

## **APPENDIX G: SUMMARY OF THE REGIONAL BIKEWAY PLAN**

### *Purpose*

The purpose of the Houston-Galveston Area Council's (H-GAC) *Regional Bikeway Plan* is to serve as a guide for investment, interagency coordination and best practices in developing facilities for bicyclists in the 8-county Houston-Galveston Transportation Management Area (TMA). The following is a summary of the Regional Bikeway Plan, the complete document is available on the Publications page at [www.H-GAC.com](http://www.H-GAC.com).

### *Introduction*

A bicycle is defined as a vehicle in the Texas Transportation code (Section 551.101(a)). As such, a person operating a bicycle has both the same rights and responsibilities as the driver of a car. Bicyclists also share motorists' preferences for smooth pavement, minimum interruptions to movement, and direct access to their trip destinations. These conditions can be achieved with on-street (bike lanes, signed routes on shoulders, bike routes on suitable streets with low traffic volumes) or off-street (shared use paths) bicyclist facilities, or bikeways.

### *Existing Conditions*

The current level of bicycle travel within the Transportation Management Area (TMA) is not precisely known. Bicycle trips accounted for 0.3% of total journeys to work in the TMA according to the 2000 Census, and a considerably higher share in some areas. Data for non-work and recreational trips is not regularly collected. The low share of commuter trips and lack of other data has made it difficult for local governments and transportation agencies to justify major expenditures on bicyclist facilities.

However, there are indications of a considerable bicycling population in the TMA. Numerous recreational bicyclist groups are also active within the region. The National Multiple Sclerosis Society sponsors the largest two-day bicycling event in the entire country: the annual Houston to Austin MS-150 ride. As the largest fundraiser event for the national organization, enrollment is limited to 13,000 participants for safety reasons. These largely experienced riders are prime candidates to commute or make other non-recreational bicycling trips if suitable facilities are available. There is also a population which bicycles out of necessity. The 2000 Census reported that 8% of TMA households did not have access to a car, ranging to as high as 40% in some neighborhoods. Bicycling can be a key component of personal mobility among members of these households.

Bicycling is an excellent means of personal mobility and exercise for children. School age children below driving age (6-15 years) represent 16.2% of the TMA's population. Providing safe bicycle access to schools can reduce school-related congestion. The Texas Bicycle Coalition provides Super Cyclist training to school teachers to add bicycle safety to their physical education program.

Unfortunately, the Houston-Galveston region has one of the highest rates of crashes involving motorists and bicyclists in Texas. H-GAC identified crash 'hot spots', locations of concentrated crashes involving motorists and bicyclists. The highest crash rates occur in low income communities. Addressing this safety problem will likely require investments to improve facility designs and maintenance, as well as an increased safety awareness on the part of both motorists and bicyclists.

Over the past 20 years, local governments and transportation agencies in the TMA have made considerable investment in bicyclist facilities. An extensive network of on-street bike lanes has been established in the City of Houston. Harris County has been a leader in developing an off-street network of shared use paths. The Texas Department of Transportation (TxDOT) has included bicyclist-suitable shoulders and 14 foot-wide outside lane widths on a number of state maintained roadways. State roadways may offer additional opportunities for establishing longer bikeways and have been identified in several Major Investment Studies. Comprehensive local bikeway networks exist or are in the planning stages in many other cities and master planned communities within the Houston-Galveston Transportation Management Area (TMA).

Despite this progress, the TMA's bikeway system still leaves much to be desired. Numerous gaps exist and there is not a consistent approach to pedestrian and bicyclist facility design. These bikeways are often difficult to access safely from local street systems, and they fail to connect to some of the TMA's major activity centers. Many bikeways in the TMA region also suffer from a lack of maintenance, which is a major impediment to promoting safe bicycle travel. Maintenance plans are a key component to successful bikeway programs. As a result, H-GAC will require evidence that a maintenance plan exists for funding considerations on all candidate TIP bikeway projects.

This *Regional Bikeway Plan* sets forth goals, objectives and strategies to address these issues and increase the viability and safety of bicycling in the TMA.

#### *Plan Goals and Objectives*

The goals of the *Regional Bikeway Plan* are:

- Increase the share of trips in the TMA made by bicyclists
- Reduce the number of crashes involving bicyclists

The objectives toward achieving these goals are:

- Develop the regional bikeway system
- Support development of local bikeway networks
- Enhance bicyclist commuting centers and districts
- Improve bikeway design and maintenance
- Raise public awareness of bicycling and bicyclist safety

These objectives form the major elements of the bikeway plan, which are summarized as follows.

#### *Regional Bikeways*

The purpose of the Regional Bikeway System is to provide facilities designed for safe use by bicyclists on longer trips (4 miles or more), identify existing and planned bikeways, as well as encourage the development of safer, more convenient, and better connected bikeways. Figure 1 on Page 3 shows the existing and planned bikeways that fall into this category. The Regional Bikeway Plan provides a framework for identifying project investments to enhance the reach and connectivity of the bikeway system and providing transportation engineers and planners information about existing and proposed bikeways. Specific recommendations include:

- *Give priority funding to bikeway projects that complete missing sections of the regional bikeway system.*
- *Develop commitments to developing planned bicyclist facilities.*
- *Add shoulders to roadways with significant bicyclist activity.*

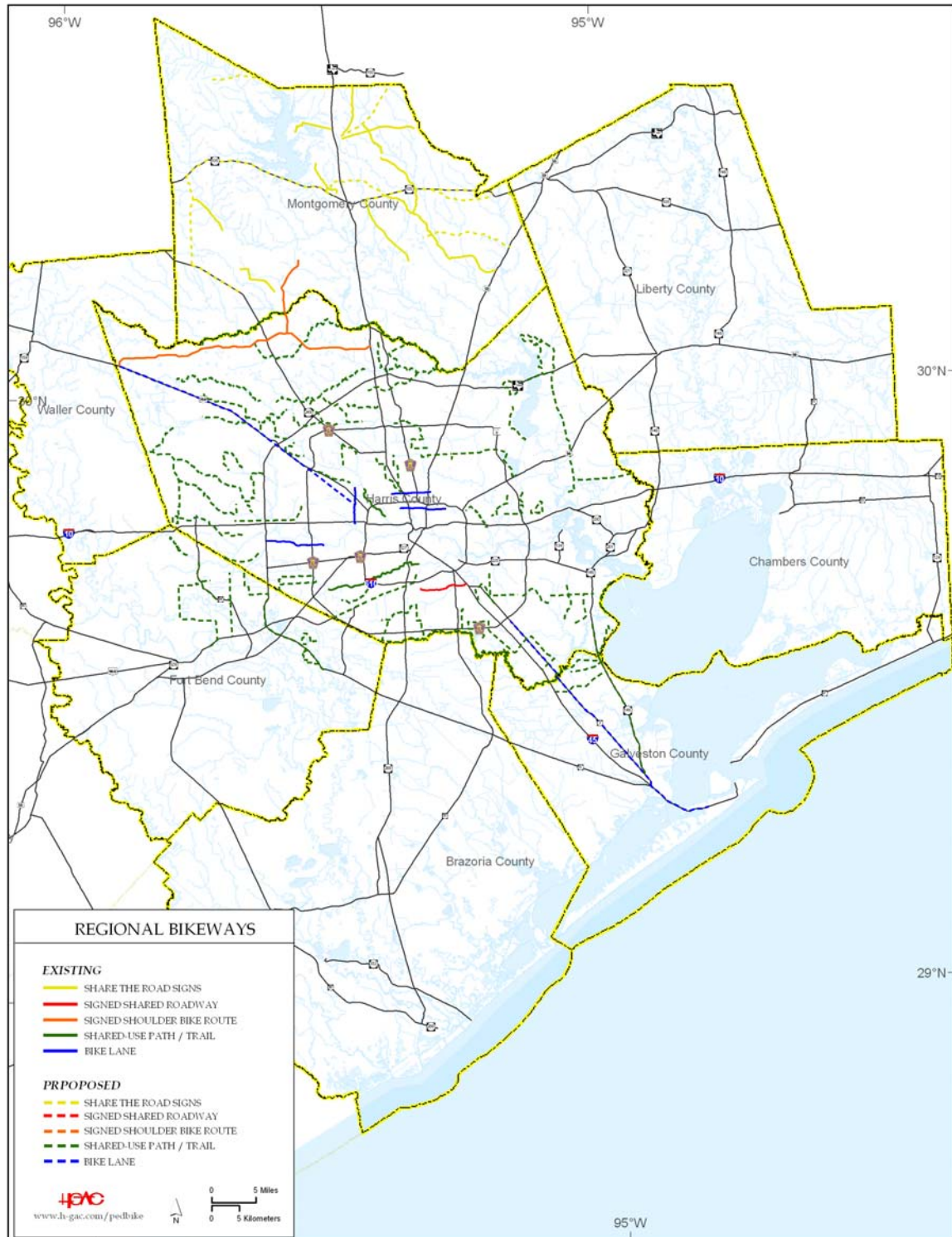


Figure 1. The Draft Houston-Galveston Regional Bikeway System

### *Local Bikeways*

The purpose of a local bikeway network is to facilitate the movement of bicyclists within the community and provide connectivity between residences and various destinations, such as schools, colleges, libraries, post offices and community centers, as well as commercial establishments, such as retail, shopping centers, and supermarkets. Local commuter bicyclist trips include similar destinations, including various local and regional employment centers. Enhancing opportunities for local residents to use a bicycle for short trips can improve the level of service on local roadways and may increase the availability of parking.

Numerous local bikeway networks exist or are in the planning stages throughout the TMA. These networks are good for shorter trips (< 4 miles) and for accessing local destinations. Notable examples of local bikeway networks include Alvin, Conroe, Houston, Lake Jackson, La Porte, Missouri City, Pasadena, Sugar Land, and The Woodlands. H-GAC plans to continue to work with local entities to identify projects that further the development of local bikeway networks as part of the overall regional transportation system. As with the regional system, roadway planning should be carefully coordinated with local bikeway network plans.

### **Bicyclist Commuting Centers**

There are two employment centers within the TMA that generate a significant level of bicyclist commuters: the Texas Medical Center in Houston and the University of Texas Medical Branch (UTMB) in Galveston. There may be many reasons for the higher concentration of bicyclist trips (e.g., the medical community is more sensitive to healthy behavior, existence of bicyclist facilities, high concentration of students); however, the high cost of parking may be a key factor. These growing employment centers present opportunities for encouraging even greater use of walking and bicycling to relieve congestion and parking pressures.

#### *Texas Medical Center*

The Texas Medical Center (TMC) draws the greatest amount of commuter bicyclists of any employment center in the TMA. According to the 2000 census, there were 50,238 work trips, of which 36,973 drove alone, 7,927 carpooled, 4,018 took the bus, 430 walked, 379 biked, and 511 used other means (motorcycle, taxi, permanent telecommute).

The 430 walking trips and the 379 biking trips represent 0.9% and 0.8% respectively of all trips. The Texas Medical Center has the highest concentration of bicyclist trips within a census tract in the region (even greater than Downtown Houston), and the third highest concentration of walking trips in the region (after downtown and the University of Texas Medical Branch in Galveston). Recent observations made by H-GAC and TMC staff indicate that over 1,000 bicyclists now commute to the Texas Medical Center on a daily basis.

Figure Two (page 26) shows the major concentrations of trip origins to the TMC superimposed upon the existing local bikeways. While the network is extensive, there is a gap between bikeways and destinations, with a limited number of direct access points into TMC. Additional incentives for walking and bicycle commuting could be provided, including secure and weather-protected bicycle parking, continuous sidewalks, more frequent crosswalks, as well as access to showers and lockers for personal belongings. H-GAC plans to continue to work with the TMC and its transportation partners to identify the volume of commuter bicyclists and potential projects and amenities to support bicyclist commuting.



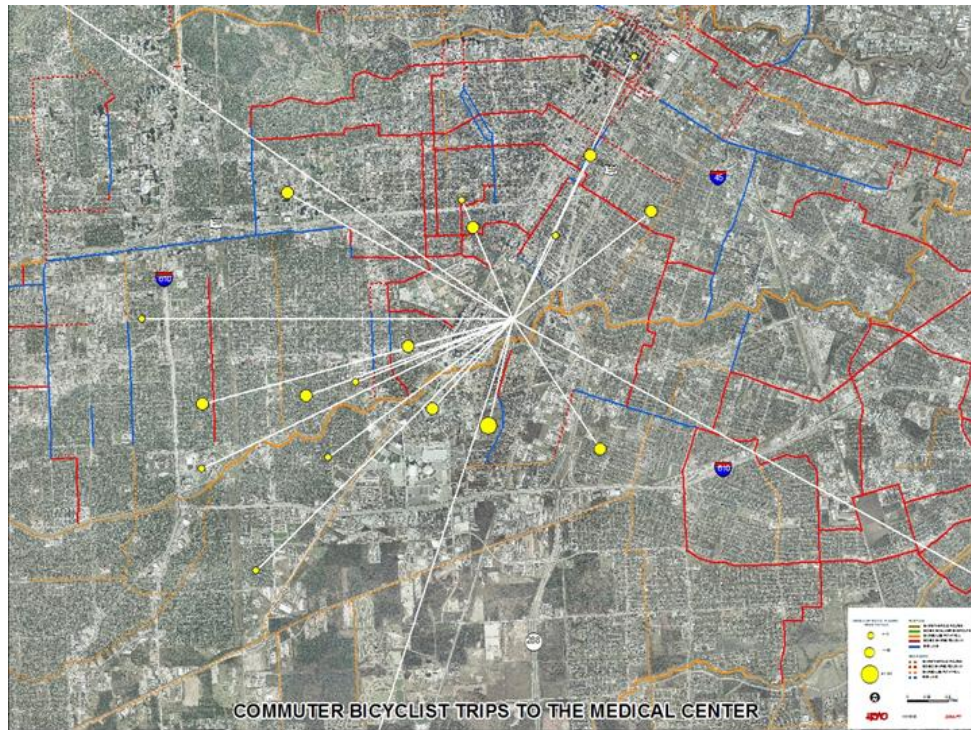


Figure 2. Commuter Bicyclist Trips to the Texas Medical Center.

#### *University of Texas Medical Branch-Galveston*

Bicycling commuting is considerable in the vicinity of the University of Texas Medical Branch (UTMB). The 2000 Census indicated that UTMB had 10,470 daily work trips. Of these 89% were by private vehicle, 1.3% were by bus, 2.2% were by bicycle and 5.3% were walking trips. These are much higher than the regional average of 0.3% by bicycling and 2.1% by walking.

The abundance of housing close to UTMB makes walking and biking very feasible. In particular, the 234 commute trips by bicyclists were nearly equal to the number of bicyclists commuting to the Texas Medical Center in Houston, a much larger campus. An analysis of the locations from which UTMB bicyclist commute trips showed that most lived in the vicinity, but many came from elsewhere on the island and some came from the mainland.

### **Pedestrian-Bicyclist Districts**

#### *Background*

The 2004 Pedestrian-Bicyclist Special Districts study identified geographic areas with the greatest potential demand for pedestrian and bicyclist travel.. The highest overall ranking districts in the TMA were within the City of Houston (see Figure Three on Page 27) and the City of Galveston (see Figure 4 on Page 27).

## Pilot Studies

Each high ranking pedestrian-bicyclist special district was further assessed as a potential pilot project to show how pedestrian and bicyclist improvements could be planned at a district level. Houston's **Third Ward** area was selected as the site of the first pilot study in 2004, due to its potential for strong local partnerships and synergy with other plans and projects, and to effective pedestrian and bicyclist improvements within a specific area. Community meetings were organized in coordination with the City of Houston Planning and Development Department, the OST/Alameda Corridors Redevelopment Authority—Tax Increment Re-investment Zone (TIRZ) #7, the Greater Southeast Management District, and the Third Ward Redevelopment Council. From input received at the meetings, consultants prepared a conceptual plan for pedestrian and bicyclist improvements.

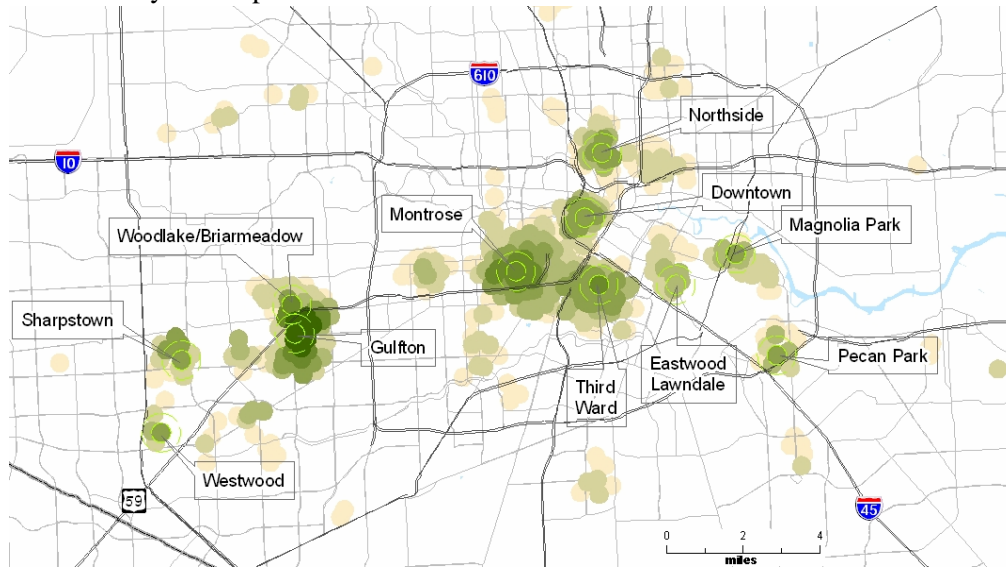


Figure 3. Top Scoring Districts within the City of Houston, Harris County.

Within the **Third Ward**, many households do not have access to a motor vehicle. Residents of this community are dependent upon transit, bicycling and walking to commute. While the Third Ward has only 5% of METRO's service area, it contributes 23% of the transit organizations total ridership. Projects identified in this plan were focused upon improving safety and mobility for pedestrians. These projects included a modern 'roundabout' to replace the traffic signal at the intersection of Dowling and Elgin, new sidewalks along Elgin, Ennis, Alabama and Dowling streets, as well as curb extensions and crossing islands at the intersections of Holman and Delano and Holman at Ennis. The sidewalk, crossing islands and curb extension projects identified in this plan were submitted into the 2006-08 TIP, sponsored by the Greater Southeast Management District, with the support from the City of Houston and elected officials. Three million dollars was allocated within the 2006-2008 TIP for implementation of pedestrian and bicyclist improvement projects developed as a result of the special districts studies where the local entity agreed to provide the 20% local match.

In 2005, H-GAC developed two more conceptual plans for the Gulfton and Montrose districts within the City of Houston. The **Gulfton** district is the most densely populated neighborhood in Houston. Many of its residents walk or commute by bicycle, as over 40% of Gulfton households do not have access to a motor vehicle. The Gulfton district also leads the region in crashes involving pedestrians and bicyclists. In 2003, the Harris County Toll Road Authority (HCTRA)

constructed the Westpark Toll Road, usurping several miles of designated bicycle lanes previously installed along Westpark by the City of Houston. North and southbound pedestrian movements were negatively impacted by the completion of the toll road, due to the placement of barriers, such as guard rails, and elimination of crosswalks and sidewalks that were previously available to cross the roadway. In 2006, HCTRA made significant improvements to pedestrian safety across Westpark.

H-GAC is working with HCTRA and the City of Houston to develop a plan to restore additional pedestrian and bicyclist facilities to the corridor. The proposed improvements include strategic segments of shared use paths along Westpark and the Bering Channel, which is maintained by the Harris County Flood Control District (HCFCD), as well as sidewalks to improve pedestrian access along Westpark and to the METRO Hillcroft Transit Center.



Figure 4. Top Scoring Districts within the City of Galveston.

In contrast to Gulfport, **Montrose** has a young, well-educated, affluent population, with a propensity to walk or take public transportation. Improving pedestrian access to transit is a high priority identified in the public charrette process. The reconstruction of Spur 527, which links the Southwest Freeway with downtown Houston, had created a temporary barrier to pedestrians and bicyclists. Existing sidewalks and crosswalks beneath the highway structure were removed, and no accommodations for pedestrians were provided during construction. The result of this action was that pedestrians had to utilize the roadway to cross beneath Spur 527 to access METRO's Main Street light rail train. The completion of the Spur 527 project resulted in vastly improved facilities for pedestrians. Several projects were developed through the Montrose Special Districts study as a direct result of strong public input, including the development of a bicycle route along Waugh Boulevard to connect with the Heights, as well as other bicycle routes to link Montrose with the Texas Medical Center and Hermann Park. Sidewalk projects were recommended for segments of Westheimer, Montrose and Richmond Boulevard.

In 2006, H-GAC worked with the City of **Galveston** to develop a pedestrian-bicyclist plan for two districts on Galveston Island. Issues identified to date include a substantial amount of

pedestrian-bicyclist crashes with motor vehicles along Broadway/State Highway 87, which acts as a barrier for students to reach several elementary schools. Results from public meetings indicate that residents want new sidewalks in strategic areas. There was also an overwhelming demand for the development of a bicycle master plan for the City of Galveston. The City of Galveston is sponsoring seventeen pedestrian-bicyclist improvement projects that were developed as part of this study, including bike lanes and signed shared roadways, sidewalks, bicycle racks at businesses, and pedestrian improvements across Broadway/State Highway 87.

### *Next Steps*

In 2007, H-GAC will partner with the City of **Sugar Land** to develop a pedestrian-bicyclist mobility plan for the city Town Center. H-GAC will continue to seeking partners to develop pedestrian-bicyclist mobility plans throughout the TMA. In future years, H-GAC would like to partner with other communities to develop additional pedestrian-bicyclists improvement projects. Other districts identified include:

#### Brazoria County:

Alvin  
Angleton  
Clute  
Lake Jackson  
Freeport  
Manvel  
Pearland

#### Galveston County:

Friendswood  
Texas City

#### Liberty County:

Cleveland  
Daisetta  
Dayton  
Liberty

#### Chambers County:

Anahuac  
Winnie-Stowell

#### Fort Bend County:

Missouri City  
Richmond  
Rosenberg

#### Harris County:

Eastwood/Lawndale  
Magnolia Park  
Northside  
Pecan Park  
Sharpstown  
Westwood

#### Montgomery County:

Conroe  
S. Montgomery County  
Willis  
Woodlands

#### Waller County:

Brookshire  
Hempstead  
Prairie View  
Waller

### *Facility Design and Maintenance*

Bicyclists must often travel outside of the designated bikeway system or local network. Accordingly, some consideration should also be given to how bikeways can be accessed by bicyclists from other roadways. The Regional Bikeway Plan includes a set of guidelines for accommodating pedestrians and bicyclists in a variety of roadway conditions. Project sponsors are asked to consult these guidelines in their project planning. Upon request, H-GAC can provide assistance in the form of an accommodation review.



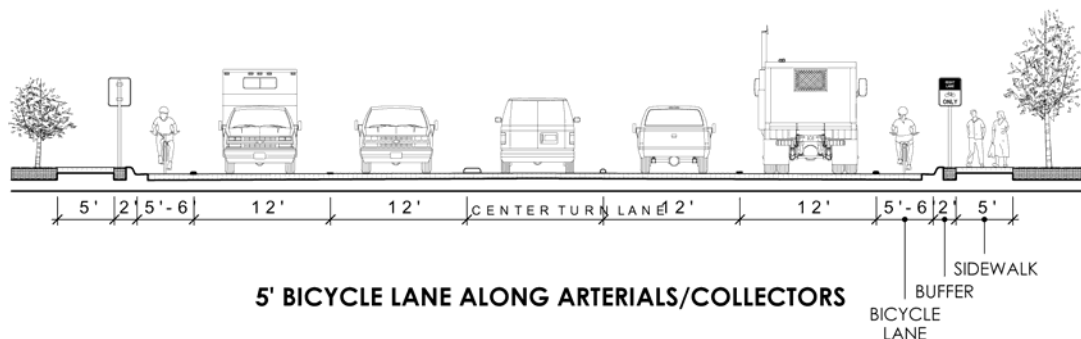


Figure 5. Designated bicycle lanes offer bicyclists a dedicated portion of the roadway.

In addition to the basic accommodations guidelines, the Regional Bikeway Plan also contains a list of best practices for better integrating bikeways, roadways and land uses. The plan also stresses the importance of bikeway maintenance. Minor roadway debris, cracks and potholes may not present a hazard for a motorist; however, such roadway hazards can be a major obstacle for a bicyclist.

#### *Public Awareness*

The perception of animosity between drivers of motor vehicles and bicyclists may be due to a lack of understanding and awareness of operating techniques between the different modes. Through public service announcements, drivers education, bicyclist safety classes and published materials, measures have been taken to educate the public about bicyclist activity and presence along and across roadways within the TMA. For example, Montgomery County has posted 'Share the Road' signage along many county roadways utilized by the Woodlands Cycling Club (WCC). Bicyclists representing WCC have been working with TxDOT to add 'Share the Road' signage to state roadways to alert motorists on roadways known to be frequented by bicyclists.

#### *Implementation*

Coordination between cities and transportation agencies is essential to accomplish the goals proposed in the *Regional Bikeway Plan*. One key component of coordination will be maintaining an up-to-date Regional Bikeway Map and supporting GIS files of the regional bikeway network. To ensure that the Regional Bikeway Plan can be easily updated, local agencies will be encouraged to adopt standard nomenclature, mapping characteristics and GIS formats used by TxDOT and H-GAC to ensure this product can be easily updated.

Numerous bikeways in this plan have been submitted by sponsors as RTP and TIP projects. Maintaining sponsor commitments to bikeways in the Regional Transportation Plan (RTP) and Transportation Improvement Program is essential to the development of a comprehensive bikeway system. Underestimation of costs is often the cause of project delay. H-GAC will work with project sponsors and other partners to ensure that design requirements are understood and assigned appropriate costs.

The purpose of a Regional Bikeway Plan is to identify existing and planned bikeways and to encourage the development of safer, more convenient and better connected bikeways. The Regional Bikeway Plan may be used to prioritize pedestrian and bikeway investments and to review projects that may impact an existing or proposed bikeway.

In this update, H-GAC has addressed issues raised in the 2025 RTP. These issues are described below.

### **Consistent Bikeway Terminology and Mapping**

Building a coordinated Regional Bikeway Plan is a challenging task. Adopting conventional bikeway terminology and mapping techniques will allow for greater information sharing and project coordination. H-GAC using standard bikeway terminology developed by the American Association of Transportation Officials (AASHTO) as written in the Guide for the Development of Bicycle Facilities (1999 edition or latest version). All federal-aid roadway and bikeway projects must be designed in accordance with AASHTO guidelines. H-GAC also advises the use of AASHTO guidelines on local projects. The AASHTO bikeway definitions are as follows:

**Bikeway** – A generic term for any road, street, path, or way which in some manner is specifically designated for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

**Bike Route System** – A system of bikeways designated by the jurisdiction having authority [over an area,] with appropriate directional and informational route markers, with or without specific route numbers. Bike routes should establish a continuous routing, but may be a combination of any and all types of bikeways.

### On-Street Bikeways

- ***Bicycle Lane or Bike Lane*** - A portion of a roadway which has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicycles.
- ***Signed Shared Roadway (Signed Bike Route)*** - A shared roadway which has been designated by signing as a preferred route for bicycle use.
- ***Shoulder*** – The portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use and for lateral support of sub-base, base and surface courses. [In Texas, bicyclists are permitted to ride on the roadway's shoulder, and shoulders may be signed as bike routes.]

### Off-Street Bikeways

- ***Shared Use Path*** - A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Shared use paths may also be used by pedestrians, skaters, wheelchair users, joggers, and other non-motorized users.

### Additional Term That May Be Used to Identify An On-Street Bikeways

***Wide [Outside] Curb Lane (Signed as a Bike Route)*** – In general, 14 feet of usable lane width is the recommended width for shared use in a wide curb lane [no pavement markings necessary]. Usable width normally would be from edge stripe to lane stripe or from the longitudinal joint of the gutter pan to lane stripe (the gutter pan should not be included as usable width). On stretches of roadway with steep grades, where bicyclists need more maneuvering space, the wide curb lane should be slightly wider where practicable (15 feet is preferred).

In this update of H-GAC's *Regional Bikeway Plan*, H-GAC has incorporated this nomenclature and other facility information into its Geographic Information System (GIS). H-GAC's new GIS coverage will contain information on project status and is fully interactive with H-GAC's GIS network of existing and planned roadways. This should enable roadway project sponsors to determine whether their project limits include any designated bikeways and provide appropriate accommodations. It will also allow accommodation considerations to be considered at intersections, over/underpasses and interchanges where roadways traverse bikeways to allow for safe passage by bicyclists.

H-GAC will request that local entities provide bikeway project data in an electronic format to be compatible with H-GAC's GIS System. This should allow for more comprehensive updating. On-line project viewer capability will also be developed, similar to what is currently available for Transportation Improvement Program (TIP) and Regional Transportation Plan (RTP) projects.

It is important that project sponsors be aware that the perceived higher costs of building bikeways using AASHTO-guidelines may be offset by reduced maintenance costs over the life of the facility. For example, an asphalt trail path may cost less to build, but the asphalt path may require greater maintenance and have a shorter useful lifespan. Well-designed facilities are safer and will allow for higher levels of usage as demand grows.

The AASHTO bikeway guidelines are flexible, and cost-effective design alternatives are available, especially in areas not subject to flooding or where lower usage is projected. H-GAC's *Guidelines for Accommodating Pedestrians and Bicyclists* (Pages 31 to 38) provides a range of recommendations for off-road bikeways, based on AASHTO guidelines.

### **Funding Commitments**

H-GAC's current TIP contains over 41 pedestrian and bicyclist projects, representing an investment in nearly of \$87 million. The 2025 RTP, with subsequent amendments, contains an additional 61 pedestrian and bicyclist projects with a projected cost in excess of \$96 million. In addition, a number of local governments have made significant local funding commitments to bikeway development in their current Capital Improvements Programs. Tables listing all of these projects are provided in the appendix.

### **H-GAC will take the following actions to achieve Regional Bikeway Plan Goals**

H-GAC's actions for implementing the pedestrian-bicyclist mobility goals of the 2025 Regional Transportation Plan are as follows:

#### **Updating the *Regional Bikeway Plan* Frequently**

Actions since 2025 RTP

- H-GAC has updated project status information and has revised the GIS format for the Regional Bikeway Plan map.

#### ***Future Actions***

- Adopt GIS format for displaying pedestrian and bikeway data
- H-GAC will release annual updates of the regional bikeway inventory in GIS format.
- H-GAC will work with local entities to receive bikeway project updates electronically, using locally adopted GIS formats.

### **Promoting Consistent Use of Terminology and Mapping Conventions**

#### Actions since 2025 RTP

- H-GAC has updated GIS mapping to include new mapping conventions and terminology, consistent with AASHTO's Guide for the Development of Bicycle Facilities.

#### *Future Actions*

- H-GAC will promote the use of consistent terminology and mapping conventions among local entities in the TMA.

### **Preserving Bicyclist Facilities**

#### Actions since 2025 RTP

- H-GAC has developed the Regional Bikeway Map in a new GIS format that allows for interactivity with the RTP and TIP project viewer. This will allow agencies and the general public to access this information online, which should encourage project coordination.

#### *Future Actions*

- H-GAC will provide project sponsors with information on planned bikeways within their project limits and provide training on how to use H-GAC's on-line bikeway information.

### **Supporting Local Planning Efforts**

#### Actions since 2025 RTP

- H-GAC has provided technical assistance to agencies and local governments on accommodation review, planning, coordination, design and funding strategies.
- H-GAC specific projects include pedestrian-bicyclist accommodation review of the Kirby reconstruction project, 'special districts studies performed in the Third Ward, Gulfton, Montrose, Galveston, Sugar Land and other technical assistance programs.

#### *Future Actions*

- H-GAC will continue to assist local entities in the development of pedestrian and bicyclist plans and projects.

### **Developing a Bikeway Design and Conditions Inventory**

#### Actions since 2025 RTP

- H-GAC has incorporated additional bikeway facility type and design information into GIS system.

#### *Future Actions*

- H-GAC will work with local governments to develop and provide bikeway facility conditions information.
- H-GAC will conduct additional training on bikeway facility suitability and project phasing.

### **Developing Community-Based Pedestrian-Bicyclist Circulation Plans**

#### Actions since 2025 RTP

- H-GAC has completed pedestrian-bicyclist "special districts" study for the entire TMA.

- H-GAC has completed studies in five districts (Houston’s Third Ward, Gulfton and Montrose neighborhoods and a portion of Galveston Island).
- H-GAC has selected Sugar Land Town Center as the next to conduct a “Special Districts” study.
- Project Sponsors have submitted two implementation projects from these studies are in the current TIP, and several more are in development.

#### *Future Actions*

- H-GAC will continue seeking local partners for future pedestrian and bicyclist “special district” studies, plans and implementation projects.
- H-GAC will maintain and update the Regional Bikeway GIS database and promote its use in project planning throughout the TMA.

### **Promoting Appropriate Design**

#### *Actions since 2025 RTP*

- H-GAC and TxDOT have worked with local sponsors to identify cost-effective solutions to construct bikeways that meet AASHTO guidelines.

#### *Future Actions*

- H-GAC will develop a workshop on pedestrian and bikeway suitability, cost estimation and design.
- H-GAC will showcase successful design solutions with the Pedestrian-Bicyclist Subcommittee.

### **Establishing Long-Term Maintenance as part of Project Planning**

#### *Actions since 2025 RTP*

- H-GAC has added the project maintenance plan to the TIP evaluation criteria.
- H-GAC continues to work with project sponsors to make maintenance a key component of their local planning efforts and outline their long-term maintenance plans for projects submitted to the RTP and TIP.

#### *Future Actions*

- H-GAC will propose a list of typical pedestrian and bikeway maintenance needs.
- H-GAC will conduct training workshops on effective maintenance programs.
- H-GAC will identify innovative funding sources and potential volunteer resources for project maintenance.

### **Developing Data and Projections of Bikeway Usage**

#### *Actions since 2025 RTP*

- H-GAC supports the regional pedestrian-bicyclist count program initiated by the Institute of Transportation Engineers (ITE).

#### *Future Actions*

- H-GAC will build on lessons learned from the regional pedestrian-bicyclist count program and support the expansion of ITE’s program.
- H-GAC will create local guidelines for future “before and after” pedestrian and bicyclist studies.



- H-GAC will request funding in future Unified Planning Work Program (UPWP) updates to conduct additional “before and after” studies to quantify pedestrian and bicyclist use and purposes for various trips made on selected facilities.
- H-GAC will refine the “special districts” study techniques to identify non-home-based pedestrian-bicyclist travel demand.

### **Providing Funding Resources**

#### *Actions since 2025 RTP*

- H-GAC expanded its list of potential funding sources in this plan update.
- H-GAC provided TxDOT support in the review and ranking of project nominations submitted in the 2005-2006 Statewide Enhancements Program Call for Projects. This call was subsequently cancelled and STEP applicants were encouraged to apply for funding during the call for projects for the 2008-2011 TIP.

#### *Future Actions*

- H-GAC will actively promote the development of RTP-listed bikeways in future TIP calls for projects.
- H-GAC will provide assistance in seeking funds to implement American’s with Disability Act (ADA) compliant sidewalks and crosswalks identified as part of the pedestrian-bicyclist ‘Special Districts’ studies.
- H-GAC will work with project sponsors to identify pedestrian and bicyclist accommodations that can be included as part of current transportation projects and within existing budgets.

### **Improving Project Selection Criteria**

#### *Actions since 2025 RTP*

- H-GAC has substantially revised the Pedestrian-bicyclist project selection criteria after 2025 RTP and is included within the TELUS project monitoring system.

#### *Future Actions*

- H-GAC Pedestrian-Bicyclist Subcommittee members will join TIP subcommittee in project evaluation to ensure cost-effective projects.

### **Maintaining Project Commitments**

#### *Actions since 2025 RTP*

- H-GAC staff has contacted project sponsors of all TIP and RTP projects and has provided technical assistance with project implementation.

#### *Future Actions*

- H-GAC will revise policies on project cost overruns and procedures for “de-listing”, or removing projects from the TIP.
- H-GAC plans to use GIS project status tracking features to identify stalled TIP projects and possibly to reallocate or to reprioritize previously awarded TIP funding.