

Chapter 6

The transportation system has a major influence on a community's physical development pattern. Baytown's growth has been shaped by its linkages to the region and beyond through highways, railroads, and one of the world's premier ports. The completion of the Fred Hartman Bridge over the Houston Ship Channel during the 1990s marked another significant milestone in Baytown's development as a city. But as Baytown looks ahead to 2020, major challenges remain in terms of intra-city mobility and the public's desire for more public transportation opportunities. Well-planned transportation improvements will be needed so the City can improve access and mobility in older established areas of Baytown while also guiding the pattern of land development in newly urbanizing areas, including growth areas that may eventually be annexed in the City's extraterritorial jurisdiction (ETJ).

PURPOSE AND OVERVIEW

The purpose of the Transportation element of the Baytown Comprehensive Plan Update is to address mobility needs community-wide and on all levels, from sidewalks and trails, to local streets and neighborhood access, to major streets, highways, railroads, airports and waterways. The principal aim of transportation planning is to ensure safe and efficient movement of people and goods. This plan element also includes the *Baytown Thoroughfare Plan*, which is the master plan for thoroughfare system development. The plan will be a guide for securing needed rights-of-way and extending the network of streets, roads and highways within the corporate limits and ETJ in an orderly and timely fashion as the City grows and the public's mobility and access needs continue to increase.

KEY ISSUES FROM COMMUNITY FORUMS, MEETINGS AND CONFERENCES

Numerous transportation issues were identified during the plan development process through a community forum held in March 1999, a series of neighborhood meetings attended by City staff and Comprehensive Plan Steering Committee members, leadership conferences conducted with a broad cross section of persons and organizations in the community, and from the Steering Committee itself. These issues were instrumental in developing the goals, objectives, policies and actions in the Transportation element:

- Better streets
- Intra-city mobility problems (east-west, north-south arteries)
- Better street alignments and continuity (Texas Avenue)
- Cedar Bayou development (waterway potential)
- Synchronized signals on major thoroughfares (Garth, Main)
- Air quality implications for transportation system
- Keep heavy truck traffic out of neighborhoods
- Designated truck routes
- More parking on Texas Avenue
- Esplanade/street island/curb maintenance
- More frequent street cleaning (sweeper needed, as well as additional personnel)-js
- Traffic Calming Policy (ongoing)
- Need new road from S.H. 146 to I.H. 10
- Public transportation (bus system)
- Park & Ride and/or rail service to Houston
- White stripes needed along street edges
- Sound barriers along expressways
- Hazardous materials transportation
- Truck parking on city streets and in neighborhoods
- Handicapped parking on Texas Avenue
- Cleanliness (Adopt-a-Street Program)
- Enhanced City entrances and corridors

- Other funding methods for improvements besides bonds
- More sidewalks and hike & bike trails
- Corridor planning/management
- Stronger enforcement of traffic laws
- Public access to waterways and bays
- Alternative funding methods
- More road improvements by Harris County
- Handicapped ramps for sidewalks
- Alleys used as streets and not maintained
- Upgraded taxi service
- Better interagency communication, coordinated funding

Findings

The findings generated through preparation of this plan element include:

Road Network

- According to the Land Use Element of the Baytown Comprehensive Plan Update, approximately 66 percent of the land within the current corporate limits has been developed. This means there is still extensive development potential within Baytown’s remaining 7,280 acres, so maintenance and improvement of the existing roadway network will be essential.
- The Baytown area has several natural and man-made barriers that could limit the development of roads, streets and highways, including existing developed area, streams and drainage channels (especially Goose Creek and Cedar Bayou), and flood plain areas.
- In the Land Use Element, it was determined that Baytown has dedicated 4.34 percent of its developed land to street rights-of-way compared to a national guideline for land use distribution of five percent for streets.
- Connectivity with the National Highway System is vital for continued growth of the area’s economy and potential for international trade. Baytown area highways that are designated as part of the National Highway System (NHS) include I.H. 10 and S.H. 146.
- A proposed improvement that will have a significant influence on the local transportation network is the eastern portion of the Grand Parkway, the preliminary alignment of which would run south from I.H. 10 near the City’s eastern boundary and connect to S.H. 146 across the Fred Hartman Bridge. The eastern segment is projected for ultimate build-out as a four-lane divided rural highway, but an interim two-lane facility could be completed by 2003 depending on funding availability.
- The Grand Parkway could potentially serve as an I.H. 69 bypass around the Houston metropolitan area when U.S. 59 is redesignated as I.H. 69 (a.k.a. NAFTA Highway).
- While the Bayport Terminal is somewhat removed from Baytown to the south of La Porte, the Port of Houston’s significant expansion plans there could have important transportation implications for Baytown, particularly in terms of increased truck traffic on S.H. 146.
- On the portion of S.H. 146 from the intersection with S.H. 225 to Spur 330, the average daily traffic count was 40,000 vehicles in 1997.
- The average daily traffic count was slightly less (33,000 vehicles per day) on the portion of S.H. 146 from Spur 330 until its confluence with Business S.H. 146.

Chapter 6

- The south end of Business S.H. 146 had 12,500 vehicles per day in 1997, and the count decreased to 9,500 at the intersection with Spur 55. The daily traffic volume then increased to 17,900 at the north end of Business S.H. 146.
- Spur 330, or Decker Drive, carried an average of 32,000 vehicles daily in 1997 on the south end where it connects with S.H. 146, and 30,000 vehicles daily on the north end where it intersects with I.H. 10.
- Spur 55, which continues east to Beaumont, had an average of 5,900 vehicles each day in 1997.
- The City currently has 76 traffic signals in place, and three more are scheduled for installation in the near future. The older existing signals are time-based or fixed-time devices whereas all newly installed signals are traffic-actuated signals.
- The City attributes its traffic congestion problem to poor signalization rather than inadequate roadway capacities.
- The City of Baytown joined a growing nationwide trend among local governments by adopting a “Baytown Neighborhood Traffic Calming Program” in March 1999. This occurred several years after the City backed away from a road hump installation program for various reasons, which also is a turn of events similar to other communities.

Public Transportation

- The City of Baytown’s Senior and Disabled Citizens’ Taxi Program currently has 576 participants.
- In recent years, improved regulations regarding the level of service the taxi companies are required to provide have resulted in an increase in the number of cab companies and participants and the number of rides taken.
- Although the budget for the taxi program was increased, it was still not sufficient to operate the program within the allotted budget. To address this shortfall, City Council placed a cap on the benefit payment for each ride, requiring the client to pay the amount beyond what the funding will cover.
- Previous public opinion surveys in Baytown have indicated majority support for some form of public transportation system, whether local or regional. However, when a referendum was held in January 1996 on the question of establishing a Baytown Transportation Authority and levying a sales and use tax to support it, 68.7% of the 2,121 residents who cast ballots voted against the proposal (664 for and 1,457 against, plus 17 ballots which were invalid).

Waterborne Transportation

- The Port of Houston ranks first in the United States in terms of foreign waterborne commerce and second in terms of total tonnage, handles 40 percent of all freight moving through Texas ports, and also ranks first in the U.S. in handling petrochemicals.
- The Exxon-Mobil facility and other area industries rely on the Houston Ship Channel for relatively inexpensive transportation of raw materials and other goods.
- Cedar Bayou, which traverses the eastern edge of Baytown, is a shallow draft waterway that offers potential for future development. The Port of Houston has evaluated this waterway for possible future use and included it as one of several alternative terminal sites evaluated as part of the environmental impact statement (EIS) that is being prepared by the Army Corps of Engineers for the Bayport Terminal project.

Air Traffic

- Approximately 3,650 general aviation take-offs and/or landings occur at the Baytown Airport each year.
- RWJ Airpark accepts general aviation air traffic at the rate of about 1,500 take-offs and/or landings per year.

Sidewalks and Trails

- Pedestrian walkways, sidewalks and crosswalks are particularly needed in the older established areas of Baytown.
- The City of Baytown has many natural resources that could be utilized to continue development of the Goose Creek Stream trail to form a comprehensive bikeway system. Goose Creek, Cedar Bayou, Evergreen Point and the bays are optimal opportunities to develop a linear parks and open space system with multi-use trails.

Actions Needed

Some of the major action items identified for this element of the Baytown Comprehensive Plan Update include:

- Adopting the Thoroughfare Plan of the Baytown Comprehensive Plan Update and periodically considering amendments as necessary;
- Planning and implementing specific transportation system improvements identified in this plan element, such as providing more north/south arterial streets, in conformance with the Thoroughfare Plan and in coordination with the Texas Department of Transportation and Harris County;
- Utilizing the Thoroughfare Plan during the subdivision and site development review process;
- Acquiring future rights-of-way, through dedication or other means, for the extension of collector and arterial roadways that are proposed for improvement on the Thoroughfare Plan;
- Implementing needed street extensions and roadway improvements to connect residential neighborhoods, where appropriate;
- Performing traffic engineering studies on existing intersections, as necessary and warranted, to identify realignment solutions and improvement needs;
- Acquiring additional public street rights-of-way on existing facilities as needed to facilitate turn lanes and acceleration/deceleration lanes to provide additional traffic capacity at intersections;
- Considering traffic impacts on affected transportation facilities during review of zone changes and subdivision applications, with developer participation in improvements needed to maintain an adequate level of service;
- Continuing to leverage County, H-GAC, State and Federal participation in funding transportation improvements;
- Funding and constructing a comprehensive pedestrian and bicycle system to serve both recreational and alternative transportation needs;
- Partnering with other local government entities such as the Houston-Galveston Area Council to expand public transportation services into the Baytown area;
- Continuing the phased development and extension of the Goose Creek Greenbelt Trail System;

Chapter 6

- Pursuing improvements at intersections of railroad lines with arterial and collector roadways to increase public safety, facilitate efficient traffic movement, and alleviate congestion and the delay of emergency vehicles;
- Pursuing bridge improvements on arterial and collector roadways to facilitate efficient and safe traffic flow and pedestrian movement;
- Identifying street improvement priorities based upon existing conditions and determination of needs;
- Ensuring adequate landscaping and exceptional design quality and aesthetic appeal in all transportation projects;
- Funding and constructing pedestrian walkways, sidewalks, crosswalks, handicap accessible ramps and curb cuts along City streets in areas with significant pedestrian traffic;
- Evaluating safety conditions for pedestrians and bicyclists crossing major thoroughfares and other high volume streets to identify potential solutions;
- Coordinating with the Texas Department of Transportation and other state and local officials on the future design and construction of state highways;
- Maintaining and supporting the Chamber of Commerce Highway and Transportation Committee to represent the interests of Baytown in regional transportation planning issues;
- Encouraging community participation in potential financial support for public transportation services provided by local or other area transportation providers; and,
- Coordinating with other area transportation providers to determine feasible alternatives for funding and operating commuter transit service to and from Baytown.

GOALS AND OBJECTIVES

The Comprehensive Plan Steering Committee developed a series of goals, objectives, policies, and actions to serve as a framework for implementation of the Transportation element. The committee considered various mobility issues and challenges facing Baytown plus previous goals and objectives from the 1992 Comprehensive Plan. The Vision Statement below was drafted for this plan element and is the foundation for the goals and objectives that follow.

Vision Statement: To maintain Baytown’s strong regional transportation linkages, improve cross-town circulation, accommodate alternative means of transportation within the community, ensure safe neighborhood streets, and provide a high-quality transportation network that supports redevelopment objectives and encourages desired new development.

GOAL 6.1: **Establish a hierarchy of thoroughfare classifications that will provide for safe and convenient flow of traffic throughout the community.**

OBJ.6.1a: **Develop a thoroughfare plan to ensure efficient and desirable connections between major arteries and other thoroughfares.**

Policy 1: The City should utilize the Thoroughfare Plan to address transportation improvement needs and to preserve future rights-of-way needed to

accommodate long term development of the arterial and collector thoroughfare system.

Action 1: Adopt the Thoroughfare Plan of the Baytown Comprehensive Plan Update and periodically consider amendments as necessary.

Action 2: Evaluate the compatibility of other ordinances with the Thoroughfare Plan.

Action 3: Provide more north/south arterial streets to increase the density of these roadways.

OBJ.6.1b: Maximize network continuity to provide for the free flow of people, goods and services, and to ensure minimum response time for emergency vehicles.

Policy 1: The City should continue to proactively pursue the dedication and/or acquisition of rights-of-way to improve continuity of the major street system.

Action 1: Utilize the Thoroughfare Plan during the subdivision and site development review process to ensure provision of continuous streets between adjacent developments.

Action 2: Acquire future rights-of-way, through dedication or other means, for the extension of collector and arterial roadways that are proposed for improvement on the Thoroughfare Plan.

Action 3: Consider synchronized signals on major thoroughfares, such as Garth Road and Main Street.

Action 4: Evaluate emergency response as a consideration in the implementation of the Thoroughfare Plan and particularly in determining capital projects.

GOAL 6.2: Provide continuity of traffic flow within and between neighborhoods and throughout the community.

OBJ.6.2a: The transportation system should offer efficient accessibility to all residential neighborhoods.

Policy 1: The City should continue to ensure roadway continuity between neighborhoods and adequate access for emergency vehicles.

Action 1: Identify all dead-end streets and the relative impact on the flow of traffic within and between neighborhoods.

Action 2: Implement needed street extensions and roadway improvements.

Action 3: Continue to require construction of temporary cul-de-sacs where a street is to be temporarily terminated, which will be extended at a later date.

Action 4: Consider prohibiting the construction of dead-end streets other than those that are temporarily terminated and planned for extension at a later date.

Action 5: Consider requiring a second point of ingress/egress for large subdivisions.

OBJ.6.2b: Preserve existing rights-of-way and facilitate continuation between adjacent subdivisions.

Policy 1: The City should continue to develop a balanced roadway network that includes arterial and collector streets and, as further development occurs, ensure the provision of streets to provide adequate access and circulation.

Action 1: Continue to utilize the City’s development ordinances (including the Neighborhood Protection ordinance and the subdivision regulations) to ensure functional integration of streets within new development with the existing arterial and collector street system.

Action 2: Review all subdivision plats and proposed developments to ensure conformance with the Thoroughfare Plan.

GOAL 6.3: Provide for relief of traffic congestion.

OBJ. 6.3a: The transportation system should adequately accommodate and encourage through traffic on the arterial street system and calm traffic on collector and local residential streets.

Policy 1: The City should continue to develop and maintain roadway facilities and improvements in accordance with acceptable design standards to assure safety and maximize the traffic carrying capacity.

Action 1: Perform traffic engineering studies on existing intersections, as necessary and warranted, to identify realignment solutions and improvement needs.

Action 2: Acquire additional public street rights-of-way on existing facilities as needed to facilitate turn lanes and acceleration/deceleration lanes to provide additional traffic capacity at intersections.

Action 3: Continue to update as needed access management regulations pertaining to the design, construction, location, width, spacing, and offset of driveways; street connections; medians and median openings; auxiliary lanes; on-street parking; traffic signals; turn lanes; and, pedestrian and bicycle facilities.

Action 4: Continue to consider traffic impacts on affected transportation facilities during review of zone changes and subdivision applications, with developer participation in improvements needed to maintain an adequate level of service.

Action 5: Continue to leverage County, State and Federal participation in funding transportation improvements to alleviate high accident locations and traffic congestion.

OBJ.6.3b: Design and place traffic control devices so as to maximize efficient traffic flow and minimize the impedance of traffic flow.

Policy 1: The City should continue to conform to the Texas Manual of Uniform Traffic Control Devices (MUTCD) in placing traffic control devices.

- Action 1:** Consider establishing new criteria for the placement of traffic control devices.
- Action 2:** The City should synchronize signals on all major thoroughfares, such as Garth Road and Main Street.
- Action 3:** Continue to periodically check intersections to see if traffic signals are warranted.
- Action 4:** Continue to evaluate the benefits of a Traffic Control Device Preventative Maintenance Program, consisting of periodically inspecting and maintaining traffic signals, signs and pavement markings to improve effectiveness, safety, and savings in related costs.

OBJ.6.3c: Plan and implement transportation system improvements in conformance with the Thoroughfare Plan.

Policy 1: The City should continue to plan, fund, and construct transportation improvement projects that will benefit the efficient movement of traffic throughout the community.

- Action 1:** Encourage TxDOT to improve traffic control along S.H. 146, Spur 330 (Decker Drive), Bayway Drive, and other major thoroughfares through implementation of transportation system management improvements, access management approaches, and/or local design standards.
- Action 2:** Work with TxDOT to fund improvements to Spur 330 that include new surfacing of the main lanes from I.H. 10 to S.H. 146.
- Action 3:** Encourage the development of Grand Parkway north of F.M. 1405.
- Action 4:** Coordinate with the Harris County Department of Infrastructure to facilitate the widening of Garth Road to five lanes, north of I.H. 10 to Wallisville Road, which is planned for construction in the first quarter of Year 2001.
- Action 5:** Coordinate with the Harris County Department of Infrastructure to improve Wade Road to a two-lane concrete roadway from I.H. 10 to Wallisville Road.
- Action 6:** Coordinate with the Harris County Department of Infrastructure to widen Raccoon Road, which is on a candidate list for improvement.
- Action 7:** Evaluate improvement of John Martin Road from a collector street to a principal arterial street from Lynchburg - Cedar Bayou Road to I.H. 10 and beyond to Wallisville Road.
- Action 8:** Coordinate with the Harris County Department of Infrastructure to connect John Martin Road, Bush Road and Emmett O. Hutto Boulevard.
- Action 9:** Consider widening Lynchburg - Cedar Bayou Road to a principal arterial street from Garth Road to Decker Drive.
- Action 10:** Consider extending Hunt Road East to North Main from the point at which it dead-ends east of Garth Road.

GOAL 6.4: Promote alternative modes of transportation and related facilities including pedestrians, bicycles, public transit and others.

OBJ.6.4a: Explore alternate modes of transportation.

Policy 1: The City should strongly encourage alternative modes of transportation, including financial participation, for programs such as public transportation, ridesharing, and pedestrian and bicycle transportation projects.

Action 1: Fund and construct a comprehensive pedestrian and bicycle system to serve both recreational and alternative transportation needs, including on-street bikeways and off-street paths and trails accessible to all areas of the community and connecting neighborhoods, schools, parks, shopping and employment centers.

Action 2: Seek to obtain Federal and State financial assistance grants for pedestrian and bicycle transportation projects, such as transportation enhancement funds under the Transportation Equity Act for the 21st Century (TEA-21).

Action 3: Partner with other local government entities to expand public transportation services into the Baytown area thus providing high-occupant transportation access throughout the metropolitan area.

Action 4: Continue to expand the development of the Goose Creek Greenbelt Trail System.

Action 5: Consider requiring commercial development to include sidewalks where appropriate.

GOAL 6.5: Eliminate major barriers to traffic movement.

OBJ.6.5a: Pursue improvements at intersections of railroad lines with arterial and collector roadways to facilitate efficient traffic movement and alleviate congestion and the delay of emergency vehicles.

Policy 1: The City should work with with the Texas Department of Transportation and Union Pacific Railroad officials to improve existing at-grade railroad crossings on arterial and collector roadways.

Action 1: Investigate the feasibility of providing railroad/street grade separation on existing thoroughfares.

Action 2: Work with the Union Pacific Railroad to identify needed improvements that will reduce traffic delays, improve safety and alleviate other troublesome impacts of train traffic on transportation mobility in Baytown.

OBJ.6.5b: Pursue bridge improvements on arterial and collector roadways to facilitate efficient and safe traffic flow and pedestrian movement.

- Policy 1:** The City should plan, fund and construct bridge improvements on arterial and collector roadways to facilitate an efficient transportation system and to provide network continuity.
- Action 1:** Design and construct bridges to accommodate future roadway improvements.
- Action 2:** Urge TxDOT to complete grade separation on Spur 330 and S.H. 146.
- Action 3:** Provide pedestrian access ways on all bridges.

GOAL 6.6: Upgrade and improve existing street infrastructure to meet or exceed minimum standards by Year 2020.

OBJ.6.6a: Identify and define minimum design and construction standards to be met by Year 2020.

- Policy 1:** The City should continue to enhance and upgrade its technical engineering specifications and design standards to ensure quality development and fiscally responsible infrastructure investment.
- Action 1:** Periodically review the City’s engineering standards and adopt amendments as necessary.

OBJ. 6.6b: Evaluate current conditions for improvement.

- Policy 1:** The City should maintain an up-to-date street inventory and condition assessment database of all street segments in the City.
- Action 1:** Periodically conduct a survey of pavement conditions and update the street inventory and condition assessment database.
- Action 2:** Consider establishing a pavement management system to determine pavement condition indices on all street segments.

OBJ. 6.6c: Identify funding alternatives and resources available for implementation.

- Policy 1:** The City should maximize funding participation with State and Federal, County, H-GAC and other public and private agencies in constructing transportation improvements.
- Action 1:** Costs for improvement/expansion of the transportation system should be equitably distributed to the responsible governmental agencies and to the private sector, where applicable.
- Action 2:** Dedication of public rights-of-way and construction of street improvements should be required as development occurs, in accordance with thoroughfare requirements shown on the adopted Thoroughfare Plan.
- Action 3:** Consider adoption of impact fees to generate revenue for funding or recouping the costs of capital improvements of facility expansions necessitated by and attributable to new development.

GOAL 6.7: Provide for the increasing demand for transportation facilities while preserving and enhancing the attractiveness of the environment.

OBJ. 6.7a: The City should ensure that all transportation projects include landscaping of green spaces within the right-of-way and other aesthetic enhancements, consistent with traffic safety and design standards.

Action 1: Design of bridges, overpasses, retaining walls and other improvements should include consideration of visual impact and utilize design features and materials that enhance the aesthetic appearance of the structures.

Action 2: Plan and acquire right-of-way for thoroughfares to include open space areas and buffer zones, while preserving and maintaining existing landscaping.

GOAL 6.8: Establish and maintain a network of new and existing sidewalks as a component of improved standards for City streets.

OBJ.6.8a: Provide a safe and effective means to accommodate pedestrian traffic and prioritize sidewalk improvement areas based upon type of street and adjacent land use.

Policy 1: The City should support, including financially if necessary, the provision and maintenance of a network of sidewalks and pedestrian-ways throughout the community and particularly in areas with a high propensity of pedestrian use.

Action 1: Fund and construct pedestrian walkways, sidewalks, crosswalks, handicap accessible ramps and curb cuts along City streets in areas with significant pedestrian traffic

Action 2: Continue to enforce provisions in the City’s development ordinances that require developers to provide sidewalks for all new development. Sidewalks should be located within the street right-of-way, offset from the back of the curb.

Action 3: Acquire and utilize alternative funding sources such as special assessment districts, block grants, transportation enhancement funds, and public-private partnerships for sidewalk improvements along existing roadways in established neighborhoods.

Action 4: Seek input from the public during the early planning stages of transportation projects, including pedestrian access issues.

Action 5: Conduct a comprehensive and detailed inventory of sidewalks and other pedestrian facilities throughout the community.

Action 6: Conduct a condition assessment of existing sidewalks and pedestrian facilities and prioritize needed improvements by condition, need and location.

Action 7: Evaluate the safety conditions for pedestrians and bicyclists crossing major thoroughfares and other high volume streets

GOAL 6.9: **Develop better regional mobility through interagency coordination.**

OBJ.6.9a: **Integrate the thoroughfare network of the community with the regional transportation system.**

Policy 1: The City should ensure sufficient and convenient access to I.H. 10 and S.H. 146 to increase access to the regional transportation system and the associated economic development opportunities and benefits.

Action 1: Coordinate with the Texas Department of Transportation and Harris County to improve the regional thoroughfares in the Baytown area.

Action 2: Coordinate with the Texas Department of Transportation and other state and local officials on the future design and construction of state highways.

Action 3: Maintain and support the Chamber of Commerce Highway and Transportation Committee to represent the interests of Baytown in regional transportation planning issues.

Action 4: Continue to actively participate with Houston-Galveston Area Council (H-GAC) to enhance and improve transportation in Baytown.

OBJ. 6.9b: **Encourage community participation in public transportation services provided by local or other area transportation providers.**

Policy 1: The City should support a public transportation system which offers a viable alternative mode of transportation that may reduce single occupant vehicle trips, reduce vehicle emissions, manage traffic congestion, and provide transportation to transit dependent persons.

Action 1: Consider providing funding assistance to operate and maintain a regional public transportation system.

Action 2: Plan, fund (as appropriate), and coordinate transit-oriented street improvements such as bus stops and bays during the planning and design phase of street improvements.

Action 3: Consider inclusion of pedestrian accessways to future transit facilities as part of the subdivision and site development review process.

OBJ. 6.9c: **Support park and ride programs with facilities and incentives, including a commuter service interconnecting with regularly scheduled fixed route bus service operating throughout the Houston metropolitan area.**

Policy 1: The City should support, including financially, regional public transportation service providing commuter connections to the established urban transit system.

- Action 1:** Coordinate with other area transportation providers to determine feasible alternatives for funding and operating commuter transit service to and from Baytown.
- Action 2:** Acquire land for the future location of a multi-modal transportation center with park and ride facilities.

BAYTOWN THOROUGHFARE PLAN

The City of Baytown has a Major Thoroughfare Plan. Thoroughfare system planning is the process used by cities and other governmental entities to assure development of the most efficient and appropriate street system to meet existing and future travel needs. The primary objective of the resulting Thoroughfare Plan is to ensure that adequate rights-of-way are preserved on appropriate alignments and of sufficient width to allow the orderly and efficient expansion and improvement of the thoroughfare system. The benefits of effective thoroughfare planning and implementation are reflected in the following objectives:

- Preserving adequate rights-of-way for future long-range transportation improvements;
- Minimizing the amount of land required for street and highway purposes;
- Identifying the functional role that each street should be designed to serve in order to promote and maintain the stability of traffic flow and land use patterns;
- Informing citizens of the streets that are intended to be developed as Arterial and Collector thoroughfares, so that private land use decisions can anticipate which streets will become major traffic facilities in the future;
- Providing information on thoroughfare improvement needs which can be used to determine priorities and schedules in the City's Capital Improvement Program (CIP) and capital budget; and,
- Minimizing the negative impacts of street widening and construction on neighborhood areas and the overall community by recognizing where future improvements may be needed and incorporating thoroughfare needs in the city's comprehensive planning process.

Baytown's Thoroughfare Plan

Baytown's existing and proposed thoroughfare system of expressways, arterials and collector streets is displayed in **Figure 1 - Baytown Thoroughfare Plan**. The Thoroughfare Plan shows approximate alignments for planned thoroughfares that should be considered in platting of subdivisions, right-of-way dedication, and construction of major roadways. Some elements of the thoroughfare system will require new or wider rights-of-way and may ultimately be developed as two-lane or multi-lane roadways with various cross sections. The plan does not show future local streets because these streets function principally to provide access and their future alignments may vary depending upon development plans. Local street alignments should be determined by the City and landowners as part of planning for development.

The Baytown Thoroughfare Plan will have far-reaching effects on the growth and development of the City since it guides the preservation of rights-of-way needed for future thoroughfare improvements. As a result, the plan has significant influence on the pattern of movement and the desirability of areas as

locations for development and land use. Future changes in transportation technology, cost structure, and service demand systems, and long-term shifts in urban growth and development patterns require a far-sighted and visionary approach to thoroughfare planning decisions.

Constraints to Thoroughfare Development

The Baytown area has several natural and man-made barriers that were considered in developing the Transportation element of the Baytown Comprehensive Plan Update. Major constraints that could limit the development of roads, streets and highways include existing developed areas; streams and drainage channels (especially Goose Creek and Cedar Bayou); and flood plain areas. Rail lines through town are major obstacles to traffic circulation in many Texas communities, often requiring consideration of costly solutions such as construction of grade-separated over or underpasses at key railroad-roadway intersection.

Other constraints to thoroughfare system development include public parks and open areas, agricultural land, wetlands and other critical habitat areas. Perhaps the most significant influence on thoroughfare improvement is existing residential neighborhoods and other developed areas that present constraints when a thoroughfare might impact the area. These factors may affect the location, feasibility and construction cost of transportation improvements, so they should be considered in the planning and design of future facilities.

THOROUGHFARE PLAN IMPLEMENTATION

Implementation of thoroughfare system improvements occurs in stages over time as the City grows and, over many years, builds toward the ultimate thoroughfare system shown in the Thoroughfare Plan. The fact that a future thoroughfare is shown on the plan does not represent a commitment to a specific time frame for construction, nor that the City will build the roadway improvement. Individual thoroughfare improvements may be constructed by a variety of implementing agencies, including the City of Baytown, Harris County, and the Texas Department of Transportation (TxDOT), as well as private developers and land owners for sections of roadways located within or adjacent to their property.

The City, County, and TxDOT, as well as residents, land owners and developers, can utilize the Thoroughfare Plan in making decisions relating to planning, coordination and programming of future development and transportation improvements. Review by the City of plats for proposed subdivisions in accordance with the City's subdivision regulations should include consideration of compliance with the Thoroughfare Plan in order to ensure consistency and availability of sufficient rights-of-way for the general roadway alignments shown in the plan. By identifying thoroughfare locations where rights-of-way are needed, land owners and developers can consider the roadways in their subdivision planning, dedication of public right-of-way, and provision of set backs for new buildings, utility lines, and other improvements located along the right-of-way for existing planned thoroughfares. In the Land Use Element of the Comprehensive Plan, it was determined that Baytown has dedicated 4.34 percent of its developed land to street rights-of-way compared to a national guideline for land use distribution of five percent for streets.

Chapter 6

This suggests that Baytown is only slightly below national guidelines and therefore may want to dedicate a slightly larger percentage of future development to streets rights-of-way.

Funding Sources

Implementation of the Thoroughfare Plan will not be the responsibility of a single agency, but rather will require the combined resources of local, county, state and federal transportation funding programs, as well as participation by H-GAC and the private sector. Following are alternative funding sources that are available or could be considered for financing transportation improvements.

Federal Funding – Many of the transportation improvements will be eligible to receive federal funds as part of the Transportation Equity Act for the 21st Century (TEA-21). This six-year program (through 2003) provides federal funding for surface transportation improvements, including roadways, public transportation, pedestrian facilities, and a number of other improvements. TEA-21 emphasizes the developments of a National Intermodal Transportation System that effectively connects highways with other modes of transportation. Additionally, TEA-21 gives states and local governments a significant amount of flexibility in determining the use of available federal funds. The federal share required for TEA-21 funding is generally 80 percent, with the remaining 20 percent provided by the state or local governments.

State funding – The Texas Department of Transportation (TxDOT) developed the 1999 Unified Transportation Program (UTP) under the TEA-21 authorization bill. The UTP is TxDOT's ten-year plan for transportation project development. The state funding programs used to fund these projects are as follows:

Bridge Replacement/Rehabilitation, Off State Highway System – This program provides for replacements or rehabilitation of eligible bridges off of the state highway system (functionally or structurally deficient).

State Preventative Maintenance – This program provides for seal coats and thin overlays (and other preventative maintenance measures) to preserve the existing state highway system. Up to 20 percent of a district's yearly allocation can be used for non-preventative maintenance work, provided administrative approval is first obtained from the Maintenance Division.

Rehabilitation of Texas Farm to Market Road – This funding program provides for reconstruction and rehabilitation of existing Farm to Market Roads outside of urbanized areas of populations of 50,000 persons or more, except for those projects on an existing Farm to Market Road stub section into an urbanized area.

Strategic Priority – The Texas Transportation Commission selects projects which promote economic development, provide system continuity with adjoining states and Mexico, or address other strategic needs.

State Rehabilitation – This program provides for rehabilitation on non-Interstate portions of the state highway system.

Local funding – Alternative funding sources at the local level are discussed in the following paragraphs.

City Capital Budget – Annually, the City should prepare a five-year Capital Improvement Program (CIP) and a one-year capital budget. The budget should include lists of projects, cost estimates and the source(s) of funding. Foregoing any federal, state, or private participation, the primary sources of local funding may include:

Impact Fees – Consideration could be given to establishing an impact fees program to serve as an additional funding source for transportation improvements. A growing number of local jurisdictions and state governments throughout the United States are establishing impact fee programs as a method of private financing of needed transportation and other infrastructure improvements. Traffic impact fees are prevalent in the States of Florida and California, with state enabling legislation for local implementation enacted in Arizona, Colorado, Georgia, Illinois, Maryland, New Jersey, New Hampshire, North Carolina, Oregon, Pennsylvania, Texas, Utah and Washington. This trend is due to the increasing cost of maintaining existing infrastructure and the difficulty for local governments to provide needed improvements due to the lack of adequate funding on the federal, state and local levels.

A traffic impact fee is an exaction imposed by a local government on new development to generate revenue for funding transportation improvements needed to accommodate or alleviate traffic impacts caused by the development project. Impact fees, as distinguished from a general-purpose tax, are levied to allow the local government to build public infrastructure made necessary by a new development or renovation that results in new impacts. Impact fees cannot be used to pay for correcting past deficiencies in existing facilities due to failure to keep pace with the impact of past development. Neither can impact fees be used to support operation and maintenance of existing facilities. Impact fees have been used to provide capital funding for infrastructure improvements such as streets and other transportation improvements, water supply systems, wastewater collection and treatment systems, drainage, recreational facilities, police and fire protection facilities, and medical facilities. Developers can also be allowed to construct improvements and/or dedicate land for right-of-way in lieu of paying impact fees.

Traffic impact fees provide a means of sharing the cost of transportation improvements that provide capacity for new development projects within a particular area. Generally, a district is delineated and transportation improvement needs within the district are identified based on projected future development. The number of trips that are generated by a particular development and an assessment of its traffic impacts are usually the basis for determining the share of total improvements costs that is assessed to the developer. Level-of-Service “C” or “D” is typically used as the standard for identifying needed improvements. In residential areas, the traffic impact rate is often based on a cost per dwelling unit, and in commercial and industrial areas on cost per square foot or acre. Five-year capital improvements programs and major street plans are the most common background documents for calculating the implementing impact fee structures. Traffic impact fees are typically paid at the building permit stage. Some advantages of an impact fee program are as follows:

Chapter 6

- Improvements costs shared by all area development on a pro-rata basis based on their respective trip generation and traffic impacts;
- Provides an additional source of revenue to finance a portion of future transportation and other infrastructure improvements;
- Existing revenue sources can be devoted to maintaining existing service levels and funding improvements to correct existing deficiencies;
- The cost of infrastructure improvements is paid, all or in part, by those who directly benefit from those facilities; and,
- As a form of user charge, impact fees introduce the cost of necessary public infrastructure improvements into the private development decision-making process, thereby imposing a degree of market discipline on resource allocation decisions.

Chapter 395 of the Texas Local Government Code, Financing Capital Improvements Required by New Development in Municipalities, Counties, and Certain Other Local Governments, provides the requirements for establishing impact fees. According to the definition in the Code, and “impact fee” means a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to new development. The term includes amortized charges, lump-sum charge, capital recovery fees, contributions in aid of construction, and any other fee that functions as described by this definition. As stated in the Local Government Code, “The term does not include dedication of land for public parks or payment in lieu of dedication to serve park needs; dedication of right-of-way or easements or construction or dedication of on-site water distribution, wastewater collection or drainage facilities, or streets, sidewalks, or curbs if the dedication or construction is required by a valid ordinance and is necessitated by and attributable to the new development; or lot or acreage fees to be placed in trust funds, for the purpose of reimbursing developers for oversizing or constructing water or sewer mains or lines.” The procedures for adopting impact fees are specified in Subchapter C of Chapter 395 of the Texas Local Government Code.

Plan Amendment Process

It will be necessary for the City to periodically consider and adopt amendments to the Thoroughfare Plan to reflect changing conditions and new needs for thoroughfare system improvements and development. A systematic procedure should be followed for making plan amendments, including a set schedule for annually inviting and considering proposed changes. The process for amending the Thoroughfare Plan should be established in the City’s subdivision regulations. Typically, plan amendment requests may originate from landowners, civic groups, neighborhood associations, developers, other governmental agencies, city staff, and other interested parties. Proposed revisions should be analyzed by the Baytown Area Long Range Planning Commission, Baytown Growth Management and Development Advisory Commission, the municipal engineer, and other city staff. The proposed change and staff recommendations should then be considered by the Baytown Growth Management and Development Advisory Commission. The Commission should conduct a public hearing on proposed plan amendments, including required 15 days public notice in advance of the hearing. Proposed amendments should be considered in a fair, reasonable, and open process. The burden for proving compelling reasons for the public benefit of any

proposed changes should rest with the requesting parties. Decisions and determinations should represent the best interests of the public. The revised Thoroughfare Plan, including any approved plan amendments, should be adopted by the Baytown Growth Management and Development Advisory Commission and submitted to the City Council for its adoption. The amended plan becomes effective upon final adoption by the City Council.

EXISTING TRANSPORTATION SYSTEM

The existing roadway system and traffic conditions and travel patterns on the highway and street network were evaluated using information obtained from the City of Baytown and the Texas Department of Transportation (TxDOT). This evaluation was needed to assist in determining long-range needs for thoroughfare system development. Other transportation modes, facilities, and services were also identified for this element.

Existing Roadway Network

A network of Federal, State, and local highways, roads, and streets comprise the surface transportation system in the Baytown area. Analysis of the existing transportation system includes Federal and State Highways, Farm-to-Market Roadways, traffic volumes, and traffic control devices.

Federal and State Highways

Many thoroughfares in the study area have Federal (U.S.), State Highway (S.H.), and Farm to Market (F.M.) highway designations. Baytown area highways that are designated as part of the National Highway System (NHS) include I.H. 10 and S.H. 146. Connectivity with the National Highway System is vital for continued growth of the area's economy and potential for international trade. Existing major highways in the Baytown area include:

- I.H. 10 extending east to Baton Rouge, Louisiana, and west to Houston and San Antonio, Texas.
- S.H. 146 south to Galveston and northeast to intersect with I.H. 10 and then S.H. 90 and beyond.
- Other routes including F.M. 1942, F.M. 565, F.M. 1405, Spur 55, and Spur 330 (Decker Drive).

Baytown is also home to the Fred Hartman Bridge, which replaced the Baytown Tunnel in 1995. The eight-lane bridge across the Houston Ship Channel connects Baytown and La Porte via S.H. 146 and S.H. 225 on the south and S.H. 146 on the north.

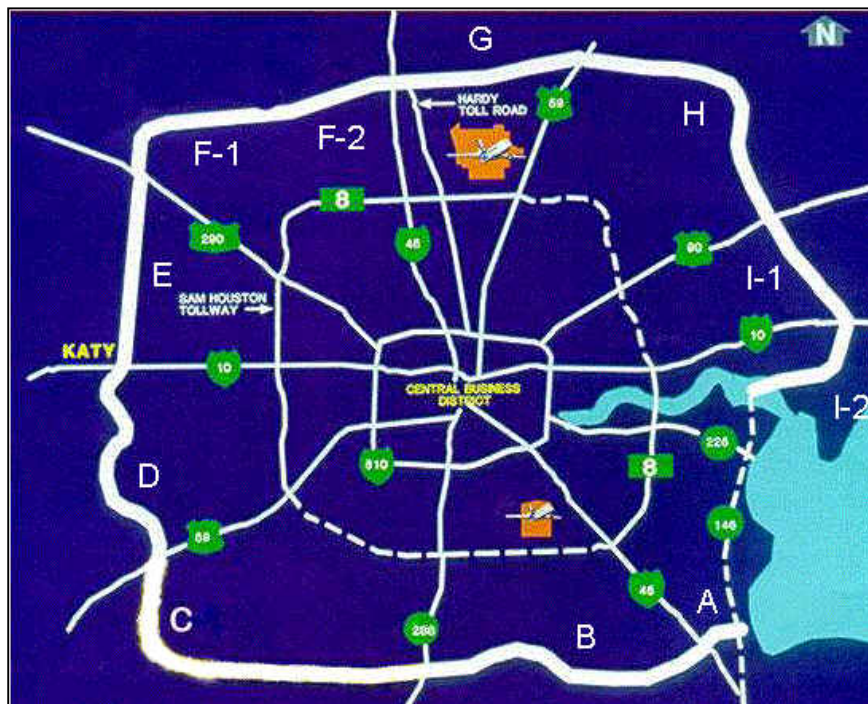
A proposed improvement that will have a significant influence on the local transportation network is the Grand Parkway. It is proposed to be a 170-mile scenic outer loop, which will ultimately be a six-lane limited access highway encircling Houston as the third loop. It will serve the regional mobility needs of Harris County and the six surrounding counties that include Brazoria, Chambers, Fort Bend, Galveston, Liberty and Montgomery. This regional highway is currently in various stages of design and construction.

Chapter 6

The preliminary alignment that will affect Baytown is the eastern portion of the Parkway from I.H. 10 south along the eastern boundary of Baytown connecting to S.H. 146 across the Fred Hartman Bridge as displayed in **Figure 6.1 - Grand Parkway Alignment**. The Grand Parkway is intended to redirect traffic away from populated areas, serve as a hurricane evacuation route for the southern counties, reduce traffic congestion in populated areas, and potentially serve as an I-69 bypass around the Houston metropolitan area with the U.S. 59 redesignation as I-69 (a.k.a. NAFTA Highway or ISTEA corridors 18 and 20). I-69 would directly link the three NAFTA partners, Canada, Mexico, and the United States.

The Grand Parkway is divided into eleven segments as shown below. The segment that passes through Baytown is “I-2,” which extends from I.H. 10 East to S.H. 146. The estimated construction cost for this 8.8-mile segment is \$35.9 million, which includes ultimate build-out of a four-lane divided rural highway. The Texas Transportation Commission will likely approve a two-lane facility if funding is available, and TxDOT will construct a higher capacity facility if traffic demands warrant and funding is available for this option. The anticipated project completion date for the two-lane facility is 2003. The schematic for phase I is 100 percent complete, the environmental impact statement is complete, and the record of decision was signed by the Federal Highway Administration (FHWA) on August 13, 1998.

FIGURE 6.1
GRAND PARKWAY ALIGNMENT
 Baytown Comprehensive Plan Update
 Baytown, Texas



With the recently approved public referendum for the Port of Houston to develop the Bayport Terminal, located immediately south of La Porte, and the projected increase in truck traffic volume, this segment is likely to warrant expansion in the future. TxDOT will assume the costs of all utility adjustments, including 33 pipelines at an estimated cost of \$1.3 million for the two-lane facility. Future considerations for the City of Baytown will be possible additional rights-of-way for widening of S.H. 146, as needed, utility relocation, and other potential improvements that may influence future development adjacent to this corridor.

Traffic Volumes

Traffic volumes identify existing travel patterns and assist in determining the transportation system’s ability to serve the area travel demands. The most recent available average daily traffic volume counts for major area roadways were obtained from the Texas Department of Transportation (TxDOT) through its 1997 Highway Traffic Map for the TxDOT Houston District.

On the portion of S.H. 146 from the intersection with S.H. 225 and Spur 330, the average daily traffic count was 40,000 vehicles. The count was slightly less, 33,000 vehicles per day, on the portion of S.H. 146 from Spur 330 until its confluence with Business S.H. 146. The south end of business S.H. 146 has 12,500 vehicles per day, and the count decreases to 9,500 at the intersection with Spur 55. The traffic volume then increased to 17,900 at the north end of Business S.H. 146. This fluctuation in daily traffic volumes may be attributed to travelers entering and exiting the bypass via Spur 55.

Spur 330, or Decker drive, carries an average of 32,000 vehicles daily on the south end where it connects with S.H. 146, and 30,000 vehicles daily on the north end where it intersects with I.H. 10. This road is the main point of access to I.H. 10 for persons in the Baytown area. Spur 55, which continues east to Beaumont, has an average of 5,900 vehicles each day.

Traffic Control Devices

The City of Baytown employs traffic signals as the principal means of facilitating safe and efficient traffic flow on roadways. The City currently has 76 signals in place, and three more are scheduled for installation in the near future. The older existing signals are time-based or fixed-time devices whereas all newly installed signals are traffic-actuated signals. Traffic actuated signal systems or later technology should be used, except where other signalized intersections are in near proximity, then, interconnected signal systems should be considered to provide for progression movement. Simple time-activated systems may be used on one-way streets to encourage smooth traffic flow and control speeds. All traffic-actuated signals should provide for activation by pedestrians and bicyclists. The City attributes its traffic congestion problem to poor signalization rather than inadequate roadway capacities. Traffic-actuated controllers, rather than time-based controllers, will provide greater flexibility in accommodating traffic demands by responding to the actual presence of vehicles at the intersection.

Chapter 6

Public Transportation

The City of Baytown’s Senior and Disabled Citizens’ Taxi Program was created over twenty years ago to provide limited transportation services within the community. Funding is through the Community Development Block Grant (CDBG) program. The City contracts with privately owned taxi companies to provide this service. City of Baytown personnel are responsible for certifying the eligibility of participants, and the taxi companies are responsible for receiving requests for service, dispatching cabs, and providing rides.

Baytown is currently not within the service area of the Metropolitan Transit Authority (METRO), which provides fixed route bus service throughout the city limits of Houston and certain other cities and areas within its designated authority in Harris County. In order for Baytown to access METRO services, there are two mechanisms available. In accordance with the Texas Transportation Code, Chapter 451, Metropolitan Rapid Transit Authorities, the transit authority may contract with a municipality, county, or other political subdivision to provide public transportation services outside the authority. The other mechanism is the addition of territory. The territory of a municipality that is not a part of an authority may be added if:

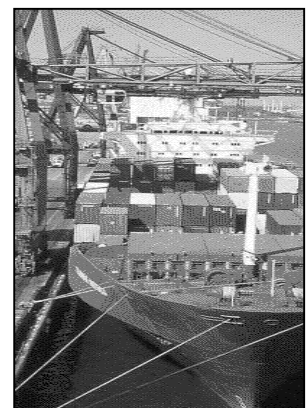
- any part of the municipality is located in a county in which the authority is located;
- the governing body of the municipality orders an election under Subsection L, Addition of Territory, of Chapter 451, Metropolitan Rapid Transit Authorities, of the Transportation Code on whether the territory of the municipality should be added to the authority; and,
- a majority of the votes received in the election favor the measure.

Upon contract or addition to the authority, the cost of the service would be borne entirely by the City.

While Baytown has not attempted to join METRO or contract with the transit authority for services, previous public opinion surveys in Baytown have indicated majority support for some form of public transportation system, whether local or regional. However, when a referendum was held in January 1996 on the question of establishing a Baytown Transportation Authority and levying a sales and use tax to support it, 68.7% of the 2,121 residents who cast ballots voted against the proposal (664 for and 1,457 against).

Freight Seaport Facilities

The Port of Houston is a general purpose, deep-water cargo port that ranks first in the United States in terms of foreign waterborne commerce and second in terms of total tonnage. The port consists of a complex of public and private docking facilities and industrial parks that extend for 25 miles along the Houston Ship Channel. The Ship Channel and its tributaries and basins comprise a 50-mile long waterway that reaches from the head of Galveston Bay at Morgan’s Point just north of La Porte to and including the turning basin to the

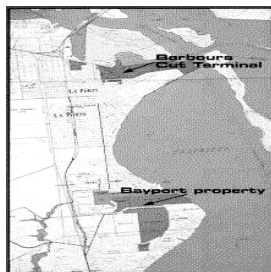


Main Street Bridge. Additional facilities of the port are located along the upper west side of Galveston Bay at Bayport near Red Bluff, which is just south of La Porte. The Port of Houston handles 40 percent of all freight moving through Texas ports. This port is also ranked first in the U.S. in handling petrochemicals.

Public terminal docking facilities along the Houston Ship Channel are owned and operated by the Port of Houston Authority, which is an autonomous subdivision of the State of Texas and official sponsor of the Houston Ship Channel. The Exxon Docks are located on the western edge of Baytown. The Exxon-Baytown facility and other area industries rely on the Ship Channel for relatively inexpensive transportation of raw materials and other goods.

Cedar Bayou, which traverses the eastern edge of Baytown, is a shallow draft waterway that offers potential for future development. Due to its shallow condition, current use is limited to barges and small non-descript vessels. The Port of Houston has evaluated this waterway for potential future use, which would require significant deepening, widening and other channel improvements. In addition, this waterway is one of several alternative sites evaluated as part of the Bayport Terminal environmental impact statement (EIS) that is being prepared by the Army Corps of Engineers. The EIS is scheduled for completion in mid-year 2000.

While Bayport is somewhat removed from Baytown to the south of La Porte, the Port of Houston's significant expansion plans there could have important transportation implications for Baytown, particularly in terms of increased truck traffic on S.H. 146. The Bayport Terminal is an existing liquid bulk material and chemical terminal operating in the Houston Ship Channel area by the Port Authority. To facilitate access to the container terminal and cruise facility, dedicated entrances and exits would be built during these phases to divert access to S.H. 146. S.H. 146 would be the major arterial for truck traffic to and from the terminal, which is projected to attract 7,000 trucks per day.



Airports

Baytown Airport is privately owned but is open to the public. It provides access to Baytown and is located in the north central portion of the city between I.H. 10 and S.H. 146. The airport has a 4,000-foot, paved, runway. Fuel, maintenance services, and car rental are among the services offered at the facility. Approximately 3,650 general aviation take-offs or landings occur at the airport each year.

RWJ Airpark is a privately owned airport intended for public use, located approximately three miles east of Baytown. The airport has a 4,080-foot paved runway and a 3,300-foot turf runway. RWJ Airpark accepts general aviation air traffic at the rate of about 1,500 take-offs or landings per year. Houston's two major airports – Bush Intercontinental and Hobby – provide the closest access to most major national and international commercial air carriers. Houston Hobby is roughly one-half hour from Baytown while Bush Intercontinental is approximately 45 minutes.

Chapter 6

Railroads

Union Pacific Railroad operates a freight mainline through Baytown between the northern and southern portions of the state, and another line through the City links to other rail routes throughout the state.

Bikeways

The State of Texas recognizes a bicycle as a vehicle, with all rights and responsibilities for roadway use that are provided to motor vehicles. As such, cyclists can legally ride on any street in Baytown with the exception of Interstate 10 and S.H. 146, which have controlled access.

Certain types of roadways are more attractive to riders than others as a result of traffic volumes and speeds and street design. Local and collector streets are suitable for use by most adult bicycle riders while minor arterial streets are suitable for limited use by bicyclists due to higher traffic volumes and higher speeds. Rural arterials, especially those with shoulders wider than 4 feet, attract sport cyclists interested in longer-distance travel with fewer interruptions.

Eliminating barriers to bicycle/pedestrian mobility is one of the most important features in bicycle/pedestrian planning. Freeways, major arterials, railroads, water features, and topography all impose significant barriers to access and mobility. Bicycle routes, bikeways, and bike and jog trails should be developed to link major attractions and destinations throughout the City. The Goose Creek Stream trails should continue to be developed toward development of a system of off-street bike and hike trails that link major attractions and destinations such as neighborhoods, parks, schools and other attractions. Pedestrian and bicycle facilities should be designed and constructed in compliance with the requirements of the Americans with Disabilities Act (ADA).

Pedestrian walkways, sidewalks and crosswalks are part of the City's existing transportation system that serve the needs for pedestrian movement in residential neighborhoods, commercial business areas, and around schools, parks and other community facilities. Pedestrian facilities are particularly needed in the older established areas of the community.

The City of Baytown has many natural resources that could be utilized to continue development of the Goose Creek Stream trail to form a comprehensive bikeway system. Goose Creek, Cedar Bayou, Evergreen Point and the Bays are optimal opportunities to develop linear parks/open space system with multi-use trails. This system could connect the fragmented developed areas that are prevalent in the City, and could link attractions such as the Baytown Nature Center, Goose Creek and the Marina projects.

IMPLEMENTATION OF TRAFFIC CALMING

The City of Baytown joined a growing nationwide trend among local governments by adopting a "Baytown Neighborhood Traffic Calming Program" in March 1999. The Department of Public Works is

responsible for implementing this program, the theme of which is, “Traffic calming for safety, security, and livability.” The Institute of Transportation Engineers (ITE) defines “traffic calming” as “the combination of mainly physical features that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users.” In addition to addressing motor vehicle issues, traffic calming can also involve disparate objectives such as improving aesthetics, promoting urban renewal, reducing crime, and increasing water filtration into the ground.. More specific objectives, as applied to local streets, include:

- achieving slower speeds for motor vehicles;
- reducing collision frequency and severity;
- increasing safety and the perception of safety for non-motorized users of the street;
- reducing the need for police enforcement;
- enhancing the street environment (streetscaping, etc.);
- increasing access for all modes of transportation; and,
- reducing cut-through motor vehicle traffic through neighborhoods.

- The City of Baytown had adopted a road hump installation program in April 1994 in an effort to address neighborhood traffic concerns. However, the City later rescinded this program in July 1997 after 25 humps had been approved for installation. As has been the case in many other communities, the City and its residents soon became aware of the negative aspects of road humps, including the diversion of unwanted traffic onto other residential streets, the potential increase in emergency vehicle response times, complaints regarding the design speed of the humps, concerns about maintenance cost and effort, and friction among neighborhood residents who disagreed on the merits of road humps. In 1998 the City’s Growth Management and Development Advisory Commission created a Traffic Calming Subcommittee to develop a consensus policy that ultimately could be recommended to City Council for adoption. The Subcommittee focused on the need to identify and reduce the negative impacts of motorized vehicles in residential areas.

As part of the policy, the City commits to reconsider – and alter or remove if necessary – any traffic calming device or technique which inadvertently creates and/or shifts a traffic problem from one neighborhood to another.

The Neighborhood Traffic Calming Program manual outlines an eight-step process and provides a flowchart of the procedures required for studying a potential traffic problem, obtaining neighborhood input, identifying a preferred calming technique or set of methods, confirming neighborhood consensus and support, securing project approval and funding, designing and implementing the calming measures, and monitoring and evaluating their effectiveness. Appendices to the manual document the 28 primary traffic calming techniques that are available for implementation in Baytown, with illustrations and discussion of the advantages and disadvantages of each. The manual also provides sample petitions which neighborhood groups or others can use to request implementation of a traffic calming plan in their area.