Regional congestion projections require Tomball to think differently about its future mobility options. In addition to improving existing roadways and adding new connections, exploring alternative modes of travel is critical. Residents recognize the need for improved internal transit as well as transit connections to regional activity centers. In order to successfully provide mobility options, land use patterns must support this objective. Linking land use and transportation is a planning philosophy that has been the foundation of traditional town planning. Historically communities located homes, shopping, and businesses in close proximity to one another not unlike what is depicted in some of Tomball's earliest maps. In examining Tomball's early town planning, this pattern was successful and created pleasant neighborhoods that residents today cherish. Reinstituting these traditional activity center designs produces shorter commutes through alternative modes of travel (e.g. walking, trolleys and bicycles).

The Comprehensive Plan provides an integrated trail system, improved pedestrian mobility, and transit options including support for a future commuter rail connection from Tomball to Houston. Transit Oriented Development is a concept that locates specific types of land uses that will support or promote transit usage. As such, the Future Land Use Plan encourages higher intensity mixed use land uses close to transit stops, such as the future commuter rail in Downtown Tomball. This proposed development pattern will make it easier for nearby residents to use public transit or the future commuter rail. Direct, convenient, and attractive connections between residential neighborhoods and transit routes encourage the use of such facilities. The linking of land uses and transportation requires an understanding that all transit users begin and end their trips as pedestrians and pedestrians are most likely to use walking paths that are direct, convenient, pleasant, safe, and appealing.

Interpreting the Future Land Use Plan

Determining Boundaries

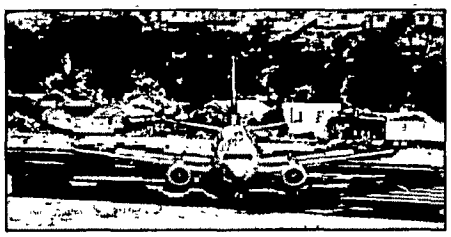
The boundaries for the land use designations shown on the Future Land Use Plan (depicted previously in Figure 4-6) are located along significant natural or manmade features whenever possible. These features, which include creeks, streams, drainage channels, and roadways, represent general recommendations for future development. Boundary lines are to be considered approximate

and discretion may be used in determining them. Variations, particularly where significant natural or manmade features are present, may be acceptable. It will be the responsibility of the Tomball City Council, with the recommendation of the Planning & Zoning Commission, city planning staff, and guidance provided by the Comprehensive Plan to establish and more accurately define the boundaries if questions arise. These boundaries do not necessarily reflect currently zoned property.

Land use designations are different from zoning classifications found in the Tomball Zoning Ordinance. The Tomball Comprehensive Plan does not change existing zoning, existing entitlements, covenants, or development agreements. Changes to these legal documents require a different review and approval process.

Land Use Buffering and Transitioning

Special considerations should be given to areas where the intensity of adjacent land uses differs in a manner that may negatively impact one use or the other. Buffering or integrating a transitional land use between differing land use types will maximize the protection of each use. Examples of situations where buffering or transitioning should be used include residential uses that are located adjacent to commercial, office, or employment uses, or where various levels of residential densities are adjacent to each other.



An example of incompatible land uses and inadequate buffering

Depending on the community's needs, a variety of techniques may be used to ensure land use compatibility, such as:

- Site planning techniques addressing building heights, site orientation, lighting, setbacks, and ingress/egress;
- Screening through the use of block walls, fencing, plant materials, or earthen berms (where appropriate);
- Integration of landscaped open space areas and easements;
- Landscaping along rights-of-way and variations in setbacks; and,
- Any combination of the above.

LAND USE DESIGNATIONS

The City of Tomball has been divided into a number of future land use designations (Figure 4-11). The intent of these categories is to provide direction in determining current and future growth patterns. These designations define the various land uses identified on the Future Land Use Plan and explain the desired intensity of development. A generalized alignment of major roadways is shown on the map to serve as a point of reference. Refer to Chapter 5 ("Circulation") for information about the location and size of roadways.

Figure 4-11: Land Use Designations and Residential Densities

Rural Residential (up to 1 du/ac)
Low Density Residential (1 – 2.18 du/ac)
Medium Density Residential (2.19 – 7.26 du/ac)
High Density Residential (7.27 – 26 du/ac)
Commercial
Employment/Office
Business/Industrial
Mixed Use
Old Town
Parks
Open Space

du/ac = dwelling units per acre

Residential Land Uses

The Tomball planning area has a wide range of residential neighborhoods at various densities and diverse housing products. The City prides itself in quality neighborhoods, and the location of future residential areas will be designed to protect and strengthen existing residential areas. As the City continues to evolve, neighborhood revitalization and housing rehabilitation will become a priority. When determining the appropriateness of residential development, the City will evaluate the availability of utilities and other public infrastructure, development impacts on the transportation system, access to public services and facilities, and impacts on schools, parks, trails, and open spaces.

Residential Densities

Densities are calculated by dividing gross acres by the total dwelling units (subsequently reflected as dwelling units per acre, or du/ac). Although residential land use designations are expressed as a range of densities, the City of Tomball evaluates projects based on potential project enhancements such as those illustrated in Figure 4-12, as well as location factors such as compatibility to surrounding land uses.

Although densities are used to quantify residential intensities, it does not necessarily correlate directly to quality residential development. One house per 5 acres can be just as detrimental to the environment and the area's quality of life as a 20 houses per acre residential project if it is not designed well. The goal is to have a proper balance of densities, design, and transition of land uses.

Residential densities create a variety of neighborhood types and sizes. Neighborhoods are more than just a conglomeration of housing; they are about the interaction of people walking to the mailbox, sitting in the park watching children play, or catching a bus at the local transit stop. Quality neighborhoods are experienced by those who visit and valued by those who live within them.

Residential classifications covering large areas are not meant to preclude appropriate neighborhood and community commercial services needed to support the population. As neighborhoods evolve and change or as new neighborhoods are planned, large-scale, suburban-type residential development patterns should be reconsidered. Neighborhood design that promotes diversity in housing products, promotes multimodal transportation options, and allows for neighbor interaction is encouraged.

The City of Tomball's goal is to encourage a full range of housing types and residential neighborhoods that preserve and establish connected open spaces as well as locate dwelling units in a way that encourages

Figure 4-12: Potential Project Enhancements

Community Identity

- Significantly enhanced landscaping treatments (size and tree density) and entry signage
- Public facilities
- Joint school/park sites (20 acres or more)
- Diversity in signage options and integration into the overall project design

Product Design

- Variation in lot sizes, housing elevations, housing choices and four sided design criteria
- Variation in site design

Open Space

- Riparian, creeks, detention areas and drainageways
- Minimization of open space disturbance area
- Joint-use educational facilities and parks
- Mature native trees protected
- Public trail extensions
- Dedication of trail heads for equestrian, hiking and biking areas

Environmental Conservation

- Alternative fuel facilities or neighborhood electric vehicle charging stations
- Effluent reuse
- Solar orientation, roof reflectivity and other energy efficient design characteristics

Infrastructure

- Extension of off-site utilities
- Exceeding required right-of-way standards for enhanced landscaping with sidewalks/trails or additional open space
- Park-and-ride land dedication
- Additional transit amenities
- Joint use regional infrastructure facilities,

Other as deemed appropriate by the Engineering and Planning Director and/or City Manager

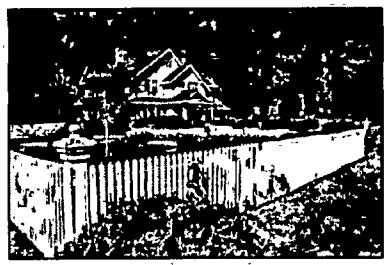
its residents to walk to schools, jobs, and support services. This goal will encourage more social interactions in the community and will get as much attention during the project review process as the physical design of each dwelling unit.

General Residential Planning Guidelines

- Encourage new development that is compatible with existing adjacent neighborhoods.
- Design new neighborhoods to be safe, well-maintained, and attractive places to live.
- Residential development should preserve natural open spaces where appropriate as well as high quality improved open spaces.
- Compatibility and transition of residential land use intensity is important.
- Consider residential neighborhood enhancements such as noise barriers, landscaping, or other types of buffering techniques when neighborhoods may be impacted by major thoroughfares.

Rural Residential (up to 1 du/ac) includes residential developments on minimum 1 acre lots that allows up to one house per acre lot. The intent is to provide for a rural lifestyle as well as to encourage appropriate development due to environmental constraints such as waterways, floodplains, and other features.

The basic character of development is rural with most natural features of the land retained. Typically, the keeping of a limited number of horses or other livestock is permitted. Public services are not required at a level as great as those required in higher density development. No future commercial or industrial development (other than commercial farming) is permitted in rural neighborhoods.



Rural Density Residential Planning Guidelines

- Encourage the use of rural residential design standards that support agricultural lifestyles.
- Allow landowners to develop large lot, single family rural residential or cluster development on smaller lots to conserve open space, views, and other natural features.

- Encourage the preservation of large, connected open spaces, and sensitive land areas.

Project density will be subject to review and recommendation by the Planning & Zoning Commission and approval by the City Council.

Low Density Residential (1.1 to 2.18 du/ac) includes residential development on minimum 20,000 square foot lots (approximately ½ acre) with the intent to provide for a larger lot development pattern. These larger lot areas are identified where environmental constraints are present.

Suitability for Low Density Residential development is determined on the basis of location, access to public facilities, existing land use patterns, and natural and man-made constraints. This designation may also include such supporting land uses as parks and recreational facilities, religious institutions, and schools to serve local residents. A full range of suburban services and infrastructure is required.

Low Density Residential Planning Guidelines

- Ensure future low density residential areas are compatible with existing and proposed neighborhoods.
- Ensure developments provide adequate water and infrastructure to support the proposed densities.
- Address development impacts on the transportation system.
- Evaluate accessibility to schools and availability of community facilities/services.
- Integrate open spaces, parks, trails, and recreational amenities to support the neighborhood.
- Encourage pedestrian oriented neighborhood design.

Pedestrian oriented neighborhood design is development that promotes walkability and pedestrian-friendly activities.

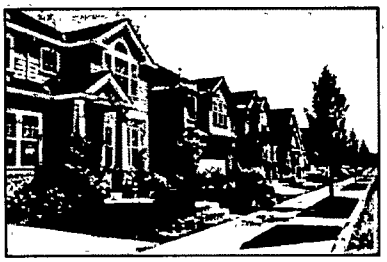
Project density will be subject to review and recommendation by the Planning & Zoning Commission and approval by the City Council.

Medium Density Residential (2.19 to 7.26 du/ac) includes suburban-type development that is intended to be single family detached residential development. Residential lots sizes range from 6,000 and 20,000 square feet. This designation may also include such supporting land uses as neighborhood shops and services, parks and recreation amenities, religious institutions, small offices

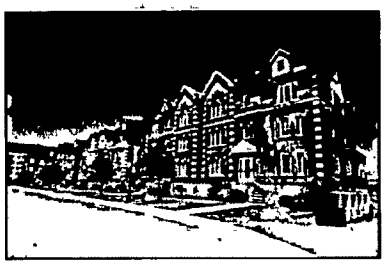
and schools to serve local residents where deemed appropriate by the City. A full range of urban services and infrastructure is required. These areas must have an adequate street network to support the amount of residential density.

Medium Density Residential Planning Guidelines

- Ensure future suburban residential areas consider compatibility and relationship to existing and proposed neighborhoods.
- Ensure developments provide adequate water and infrastructure to support the proposed densities.
- Evaluate and address development impacts on the transportation system.
- Evaluate accessibility to schools and the availability of community facilities/services.
- Integrate open spaces, parks, trails, and recreational amenities to support the neighborhood.
- Provide access to employment opportunities to reduce vehicle miles traveled.
- Encourage pedestrian oriented neighborhood design.



Project density will be subject to review and recommendation by the Planning & Zoning Commission and approval by the City Council.

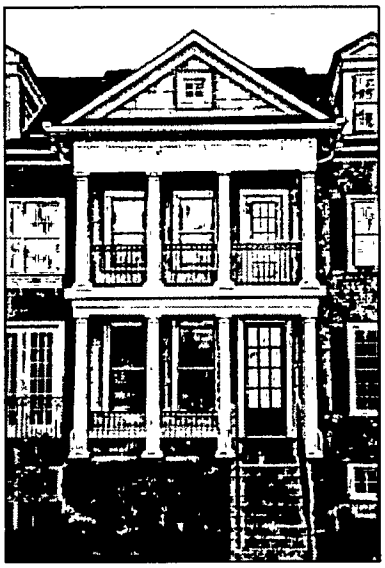


High Density Residential (7.26 to 26 du/ac) provides areas for many different types of housing products including patio homes, townhomes, lofts, duplexes, condominiums, and apartments. Ranging from 7.26 to 26 gross dwelling units per acre, this designation may also include such supporting land uses as neighborhood shops and services, parks and recreational amenities, religious institutions, and schools to serve local residents. A full range of urban services and infrastructure is required. These areas must have an adequate street network to support the amount of residential density.

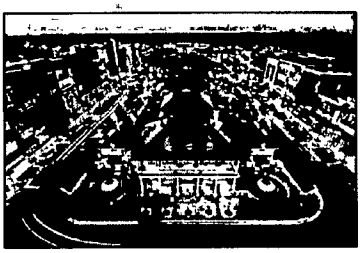
High Density Residential Planning Guidelines

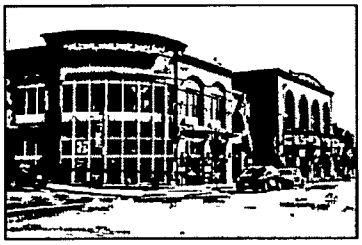
- Ensure future high density residential areas consider compatibility and relationship to existing and proposed neighborhoods.

- Encourage a mix of densities, lot sizes, housing types, and home sizes that are well integrated and compatible with one another.
- Ensure that when urban residential is located adjacent to lower density residential projects, densities and building heights step down to minimize impact and provide an adequate transition to adjacent buildings.
- Design high density residential neighborhoods around some type of "center" or focus, such as a school complex, cultural amenity, community park/urban green space, or some other commercial services to create a sense of community.
- Promote higher density residential projects in appropriate locations closer to major mixed use or employment centers.
- Ensure high density residential developments are served by collector or arterial streets.
- Encourage the development of high density residential areas with direct access to transit corridors or centers that are available or will be provided over time.
- Encourage pedestrian orientation and connections within neighborhood design.
- Ensure projects are able to provide adequate water and infrastructure to support the proposed densities.
- Address development impacts on roads and consider accessibility, transit, and non-motorized mobility options.
- Coordinate accessibility to schools and availability of community facilities/services.
- Integrate open spaces, parks, trails, and recreational amenities into neighborhoods.
- Provide access to employment opportunities to reduce vehicle miles traveled.
- Locate high density residential in close proximity to neighborhood retail centers and professional services.



Project density will be subject to review and recommendation by the Planning & Zoning Commission and approval by the City Council.





Mixed Use Land Use

Mixed Use is intended to include a mix of office, retail/commercial, and high density residential uses in a master planned, integrated manner. These uses may be located within a development, either horizontally or vertically in form. This may be accomplished on single or multiple parcels of land as long as the site is planned and developed as one integrated project. It is envisioned that Mixed Use designations will ultimately be located in areas with multimodal transportation access to support the intensity of development.

Compatibility with surrounding neighborhoods is determined by a transition based on the scale of development using (but not limited to) articulation in building height, required setbacks, building materials, and building massing.

Mixed use developments are required to provide access to alternative modes of transportation (such as trolley, bus, bicycle, or pedestrian connections) and be integrated into existing and potential transit facilities. The provision of shaded sidewalks within and around the development, shaded transit stops, drinking fountains, bicycle lockers, and other accommodations are encouraged.

Mixed Use Planning Guidelines

- Locate mixed use projects with good access to appropriate transportation corridors that can accommodate the projected traffic.
- Integrate different uses such as residential, commercial, or office as part of a coherent master plan.
- Encourage uses within mixed use projects that offer a range of quality jobs.
- Concentrate commercial and higher density residential development in areas adjacent to existing or potential transit corridors and with infrastructure support.
- Encourage transit-oriented development near future multimodal corridors and transit centers.
- Encourage pedestrian- and Transit Oriented Developments that decrease vehicle dependent travel.

- Encourage context sensitive development that addresses environmental characteristics, surrounding land uses, and project scale.
- Evaluate building heights during the development review process based on location and area context. Where appropriate, building heights should transition or step down to ensure compatibility with adjacent development.
- Encourage mixed use projects to provide internally connected streets and pedestrian amenities that provide direct access to land uses and adjacent developments.
- Encourage urban development in already urbanized areas that are better equipped to provide water, sewer, police, and fire protection services efficiently.

Context sensitive design is an approach by which development fits its physical setting and preserves scenic, aesthetic, historic, environmental, and similar resources.

Project density will be subject to review and recommendation by the Planning & Zoning Commission and approval by the City Council.

Old Town Land Use

Old Town includes the historic hub and heart of the community. Old Town land uses include mature single family neighborhoods, dense commercial uses, a civic core, and high density residential. The existing neighborhoods primarily include single-story cottage and bungalow homes and historic street markers that create a unique ambiance and charm. There are numerous historical and cultural amenities in Old Town including a growing museum district, genealogy library and Depot Plaza.

Present day Tomball reflects at least three different historical periods. The community's original economy was based on agriculture. Founded in 1906, the town of Peck developed along the Trinity and Brazos Valley Railroad. With the expansion of railroad services, supporting businesses developed on Main and Elm Streets. The town was renamed to Tomball in late 1907.

In 1933, the next period was established with the discovery of a massive oil field. Humble Oil Company was one of the leaders in the rapid development of Tomball. This development brought with it many civic improvements such as paved streets, sidewalks and recreational amenities. This rapid development put Tomball on the national map as "Oil Town, USA."

The third major change in Tomball's history came in the 1950's when SH 149 and FM 2920 linked the community directly to Houston. With this connection came suburban growth and development.

In September 2009, the *Livable Centers Downtown Plan* was adopted by City Council. The Downtown Plan was sponsored by the Houston-Galveston Area Council (H-GAC) and the City of Tomball in an effort to "Develop the downtown public realm to preserve, promote and enhance the Tomball 'sense of place' as the identifiable physical, social and cultural heart of Tomball." The study included a preliminary inventory analysis, needs assessment, public involvement program, urban design framework plan, urban design guidelines, and implementation strategies. The Plan's goals include:

- Preserve the eclectic and historic main street classic "Americana" character of the commercial Downtown and the historical small town atmosphere of the residential neighborhood.
- Promote a diverse and balanced mixed use commercial retail "work, live, shop and play" pedestrian-oriented Downtown environment.
- Enhance the collective sense of community pride and heart in the social interaction, celebrations, gatherings and traditions that define the identity and character of the Tomball community.

Figure 4-13: Livable Centers Study Area

The *Livable Centers Downtown Plan* study area covered a four block by four block area. The study area is bound by Houston Street to the north, Fannin Street to the south, Pine Street to the west, and Burlington Northern Santa Fe (BNSF) Railroad to the east; the study area shares the unique character and conditions of the historic Main Street and Downtown urban core. Figure 4-13 depicts the *Livable Centers Downtown Plan* area (in red) compared to the larger Comprehensive Plan Old Town area (in blue).

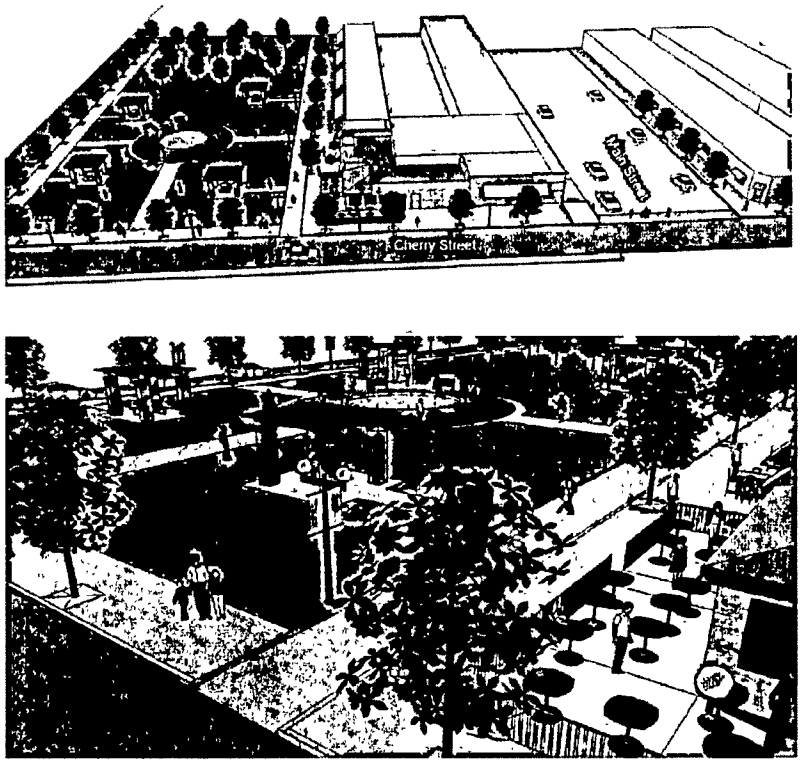
An illustration depicting a vibrant Downtown core

As part of the Comprehensive Plan, considerable discussion occurred related to how the *Livable Centers Downtown Plan* study area would relate to the surrounding neighborhoods and commercial connections along Main Street toward the Four Corners area. To address the unique issues of the Downtown core and its surrounding mature neighborhoods as well as the commercial corridor along Main Street, the Comprehensive Plan has identified a specific land use designation for this area known as Old Town.

Issues facing this area include but are not limited to:

- Architectural character is an eclectic mix of styles and qualities;
- Streetscape along FM 2920/Main Street lacks continuity and is in disrepair;
- Lacking cohesive sidewalk network;
- Side streets have narrow rights-of-way;
- Open ditch swales are not conducive to higher density development; and
- Drainage issues.

Figure 4-14: Public Plaza Concept
(intersection of Main and Cherry streets)



A concept created and discussed during the Comprehensive Plan process that expands the vitality and opportunities in Old Town is developing a public plaza, seen in Figure 4-14. The graphic below depicts how turning entrances to business from FM 2920/Main Street onto a more pedestrian-friendly plaza might look if applied in Tomball. Additionally, this proposed "back side" corridor can provide another pedestrian link to the Tomball Train Depot Plaza area. The Historic Depot Plaza is a three acre site generally encompassing a city block, located on the eastern end of the Downtown area adjacent to the BNSF railroad. A historical trail or sculpture walk could be developed that would lead visitors through Downtown Tomball to the Depot. This would provide visitors the opportunity to learn about Tomball's history as well as create economic development and tourism opportunities for the community.

Old Town Planning Guidelines

- Develop customized standards in the Downtown Specific Area Plan for land uses to address the unique lot sizes and buildings while encouraging quality redevelopment.

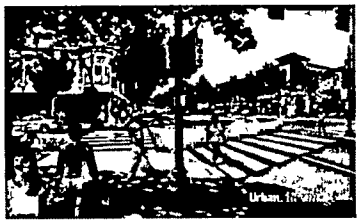
- Incorporate street furniture, street trees, landscaping, public art, and unique street lighting throughout the Old Town area.
- Protect and enhance mature residential neighborhoods.
- Encourage residential infill development and neighborhood revitalization.
- Continue to locate government facility uses in Old Town to strengthen the civic center and diversify day-time activity.
- Establish an infill incentive area or program for projects that contribute to the revitalization of Downtown.
- Eliminate substandard and obsolete buildings that create a threat to public health, safety, and welfare.
- Implement strategies to prevent the recurrence of blighted conditions.
- Strengthen the pedestrian and mobility linkage between the Depot Plaza Area, potential future commuter rail station, and other activities throughout Old Town.
- Explore public/private partnerships to develop a civic space in the Downtown core.
- Transition the intensity of development between the commercial core and surrounding areas to preserve established single family neighborhoods.
- Ensure that the transition from residential to commercial land uses is done in such a way as to protect the residential character and integrity of the area.
- Encourage the assembly of land into parcels that meet minimum standards and are sufficient for development/redevelopment.
- Continue to develop and encourage the development at and around the Historic Depot Plaza.
- Support continued investment into the museum district and other cultural amenities and historic places.
- Incorporate traffic calming techniques in residential areas to slow and reduce cut-through traffic.
- Implement a unique Old Town signage package that is aesthetically compatible with the area's urban design character. The signage package would provide orientation and directional information as well as an identifiable sense of place for Old Town.
- Allow City staff flexibility to respond to conditions and constraints inherent to specific sites and areas in Tomball.

An illustration depicting a pedestrian and bike friendly setting

Commercial Land Use

Commercial is where retail sales and service activities should occur. These uses include but are not limited to shopping centers, convenience stores, auto dealers, department stores, grocery and drug stores, entertainment facilities, food and beverage purveyors, salons, and small repair shops. Small professional office uses such as physicians, accountants, or therapy offices would be permitted.

It is expected that these uses will have a steady traffic stream throughout the day and in some cases well into the evening. Some businesses may provide 24-hour services.

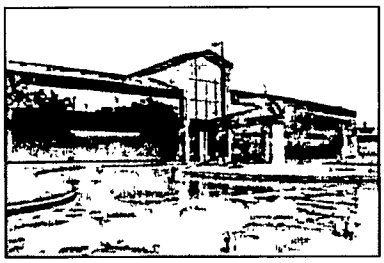


Commercial Planning Guidelines

- Encourage the pedestrian scale of commercial developments so visitors are enticed to walk/bike to and between shops.
- Ensure commercial development compatibility with surrounding land uses. Provide proper transitions, buffers, or architectural reliefs to minimize negative impacts of on-site activities to adjacent uses.
- Mitigate negative visual impacts arising from the scale, bulk, and mass of large commercial buildings and centers. Architectural relief may be used to mitigate negative visual impacts.
- Promote building designs and construction practices that are sustainable and adapted to the region's climate.
- Allow City staff flexibility to respond to conditions and constraints inherent to specific sites and areas in Tomball.

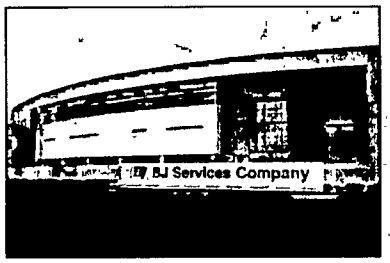
- Where possible, concentrate commercial development in cohesively planned centers or districts rather than individual commercial uses or parcels in a linear strip along roadways.
- Determine impacts of commercial development on the surrounding local and regional roadway network as well as access to multimodal transportation options.

Employment-Related Land Uses



Employment/Office indicates where employment uses that are not industrially focused should occur. These uses include corporate headquarters, regional offices, professional offices, light enclosed manufacturing or assembly facilities, office/showrooms, and small business office suites. Some retail activities are permitted in this land use to support offices and employment operations.

It is expected that these uses will have a regular flow of traffic at the start and end of the regular business day. These uses will not produce large amounts of ambient noise, light, or vibration.



Business/Industrial The Business/Industrial land use designation indicates where industrial and intensive employment activities should occur. Activities that will require unenclosed assembly, repair and/or storage and require heavy truck or rail transportation support are acceptable. Also included would be warehousing and distribution facilities, as well as offices and showrooms.

These uses may include multiple shifts of employees and trucking activities in the evening and overnight hours.

Employment/Office and Business/Industrial Planning Guidelines

- Encourage quality design, particularly in highly visible locations. Aesthetically pleasing facades will be required when facing an existing or proposed right-of-way.
- Ensure appropriate buffers when transitioning land uses (e.g. business park use adjacent to residential use).
- Locate employment designated land uses with access to major transportation corridors.
- Ensure that truck traffic associated with employment-related land uses do not use residential streets for access.
- Encourage high intensity employment in campus or urbanized areas that are adjacent to collector or arterial

roadways with access to transit and an integrated pedestrian environment.

- Evaluate building heights during the review process in relationship to the location, surrounding land uses, and fire suppression. Where appropriate, building height transitions and step-downs in height could be provided to enhance compatibility.
- Include retail and services as well as civic uses in employment areas, but not as the primary land use.

Parks and Open Space Land Uses

Parks includes mini, neighborhood, community, or regional parks that are both active and passive recreational areas. This can include both publicly and privately owned parks, open spaces, and recreation areas. Park and open space uses are also appropriate in all residential land use designations.

Open Space areas should be left in a natural state due to topographic, drainage, vegetative, and landform constraints or the need to provide permanent buffers between potentially incompatible land uses. The Comprehensive Plan strives to create a linked open space system through the utilization of drainage ways, public utility easements, and major corridors.

Parks and Open Space Planning Guidelines

Integrate recreational amenities, parks, trails, and open spaces as part of the project design.

- Ensure open spaces, parks, and recreational areas are large enough to be usable for the intended purpose.
- Encourage the use of open spaces as part of and connected to a larger, integrated regional system.
- Integrate the trail system into developments, where appropriate.
- Integrate, where possible, the natural terrain, habitats, drainage ways, and other natural features into project design.
- Protect and/or minimize impact to historic sites or landmarks, including distinguishable natural features.
- Provide appropriate amenities in relationship to the natural infrastructure (e.g., benches and trash receptacles in parks).

Sources:

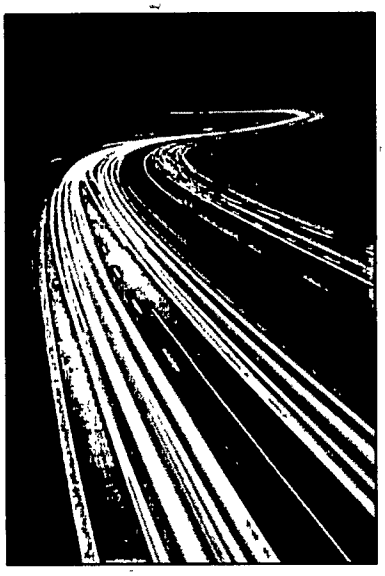
City of Tomball (2008, 2009)
Harris County Appraisal District (2008)
Livable Centers Downtown Plan (2009)
Smart Growth America (2009)
Texas Department of Transportation (2007)
United States Census Bureau (2000, 2007)
Urban Advantage (2009)

5 Circulation

INTRODUCTION

Chapter 5 ("Circulation") covers the City's transportation plan which undergoes regular updates through the major thoroughfare planning process that is undertaken by the City of Tomball. The City of Tomball recently updated the *Major Thoroughfare Plan* (MTP) before the comprehensive planning process was undertaken. Topics covered as part of this update included developing a clearly defined thoroughfare classification system, including typical sections for each classification, thereby defining parameters such as right-of-way width, pavement, median widths, number of lanes, etc. Within the State of Texas, the MTP is one of the widest reaching policy documents that a City can adopt because it enables policy decisions and sets land aside where zoning controls and future land use designations have limited applications.

Circulation is the movement of people and products within a defined area.



Upon drafting of the Future Land Use Plan, roadways and designations called for within the MTP were examined to ensure that an appropriate level of connectivity would be provided throughout the City. The majority of the results from the major thoroughfare planning process were incorporated into the Comprehensive Plan with recommendations for future analysis including extending Graham Road to South Cherry; extending Calvert Road north from FM 2920 to Brown Road; and extending Calvert Road to the future Holderrieth Road extension.

Figure 5-1 provides an illustration of the roadway network as it exists today. There are several gaps within the street network that will need to be addressed over the planning horizon. While the MTP completes the gaps that currently exist within the system (such as Brown-Hufsmith Road and Medical Complex Drive), future

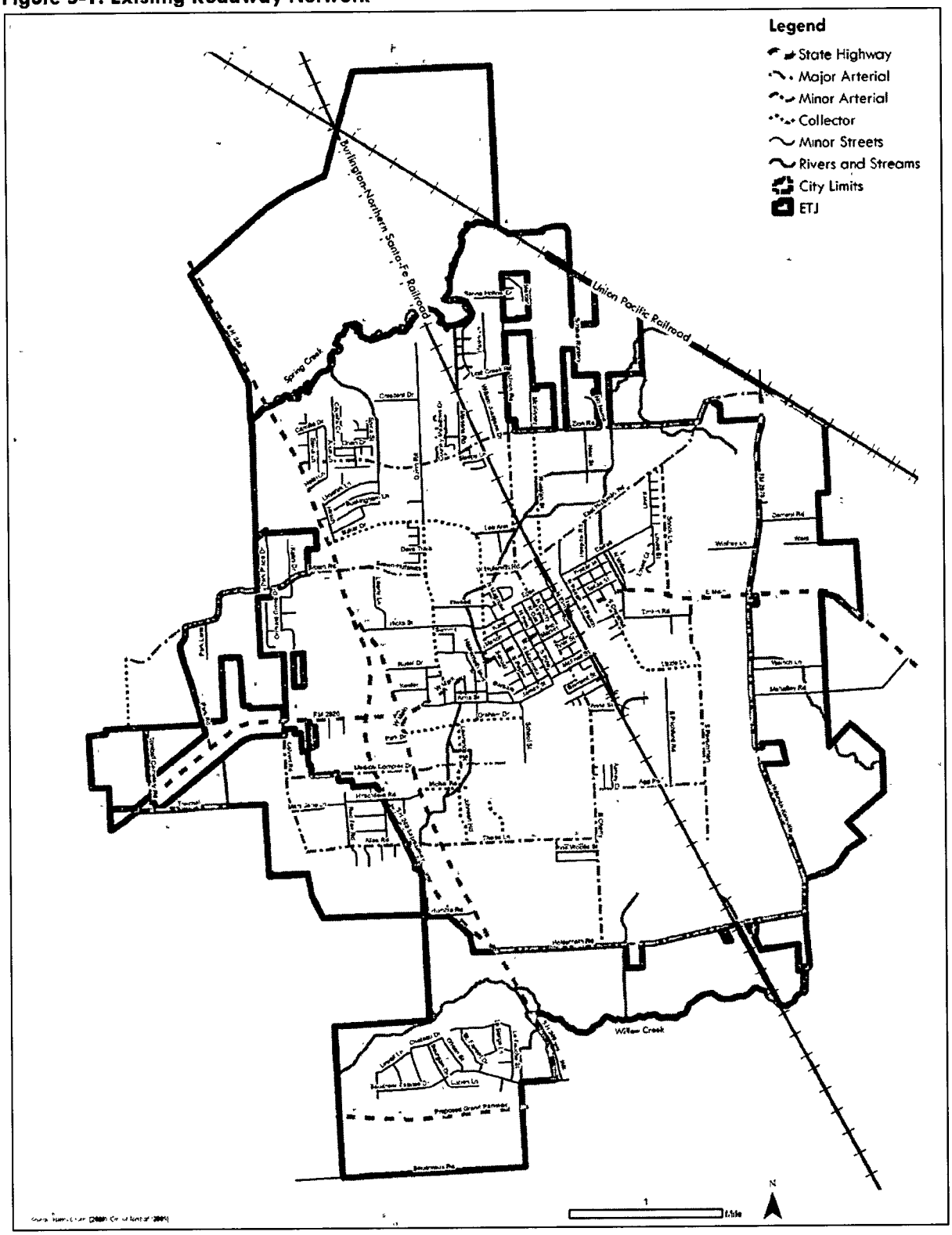
transportation solutions that extend beyond the personal car need to be explored to support effective circulation.

Multimodal transportation is the integrated use of multiple forms of transport including car, truck, rail, boat, air, bike, etc.

This chapter focuses on the development of several multimodal transportation alternatives. Studies have shown that even a small shift to transit or a reduction of 10% in the number of people using their own automobile can have a huge impact on local and regional mobility. Some of the alternatives explored later in this chapter include increased pedestrian and bicycle facilities along targeted roadways, the promotion of future commuter rail as a viable transportation mode, and the completion of strategic roadway segments that will allow for alternate paths of travel for heavy commercial vehicles and residents trying to access areas of Tomball other than Downtown.

The end of the chapter presents the latest concepts in transportation planning. Cities have developed transportation facilities to meet the needs of development for centuries, and civilizations have focused on thoroughfares as a key piece of the community rather than a facility used solely for the purpose of moving people. Context sensitive solutions integrate transportation facilities into the urban form through careful planning and design, helping cities creating a sense of place while meeting the need for transportation infrastructure that can accommodate many modes.

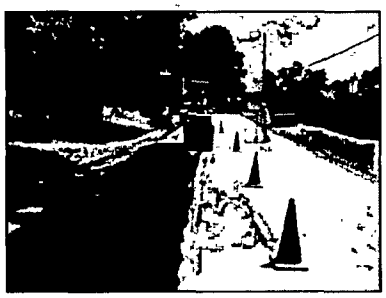
Figure 5-1: Existing Roadway Network



KEY ISSUES

Governing Legislation

There are several pieces of federal legislation that dictate the appropriateness of sidewalks, crosswalks, bicycle trails, and pedestrian amenities including the Americans with Disabilities Act (ADA) and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The federal government is in the process of updating SAFETEA-LU because the authorizing legislation expires in October of 2009; however, it is expected that the next version of this funding authorization will place much more emphasis on the connections between transportation and land use, including a discussion on livability. These federal requirements extend to all facilities that receive any form of federal funding for their construction, including reconstruction of FM 2920 and the construction of the SH 249 Expressway.



Road Conditions and Maintenance

Roadway system maintenance is one of the largest expenses that a city can incur. A critical error communities often make is waiting until roads are already in poor condition before conducting maintenance. Municipalities have found that preventative maintenance on facilities that are rated between seven and eight on a 10 point scale can often add several years to the useable life of roadway facilities at a considerable benefit-cost ratio. Tomball has several roadways (including many that are controlled by other jurisdictions) that are in need of repair and maintenance. By implementing a pavement rating system and following regular maintenance activities, the City can help abate a number of transportation system and safety concerns.

More Regional Travel

The City and surrounding region are growing at rates that are some of the highest and most stable in the country. Looking out over the planning horizon, the region will need to accommodate 3 million

additional residents impacting regional travel times and distances. Residents from Tomball routinely travel to downtown Houston, The Woodlands, the Energy Corridor, Greenway Plaza, George Bush Intercontinental Airport (IAH), and various other employment and activity centers throughout the region. This trend will continue until the job to population balance (in terms of number and type of jobs) within the City becomes more desirable for existing and future residents.

Level of service (LOS) is the qualitative rating system used to describe the adequacy of the road network at a specific intersection or street segment, based on factors including travel time, freedom to maneuver, driver comfort, and interruptions; LOS A is used to describe the best traffic conditions while LOS F denotes gridlock. *LOS can also be used to describe transit and bicycle/pedestrian networks.*

Congestion

Congestion is a concern for several reasons within the City of Tomball. First, congestion is one of the greatest detractors from quality of life. Second, congestion costs Tomball's resident and business owners a significant amount of money in terms of lost time and productivity. Third, regional congestion relief efforts cannot keep pace with the growing population trends; regional facilities, such as FM 2920 and SH 249, are only going to become more congested over the planning horizon even after the currently planned widening projects are complete.

From Hufsmith-Kohrville Road to SH 249, FM 2920 has more than 143 driveway openings that greatly contribute to congestion within this two-and-a-half mile roadway segment. This driveway density is extremely high and leads to severe level of crashes and traffic congestion worse than would otherwise be expected of a four lane road with the roughly 36,000 vehicles daily; this leads to an LOS F as depicted in Figure 5-2. Based on this level of congestion, Texas Department of Transportation (TxDOT), the City of Tomball and H-GAC have recently completed an Access Management Study to mitigate the congestion and safety issues within the FM 2920 corridor.

Already, failing level of service (LOS) ratings exist on Brown-Hufsmith Road, FM 2920, Business 249, Hufsmith-Kohrville Road, South Cherry, and Boudreaux Road. By 2030, this congestion level is projected on Holderrieth Road and segments of SH 249 and conditions will continue to worsen even with

Figure 5-2: Levels of Service

Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptions
A		55+	Highest quality of service. Free traffic flow with few restrictions on maneuverability or speed. **No delays**
B		50	Stable traffic flow. Speed becoming slightly restricted. Low restriction on maneuverability. **No delays**
C		45	Stable traffic flow, but less freedom to select speed, change lanes or pass. **Minimal delays**
D		40	Traffic flow becoming unstable. Speeds subject to sudden change. Passing is difficult. **Minimal delays**
E		35	Unstable traffic flow. Speeds change quickly and maneuverability is low. **Significant delays**
F			Heavily congested traffic. Demand exceeds capacity and speeds vary greatly. **Considerable delays**

Source: 2000 HCM, Exhibit 20-2, LOS Criteria for Two-Lane Highways in Class 1

the increased capacity provided by the Expressway and extension of Brown and Agg roads.

The measuring of traffic congestion is similar to grades on a report card; Figure 5-2 illustrates this grading concept. Levels of service that are at or above a vehicles to capacity (v/c) ratio of 1.0 are considered an "F" by most local governments, but the regional transportation entities (including Houston-Galveston Area Council, or H-GAC, and TxDOT) have adopted a ratio of greater than 1.25 to program the most severely congested corridors for funding first.

Truck Traffic

Truck traffic is a concern for many communities within the Houston region because of the existence of one of the nation's largest freight terminal operations. This truck traffic spills over into the surrounding communities because businesses throughout the region utilize the raw materials that are brought into the Port of Houston to create products that are then shipped throughout the world. In addition, some of the industrial uses within the City generate higher volumes of truck traffic than other uses. A balance between the need for jobs and industry and the need for overall mobility must be taken into account through the implementation of industrial streets (which have wider turning and travel lanes) and designating truck routes.

SH 249 Expressway

The construction of an access managed freeway within the SH 249 Bypass Corridor within the next five years will have benefits and drawbacks for the residents and businesses of Tomball. For commuters, the implementation of the controlled access highway facility will allow for faster travel times than currently possible from FM 1960 north past Tomball. The highway facility will also mean that local traffic can move around and through Tomball more efficiently.

A **toll** is a fee charged to users to cover the operational cost and/or expansion of an amenity.

However, the construction of new highway facilities often leads traffic past Tomball, limiting access to local businesses. Additionally, because highway facility will allow for faster travel speeds, more traffic noise may be experienced by those within close proximity to the corridor. Finally, because the Expressway is anticipated to issue a toll, an additional burden will be placed on residents and

commuters, including students. The current rate for the Harris County Toll Road Authority is roughly $1.30 per collection point, a rate that will increase based on the Consumer Price Index.

The **Consumer Price Index** program produces monthly data on changes in the prices paid by urban consumers of a representative basket of goods and services.

Limited Funding for Large Roadway Projects

Recent news about transportation funding shortages and an overall increase in the costs for infrastructure construction have diminished buying power when considering increased roadway capacity with no viable solutions in sight. As such, the ability for municipalities, TxDOT, and the federal government to institute massive infrastructure improvements without the use of toll revenues is not likely to occur during the planning horizon. While several projects exist within the regional plan to help improve circulation over the next five years, the completion of the SH 249 Expressway, cannot be counted on to address future congestion concerns. In the future, municipalities will have increasing responsibility for financing roadways.

Increased Reliance on Alternative Modes of Transport

As traffic congestion continues to deteriorate and fuel prices rise, alternative modes of transportation are gaining more credence within Tomball and the region. Circulation improvements can range from increased pedestrian and bicycle amenities within targeted areas (such as the medical campus) or large infrastructure projects like future commuter rail that could stop in Tomball and take passengers to destinations within the region. Other multimodal solutions include completing a street grid that includes amenities for on-street bicyclists, promoting walking in Downtown Tomball through signage and wayfinding programs, and establishing a trolley route that would allow residents and visitors to access destinations like Downtown, Four Corners, the Lone Star College-Tomball, and the medical campus.

CIRCULATION (C) GOAL, OBJECTIVES, AND ACTIONS

The following Goals, Objectives, and Actions present the City's planning and development policy in the Comprehensive Plan. They will provide the basis for the City's evaluation of future development proposals and community planning implementation.

Goal C 1	**Improve mobility through a safe, efficient, and well-connected multimodal transportation system designed to be sensitive to the surrounding land uses and accessible to all users of the transportation infrastructure.**
Objective C 1.1	**Maintain, through regular review, a transportation plan that supports the planned growth and development patterns within the area while promoting public safety.**
Action C 1.1.1	Examine the annual MTP update process and determine the need for revisions in street classifications based on shifts in demographic and development assumptions.
Action C 1.1.2	Provide updated development statistics and relevant demographic information of Tomball to H-GAC annually.
Action C 1.1.3	Partner with H-GAC to understand the changes in travel patterns that impact Tomball.
Action C 1.1.4	Coordinate and partner with regional organizations including municipalities, counties, regional organizations, and the State of Texas.

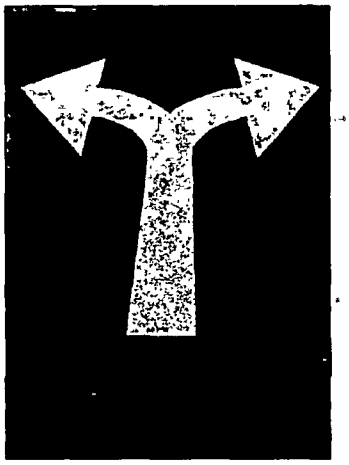
Action C 1.1.5	Utilize education, enforcement, and engineering as a holistic approach to promoting public safety.
Action C 1.1.6	Consider, where appropriate, an Industrial Street Classification within the MTP to accommodate heavy commercial vehicles and the development of truck routes within the city limits (necessitating wider travel lanes and turning radii as well as a potential provision for off-facility/adjacent trails or sidewalks).
Objective C 1.2	**Reduce and manage traffic congestion.**
Action C 1.2.1	Develop and implement a corridor timing strategy for major thoroughfares in conjunction with other transportation agencies.
Action C 1.2.2	Develop and implement an access management program along major thoroughfares such as FM 2920 and Business 249.
Action C 1.2.3	Perform safety audits at high accident locations to minimize the congestion related impacts of crashes.
Action C 1.2.4	Evaluate and develop policies related to traffic control lighting locations.
Action C 1.2.5	Investigate an alternative to FM 2920 to provide a bypass for through traffic and heavy trucks.
Action C 1.2.6	Invest in improvements to east/west thoroughfares.
Objective C 1.3	**Develop and implement context sensitive transportation solutions.**

Action C 1.3.1	Draft a comprehensive context sensitive solutions policy and submit to all transportation agencies for their consideration.
Action C 1.3.2	Program context sensitive improvements into all designated transportation corridors identified for future construction or reconstruction.
Objective C 1.4	**Promote and invest in alternative transportation options.**
Action C 1.4.1	Publicly support rail opportunities including the development of a future commuter rail station near the intersection of FM 2920 and the Burlington Northern Santa Fe (BNSF) railway.
Action C 1.4.2	Establish a desired future transit circulator route to serve Downtown and other key locations within the City.
Action C 1.4.3	Establish a targeted pathway network that will serve to offer transportation options for accessing destinations within the City such as parks, Downtown, Lone Star College-Tomball, the Depot, and Four Corners.
Action C 1.4.4	Develop a targeted trail and sidewalk program to increase walkability.
Action C 1.4.5	Support a Grand Parkway traffic interchange at SH 249.
Objective C 1.5	**Protect the community from hazards related to ground transportation.**
Action C 1.5.1	Pursue grade-separated rail crossings for reducing street/rail conflicts, where feasible.

Action C 1.5.2	Minimize the potential for accidents involving railways, automobiles, pedestrians, and cyclists by working closely with the Tomball Police Department, TxDOT, Harris and Montgomery counties, and all applicable railroad companies to identify safety problems and implement corrective measures.
Action C 1.5.3	Use technology to improve safety at grade crossings that cause the least environmental harm (e.g., automated horn systems).
Action C 1.5.4	Implement roadway improvements identified in the *FM 2920 Access Management Study* intended to improve roadway safety.
Objective C 1.6	**Provide safe pedestrian and bicyclist environments Citywide.**
Action C 1.6.1	Enhance and maintain pedestrian safety through the inclusion of well designed streets, sidewalks, crosswalks, traffic control devices, and school routes throughout the City.
Action C 1.6.2	Develop objectives, detailed standards, and guidelines for the treatment of public streetscapes to improve safety and walkability; recommendations should address street trees, street lighting, street furniture, traffic calming, and other pertinent issues.
Action C 1.6.3	Establish funding sources, priorities, and set forth a phased improvement program for public streetscape enhancements, including modified signage, lighted crosswalks, and other similar facilities.
Action C 1.6.4	Require that new development provide adequate safety lighting in pedestrian areas and parking lots.

Action C 1.6.5	Implement pedestrian and bicycle safety measures in any new grade separation project.

CIRCULATION PLAN



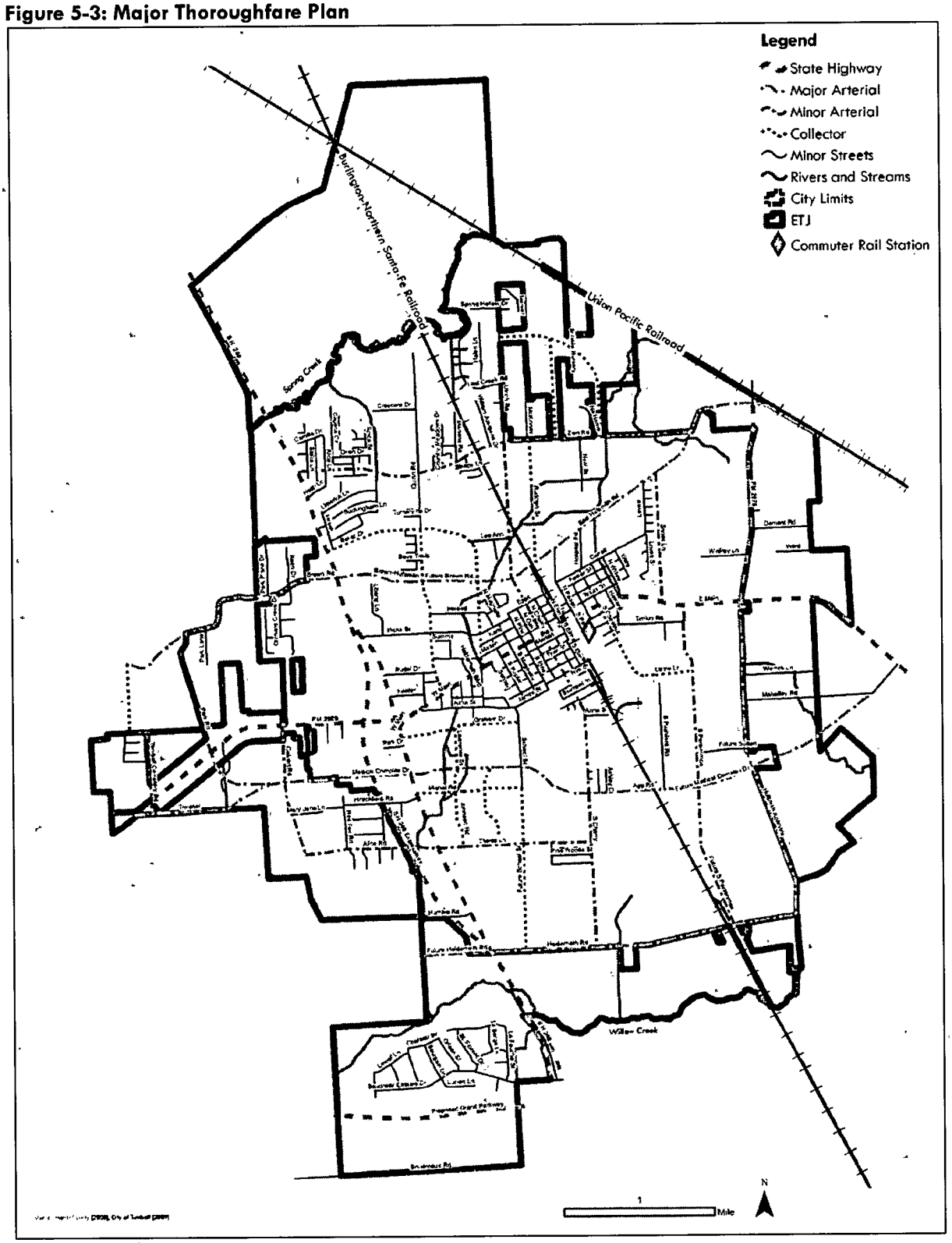
Major Thoroughfare Planning

The MTP designates roadways as State Highways, major arterials, minor arterials, collectors, or minor streets. Major and minor arterials provide support and relief to State Highways by providing additional east/west or north/south routes designed to accommodate high traffic volumes. Collectors gather traffic from local areas and distribute it onto the arterial network. Typically, collectors accommodate two lanes of traffic and on-street parking along both sides of the roadway. For higher traffic roadways, a four lane section is possible without the provision for parking.

An important tool developed by the City of Tomball to plan for future development and transportation needs is the MTP. The City's authority for regulating the development of thoroughfares extends throughout the extraterritorial jurisdiction (ETJ), beyond the City's zoning control. Developing an MTP that covers the entirety of the ETJ becomes crucial as development occurs, allowing the City the authority to require dedication of future road right-of-way. Additions that could be made to the existing MTP include the Grand Parkway alignment north of Boudreaux within the southern portion of the ETJ as well as feeder streets that will be required to meet the transportation demand that will occur as areas outside of the ETJ develop. Working in partnership with adjacent jurisdictions, Tomball should update the existing MTP to ensure that the future right-of-way needs for the community are met.

Figure 5-3 illustrates the MTP that should be implemented to build out and expanded as traffic projections dictate. The MTP provides additional specific details, including ultimate width of a roadway or recommendations on truck route policies and traffic impact analyses, which augment circulation policy outlined in the Comprehensive Plan.

Figure 5-3: Major Thoroughfare Plan



Designated Truck Routes

Another tool for use in creating a long-term vision for transportation and mobility is the implementation of truck routes that will allow heavy commercial vehicles to avoid Downtown while still providing access to local and regional businesses. One potential truck route alternative is the future east/west Medical Complex Drive. Designing this facility to accommodate heavy commercial vehicles and designating it as a truck route could remove large trucks from Main Street/FM 2920 through Downtown. Further, by coordinating signals along the future Medical Complex Drive in conjunction with future coordination efforts along FM 2920, effectiveness of the truck route would be ensured by providing reliable, efficient travel times.

Context Sensitive Solutions

A policy framework developed around the concepts of context sensitive streets aims at finding the best street solution for a given area. This concept has led to the re-designation of the existing MTP, which focused on a hierarchy of streets to assign traffic patterns, to those elements proposed by the Institute for Traffic Engineers (ITE) and the Congress for the New Urbanism (CNU). The recommended best practice stresses several of the elements, but perhaps the most important is the designation of streets based upon their character and the character of the uses adjacent to them.

Broad guidelines are not enough to create the livable street environment that communities are striving for. The key to good street design can be accomplished by allowing flexibility while at the same time working within a generally acceptable design framework. It is important that as projects such as roadway widening, enhancements, new construction, or designation as thoroughfares occur, a public process is undertaken to determine the transportation elements that will provide the desired mobility within said corridor. Furthermore, through the development of a context sensitive solutions policy, the City will be able to help guide the development of roadways within the City's corporate boundary and ETJ even if the roadway is not the City's responsibility to construct, such as TxDOT facilities. Municipalities with MTP's that reflect context sensitive solutions will coordination better with

TxDOT who has also adopted the ITE-CNU manual as a standard for project development.

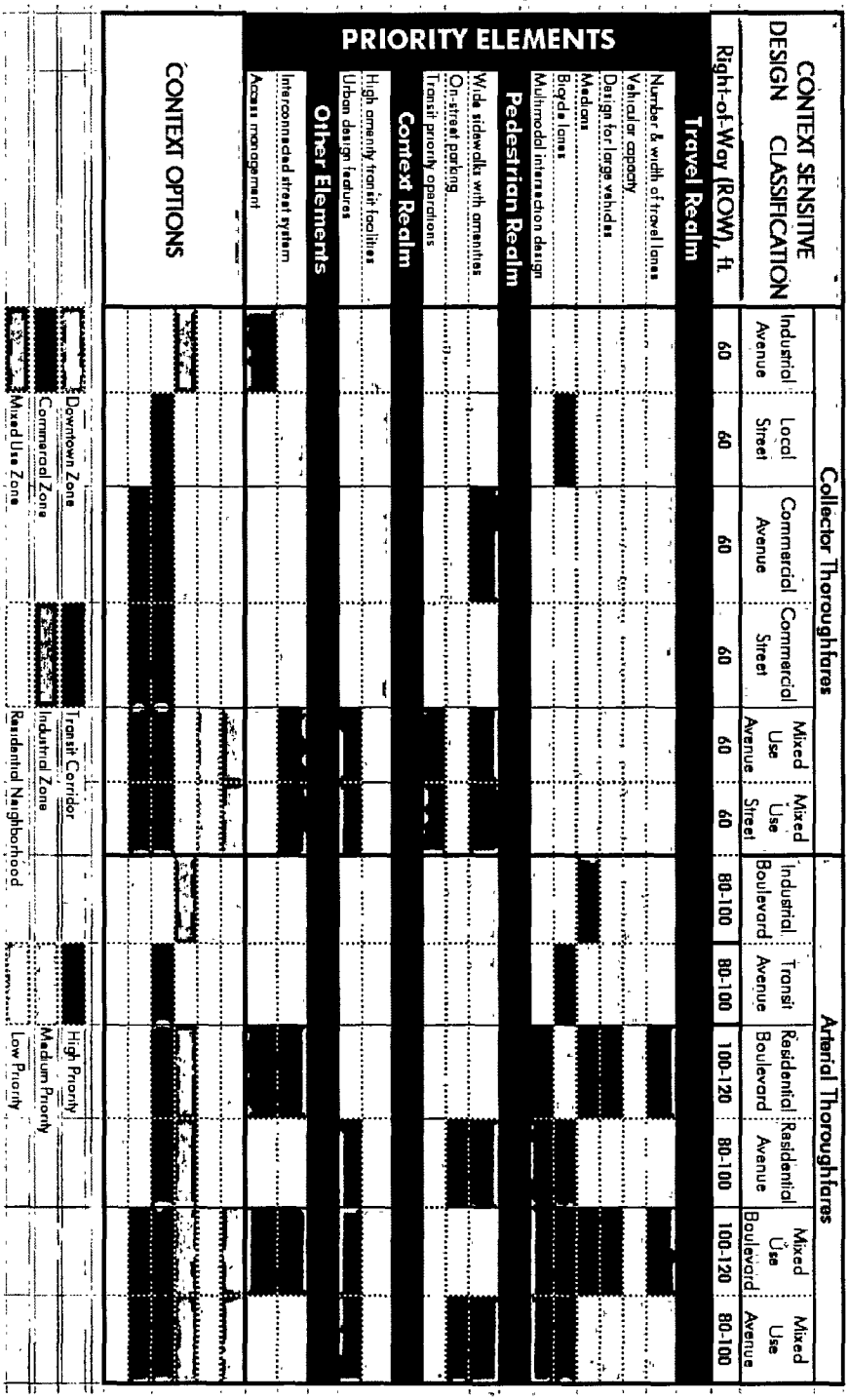
Proposed Grand Parkway

The Greater Houston Region has made plans for the Grand Parkway since the early 1970's. The current concept, which is divided into several segments, is a roughly 190-mile loop around the region connecting I-45 South to US 59 South to I-10 to US 290 to SH 249 to I-45 North to US 59 North. The segment nearest the City of Tomball falls within the southern portion of the ETJ, near Boudreaux Estates; while this segment is under design, a construction date has not been solidified. The Grand Parkway has great potential to affect trucking and freight movement patterns within the City of Tomball by providing a limited access, high speed alternative to roads like FM 2920 and SH 249. However, with this additional bypass option, there is an increased likelihood that other travelers may not traverse through the Downtown and commercial areas, creating a greater need for sense of place and vibrancy to draw them into the commercial areas of Tomball.

Alternative Street Concepts

Part of the implementation of context sensitive design is to analyze all elements of a roadway and ensure that all modes are accommodated within infrastructure planning and design. Figure 5-4 represents the range of options that are available for consideration when designing streets to meet its context. Where right-of-way is available, the street is intended to be constructed for all modes. Meanwhile, in constrained right-of-way areas, Context Sensitive Design Classification provides a guide for which elements take priority. The most important aspect to designing streets in a context sensitive manner is understanding what the community truly desires for the roadway network and implementing options that meet the need, rather than applying a uniform concept to every new street of a specific type. Building context sensitive streets also allows the City to respond to changing development patterns (for example, as a road travels from a residential area to a commercial core and then to an industrial area).

Figure 5-4: Context Sensitive Design Classification



From time to time, the right-of-way for a public street project will be constrained due to a natural feature or because of existing development patterns. In these cases, it is necessary to evaluate what can and cannot be accommodated within the available right-of-way. This evaluation should be guided both by the vehicular needs and the context surrounding development type of the street. In some contexts, such as transit corridors, it may be appropriate to eliminate parking lanes to accommodate wider sidewalks. In other contexts, such as neighborhood commercial areas, it may be appropriate to use narrower sidewalks to accommodate both parking lanes and bicycle lanes. In still other contexts it may be appropriate to eliminate a parking lane or alter the design of travel lanes in order to promote increased safety within the facility such as along Main Street or in industrial areas. Regardless of the final solution, a predetermined set of criteria should be used for determining what remains and what is eliminated. Figure 5-4 is intended for use in these right-of-way constrained areas.

Figure 5-4 demonstrates how criteria can be used to evaluate context sensitive solutions. As illustrated in Figure 5-4, different transportation modes have greater importance given the particular context (high priorities are indicated in maroon, medium priorities in yellow, and low priorities in gray). For example, mixed use streets place a higher emphasis on wide sidewalks and intermodal intersection designs. Transit avenues have allowances for bicycle amenities to promote the use of buses without requiring large surface parking lots. Commercial streets that function as collectors focus on interconnectivity and on-street parking. Each of these considerations can be blended to design a corridor that travels from residential to mixed use and then to industrial without necessitating different right-of-way widths. In Tomball, Cherry Street is a great corridor candidate to apply a mix of context sensitive solutions.

Access Management

Access management concepts help to minimize transportation conflicts when individuals are making turns in and out of driveways by limiting their turning opportunities and options. The implementation of access management strategies along commercial and industrial corridors improves the safety and mobility of the corridors and often does so for a fraction of the price of rebuilding the entire roadway to achieve the desired mobility results.

Access management is the planning, design, and implementation of land use and transportation strategies (such as regulation of interchanges, intersections, driveways and median openings to a roadway) to manage the flow of traffic between the road and surrounding land.

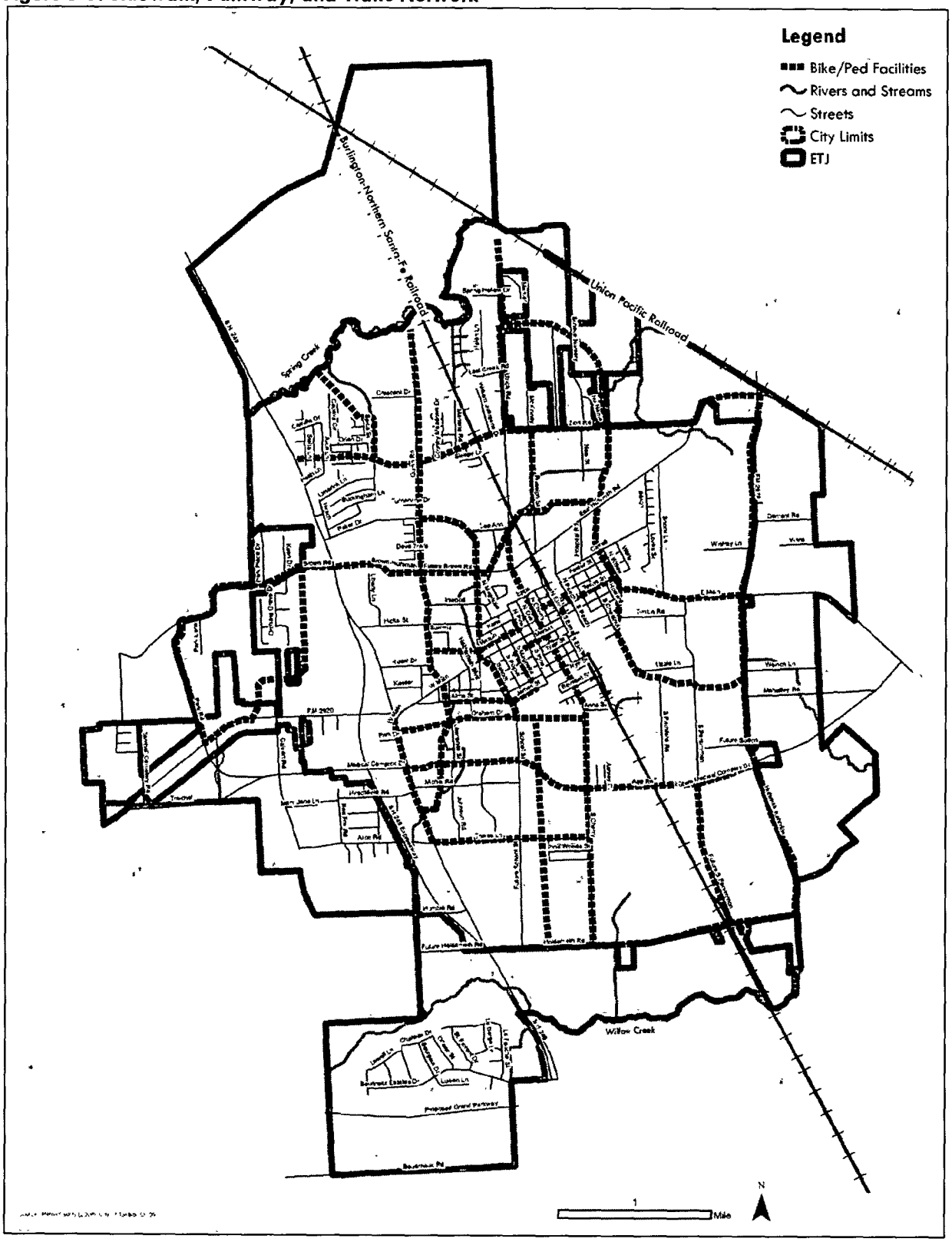
One of the simplest ways to begin the process of implementing access management strategies is to craft regulations within the City's subdivision ordinance that specify the desired impact on roads defined as collectors and arterial via the MTP. Through this type of regulation, the City will be able to set aside appropriate median and driveway spacing and minimize the future costs of redeveloping a corridor to accommodate access management strategies. These regulations include discussions of turning radii, shared driveways, median controlled turning movements, full and partial median openings, cross access requirements, and internal circulation requirements that will enable development to occur with the concepts of access management already applied through site design.

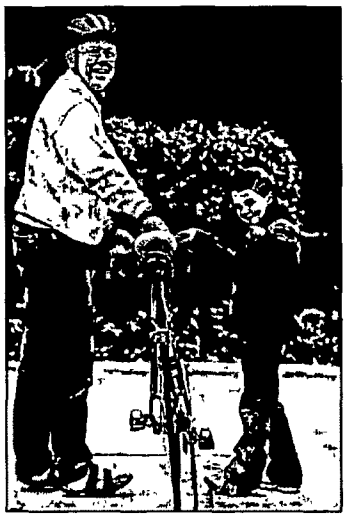
The City of Tomball has already partnered with H-GAC and TxDOT to develop the *FM 2920 Access Management Plan,* an effective strategy in managing access along high capacity corridors. As the City continues towards build out, other corridors that may warrant access management treatments include FM 2978, Medical Complex Drive, Brown-Hufsmith Road, Holderrieth Road, and Zion Road. The concepts of access management (controlling driveway openings, constructing channelized medians, and controlling network spacing) all have merits within congested transportation corridors; defining the applications for each corridor, however, will require additional analysis.

Pedestrian and Bicycle Network

The implementation of multimodal streets and pathways will allow Tomball's resident to access destinations such as a possible future commuter rail station, Downtown, Four Corners, parks, and area schools. The proposed network of sidewalks, pathways and/or trails is reflected in Figure 5-5 and is intended to accommodate a mix of pedestrian, bicycle, and equestrian activity.

Figure 5-5: Sidewalk, Pathway, and Trails Network





Staged implementation of this network will be necessary in order to provide the most pertinent service in areas where it is desperately needed. Priority needs include pedestrian access around the medical campus, pathways that connect the large park complexes and schools within the City, and selected areas within Downtown that currently lack these amenities. By starting with these areas and then augmenting when feasible, the City can develop a fiscally responsible network of nearly 40 miles of sidewalks, pathways, and trails. Implementation of some of these corridors can be integrated into the reconstruction of streets and the Context Sensitive Design Classifications table (Figure 5-4) can provide guidance.

While Figure 5-5 was intended to be a guide for a regional network, as subdivisions are developed and a desire for connectivity within the subdivision emerge, additions to the network should be examined. This can be accomplished through a connectivity index that would require a certain level of interconnectedness for trails and streets within subdivisions so that residents are not required to get in their car for trips within their subdivision.

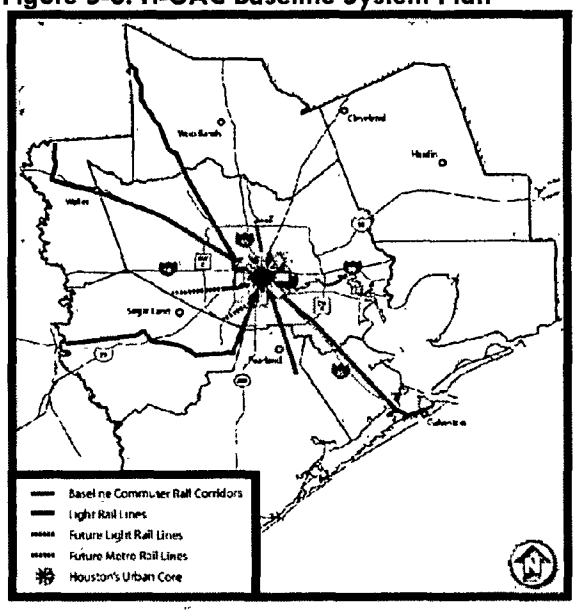
Transit Options

The transportation amenities provided by the BNSF Houston railroad segment through Tomball allow for the long range planning of a future commuter rail service that would provide a transportation option for residents who access downtown Houston and other major employment center within the region (Figure 5-6). By planning for and supporting transit friendly development concepts near the potential location of the Downtown future commuter rail station, Tomball can position itself for a rail station that would provide a much needed and desired transportation option. Development concepts shown within the Future Land Use Plan near the proposed future commuter rail station reflect desirable densities to support transit oriented development while allowing for parking and shopping amenities to be provided for residents and regional rail commuters (from communities including The Woodlands). The City Council has already taken the step of informing regional transportation entities of their desire for a future commuter rail station once the SH 249 commuter rail line on the BNSF Houston Subdivision becomes active. Proactive planning can capitalize on mechanisms to capture the increased tax base

associated with transit oriented development, helping to pay for some of the infrastructure that would be necessary around the potential station. However, if future commuter rail is eliminated for Tomball, land uses in and around the proposed location should be reevaluated.

Another concept identified by participants of the comprehensive planning process has been the implementation of a transit circulator that would provide residents and visitors access to Downtown, Four Corners, the medical campus, and Lone Star College-Tomball. Further study of route specifics and costs would need to be completed before implementation could occur. However, there are potential regional, state, and federal dollars that could be harnessed to pay for the initial operation of such a circulator route. These funding options would require certain hours of operation and specify destinations, such as the medical campus, to provide residents who cannot operate a motor vehicle with an alternative form of transportation. Working in partnership with Harris County, H-GAC, and TxDOT, Tomball should examine the feasibility of operating a transit circulator to enhance mobility.

Figure 5-6: H-GAC Baseline System Plan



Railroad Corridor

The freight railroad operations that currently exist along the Union Pacific (UP) and BNSF railroad corridors within the City of Tomball will continue to operate and provide a transportation amenity to the industrial businesses. Once the implementation of the future commuter rail service occurs, freight operations will likely go to a temporal separation (operating during the midday and at night). This type of operation could prompt the City to examine the need for Railroad Quiet Zones and to work with BNSF and UP for increased safety at crossing locations.

The transportation options provided by the rail provide an overall economic benefit as long as the businesses within the Business/Industrial land use designation are able to access the freight capabilities of the railroad infrastructure which will in turn reduce their dependence on commercial truck traffic. Supporting

rail opportunities is essential to increasing the number of jobs available to Tomball's residents while minimizing the overall impact to the roadway infrastructure. It is likely that local customers that are currently utilizing the railroad corridor for industrial purposes will continue to be served as a part of the overall operating agreement as set forth by the operator of the future commuter rail service and BNSF. However, in order to provide service to future businesses, the City should partner with the regional agencies to ensure that these connections continue to be available well into the future.

Complying with Federal, State, and Local Requirements

In order to comply with ADA requirements, the City should adopt a five-foot minimum sidewalk design criteria as a standard. Additionally, the City should conduct an ADA transition planning exercise, whereby crosswalks and sidewalk amenities that currently exist can be catalogued for future improvements as roadways and parcels redevelop.

SAFETEA-LU and the upcoming Federal Surface Transportation Legislation dictate how regional agencies such as H-GAC and TxDOT are able to program monies for transportation improvements. Generally, these requirements include environmental documentation, provisions for all users to access a facility, and cost-benefit analysis for all new roadway constructions. As long as Tomball is not using federal funding, many of the federal requirements do not apply, however they are still valid planning concerns for overall mobility and should be incorporated into the City's development standards.

Sources:

California Department of Transportation (2009)
City of Tomball (2008, 2009)
FM 2920 Major Thoroughfare Plan (2009)
Harris County (2008)
Harris County Toll Road Authority (2009)
Highway Capacity Manual (2009)
Houston-Galveston Area Council (2008)
Texas Department of Transportation (2009)

6 Economic Opportunity

INTRODUCTION

During the comprehensive planning process, residents of Tomball expressed their desire to have a strong local economy. One of the key Vision components is to build a "strong regional center with thriving businesses and jobs." A mix of large and small employers supported by quality education and training infrastructure is desired.

Many of the future desires, such as a trails system and transportation improvements will be made possible through the tax revenues generated by a strong economy. Similarly, the desire to have "a vibrant Downtown and heart of the community" will not happen by itself. It will require investment in retail, employment centers, and the Downtown to create a business climate that will spur further investment from the private sector.

According to data provided by the Tomball Economic Development Corporation (TEDC) for 2007, the top three largest employers, Tomball Regional Hospital, Tomball Independent School District, and Lone Star College, provide a large percentage of the overall jobs. In most communities this reliance on just a few job sources would be a concern, but health care and education industries show stability through economic cycles putting Tomball at an advantage. However, that does not mean Tomball should not take bold steps to diversify the local economy. Through the allocation of 25% of sales tax dollars to economic development and the establishment of the TEDC, the community is well positioned to take advantage of economic opportunities.

A stark reality is that Tomball is heavily dependent on tax revenues generated by retail sales. It is important to remember that while the growth of the overall local economy and creation of jobs is desired, attention and support must be given to the retail sector to ensure the maintenance of a strong revenue base.

KEY ISSUES

An important part of any economic strategy is to take a realistic look at what the community has to offer and what it needs to improve in order to be more competitive. One tool often used for this exercise is the SWOT Analysis that identifies a community's strengths, weaknesses, opportunities and threats. From the SWOT Analysis, several key economic issues and opportunities have been identified that provide the foundation for economic development strategic planning.

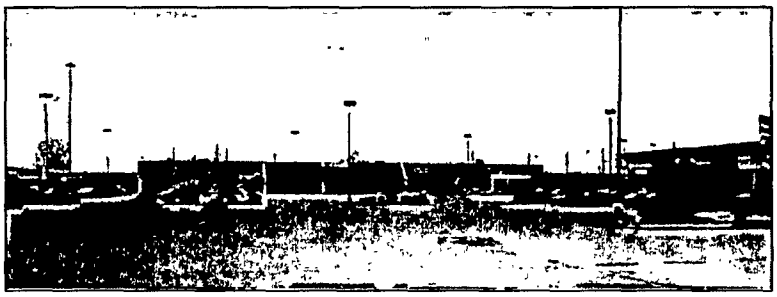
Economic Issues

More Regional Competition

For many years, Tomball enjoyed a position as a regional shopping and activity hub. With two major regional transportation routes and a collection of communities around Tomball too small to support their own retail and service bases, many traveled to Tomball for basic goods and services. In the past decade, several of the communities around Tomball have grown and now, or will soon have, major retailers, service providers, and entertainment venues that compete directly with Tomball. Ensuring that Tomball remains competitive is critical, particularly since the community depends so heavily on retail sales tax revenues.

Aging Commercial Base

Many of Tomball's commercial buildings and shopping centers have reached or are nearing the end in their effective lifecycles. As new buildings and centers are built, the viability of these older establishments is put into question. Reinvestment in these older facilities will be necessary to keep the community an attractive and sustainable commercial center.



Tomball Center at southwest corner of FM 2920 and Business 249

Adjusting to the Bypass

Texas Department of Transportation (TxDOT) 2007 traffic counts on SH 249 and Business 249 show 49,000 vehicles per day traveling in the southern portion of Tomball and 43,000 vehicles per day on the northern portion. Data does not reflect how many are specifically using the bypass or the business route, but it is safe to assume many of these vehicles are not traveling through the Four Corners area as they would have in the past. Tomball will need to provide unique goods, services and experiences to get people off the Bypass and into the community.

Congestion

Traffic congestion lengthens the time it takes to get to, through, and out of the community. Congestion can reach a point where people will decide to take their business elsewhere. Congestion can also be a good sign – it is caused by people wanting to be somewhere such as a vibrant Downtown area. The key will be to balance the desire to bring people to the community with the ability to move them around.

Land, Building, and Infrastructure

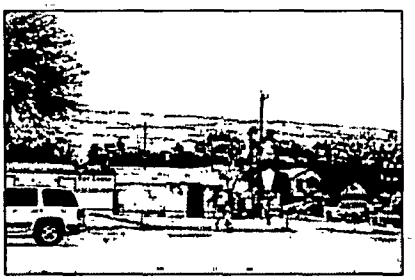
Successful economic development efforts are dependent on the community's ability to provide adequate shovel-ready sites, building spaces, and infrastructure. It is no longer enough to have land zoned for employment-type uses though that is a good first step. The Future Land Use Plan has identified new employment corridors that offer opportunity to diversify the local economy.

Minimal infrastructure (water and sewer services) is available in the employment corridors posing a challenge to attracting business to the area and roadway improvements and new facilities would be needed to service the area. Further planning will be needed to address both public and private infrastructure deficiencies to make the area a viable economic development asset.

Rail Corridor

Significant undeveloped or sparsely developed land in close proximity to the BNSF Railroad corridor is identified on the Future Land Use Plan as a key employment area. This area has been designated primarily for Business/Industrial use due to its rail access (including two rail spurs), ground transportation access (Holderrieth Road, Hufsmith-Kohrville Road and the proposed extension of Medical Center Drive), and proximity to David Wayne Hooks Airport. The area does not contain significant amounts of residential development that must be buffered offering opportunities for master planned business park development.

Economic Opportunities



Redevelopment opportunity on Main Street

Downtown Revitalization

Creating the vibrant community core that is desired by residents will be a challenging undertaking. It is not enough to wish that Downtown will be a vibrant area destination. It is going to take a concerted effort by City leaders, local businesses and residents, and new investors. Downtown revitalization is often achieved due to the development of some type of catalyst. Future commuter rail to the Downtown area could spur new retail and services as well as new housing to the area.

Building upon the work completed in the *Livable Centers Downtown Plan*, the Comprehensive Plan is the next step in the process. The Plan identifies an Old Town land use that is intended to encourage economic revitalization while maintaining the charm and character of surrounding neighborhoods. A revitalized Downtown will serve the residents and also act as a magnet for tourists visiting Tomball bringing in new revenues because of its heritage and unique shopping and dining opportunities. Downtown revitalization, however, is more than façade improvements and installation of brick pavers. It is critical to examine the competiveness of the existing business mix, recruit new businesses that are compatible with the area, and explore new economic opportunities for Downtown. Moving forward with appropriate infill development strategies, exploring underutilized property for reuse, thinking differently about circulation through Downtown, providing transitions between commercial and residential neighborhoods, and improving pedestrian mobility through the implementation of the Comprehensive Plan will encourage private investments that are crucial to Downtown's long term vitality.

Maximize Economic Benefits of World Class Health Care Industry

According to the TEDC, 1,700 people are employed at Tomball Regional Hospital and many others are employed in the additional support businesses and offices in the medical campus. Tomball Regional Hospital includes several Centers of Excellence or specialty care facilities such as the Robert F. Schaper Heart Center and Cancer Center. Today, Tomball Regional Hospital offers heart surgery, diagnostic testing, magnetic resonance imaging, intensive cardiac care, family centered birthing suites, emergency room services, outpatient surgery, sports medicine, and much more. Supporting Tomball Regional Hospital are numerous healthcare specialists. Based on the 2000 United States Census, where there were only 4,742 Tomball residents in the workforce, it would seem unrealistic that nearly four out of 10 Tomball residents in the workforce are employed at the hospital. Therefore, a significant number of employees at the hospital live elsewhere and probably take their paychecks and economic impact with them.

Tomball Regional Hospital

Another important asset of the medical campus is the number of facilities that provide assisted care for elderly residents. These facilities offer a personal and informal home-like environment for residents over 55. As the population continues to age in Tomball

and across the country, providing the full spectrum of health care and ensuring residents' quality of life remains high is a land use and economic issue.

There is significant available land within this medical campus for future expansion. On the Future Land Use Plan map, the medical campus has been designated Employment/Office encouraging the expansion of existing businesses and the location of new medical-related activities. Additional planning is necessary to ensure the preservation of land to accommodate health care industry expansion and ensure reliable infrastructure such as power, telecommunications, water, and sewer. There is limited convenient and safe access between the medical campus and Tomball's shops, restaurants, and activity centers. Improving access could increase the customer base from medical campus employees, patients, and visitors for surrounding retail and services.

Educational Facilities

In addition to the Tomball Independent School District (TISD), its fourteen schools and almost 10,000 students, Tomball is served by the Lone Star College campus located in the northwest portion of the community along SH 249. Like the medical campus and affiliated activities, this is a tremendous asset for a community of Tomball's size.

The Lone Star College System has also recently purchased the core of the Hewlett Packard North Campus on SH 249 at Louetta Road just south of Tomball. The purchase adds an additional 1.2 million square feet of space and includes parking garages and other support infrastructure.

In all, Lone Star College System had enrolled more than 58,000 students in credit courses on five colleges and six satellite campuses as of fall 2009, and another 17,000 students in non-credit courses.

Tomball can leverage its education and training assets to supply some of the larger industries in the community and attract new businesses searching for a well educated and trained workforce.

Diversified Employment Base and Commercial Core

Tomball is currently heavily dependent on the education and health care employment sectors. As mentioned previously, this is not necessarily a negative. However, there are opportunities to diversify and expand the employment base due to the community's strategic location and its access to rail, airport, education, and training facilities.

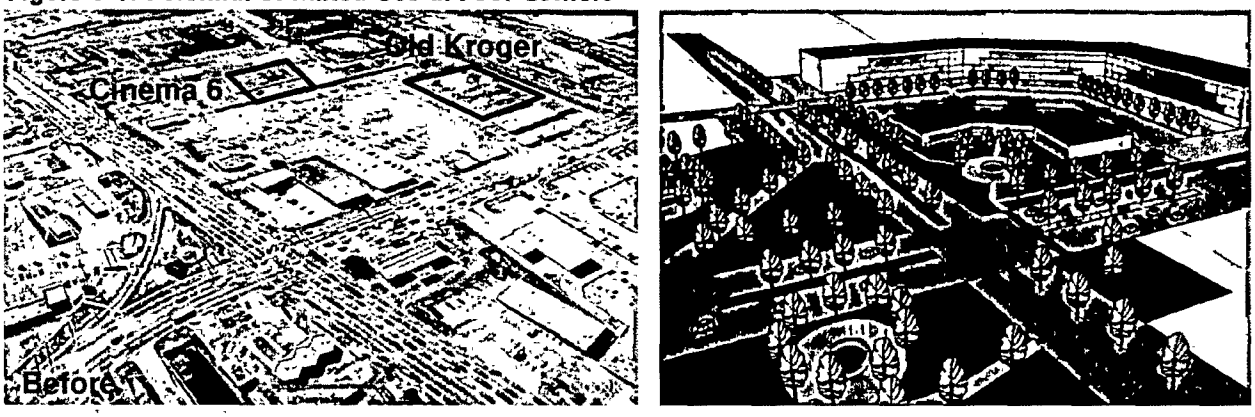
Tomball also currently relies on traditional shopping centers as its commercial core. Some of these developments are underutilized and most are not pedestrian-oriented. As the uses transition and these properties are remodeled or redeveloped, innovative design and a better mix of uses should be encouraged to keep these important properties viable.

For example, the Comprehensive Plan identifies Four Corners as an area that does not represent the highest and best use of the land area. Over time, as the economy of the region changes, Four Corners could redevelop as a major mixed use activity center. This important entry point to Tomball could be redeveloped to provide a stronger sense of place, pedestrian orientation, and maximize the economic potential of its location. Another aspect of the Four Corners redevelopment is the opportunity to reintroduce trees and landscaping to the medians, around the development and internal to the projects showcasing the area as a reflection of Tomball's commitment to the environment.

During the comprehensive planning process, the Tomball Center, at the southwest corner of FM 2920 and Business 249 (the former location of the Kroger Grocery Store), was examined for reuse. This area includes an outdated land use pattern and offers an opportunity to redevelop at a higher mixed use intensity allowing commercial and employment uses. Potential opportunities include a multi-story office complex on the site with smaller supportive commercial/retail land uses (Figure 6-1). The intent is to expand the mix of land uses at this important corner instead of continuing typical, outdated shopping centers anchored by grocery stores.

The southeast corner currently is a mix of commercial uses surrounding the HEB grocery store without a strong sense of character. The parking lot is large and the circulation pattern is haphazard with people traversing the parking lot like a street to get to the various uses in the shopping center. Economic

Figure 6-1: Potential of Mixed Use at Four Corners



opportunities exist if this area can be better connected to the medical campus, surrounding neighborhoods, and Old Town. Initial conceptual planning envisioned this area as a pedestrian-oriented development where a mix of, entertainment, commercial, and potential high density housing are intermixed, not unlike The Woodlands Town Center area.

Aviation-Related Activities

The City of Tomball has its regional airport needs met by David Wayne Hooks Memorial Airport. Hooks Airport is a regional airport that services chartered/fix-based operation (FBO), general aviation, and government/military flight operations. Hooks has a 7,000 foot runway, top-notch restaurant, terminal, and is one of the few privately owned airports in the U.S. to be equipped with its own Federal Aviation Administration (FAA) air traffic control tower.

Hooks Airport is a tremendous asset to the region. Although the airport is in the City of Houston's extraterritorial jurisdiction (ETJ) and is privately owned, it is still an economic asset to Tomball. Tomball may want to continue to explore economic opportunities related to Hooks Airport such as attracting aviation-related industries and working with the airport's owner to expand airport services.

ECONOMIC OPPORTUNITY (EO) GOAL, OBJECTIVES, AND ACTIONS

The following Goals, Objectives, and Actions present the City's planning and development policy in the Comprehensive Plan. They will provide the basis for the City's evaluation of future development proposals and community planning implementation.

Goal EO 1	**Grow, diversify, and evolve Tomball's economy to raise the standard of living, create new employment opportunities, and generate revenues so the City can provide quality public services and amenities.**
Objective EO 1.1	**Maximize economic benefits from Tomball's medical campus.**
Action EO 1.1.1	Establish a Medical Campus Specific Area Plan in order to institute land use restrictions and development standards that promote and protect Tomball's medical industry.
Action EO 1.1.2	Protect the medical campus area from incompatible uses that could hamper future expansion opportunities.
Action EO 1.1.3	Identify other areas in the community that could be used to accommodate support businesses for the medical campus.
Action EO 1.1.4	Encourage the development of businesses in close proximity to the medical campus that can serve the large number of employees and patient visitors in the area.

Action EO 1.1.5	Provide improved multimodal connections to the medical campus from the community's businesses and activity centers.
Action EO 1.1.6	Support education and training programs at the local and regional schools and colleges to support and supply the medical campus and emerging medical-related businesses.
Objective EO 1.2	**Maximize economic benefits from Lone Star College.**
Action EO 1.2.1	Protect Lone Star College from incompatible uses that could hamper future expansion opportunities.
Action EO 1.2.2	Encourage the development of businesses in close proximity to Lone Star College campuses that promote and support education and training opportunities.
Action EO 1.2.3	Provide multimodal connections to Lone Star College campuses from the community's activity centers.
Action EO 1.2.4	Develop education and training programs that support the medical campus and emerging medical-related businesses.
Objective EO 1.3	**Maximize economic benefits from future commuter rail.**
Action EO 1.3.1	Maintain an active role in regional transportation planning to ensure that the economic benefits and opportunities are a part of the discussions related to expansion of future commuter rail in Tomball.
Action EO 1.3.2	Develop a specific area plan for the Downtown location of the future commuter rail station and surrounding area including the identification of needed capital projects.

Action EO 1.3.3	Evaluate Downtown development proposals to ensure compatibility with long term planning of the rail station area.
Objective EO 1.4	**Build and support partnerships with local and regional entities and economic stakeholders.**
Action EO 1.4.1	Support workforce preparation in local schools and colleges.
Action EO 1.4.2	Work closely with the Greater Tomball Area Chamber of Commerce (GTACC) to support and attract local businesses.
Action EO 1.4.3	Collaborate with the TEDC to retain and expand the community's employment base.
Action EO 1.4.4	Monitor the local and regional business mix to identify gaps, opportunities, and transitional uses.
Action EO 1.4.5	Support efforts to develop local entrepreneurs and homegrown businesses.
Action EO 1.4.6	Partner with utility and other service providers to ensure high quality, sustainable service provision.
Action EO 1.4.7	Work closely with the GTACC, TEDC, and real estate industry to fill vacated or transitioning commercial buildings with incubator space or other unique business platforms.
Objective EO 1.5	**Develop Downtown as a vibrant community core and visitor destination.**
Action EO 1.5.1	Develop a Downtown Specific Area Plan that includes commercial, employment, and residential components and expanded and improved pedestrian access.

Action EO 1.5.2	Work closely with TxDOT to explore improvements for FM 2920 through the Downtown area.
Action EO 1.5.3	Support regular events, activities, and celebrations and develop/expand venues to host them.
Action EO 1.5.4	Develop a Downtown Plaza area plan that designs the community plaza and integrates it with overall Downtown redevelopment and provides a pedestrian connection to the historic Depot area.
Action EO 1.5.5	Develop and implement a strategy to develop public art and cultural amenities in Downtown.
Objective EO 1.6	**Maintain Tomball's economic competitiveness.**
Action EO 1.6.1	As part of the annual budget process, review taxes, rates, and fees and prepare a Tomball competitive analysis that compares Tomball with other cities in the region.
Action EO 1.6.2	Invest in the maintenance and development of the community's infrastructure to support and attract businesses.
Action EO 1.6.3	Maintain a portfolio of potential business incentives for consideration.
Action EO 1.6.4	Maintain timely permitting and review processes and enforce codes and ordinances to protect investment.
Action EO 1.6.5	Maintain codes and policies to support home-based businesses while ensuring the integrity of neighborhoods.
Objective EO 1.7	**Maximize the benefits from local employment.**

Action EO 1.7.1	Maintain a broad mix of housing options so that those working in Tomball at all levels can choose Tomball for their residence.
Action EO 1.7.2	Support quality local schools to encourage employees who work and live in Tomball.
Action EO 1.7.3	Support the development of a mix of retail and entertainment options to minimize economic leakage.

ECONOMIC PLAN

Financially and statutorily, there are limits as to how much a municipality can do to maintain a successful economy. Location, regional issues, and the overall business climate play major roles in determining success. That is why the ongoing efforts of organizations like the GTACC and TEDC are so critical to carry out the tasks that the City cannot. However, the City of Tomball is on the front lines of several key components that have significant influence on community's economy success.

Land Use

Chapter 4 ("Land Use and Development") identifies the areas in Tomball appropriate for the expansion of the employment base. The areas identified are classified as Commercial, Employment/Office, and Business/Industrial. There is a balance among these three economic land uses and they have been located for specific reasons (e.g. proximity to transportation systems, existence of public infrastructure, adequate land area). It will be necessary for the City to protect these sites from incompatible uses and short term market forces that may pressure the City into changing these land uses.

A mix of housing choices is also critical for business development and encouraging employees of the jobs being created to live in Tomball. People tend to spend more of their income where they live than where they work. To receive the most economic benefit from every job created, Tomball needs to encourage employees to

choose Tomball as their home. Chapter 4 ("Land Use and Development") identifies rural, low, medium, and high density residential areas and mixed use areas with a residential component that can accommodate a wide variety of housing types. The City should work to maintain a housing balance to support economic development efforts.

Tax and Regulatory Structure

Tomball is well positioned to be competitive in bringing new businesses to the community, encouraging the expansion of existing businesses, and the start-up of new ones. The tax structure is favorable and a balance should be maintained between tax rates and community needs.

The City should maintain its business-friendly regulatory structure so that all businesses are dealt with in a fair, timely, and professional manner. The Zoning Ordinance should also be maintained to ensure that it compliments the land uses on the Future Land Use Plan. Code enforcement is also critical to protect investments already made in the community.

Organizational Support

The City provides support to numerous local and regional organizations involved directly and indirectly with economic development. Support should continue for those entities that help to move the City toward its economic goal. This includes partnering on projects and maintaining current data to be used when requested by partnering entities.

Infrastructure and Amenity Development

Well maintained infrastructure with adequate access, capacity, and reliability is key to business attraction. Those looking to invest in a community are also looking at the type and quality of amenities (e.g., recreation facilities, activity/entertainment centers) as part of their decision making process. Through the City's capital

improvements plan process, investments should be made in these areas to strengthen Tomball's overall position.

Public Safety

Low crime rates, personal safety, and protection of property are key location factors for businesses. Maintaining strong and responsive public safety services is a prerequisite for successful economic development and investment attraction.

Regional Collaboration

The City should continue to work closely with regional partners such as nearby communities, TxDOT, and Houston-Galveston Area Council (H-GAC) to address regional issues pertaining to transportation, air quality, water conservation, and overall quality of life in order to enhance the regional economy. A strong regional economy will benefit Tomball even if economic opportunities do not fall within the city limits.

Incentives

At times there may be opportunities presented that will require the City's financial or regulatory participation. Incentives such as the extension/development of infrastructure, tax abatements, and fee waivers are used by municipalities all over the nation to attract desired economic development projects. The City should maintain a portfolio of options and perform a detailed cost/benefit analysis of each potential project that quantifies the short-, mid-, and long-term consequences of any potential incentives proposed. It should be remembered that sometimes seemingly good projects should be rejected when they do not adhere to the community's long-term vision or cannot be economically quantified.

Sources

Hooks Airport (2009)
Lone Star College (2009)
Texas Department of Transportation (2007)
Tomball Economic Development Commission (2007)
Tomball Independent School District (2008)
United States Census Bureau (2000)

7 Parks and Recreation

INTRODUCTION

There are roughly 480 acres of parks currently designated within the Tomball and its extraterritorial jurisdiction (ETJ) that are maintained by the City and Harris County for the enjoyment of residents. This acreage does not include athletic fields that are adjacent to school facilities nor does it include an additional 65 acres of parks that Harris County currently has programmed for development within close proximity to Tomball. The amenities that exist at each of the parks differs, but each includes amenities such as covered pavilions, lakes, basketball courts, picnic facilities, playgrounds, walking and biking trails, municipal swimming pools, and volleyball courts.

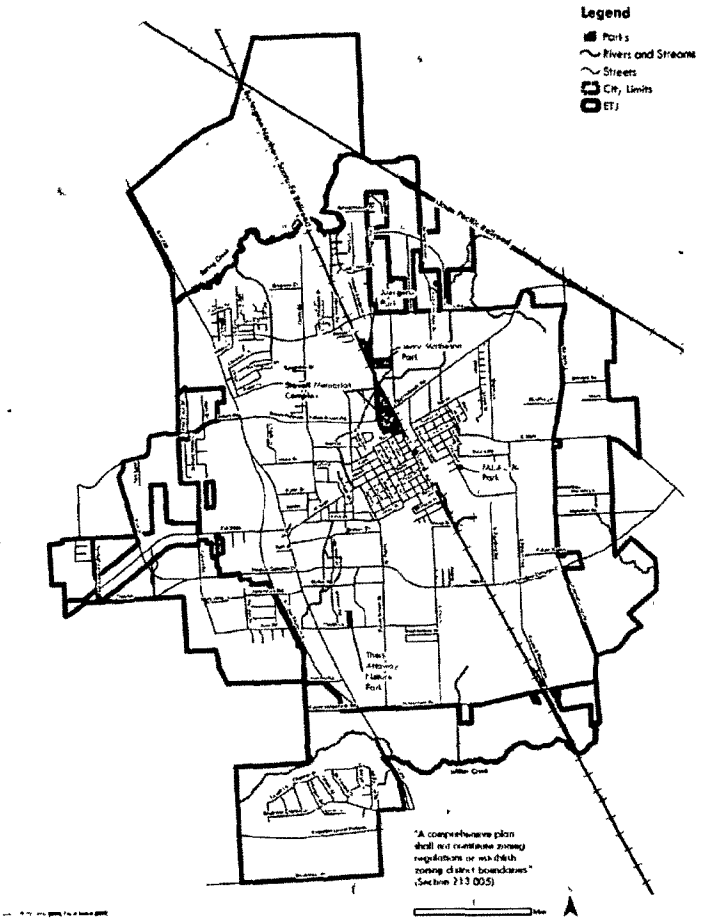
On average, communities within Harris County provide 10 acres of park space per 1,000 residents. Tomball currently provides approximately 45 acres per 1,000 residents when including nearby County park space. With the additional acreage found in school athletic and private facilities, this ratio improves. However, this chapter's focus is on park and open space areas that are not school owned. By 2030, it is estimated that the population will grow to over 31,000 and the park acreage will increase by at least 65 acres. At that time, the park ratio will be approximately 17 acres per 1,000 residents, which still exceeds the National Recreation and Park Associations recommended goal of 10 acres per 1,000 population.

Figure 7-1 depicts five separate park complexes in Tomball that together provide a range of park amenities. Theiss Park, for example, is a passive park focused on displaying the natural environment in which Tomball was originally built. Juergens Park, on

the other hand, is a typical suburban park with shade trees and walking trails. Stovall Memorial Park Complex is a recreational park complex that focuses on providing athletic fields and playground amenities. Each of these parks serves a different purpose within the community and Tomball residents access each park based upon their unique needs.

Recent developments in park space planning have called for additional, popular amenities such as skate parks and splash pads, and communities throughout the region are starting to implement these types of parks spaces within their overall parks plan. Figure 7-1 provides an illustration of the current parks within the planning area.

Figure 7-1: Existing Recreational Opportunities



KEY ISSUES

Passive Open Space

Cities around the country are finding that residents also desire a natural setting for recreational purposes. Tomball has creek and stream assets that could be reserved through an open space preservation program. Generally, open spaces are not intended to be intensely developed and typically provide passive amenities, such as natural paths/trails. Passive open spaces can also serve a dual purpose as low maintenance athletic fields (i.e. soccer fields) where topography and space allow.

Increased Recreational Amenities

Within the current City parks, residents, including Tomball's youth, identified a need for additional recreational amenities including skate parks, walking trails, and picnic facilities. Tomball Independent School District (TISD) students suggested a recreational lake, community amphitheater, amusement park, and camping facilities that families could enjoy. In reviewing current parks and facilities, a skate park concept is feasible at the old municipal pool site and land adjacent to Main Street might make for a great public plaza or gathering space (further described in Chapter 4's Old Town discussion).

Pedestrian and Bicycle Pathways

Communities that integrate pedestrian and bicycle pathways into their overall master planning are able to incorporate the desired types of facilities as areas redevelop or roadways are reconstructed. In addition to designating pathways, streets that are in close proximity to the Depot, the future commuter rail station, and Old Town shopping areas could benefit from wider sidewalks so that patrons are able to utilize the Downtown parking concepts discussed within the *Livable Centers Downtown Plan*. Overall, Tomball lacks a coordinated pathway and trails plan and as such, this Plan recommends developing a parks and trails master plan to protect and expand recreational amenities.

Protecting Natural Amenities

Tomball has expressed the importance of preserving the natural environment within the area. As development and growth continue, this has become an even more important issue to residents. The existence of large trees, whether on the street or set throughout a parcel, is a nostalgic characteristic Tomball residents want to see preserved and proliferated. However, natural amenities extend beyond tree-lined streets and parcels and residents do not welcome development that clear-cuts mature trees from parcels. Development that integrates natural vegetation and preserves wetlands, undevelopable natural areas, and mature trees is desired by residents.

PARKS AND RECREATION (PR) GOAL, OBJECTIVES, AND ACTIONS

The following Goals, Objectives, and Actions present the City's planning and development policy in the Comprehensive Plan. They will provide the basis for the City's evaluation of future development proposals and community planning implementation.

Goal PR 1	**Develop an integrated open space and parks system, designed to accommodate future demand, which will be connected through a network of natural and paved trails throughout the community.**
Objective PR 1.1	**Develop a comprehensive park and trails master plan.**
Action PR 1.1.1	Promote multimodal uses including walking, biking, equestrian, and multiuse trails (as shown in Figure 5-5 of this Plan).

Action PR 1.1.2	Develop recreational trails to access and move within all park facilities.
Action PR 1.1.3	Develop a comprehensive trail system that accesses major destinations such as Downtown and the medical complex.
Action PR 1.1.4	Endeavor to connect pocket/linear parks throughout the community to the City facilities through an interconnected system of on- and off-street improvement.
Action PR 1.1.5	Work with TISD, Lone Star College-Tomball, Tomball Regional Medical Center, Harris and Montgomery county, local neighborhoods/homeowner associations, and other private property owners on cooperative park and trail projects.
Objective PR 1.2	**Promote open space preservation along creeks, floodplains, and regional water detention facilities.**
Action PR 1.2.1	Utilize the designated open space along Spring Creek to develop a nature preserve.
Action PR 1.2.2	Explore ways to construct regional detention facilities that can accommodate recreational opportunities in a safe manner within or surrounding these facilities.
Action PR 1.2.3	Strive to protect significant floodplain areas to mitigate flooding while providing recreational opportunities or other amenities that are not sensitive to flooding.
Action PR 1.2.4	Identify right-of-way and other areas to serve as open space to buffer other land uses and minimize impacts (e.g. noise).

Objective PR 1.3	**Develop increased recreational opportunities at existing facilities including repurposing facilities that are no longer needed.**
Action PR 1.3.1	Identify opportunities to improve existing parks such as new facilities, additional fields, and alternative park concepts.
Action PR 1.3.2	Examine repurposing the former municipal pool into another recreational opportunity, such as a skate park.
Action PR 1.3.3	Work with Harris and Montgomery counties to increase recreational opportunities and access by examining ways to connect such facilities through the City's trail system.
Objective PR 1.4	**Promote the development of linear and pocket parks within new developments to meet the future demand for proximate park space.**
Action PR 1.4.1	Examine the development ordinances pertaining to new developments to provide a density bonus structure that would allow for the creation of pocket/linear park space within the new subdivisions.
Action PR 1.4.2	Continue to develop the desired trail and park systems by allowing for a fee-in-lieu in smaller, new developments.
Objective PR 1.5	**Enhance, maintain, and grow Tomball's inventory of street trees.**
Action PR 1.5.1	Require appropriately sized, landscaped parkways in all new development to ensure parkways have sufficient width to allow planting of canopy trees.

Action PR 1.5.2	Utilize neighborhood and expert input to develop and periodically update a palette of acceptable street tree species structured around Tomball's natural environment and its neighborhoods.
Action PR 1.5.3	Seek ongoing cooperation from residents in the maintenance, conservation, and protection of street trees.
Action PR 1.5.4	Encourage trees on private property to add to the City's urban forest.
Action PR 1.5.5	Develop a program to ensure adequate tree trimming cycles as well as to replace any lost trees.
Objective PR 1.6	**Protect existing trees during development projects.**
Action PR 1.6.1	Create and implement a policy that would require developers to have an approved site and landscaping plan before clearing and grubbing permits could be issued.
Action PR 1.6.2	Create and implement a policy where developers could pay for or plant trees in other parts of the City at a tree inch-for-tree inch basis if they choose to remove existing trees from their property.

PARKS AND RECREATION PLAN

Parks

The residents of Tomball currently enjoy park space at a rate that is four times the national and regional average. Because the City is projected to triple in population by 2030, public outreach activities of this planning effort asked residents about their desires for more park space as the City grows. Overall, residents did not feel a

strong need for additional large parks (such as the Stovall Memorial Complex or Juergens Park). However, there was a desire for smaller neighborhood parks to meet the needs of local residents without requiring the use of an automobile for access. The projected park space ratio of 17 acres per 1,000 residents in 2030 seems to support the perception that Tomball enjoys enough regional park space without designating further areas for parks. The Future Land Use Plan generally bears this concept, however, the connected park core that includes identification of TISD athletic fields was added to the Future Land Use Plan to preserve these facilities and/or location as park space should the school ever relocate.

Enhancing Existing Parks

As previously mentioned, residents have desired enhancement of existing parks rather than outright expansion of a park network. The recommended parks and trails master plan, once completed, will identify amenities to be provided, locations of potential parks, a staged implementation plan, and funding strategies. By understanding the opportunities for increased park amenities that would be born out of a parks and trails master plan, the City will be better suited to plan appropriately for changes within current parks during the annual capital improvement projects planning process, as well as during the construction of facilities that could serve a dual purpose such as regional detention facilities being used as soccer fields. Additionally, the City should prioritize the implementation of a pathways/trails system to connect the current parks through means that would allow for all residents to comfortably access the adjacent facilities.

Creating Neighborhood Parks

Neighborhood parks provide a space for residents to gather within close proximity to their homes. These parks may range from one to five acres depending upon the size of the residential area that surrounds the parks space. Neighborhood parks include amenities such as playground equipment, benches, small pavilions, and sometimes, a small multipurpose athletic field.

In order to continue to meet the localized need for park and recreation space, the Plan recommends that the City examine the implementation of a parks policy within subdivision and development regulations that allows for the clustering of

development or the use of density bonuses within large subdivisions to create pocket or linear parks. This kind of policy would not create an additional burden for development, rather it would allow for smaller lots within portions of the overall development so that space could be made available for parks. It should be noted, however, that the overall density of the development shall not exceed the maximum densities allowed per the approved zoning designation. For smaller developments, those under five acres, a fee-in-lieu system that would allow developers to pay the city a sum of money equal to the market value of the park space should be considered, allowing the City to purchase new park space or enhance current parks and open space amenities.

A **density bonus** is a planning tool that encourages developers to increase the density of a development (without increasing the total dwelling units) in order to preserve open space or provide park and recreational amenities.

A **fee-in-lieu** system is when an entity is allowed to pay a fee instead of implementing a requested measure.

Preserving Open Space

Designating areas as Open Space articulates that the community desires to protect these areas from future development or that land may not be suitable for development given floodplain or other environmental constraints. However, in order to actually preserve these areas as undeveloped open space, the City will need to examine options for permanently protecting these areas. Several options to protect and preserve open space are available for communities and are outlined below.

- Option #1: The City of Tomball may purchase lands designated as open space from the current owners, placing those lands in a trust so that they will never be developed.
- Option #2: The City of Tomball may work with the current owners transfer development rights, whereby the owners would be entitled to build at higher densities on the remainder of their available lands but not to exceed the overall number of units allowed on the entire tract.
- Option #3: The City of Tomball may work with the current land owners to purchase the development rights such that the land owners would still own the land but could not, by agreement, add buildings or other improvements to the property.

Transferring of development rights is a land use regulatory tool under which development rights can be severed from a tract of land and sold in a market transaction. The parcel from which the rights are transferred is then permanently restricted as to future development, and the purchaser of the rights may assign them to a different parcel to gain additional density.

In each of these cases, partnering with an outside party such as Harris County, Montgomery County, The Trust for Public Lands, or other conservation organizations is highly encouraged.

Protecting Natural Amenities

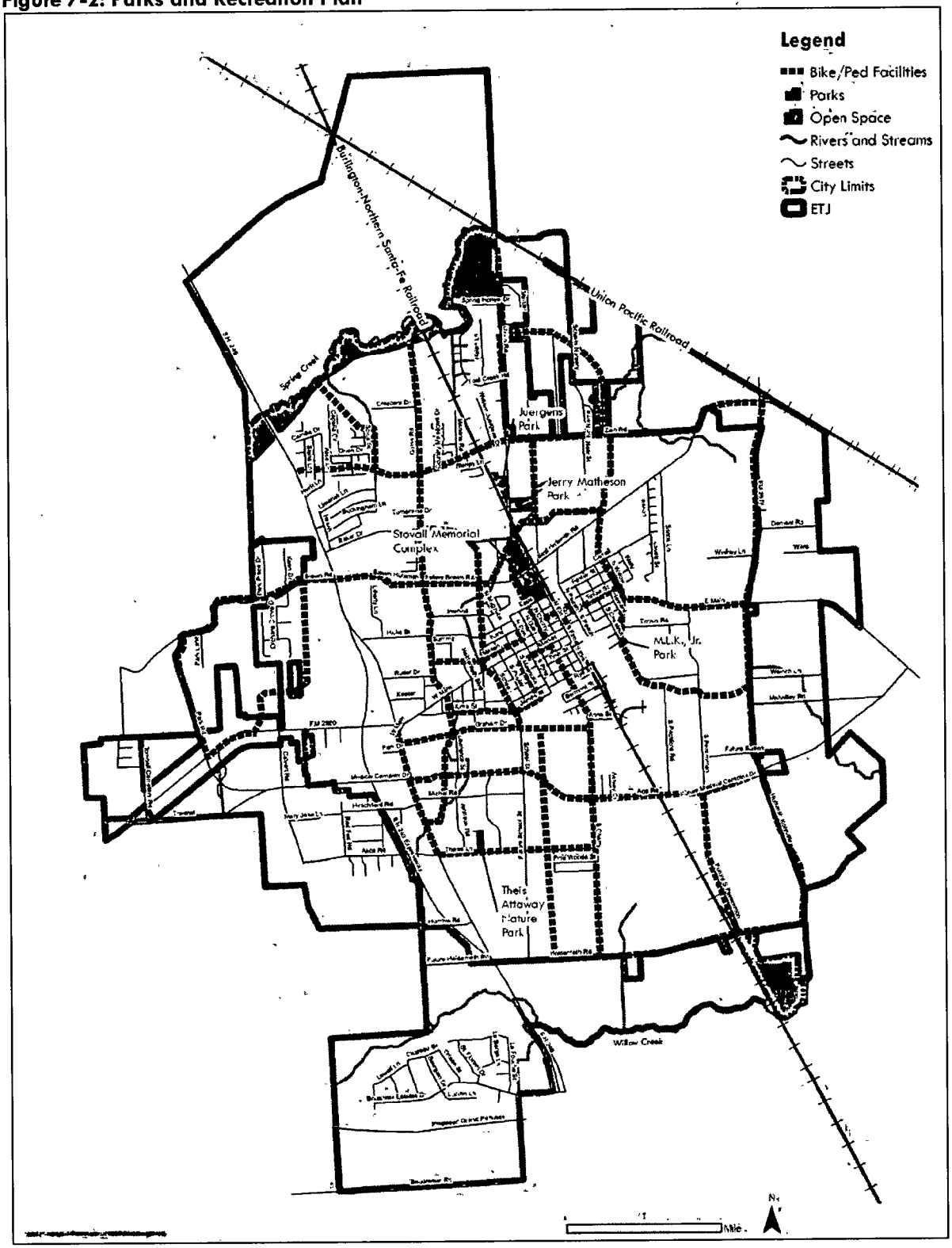
Preservation of the natural environment helps to create a sense of place and contributes to a rural/urban interface. While examining future ordinances as a result of this Plan's goals, objectives, and actions, the City should also examine mechanisms to protect the natural habitat existing within parcels that are undergoing development, and enhance, where possible, the natural amenities along streets and developed areas. This can be accomplished through landscaping requirements, development reviews that include an analysis of the existing habitat and preservation strategies, and the implementation of a street tree program that will create a sense of place and character within the developed areas of Tomball. Preserving slices of natural environment will help to enhance the parks and open space amenities that are planned throughout the City and create continuity throughout the community.

Pedestrian, Bicycle, and Natural Trails

Parks and open space amenities are valuable to a community because they promote a sense of place. However, connecting these facilities through a means other than the automobile is vital. The phased implementation of the proposed sidewalk, pathway, and trails network will be necessary for park and open space amenities within Tomball to reach their full potential. In addition, the implementation of trails and walkways within park and open space amenities will help to enhance the vibrancy of these areas by allowing people to recreate in active and passive forms which will foster a sense of community by encouraging residents to interact with one another.

Though the proposed pedestrian and bicycle facilities (Figure 7-2) are not intended to represent every amenity within the City, the construction of these kinds of facilities would provide a safe and vehicle-free means for pedestrians and bicycle riders to access Tomball. Reference Chapter 5 ("Circulation") for additional discussion on trail facilities.

Figure 7-2: Parks and Recreation Plan



Sources:

City of Tomball (2008, 2009)
Harris County (2008)
Livable Centers Downtown Plan (2009)
National Recreation and Parks Association (2009)

8 Growth Capacity

INTRODUCTION

Even though the community was settled over 100 years ago, significant population growth to the community has occurred since 1970. The population of Tomball grew from 6,370 in 1990 to 9,089 in 2000, representing a population growth of 55.3%. The 2007 population, according the U.S. Census Bureau is 10,281, representing an annual growth rate of approximately 2%. As mentioned in previous chapters, Tomball's population could roughly triple at some point in the future and accommodating the resulting increase in residents and businesses in an orderly, responsible fashion will be essential to Tomball's continued vitality.

The comprehensive planning process focused on a dialogue of how the community should maintain Tomball's quality of life while accommodating future growth. Citizens, business owners, and local leaders understand that new growth should enhance the community and not be a burden on existing residents. Tomball is located within one of the fastest growing regions in the country and this continued regional growth has and will continue to impact the community. Additionally, with the community mostly surrounded by the City of Houston's extraterritorial jurisdiction (ETJ), Tomball must be careful how its land and land uses are managed. Chapter 8 ("Growth Capacity") establishes policy guidance to ensure that the community's physical growth and redevelopment is managed in an effective and fiscally responsible manner.

In the development of this chapter, an examination of growth trends was conducted. Though the country has experienced a slow-down in the economy, the market is cyclical and growth will continue. Growth typically occurs from both a conversion of undeveloped

properties to a developed state, as well as from redevelopment of an existing land use. The objective is to ensure that Tomball is strategically positioned to manage new development and redevelopment.

KEY ISSUES

Water Supply System

Water is the most critical factor in determining the feasibility of future growth. Historically, providing water has simply been a factor of cost: drilling the wells, creating the storage system, and developing the delivery system. In recent years, the impacts of pumping water (subsidence) and the realization that it is not an infinite resource has changed the way of thinking about water. The movement toward developing surface water supplies has changed municipal water planning in the region.

The City is currently dependent on groundwater supplies. The capacity of the water supply system within the City of Tomball consists of ground wells, booster pumps, and storage facilities that exceed current average day demands, assuming that all facilities are operating normally. Tomball currently has four wells with a total pumping capacity of 3,872 gallons per minute (gpm) exceeding 5.5 million gallons per day (MGD). Additionally, the City has two elevated storage tanks with a capacity of 1.25 million gallons with a current booster pump capacity of 6,115 gpm. The City is currently constructing a new water plant with two wells providing 1,000-1,500 gpm pumping capacity. In addition, 3,000 gpm booster pumps are being added to the system for a total of 9,115 gpm.

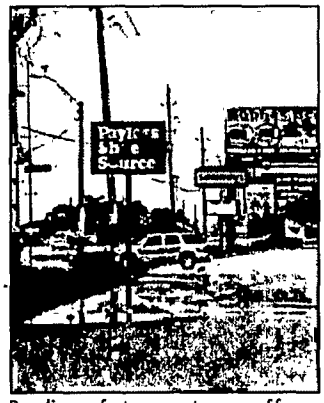
The City's water distribution system consists of approximately 86 miles of 2 inch to 12 inch diameter water lines. Existing water line pipe materials consist of cast iron, steel, and polyvinylchloride (PVC). The systems oldest lines were initially constructed in the late 1950's.

In addition to the water supply improvements, additional waterline mains will be needed to provide service in the future. According to

the 2008 water quality report, drinking water provided by the City meets or exceeds Environmental Protection Agency drinking water requirements. The City of Tomball has a phased drought contingency plan as a policy to enact when drought conditions or other system capacity issues present the need for implementation. These policies include a staggered irrigation strategy, public notice of conservation efforts, and other water conservation measures that are either mandatory or voluntary depending upon the severity of the drought conditions.

Drainage System

Tomball's current drainage system consists of seven primary drainage conveyances along with a series of lateral channels adjacent to Spring Creek and Willow Creek. Neither of the facilities near Spring Creek or Willow Creek are adequately sized to handle a 100-year storm event causing localized flooding during large rain events. In addition, as more land is paved and made impervious, the volume of stormwater runoff will continue to increase. As development continues to occur, additional detention facilities will be required to be constructed in order to mitigate flooding problems and address stormwater quality.



Pooling of stormwater runoff

Aging Water and Sewer Infrastructure

As with the majority of cities and towns throughout the country, the water and wastewater infrastructure within Tomball is aging and will need to be maintained and replaced throughout the planning horizon. A majority of the infrastructure is in good condition and regular maintenance will help to continue this current state. Additionally, when opportunities for new infrastructure are examined, the ability to rely on existing infrastructure in the interim may help the City stage development appropriately and maximize the use of the investment that has already occurred.

Fiscal Policy and Planning

The City of Tomball has developed and adopted the *Infrastructure Master Plan and Impact Fee Determination 2007-2017*. This document also identifies the fiscal impact of future growth on the

water, wastewater, and drainage systems and quantifies impact fees. While the Comprehensive Plan does not provide a timetable for growth (estimating a given population in a particular year), the infrastructure master plan does use future growth estimates by year (2020, 2030) to determine per capita demands. These figures have been used in the Comprehensive Plan. The Comprehensive Plan provides significant policy direction and updated land use projections that the City will be able to utilize in future updates that are required every five years by State law when impact fees are assessed.

GROWTH CAPACITY (GC) GOAL, OBJECTIVES, AND ACTIONS

The following Goals, Objectives, and Actions present the City's planning and development policy in the Comprehensive Plan. They will provide the basis for the City's evaluation of future development proposals and community planning implementation.

Goal GC 1	**Systematically provide public infrastructure to support current and projected development in a quality, cost effective manner that is aligned with the vision identified in the Comprehensive Plan.**
Objective GC 1.1	**Maintain the capacity of the water storage and delivery system to ensure quality water service.**
Action GC 1.1.1	Through the capital improvements plan and annual budget process, develop and implement maintenance schedules for wells, booster pumps, storage facilities, and water delivery lines.

Action GC 1.1.2	Maintain a water conservation program.
Action GC 1.1.3	Explore all options for water reuse and implement viable solutions.
Action GC 1.1.4	Ensure that system expansions to support new growth or annexations of the ETJ area do not jeopardize existing development.
Action GC 1.1.5	Monitor new regulations and requirements to ensure the existing system remains in compliance.
Action GC 1.1.6	Periodically review rate and fees to ensure adequate revenues for long term system sustainability.
Objective GC 1.2	**Develop water system capacity to accommodate future growth and redevelopment.**
Action GC 1.2.1	Use the Comprehensive Plan as a guide to determine priorities for future expansion of the water system.
Action GC 1.2.2	Maintain policies that regulate water system expansion and the use of water system extensions as economic development incentives.
Action GC 1.2.3	Examine the capacity of water infrastructure in the Old Town area to determine impacts of additional development.
Objective GC 1.3	**Maintain the current wastewater system to ensure health, safety, and welfare.**
Action GC 1.3.1	Ensure adequate capacity for wastewater collection and treatment to accommodate future growth.
Objective GC 1.4	**Minimize flooding events and damage in developed areas.**

Action GC 1.4.1	Develop and maintain an up to date Drainage Master Plan that reflects the Comprehensive Plan.
Action GC 1.4.2	When reviewing proposals, determine the cumulative impacts of development regarding installation of impervious surfaces and changing of natural water courses and flows.
Objective GC 1.5	**Expand the corporate limits of the City in a prudent manner while considering the long and short term impacts.**
Action GC 1.5.1	Develop and adopt an annexation plan.
Action GC 1.5.2	Annex developed areas in the ETJ in a practical and fiscally responsible manner.
Action GC 1.5.3	Annex undeveloped areas in the ETJ in response to potential threats or opportunities.
Action GC 1.5.4	Annex undeveloped tracts as necessary to ensure appropriate and compatible development, analyzing the fiscal impacts and timing requirements for annexation, affordability, service efficiency, capital improvements requirements, and land use impacts.

GROWTH CAPACITY PLAN

Infrastructure is a critical component of accommodating growth within a community by providing basic services, such as water and wastewater, which are required to ensure that the City functions properly. Ensuring efficient infrastructure to serve community needs protects the health, safety, and welfare of the City. Tomball plans for the maintenance and construction of public utility infrastructure in ten year increments. The current plan, *Infrastructure Master Plan and Impact Fee Determination 2007-2017* developed by Lockwood,

Andrews & Newnam, Inc. in 2008 estimated growth within the City and its ETJ, addressed infrastructure needs to accommodate growth, and estimated the cost and impact fees related to those infrastructure improvements. This infrastructure plan examined a 10 year horizon (2007-2017) of development and enables the City to program funding for maintenance and infrastructure improvements.

Accommodating Growth

In addition to the water supply improvements, additional water mains will be needed to provide service in the future. The projections for dwelling units and population assume a point in time where most or all of the land is developed according to the Future Land Use Plan. The projections show that the number of dwelling units and people will triple. While these projections anticipate the population of Tomball tripling, there is no way of knowing when this will actually occur given future market trends. Thus, it will be necessary for the five year updates of the infrastructure master plan to reflect the speed, intensity, and type of development occurring to address infrastructure needs and financing strategies.

Water

The City of Tomball is responsible for the water storage, pumping, and distribution system. Tomball's average water usage in 2006 for all customers was over 2 million gallons per day. Current pumping capacity is about 5.5 MGD. With storage capacity of 1.85 million gallons, there is currently enough capability to store 92.5% of the daily water demand. The projected City limits average daily water consumption (based upon projections from the Future Land Use Plan) is 6.5 MGD, indicating a need for an additional 1 MGD in pumping capacity to meet the development projected within the City, and at least another 650,000 gpd for average water demand within the ETJ.

The State of Texas has set forth certain minimum criteria for water system supply as indicated in the current infrastructure master plan. As updates to the infrastructure master plan are made, compliance with State requirements may increase or decrease the estimates shown within this section. However, it is important to note that the City has developed a plan to provide for water service through 2017 and based upon the projections of the Future Land Use Plan,

the City is well on its way to ensuring the provision of adequate water availability throughout the service area. An update to the infrastructure master plan in 2012 would help to ensure that the City is keeping pace, while interjecting new information based upon the Comprehensive Plan projections and recent development trends. With this update, strategies will be identified to ensure that adequate water facilities, pumping and storage capacity will be available to meet the community's growing needs. Effective water planning and stewardship will ensure that there is adequate water availability and quality to meet future demand.

Tomball's water planning guidelines are set forth by the Texas Commission on Environmental Quality and the Northwest Harris County Regional Water Authority. Currently, these organizations are planning for Tomball to continue to use groundwater for the foreseeable future. Given the City's proximity to surface water sources within the region, and the propensity of the larger regional municipalities, particularly Houston, to rely on surface water from Lake Houston and Lake Conroe, it is likely that the City of Tomball will continue to address future water needs through additional groundwater sources. The City's current infrastructure master planning process accounts for known changes in statewide or regional water regulations on a semi-regular basis through the five year update process. Provided that these updates continue to occur on that schedule, and that the City of Tomball stay abreast of and regulatory refinements, the current plans for additional groundwater sources will suffice for the projected development trends.

Wastewater Treatment System

The current capacity of the City's wastewater system is 3 MGD, which is currently operating at approximately 49% capacity (42% north facility and 56% south facility). Based on projections for treatment demand for the City of Tomball using future population and employment estimates, and the per capita rates contained within the City's current infrastructure master plan it is anticipated that the City's treatment system will need to accommodate roughly 5 MGD for development within the City and additional capacity for the development that occurs within its ETJ. ETJ values for 2017 suggest a need for an additional 1 MGD in wastewater treatment capacity which is a 100% increase over the 2007 values. Conservative estimations would suggest that the City should plan

for 7 MGD in wastewater treatment capacity by 2030 given the lack of zoning controls within the ETJ and need to continue providing efficient services throughout the service area.

Water and Wastewater Impact Fees

Tomball adopted a water and wastewater impact fee schedule as a part of the 2007-2017 infrastructure master plan and those fees are required to be updated every five years under Texas statute. The five year cycle provides a reasonable timeframe to examine changes in the development and facility usage patterns. Through this regular update, the City will also be able to examine strategic areas for infrastructure implementation. As the future infrastructure master plans are developed, the City may also want to consider updates to the Future Land Use Plan assumptions used in the Comprehensive Plan to ensure that the build out assumptions contained within the infrastructure master plan are in line with the overall plan for the community. In addition, the City will be required to examine the pricing structure should any annexation plans move forward to ensure that infrastructure is appropriately sized for future demand.

Drainage System Improvements

The City is currently working with Harris County Flood Control District (HCFCD) to examine appropriate watersheds to serve as detention facilities. Current plans call for the construction of additional regional detention facilities, such as M-125 and M-124, in conjunction with HCFCD's efforts to mitigate localized flooding throughout the region.

Preservation of open space adjacent to water features can provide flood relief during storm events. However, as increased development occurs within the community and the surrounding region, Tomball should work with HCFCD to look for ways to ensure proper drainage easements and floodways are constructed to manage runoff. Additional on-site detention for regional developments, such as large shopping complexes, is currently required for storm water quality requirements, however, additional efforts are encouraged, such as on-site permeable lands and concepts, such as rain gardens.

A **rain garden** is a shallow depression that is planted with native wetland or wet prairie wildflowers and grasses; rain gardens are used to mitigate drainage and flooding by capturing runoff from impervious surfaces such as roofs, driveways, parking lots and roads.

Growth Staging and Annexation Plan

Annexation is the act of a city adding land and extending its municipal boundary.

In Texas, a municipality may unilaterally annex territory in its ETJ without the consent of residents, voters, or land owners in the effected area. A municipality may annex up to 10% of its current incorporated land area each year. If a municipality does not annex the entirety of its 10% in a given year, it may elect to roll the difference over for no more than two consecutive years. Recent additions to Texas statutes require that the annexing municipality provide services comparable to existing services and service levels within corporate limits to the newly annexed areas within a timely manner. Therefore, the cost of providing services must be carefully weighed when considering any municipal annexation.

Municipalities annex areas for various reasons, including:

- Providing control of growth patterns surrounding municipality;
- Providing control of gateway frontage;
- Providing potential revenue (property and/or sales tax);
- Remedying county islands; and
- Providing access to strategic assets such as transportation corridors, airports, facilities, etc.

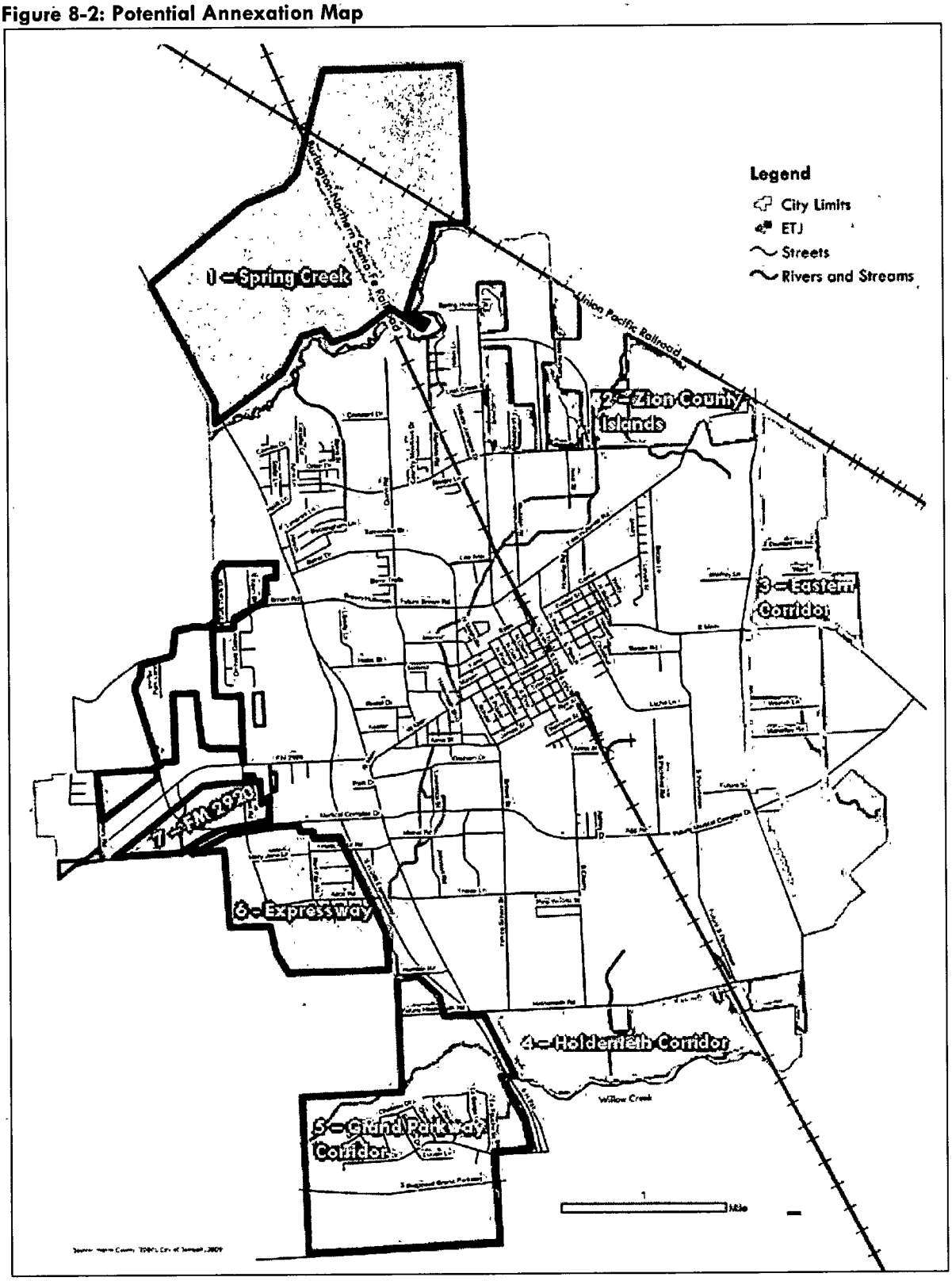
A **county island** is an unincorporated area that is surrounded, but not included, within municipal boundaries.

To evaluate potential future annexation, Tomball's ETJ has been divided into seven potential areas which can be annexed in whole or part. These areas are identified on Figure 8-2. The aforementioned annexation considerations have been used to evaluate if part or whole annexation of each area is a high, medium, or low priority (Figure 8-1). While the City cannot assign land uses in unincorporated areas, Figure 8-3 generally depicts a desired future land use pattern in Tomball's ETJ; Figure 8-4 and Figure 8-5 illustrate the balance of uses based on this desired future land use pattern.

Figure 8-1: Annexation Priorities

	Control Growth Patterns	Controls Gateway	Potential Revenue	Remedies County Islands	Access to Strategic Assets	Overall prioritization (L-Lower, M-Medium, H-Higher)
1 – Spring Creek		✓				**L**
2 – Zion County Islands	✓			✓		**L**
3 – Eastern Corridor	✓	✓	✓		✓	**H**
4 – Holderrieth Corridor	✓	✓			✓	**M**
5 – Grand Parkway Corridor		✓	✓		✓	**M**
6 – Expressway	✓	✓	✓			**M**
7 – FM 2920	✓	✓				**L**

Figure 8-2: Potential Annexation Map



Higher Priority Annexations

Eastern Corridor

The Eastern Corridor, extending both north and south of the east FM 2920 roadway, could be considered a higher priority annexation as the FM 2920 and FM 2978 corridors are anticipated to grow in capacity providing an opportunity for employment-generating land uses such as Commercial, Business/Industrial, Mixed Use, and Employment/Office. This highly developable land also provides access to additional rail and key roadway frontage and extends the City closer to Hooks Airport (located within Houston's ETJ).

Medium Priority Annexations

Holderrieth Road Corridor

The Holderrieth Road Corridor captures the lands south of the corporate limits. While much of this corridor lies in floodplain, with mitigation, employment-generating uses (specifically Business/Industrial and Employment/Office) could be created along this future high-capacity east-west corridor, specifically along the Burlington Northern Santa Fe (BNSF) Railroad.

Grand Parkway Corridor

Annexation of this corridor would allow the City to control development that occurs at its southern gateway. Potential revenue generating land uses, including Mixed Use, could be utilized along the SH 249 corridor. This area would connect the City of Tomball with the future Grand Parkway, and thus, would provide Tomball with a strategic land management tool along this future high capacity transportation corridor.

SH 249 Expressway

Annexation of the lands to the west of SH 249 Expressway would provide Tomball connections to existing and planned employment-generating land uses which would likely expand Tomball's sales tax base.

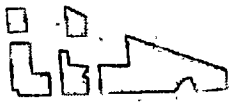
Lower Priority Annexations

Spring Creek

The northern portion of Tomball's ETJ is located adjacent to Spring Creek. This largely undeveloped area is prone to flooding and is disconnected from utilities and infrastructure making annexation a considerable investment. While annexation for gateway buffering purposes could be considered, future Tomball expansion in this direction is not currently recommended.

Zion Road County Islands

Annexation of the County islands north of Zion would principally provide municipal continuity and potential for additional residential expansion (to the west) as well as potential employment-generating uses and rail frontage (to the east).



FM 2920 Corridor

While almost all of the frontage along western FM 2920 is already annexed into Tomball, portions to the south and north of that corridor remain within Tomball's ETJ. While portions to the south are almost entirely within the floodplain and thus, less developable, portions to the north could be developed in the future as growth pressures warrant.

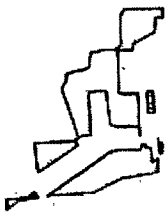


Figure 8-3: Potential Future Land Use Pattern

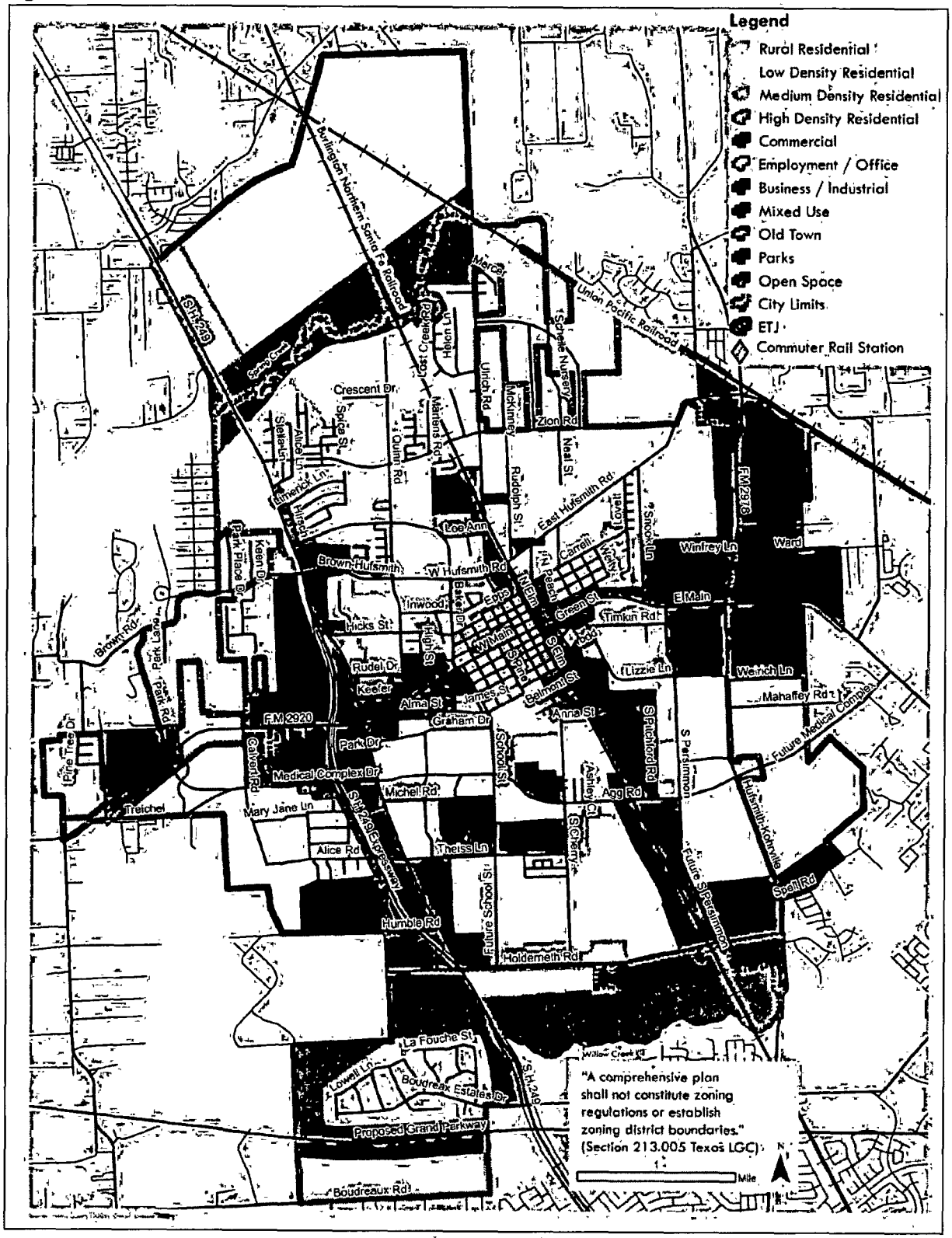


Figure 8-4: Projected Housing Balance within Corporate Limits and ETJ

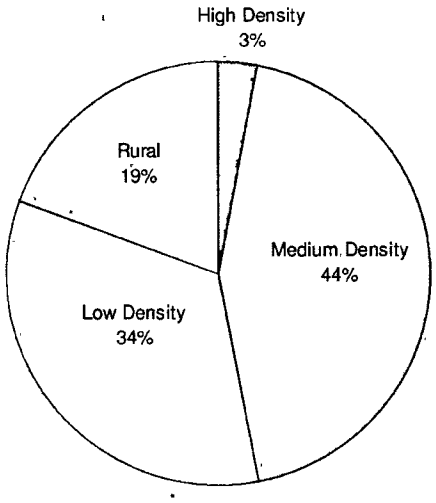
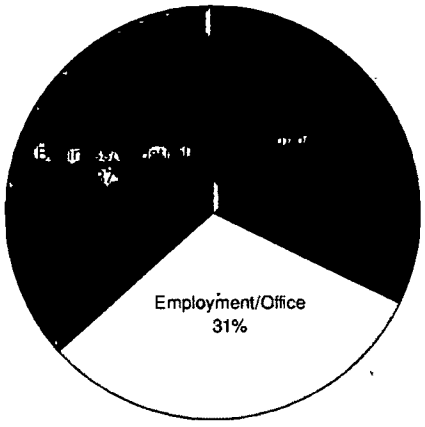


Figure 8-5: Projected Employment Mix within Corporate Limits and ETJ



Sources:

City of Tomball (2008, 2009)
Garden Simply (2009)
Harris County (2008)
Houston-Galveston Area Council (2009)
Infrastructure Master Plan and Impact Fee Determination (2008)
U.S. Census Bureau (2007)

9 Implementation

The test of any plan is the success of its implementation. The Tomball Comprehensive Plan is not intended to be the final word in how the community develops and redevelops, but rather will provide guidelines and a framework for decision making. The purpose of this chapter is to provide direction on how to implement and amend the Plan so that it remains relevant for years to come. The City of Tomball is committed to maintaining the Plan and ensuring that decisions are in compliance with the Plan.

MONITORING THE PLAN

Annually, the Engineering & Planning Department will present a progress report to the Planning & Zoning Commission regarding development trends in the City to ensure that the phasing of future developments provide for adequate land uses, such as the range of housing and employment opportunities. The following will be part of this Annual Comprehensive Plan Progress Report:

- Development trends and demographic information
- Accomplishments
- Implementation Tools Matrix
- Recommendations for Plan changes

PLAN UPDATE

Although most policies are expected to remain applicable for many years, it is suggested that a coordinated update of the Plan and policies be considered after five to seven years. If the Planning & Zoning Commission and City Council evaluate the Comprehensive Plan and determine that there are no major problems in the use or

application of the policies, then a major update may not be needed.

Public Engagement for Major Updates and Other Development Projects

If a major Plan update is required, a comprehensive public and stakeholder involvement process should be used to assist in the update process. As with the creation of the Plan, the City of Tomball should provide for effective, early, and continuous public involvement when undergoing a complete update or amendment to the Comprehensive Plan. These procedures should provide for:

- The broad dissemination of proposals and alternatives;
- The opportunity for written comments;
- Public hearings after effective notice;
- Open discussions, communications programs, and information services; and,
- Consulting with and advising public officials and agencies (regional agencies, county, school districts, other appropriate government agencies, property owners, and citizens) to ensure maximum coordination.

Engaging residents, businesses, and stakeholders was critical to the development of the Comprehensive Plan and many different involvement and communication opportunities were provided throughout the process. This approach to community engagement is an important part of how the City of Tomball does business. As new development proposals and Comprehensive Plan amendments are considered, community outreach and communication about projects is required so that the public and stakeholders understand the implications of the project and can provide comment and input.

Compendium

Early in the Tomball Comprehensive Plan process, a compendium of existing conditions was developed. The *Compendium of Existing Conditions* provided the baseline of information for the planning process and includes data on existing regional and local social, environmental, physical, and economic characteristics that impact the City. As new information becomes available, such as the 2010

Census information, the *Tomball Compendium of Existing Conditions* should be updated.

PLAN AMENDMENTS

Over time, conditions and expectations may change necessitating that the Comprehensive Plan be amended. It is not the intent of the amendment process to allow changes to occur in a haphazard fashion, but instead to provide the parameters for the Planning & Zoning Commission and City Council to evaluate and approve amendments.

Amendments to the Comprehensive Plan may occur in conjunction with the Annual Comprehensive Plan Progress Reports. This annual review and amendment process will assist the City in ensuring that the Comprehensive Plan remains relevant to changing conditions and the City's needs.

Plan amendments for parcels of real property within Tomball may be initiated by property owners or by agents of property owners by written consent. Plan amendment(s) involving textual changes may be initiated by any interested party including the Tomball City Council, Planning & Zoning Commission, staff, or private citizens.

It shall be the burden of the party requesting the amendment, not the City of Tomball, to prove that the change constitutes an improvement to the Tomball Comprehensive Plan.

Scrivener's Errors

In the event any word, paragraph, clause, phrase, provision, sentence, or part of this Comprehensive Plan shall be found to contain a "Scrivener's error," (a minor error in notation or spelling on a document that, upon correction by the maker of the error, would not affect the intent of the document or its legal validity and therefore does not require the consent of the signatories or the reconsideration by the City Council), the error shall be corrected and the correction annotated in a footnote. Correction of a Scrivener's error shall not require the reconsideration of the City Council or the adoption of a correcting Ordinance to amend the original Ordinance adopting this Comprehensive Plan.

A **Scrivener's error** is a minor error in notation or spelling on a document that, upon correction by the maker of the error, would not affect the intent of the document or its legal validity.

ZONING REGULATIONS

Zoning regulations are intended to protect existing land uses and ensure that these uses are compatible with each other and with available public facilities and services; the Comprehensive Plan describes only the conceptual intent for future development within the City of Tomball. The Comprehensive Plan is neither intended to change existing zoning regulations or to require approval of all development projects to conform to the Plan in areas in which development is premature. The Engineering & Planning Department should periodically review the Zoning Ordinance and recommend amendments that implement these principles.

Rezoning Requests

The use of the policies and standards set out herein, particularly the Future Land Use Plan, are to be used in the evaluation of requests for rezoning. The Planning & Zoning Commission and City Council retain full discretion regarding the application of these policies in zoning decisions, specifically in regard to the interpretation of whether proposed uses and elements such as design features and amenities satisfy the Plan requirements.

Rezoning is to conform to the intended future land use pattern shown on the Future Land Use Plan and should occur only when economic, physical, social, and other factors will allow the proposed land use to be developed:

- Within the capacities of existing or funded infrastructure and public facilities and services;
- In a compatible manner with surrounding land uses;
- To standards specified for and appropriate to the proposed land use; and,
- In a way that furthers or helps achieve the goals of the Plan.

Existing Zoning

The City of Tomball will need to periodically update the Zoning Ordinance in order to ensure consistency with the Comprehensive

Plan. The City may also undertake a review where there are discrepancies that would allow development or use of a property which is not consistent with the objectives and standards established. Such a review would provide a snapshot of overall consistency between the zoning regulations and policies and would provide a context for evaluating whether rezoning of a specific parcel or tract should be encouraged or pursued in order to achieve greater consistency.

DEVIATIONS FROM THE PLAN

At times, the City will likely encounter development proposals that do not directly reflect the purpose and intent of the Comprehensive Plan. The Planning & Zoning Commission and City Council may find that a request for a zoning amendment is not consistent with the Future Land Use Plan but should be approved due to changed circumstances or additional, relevant information affecting the appropriate use of the parcel. Review of such development proposals should include the following considerations:

- Will the proposed development enhance the City economically?
- Will the proposed development enhance the City aesthetically?
- Is the proposed development consistent with the City's Goals, Objectives, and Actions?
- Is the proposed development a better use of land/property, both for the owner/developer and the City, than that recommended by the Plan?
- Will the proposed development impact adjacent residential areas in a positive or negative manner?
- Will the proposed development have adequate access; have considerations been made for roadway capacity, ingress and egress, traffic impact?
- Are uses adjacent to the proposed development similar in nature in terms of appearance, hours of operation, and other general aspects of compatibility?
- Does the proposed development present a significant benefit to the public health, safety and welfare of the community?

Development proposals that are inconsistent with the Comprehensive Plan or that do not meet its general intent should be reviewed based upon the above questions. Such proposals should also be evaluated on their individual merit, on a case-by-case basis. It is important to note that it should be incumbent upon the applicant to provide evidence as to how the proposed development addresses the aforementioned questions.

It is also important to recognize that proposals contrary to the Comprehensive Plan could be an improvement over what is recommended within the Comprehensive Plan. This may be due to changing market, development, and/or economic trends that occur at some point in the future after this Comprehensive Plan is adopted. If such changes occur, and especially if there is a significant benefit to the City of Tomball, then these proposals may be approved, and the Comprehensive Plan should be amended accordingly.

SPECIFIC AREA PLANS

A specific area plan is a tool for the systematic implementation of the Comprehensive Plan. It is intended to establish a link between implementing policies of the Plan and a defined area. The intent of a specific area plan is to fully address issues or take advantage of unique opportunities in a specific area. A specific area plan would supplement the Tomball Comprehensive Plan with increased development standards for the areas they cover. Such standards may include, but are not limited to, additional land use restrictions, building façade standards, landscaping and screening standards, parking regulations, etc. These subareas will include specific regulations that will direct the development within the particular area. The subareas recommended for specific area plans include:

- Old Town
- Medical Campus
- Railroad Corridor
- Four Corners

SPECIAL STUDIES

When growth issues of special concern are identified, the Tomball Comprehensive Plan can provide the framework within which special studies are conducted. Special studies are recommended to address specific issues which appear to require more detailed attention or which might assist in policy application.

Extraterritorial Jurisdiction (ETJ) Annexation

Chapter 8 ("Growth Capacity") discusses growth staging and annexation. Although the City of Tomball has not undertaken a comprehensive study relating to the evaluation of costs and benefits involving annexation, the City has begun to examine growth trends that could lead to decisions about future annexations.

Neighborhood Planning

As the City ages, ensuring that neighborhoods continue to thrive will take diligent effort. Implementing policies and strategies regarding housing stock maintenance as well as overall neighborhood quality is important to maintaining the overall quality of life. At some point, the City will need to pursue a comprehensive neighborhood revitalization effort.

Deteriorating Retail Centers

The deterioration of older retail buildings and shopping centers is an issue that will impact overall quality of life and community image. The overabundance of retail zoning plays a role in the creation of vacant buildings and retail centers with low demand. Some deterioration, however, is evident even in centers with high occupancy due to a failure of the owners to keep the facilities up-to-date. While the primary issue for the Future Land Use Plan is to refrain from designating too much land for business uses, there is the need to develop a broader program to encourage and/or require redevelopment of business properties so that they do not

continue to be detrimental influences on surrounding properties and neighborhoods.

IMPLEMENTATION TOOLS

The key tools for implementation of the Tomball Comprehensive Plan are the Goals, Objectives, Actions, and Planning Guidelines. However, the City of Tomball has additional planning tools that can be used to ensure the Plan's implementation. These tools include, but are not limited to, the following:

- Redevelopment Plans
- Development Agreements
- Specialized Plans (e.g., Affordable Housing Plan)
- City of Tomball Strategic Plan
- Capital Improvement Plan
- Annual City Budget
- Development Impact Fees
- Bond Programs for New Facilities
- Joint Partnership Agreements
- County, Regional, and State Plans
- Development Regulations

Based on the policies and guidelines outlined in the Tomball Comprehensive Plan, the following matrix of implementation strategies is provided. The matrix identifies the strategy, timeframe for implementation, and identification of the departments or agencies charged with the implementation of the strategy. Also referenced is the associated Action(s) identified in the Plan. The timeframe is divided into short term (0 – 3 years), mid term (3 – 6 years), and long term (6 – 10 years).

It is important to note that the ability to implement the Comprehensive Plan is dependent upon revenue, staffing, and other resource capabilities of the City of Tomball and its partners.

Short Term Strategies (0-3 Years)		
Implementation Strategy	**Lead Department(s) or Agency(ies)**	***Action Reference***
Growth Impact Analysis Tool	CM	*LUD 1.1.1* *LUD 1.1.4*
Update Zoning Ordinance	E&P	*LUD 1.3.2* *LUD 2.1.3* *LUD 3.1.3* *LUD 3.1.5* *LUD 3.1.7* *LUD 3.3.1* *LUD 3.4.1* *LUD 3.4.2* *LUD 3.4.6* *LUD 4.1.3* *LUD 5.1.6* *LUD 5.1.12* *LUD 6.1.1* *LUD 8.1.1* *LUD 9.1.4* *EO 1.1.1* *EO 1.6.4* *EO 1.6.5* *PR 1.4.1*
Develop Energy Conservation Policies	Building	*LUD 1.3.1*
Develop Landscape Standards	E&P	*LUD 1.3.3* *LUD 3.2.3* *LUD 6.1.7* *PR 1.5.1* *PR 1.5.5* *PR 1.6.1* *PR 1.6.2*
Develop Design Standards	E&P and Building	*LUD 3.2.4* *LUD 3.2.5* *LUD 4.1.2*
Create a Downtown Property Improvement Program	TEDC, CM and E&P	*LUD 3.3.3*
Implement an *Adopt-A-Street* or *Adopt-A-Block* Program	PW	*LUD 3.4.4*
Develop Old Town Specific Area Plan	E&P	*LUD 5.1.11* *EO 1.3.2* *EO 1.5.1*
Develop Railroad Corridor Specific Area Plan	TEDC and E&P	*LUD 7.1.1* *EO 1.3.2*
Develop Medical Campus Specific Area Plan	TEDC and E&P	*LUD 7.1.1* *EO 1.1.1*

Short Term Strategies (0-3 Years)		
Implementation Strategy	**Lead Department(s) or Agency(ies)**	***Action Reference***
Develop a Wayfinding Sign Package	E&P, PW, and Building	*LUD 8.1.2* *LUD 8.1.3* *LUD 8.1.4*
Prioritize Projects to Implement the *Livable Centers Downtown Plan*	E&P	*LUD 10.1.1* *LUD 10.1.2* *LUD 10.1.3*
Appoint Tomball Heritage Commission	CM	*LUD 10.2.1* *LUD 10.2.2* *LUD 10.2.3* *LUD 10.2.4*
Annually Review Major Thoroughfare Plan and Coordinate with Neighboring Jurisdictions	E&P	*C 1.1.1* *C 1.1.6* *C 1.5.1* *C 1.5.3*
Update Development Statistics Annually	CM and Building	*C 1.1.2*
Develop Corridor Timing Strategy for Major Thoroughfares	PW and TxDOT	*C 1.2.1*
Develop Traffic Control Lighting Policies	PW and Police	*C 1.2.4*
Maintain Portfolio of Potential Business Incentives	TEDC and Finance	*EO 1.6.3*
Tie Drainage Master Plan to Comprehensive Plan	E&P	*GC 1.4.1*
Pursue additional funding mechanisms available to fund City services for hazard mitigation, response, and recovery	Police and Fire	*LUD 12.1.1* *LUD 12.1.2* *LUD 12.1.3* *LUD 12.1.4* *LUD 12.1.5* *LUD 12.5.1* *LUD 12.5.2* *LUD 12.5.3* *LUD 12.5.4* *LUD 12.6.1* *LUD 12.6.2* *LUD 12.6.3* *LUD 12.6.4* *LUD 12.6.5* *LUD 12.6.6* *LUD 12.6.7*
Establish a Citizen Leadership Academy	CM	*LUD 13.1.1*
Develop a Drainage Master Plan	E&P	*GC 1.4.1*

Mid Term Strategies (3-6 Years)		
Implementation Strategy	**Lead Department(s) or Agency(ies)**	***Action Reference***
Development Fee Review and Update	E&P and Building	*LUD 1.1.3* *GC 1.1.6*
Establish an Umbrella Homeowners Association Organization	CM	*LUD 3.4.5* *LUD 13.1.2*
Develop Four Corners Specific Area Plan	TEDC and E&P	*LUD 7.1.1*
Develop Access Management Program	E&P	*C 1.2.2* *C 1.5.4*
Develop FM 2920 Truck Bypass Study	E&P	*C 1.2.5*
Develop Medical Complex Drive Corridor Plan	E&P	*C 1.2.5* *C 1.2.6*
Draft Context Sensitive Solutions Policy	E&P	*C 1.3.1* *C 1.3.2*
Develop Sidewalk/Pathway Plan	E&P	*C 1.4.3* *C 1.4.4* *C 1.6.1* *C 1.6.2* *C 1.6.3* *C 1.6.4* *C 1.6.5*
Develop Downtown Plaza Area Plan	E&P	*EO 1.5.4*
Develop Downtown Public Art and Cultural Amenities Plan	CM	*EO 1.5.5*
Develop Parks and Trails Master Plan	E&P	*PR 1.1*
Tie Update of CIP to Comprehensive Plan	E&P	*GC 1.1.1*
Develop Annexation Plan	CM	*GC 1.5.1*
Develop a Heritage Buildings and Special Places Inventory	CM	*LUD 10.2.2*
Develop a Tomball Heritage Preservation Plan	CM	*LUD 10.2.3*
Develop Tomball Heritage Guidelines and/or Regulations	CM	*LUD 10.2.4*
Develop and maintain a safe and secure, technologically advanced Emergency Operations Center	Police and Fire	*LUD 12.2.1* *LUD 12.2.2* *LUD 12.2.3* *LUD 12.4.1* *LUD 12.4.2* *LUD 12.4.3* *LUD 12.4.4* *LUD 12.7.1*

Long Term Strategies (6-10 Years)		
Implementation Strategy	**Lead Department(s) or Agency(ies)**	***Action Reference***
Develop Transit Circulator	CM	*C 1.4.2*

Acronyms

ADA	American's with Disabilities Act
BNSF	Burlington Northern Santa Fe
CM	City Manager's Office
CNU	Congress for New Urbanism
CPAC	Comprehensive Plan Advisory Committee
CPTED	Crime Prevention Through Environmental Design
du	dwelling unit
du/ac	dwelling units per acre
E&P	Engineering and Planning Department
ETJ	extraterritorial jurisdiction
FAA	Federal Aviation Administration
FBO	fixed base operation
FM	Farm-to-Market Road
gpm	gallons per minute
GTACC	Greater Tomball Area Chamber of Commerce
HCAD	Harris County Appraisal District
HCFCD	Harris County Flood Control District
H-GAC	Houston-Galveston Area Council
HOA	homeowner association
IAH	George Bush Intercontinental Airport
ISO	Insurance Services Office
ITE	Institute for Traffic Engineers
MGD	million gallons per day
MTP	Major Thoroughfare Plan
PVC	polyvinylchloride
PW	Public Works Department
SAFETEA-LU	Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users
SH	State Highway
SWOT	strengths, weaknesses, opportunities, threats
TCEQ	Texas Commission on Environmental Quality
TEDC	Tomball Economic Development Corporation
TISD	Tomball Independent School District