendation	FY 2006	FY 2007	FY 2008-10	Lead Agency	Source of Funds
LAND USE ELEMENT					
1. Prepare a Growth Sequencing Plan to identify urban versus rural areas	X				
2. Adopt a Municipal Annexation Plan to implement the Growth Sequencing Plan	X				
3. Prepare a Unified Development Code	X				
• Transfer of development rights (TDR)		X			
▪ Reclassification of zoning districts consistent with the Growth Plan	X				
▪ Zoning map revisions to reflect new zoning district classifications	X				
▪ Neighborhood conservation district for existing development		X			
▪ Incentives for cluster, conservation, and preservation development		X			
▪ Incorporate maximum densities and intensities for each district		X			
▪ Criteria for appropriateness of zone changes adjacent to major roadways	X				
▪ Establish a maximum (rather than minimum) front yard setback within the commercial districts	X				
▪ Bufferyard requirements with varying opacity commensurate with development intensity		X			
▪ Bulk plane provisions within commercial districts		X			
▪ Residential density bonuses adjacent to arterial roadways		X			
▪ Development standards for gated communities (access, continuity, setbacks, gates/walls, etc.)	X				
▪ Measurable compatibility standards for lighting, signage, and noise			X		
▪ Special conditions and performance standards for conditional (versus special) uses			X		

Action Recommendation	FY 2006	FY 2007	FY 2008-10	Lead Agency	Source of Funds
▪ Resource protection standards			X		
▪ Site capacity calculations		X			
▪ Office Business Park district with increased design standards		X			
4. Downtown Master Plan (economic study, business mix assessment, redevelopment constraints analysis, updates parking study, and physical enhancement plan)	X				
5. University Area Master Plan	X				
6. Corridor revitalization plan		X			
• S.H. 107/University Drive from Raul Longoria to 5th Street		X			
• Closner Street from Schunior to Freddy Gonzalez		X			
7. Acquire fee-simple or by easement sensitive lands/conservation sites		X			
TRANSPORTATION ELEMENT					
8. Amend the Subdivision Regulations and incorporate them into a Unified Code	X				
• Street cross section standards to ensure dedication of sufficient street rights-of-way	X				
• Access management standards	X				
• Collector street continuity, stub-outs, and temporary turnarounds	X				
• Minimum ingress/egress points	X				
• Sidewalks on both sides of minor residential streets	X				
• Public access easements	X				
9. Install railroad crossing arms, pavement markings, and signs at all intersections		X			

Action Recommendation	FY 2006	FY 2007	FY 2008-10	Lead Agency	Source of Funds
10. Signal warrant and timing studies	X	X	X		
11. Travel speed studies to determine speed restrictions	X	X	X		
12. Traffic control visibility and safety inspections	X	X	X		
13. Installation and replacement of street signage	X	X	X		
14. Crosswalks at schools, parks, and public buildings	X				
15. Sidewalk inventory and capital improvement program	X				
16. Medians/esplanades in arterial roadways for traffic management		X			
18. Escrow account for arterial road improvement	X				
19. Airport marketing plan	X				
ECONOMIC DEVELOPMENT ELEMENT					
21. Protect land adjacent to the Regional Academic Health Center for expansion	X				
22. Adopt a joint marketing program with UTPA		X			
23. Market the North Industrial Park and Edinburg International Airport to the identified target industries	X				
24. Establish partnerships with area educational and workforce training assets	X				
25. Provide tax incentives and assistance to existing businesses to support expansion	X				

Action Recommendation	FY 2006	FY 2007	FY 2008-10	Lead Agency	Source of Funds
ECONOMIC DEVELOPMENT ELEMENT CONTINUED					
26. Consider a Business Improvement District (BID) or Tax Increment Financing (TIF) District for Downtown	X				
27. Consider an entertainment district for Downtown			X		
28. Improve way-finding signage along U.S. 281		X			
UTILITIES ELEMENT					
29. Master Drainage Study north of Monte Cristo Road		X			
30. Program the recommended improvements listed in Table 5.3, Basin Improvement Requirements	X	X	X		
31. Program the recommended improvements listed in Table 5.4, Water Capital Improvement Plan	X	X	X		
32. Program the recommended improvements listed in Table 5.5, Wastewater Capital Improvement Plan	X	X	X		