

CHAPTER 5

Program Recommendations



CHAPTER 5

PROGRAM

RECOMMENDATIONS

The City of Sugar Land is already involved in pedestrian and bicycle encouragement efforts. While those efforts are a good initial step to creating a more pedestrian- and bicycle-friendly community, additional efforts are needed to get Sugar Land residents to walk and bike. The investment in better sidepaths, shared use paths and, where feasible, on-street bicycle lanes and cycle tracks can reach its fullest potential in Sugar Land only if educational and promotional efforts are also implemented. This chapter reviews recommendations for improving the bicycle and pedestrian culture in the City.

Education and encouragement strategies often go hand in hand, since their purposes and methods often overlap. To be effective, promotional programs should not only be for the general public but also target specific populations and audiences in Sugar Land, such as recreational cyclists, youth, employees in certain key areas, and new bicyclists or walkers.

Consistent enforcement of the rules for bicyclists and motorists on the road is a critical component of creating a safe and bicycle-friendly environment. This element focuses on efforts to enforce existing laws in a consistent fashion and ensures that law enforcement officers are properly trained to enforce bicycle laws. This component overlaps with efforts to educate bicyclists and motorists regarding applicable laws. The overall goals for pedestrian and bicycle programs are shown in Figure 5-1.

Education Programs

Education is a crucial component of increasing walking and bicycling while maintaining a safe environment for all users. For bicycle riders in particular, it is essential to equip road users with the knowledge and skills to safely share the road. All users, including motor vehicle operators, should understand their rules, rights, and responsibilities.

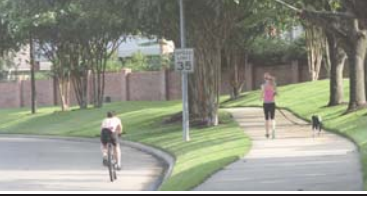
BICYCLE PROGRAMS GOAL & OBJECTIVES

Provide educational, encouragement, and enforcement programs that support walking and especially bicycling in Sugar Land.

Objectives:

- I. **EDUCATE** all road users of all ages and abilities as to their rules, rights, and responsibilities.
- II. **ENCOURAGE** bicycling as a form of transportation and exercise.
- III. Consistently **ENFORCE** the laws of the road.

Figure 5-1 Goals for Pedestrian and Bicycle Programs



- **Among school-age children.** School-age children in Sugar Land are an important population to target for teaching and encouragement of bicycling and walking. Though half of U.S. school-age children live within two miles of their schools, three-quarters of the households questioned in a 2009 National Household Travel Survey take their children to school in a private vehicle - a huge increase from the 15% that were driven in 1969. According to the U.S. Department of Transportation, the dramatic increase in the use of private vehicles to transport children between 5 and 15 partially results from children living farther from school than they used to. In contrast to the national trend, Sugar Land continues to have significant numbers of student cyclists, as evidenced by the number of bicycles parked at many City schools.
- **To educate adults on bicycle riding.** The City of Sugar Land should increase the availability of opportunities to improve the road safety education of both bicycle riders and drivers in the City.

The following section describes recommendations that the City of Sugar Land can take to improve walking and bicycle safety education.

Education Recommendation 1: Actively distribute information on the proper use of bicycle facilities. The City should provide residents with information about the purpose of new bicycle facility treatments (e.g., bicycle lanes, shared lane markings, sidepaths, etc.) and safe behaviors for using these facilities as they are being designed and installed. One way to extend this message is to develop web pages hosted on the City's website that include information about each facility type. The pages should provide as many graphics and visuals as possible, including videos (where appropriate) to describe safe maneuvers. Relevant educational material is already available from many sources, including Bike Texas.

Education Recommendation 2: Temporary police patrols after implementation of new facilities to educate Sugar Land residents on safe bicycle riding. Police officers receive training on the rights and responsibilities of bicyclists and motorists. They should temporarily increase patrols for a period of time to help roadway users adjust to new on-road facilities when they are installed. These patrols are an opportunity to educate users on safe and unsafe behaviors, particularly how unsafe or illegal behaviors could jeopardize the safety of others. The City can develop educational pamphlets that patrol officers could distribute when talking to residents. These temporary police patrols should not be used to punish or serve citations. Officers should target all transportation modes, as unsafe behaviors by both motorists and bicyclists need to be corrected.

Education Recommendation 3: Promote Safe Routes to School efforts in all primary schools in Sugar Land. Most children start to ride bicycles at a young age. For adolescents, bicycles offer independence and self-reliance. Therefore it is important to teach students safe bicycle skills as early as possible and reinforce that message as they approach driving age.

One way that cities across the nation have addressed education needs is to provide a citywide Safe Routes to School (SRTS) program. The purpose of the



program is to educate children of the proper safety procedures when walking or biking, to encourage children to walk and bike to school where they are not currently doing so, and to improve facilities where students are already walking and biking.

A key component of the program is educating students on safe walking and bicycling behavior. The City should encourage and support school district efforts to provide bicycle education for all students. To reach young students, many districts in Texas conduct regular bicycle “rodeos” or half day training sessions given to all students at a certain grade level.

Education Recommendation 4: Provide youth and adult bicycle education opportunities. Private groups in Sugar Land could provide bicycle safety skills courses taught by League of American Bicyclists (LAB) certified instructors. These courses are sometimes offered free of charge (where subsidized) or are offered at a reasonable charge (to compensate the instructors). The City of Sugar Land can partner with or support area advocacy groups and certified instructors to provide a central information source and marketing for area bicycle education events, or provide a location on City property to conduct the training sessions.

The City could provide a way for people to sign up for classes held by various groups around the region and possibly offer discounted rates for City residents, such as for the online class currently offered by the League of American Bicyclists. Target audiences may include area college students where bicycle safety courses could be offered as part of orientation programs held at the beginning of each school year. Incentives could also be offered to large employers to have employees become certified instructors and regularly offer classes to their employees. The more confident people are in their bicycling abilities and safety knowledge, the more likely they are to substitute some short car trips with ones on bikes.

Education Recommendation 5: Provide information to promote safe walking. Pamphlets and online information generated by many national and state entities can be distributed to Sugar Land residents to help promote safe walking habits. Key areas to focus on include learning how to cross correctly at intersections, and to discourage trying to cross streets mid block.

Encouragement Programs

Encouragement and promotion is an important element in getting Sugar Land residents to walk and bike more frequently. The City of Sugar Land has a number of opportunities for encouragement programs, with some efforts already underway.

Recommendations to encourage walking and bicycling include the following.



Figure 5-2 Example of a bicycle rodeo event in San Antonio



Encouragement Recommendation 1: Seek “Bicycle Friendly Community” status. The League of American Bicyclists is the nation’s leading advocacy group to promote and support bicycling in communities across the United States. Their program, Bicycle Friendly America Program, recognizes communities, businesses, and college campuses for their active support in providing safe bicycling facilities and encouraging citizens to bicycle more frequently. The League of American Bicyclists ranks states and communities annually based on how bicycle friendly they are. As of 2013, Austin, San Antonio, and The Woodlands are the only cities in Texas to be ranked as bicycle friendly. Sugar Land should strive to be named a bicycle friendly community within three years. The program application is evaluated based on the following criteria:

- Physical infrastructure and hardware to support cycling;
- Programs that ensure the safety, comfort and convenience of cyclists and fellow road users;
- Incentives, promotions and opportunities that inspire and enable people to ride;
- Equitable laws and programs that ensure motorists and cyclists are held accountable; and
- Processes that demonstrate a commitment to measuring results and planning for the future.¹

By implementing the majority of the recommendations in this Plan, the City of Sugar Land should qualify as a bicycle-friendly community.

Encouragement Recommendation 2: Actions to Encourage Walking. In concert with bicycle encouragement efforts, the City of Sugar Land should also target a greater amount of walking in the City. A sample of the types of efforts specifically devoted to walking may include:

- Publicize key events, such as National Trails Day;
- Develop inexpensive temporary signs that can alert residents to easy walking opportunities, such as “5 minutes walk to a local restaurant;”
- Develop specific “walk scores” for schools and other key destinations in the City. Available at walkscore.com, this application quickly rates a destination in terms of its access via walking, and can help publicize how accessible many destinations in Sugar Land are; and
- Provide information on how to organize and encourage walking groups or clubs - the City and partners such as Shape Up Sugar Land can help encourage neighbors to create groups that walk on a regular basis.

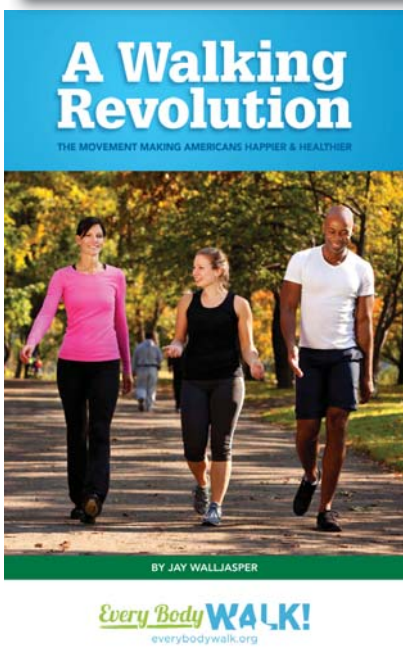


Figure 5-3 Samples of quick signs and information which can be used to encourage more walking in Sugar Land Image sources: Walkyourcity.org, North Central Texas Council of Governments, Everybodywalk.org

1 The League of American Bicyclists. http://www.bikeleague.org/programs/bicyclefriendlyamerica/index_about.php



Encouragement Recommendation 3: Encourage walking and bicycling commuting by City leaders, local employees, and area employers. As part of an overall mission to improve the health and fitness of Sugar Land residents, have City departments, elected officials, and City business leaders spearhead efforts to increase bicycling and walking. Encourage these leaders to attend walking and bicycling events, participate in public campaigns about walking and biking in Sugar Land, or publicly recognize businesses that encourage their employees to commute by walking or biking. The City should encourage bicycle commuting by providing information about economic benefits, health benefits, and potential commuting routes to employers and employees.

Agencies can be model employers with the following actions:

- Promote Bike-to-Work and Bike/Walk-to-School Day. This encourages area employees, as well as children, to bicycle to work or school by demonstrating how it can be done regularly. Many communities choose to build on Bike-to-Work Day and Bike/Walk-to-School Day and use it as the centerpiece of a larger community event focused on the local bicycling community;
- Serve as an example by providing showers and lockers for employees. Another element of this strategy is to require all new and existing public buildings owned and operated by the City to include facilities for bicycle commuters, such as showers and bicycle parking, such as those that are currently available at City Hall. A future update to the Development Code should require that all development projects (public and private) exceeding certain thresholds (size, density, use, etc.) should be required to provide bicycle facilities; and
- Work with local bicycling groups, such as Shape Up Sugar Land, to provide “bicycle mentors” to demonstrate to residents who have always driven to work how it may be possible to bicycle to work.

Low-cost strategies can include educating employers on federal tax benefits for bicycle commuting by hosting workshops on a regular basis. Through the Federal Commuter Tax Benefit (Section 132(f) of the Internal Revenue Code reauthorized in 2013), employees can receive up to \$20 per month tax free from their employer for expenses related to commuting to work via bicycle. The City can take their promotion a step further by promoting employer achievements on an annual basis with an awards program. Recognizing local employers for their efforts to encourage bicycle commuting promotes the awareness of bicycling and also showcases the efforts of leading examples. Employers get the benefit of the positive press, and the City benefits from the increase in bicycling.

Finally, the City can work with Fort Bend County Public Transportation to encourage the use of an existing incentive program for combined bicycle/transit trips. The City of Sugar Land could help the Houston-



Figure 5-4 2013 Bike to Work Day Event in Sugar Land. Photos source: City of Sugar Land



Galveston Area Council (H-GAC) to promote commuting solutions programs including the NuRide program. When people sign up for the NuRide program, they earn points for commuting by walking, biking, taking transit or carpooling. Points can then be cashed in for coupons to restaurants, retail shops, or local attractions. There are currently over 19,000 NuRide members in the Houston area.

Encouragement Recommendation 4: Conduct a detailed school by school analysis to improve walking and bicycling routes to that school as part of any future Safe Routes to School Plan. Using each school's attendance zone, develop a detailed list of smaller improvements that can create more attractive walking and riding routes to each school as part of any future citywide Safe Routes to School Plan. While this Master Plan focuses on the citywide pedestrian and bicycle network, a more detailed Safe Routes to School Plan would focus specifically on connecting the residences of enrolled school children to their school via a safe walking or bicycling route. A Safe Routes to School Plan also develops more detailed education and encouragement programs for walking and bicycling specifically aimed at school aged children.

Encouragement Recommendation 5: Develop and distribute a route facility map. To increase the citizens' knowledge of existing walking and bicycling facilities and destinations in Sugar Land and to encourage the use of those facilities, the City should develop a brochure type route map that can be printed and distributed. The City should also investigate the possibility of developing a "map app" in coordination with regional partners such as the County or H-GAC. Figure 4-51 showed an example of a route map by the City of Chula Vista, CA which also incorporated information regarding facility types and the intended users and functions (recreation versus commuting) of the facility, as well as identified destinations.

Encouragement Recommendation 6: Increase citywide availability of bicycle parking. To quickly expand the relatively small amount of bicycle parking available at key destinations in Sugar Land, the City should consider purchasing bicycle racks in bulk and selling them at cost for installation at key destinations throughout the City. The City may also partner with local advocacy organizations to support this type of program. For example, the advocacy group/organization could purchase the bike racks and administer the program of which businesses receives them, while the City can store the racks and possibly install them through the Public Works Department.

Safety and Enforcement Programs

Bicyclists are legally entitled to use the road but are required to obey the same rules and regulations that apply to vehicles. Enforcement should reinforce the right of each roadway user in Sugar Land. The Sugar Land Police Department should actively enforce traffic laws for both motorists and bicyclists.



Enforcement is a necessary part of increasing bicycle riding in Sugar Land. To be effective, the enforcement program should be accompanied by awareness and education. The Police Department may elect to start with warnings and utilize citations only if necessary. Enforcement alone does not usually achieve long-term effects; rather, it needs to be partnered with strong education and encouragement efforts as well as physical improvements to facilities.

Another important aspect of a successful enforcement program is to recognize the nature of the problem. If a significant number of users practice unsafe behavior, there may be a problem with the physical design. In these instances, an analysis of the physical environment may reveal that more detailed changes than those recommended in this Master Plan should be made to the infrastructure. First, the City of Sugar Land should monitor the crash data. If warranted by a high number of incidents, then the Sugar Land Police Department and the Transportation Department should work together to study how best to reduce bicycle and motor vehicle crashes. The approach should focus on improving the behaviors of both bicyclists and motorists.

Enforcement Recommendation 1: Increase enforcement of bicycling related infractions. Targeted motorist behaviors include the following:

- Turning left and right in front of bicyclists;
- Passing too close to bicyclists;
- Speeding;
- Parking in bicycle lanes where signage prohibits parking;
- Rolling through stop signs or disobeying traffic signals; and
- Harassment or assault of bicyclists.

Bicyclist behaviors that should be targeted include the following:

- Ignoring traffic control (traffic signals and stop signs);
- Riding the wrong way or against traffic on a street; and
- Riding with no lights at night.

Bicyclist safety is a shared responsibility between all roadway users. Enforcement priorities should be established through a collaborative process. Recommendations for enforcement programs are as follows.

Enforcement Recommendation 2: Enact by ordinance a three to four foot (3' to 4') safe passing rule in Sugar Land. As of June 2013, 14 Texas cities, including Houston, Dallas, San Antonio, Austin, and Brownsville have enacted a safe passing rule. Safe passing rules establish a standard safe passing distance of three feet (3') (or six feet (6') for commercial vehicles) that only applies when road conditions allow. It also prohibits the "right hook" (turning dangerously in front of a vulnerable road user) and failing to yield when making a left turn at an intersection. One city in Texas, Brownsville, more closely followed a growing national trend by enacting a four feet (4') distance rather than three feet (3').

PROGRESSIVE TICKETING

1. Educating

Establish community awareness of the problem. The public needs to understand the rights and responsibilities of both motorists and bicyclists. Raising awareness about the problem will change some behaviors and create public support for the enforcement efforts to follow.

2. Warning

Announce what action will be taken and why. Give the public time to change behaviors before ticketing starts. Fliers, signs, newspaper stories and official warnings from officers can all serve as reminders.

3. Ticketing

Finally, after the warning time expires, hold a press conference announcing when and where the police operations will occur. If offenders continue their unsafe behaviors, officers issue tickets.

Source: Pedestrian and Bicycle Information Center, www.walkinginfo.org

Figure 5-5



Figure 5-6 Campaign sign informing people of the 3 foot safe passing ordinance in Los Angeles. Source: City of Sugar Land

Ordinances that have been adopted apply to not just bicyclists but any vulnerable user in the road right-of-way, including pedestrians, construction workers, and persons in wheelchairs.

Cities that have enacted this law often conduct periodic enforcement campaigns to issue citations or warnings. They also sometimes have promotional campaigns, such as placing signs and billboards throughout the city or running TV and radio advertisements, to inform the public of the new ordinance (see Figure 5-6).

Enforcement Recommendation 3: Evaluate whether a helmet use law for young bicyclists is appropriate for Sugar Land. Currently, there is no statewide law in Texas for helmet use for any age bicyclist. Twenty-one states and the District of Columbia have helmet laws for young bicyclists. Studies have estimated that helmet use may reduce head injury risk by as much as 85%². Many local jurisdictions throughout the country and in Texas have adopted helmet ordinances for younger bicyclists. In Texas, those cities include:

- Arlington, for children under 18 years old;
- Austin, for children under 18 years old;
- Bedford, for children under 16 years old;
- Coppell, for children under 15 years old;
- Fort Worth, for children under 18 years old;
- Houston, for children under 18 years old; and
- Southlake, for children under 15 years old.

Enforcement Recommendation 4: Consider adopting an ordinance that prohibits vehicles from driving in the bicycle lanes. Texas law does not address motor vehicles being able to drive in a bicycle lane. This Plan recommends that Sugar Land adopt such an ordinance, modeling it on similar ordinances which have been adopted in cities throughout Texas. Usually the ordinance will prohibit a motor vehicle from driving in, upon, or across a bicycle lane except when entering or leaving a driveway or parking space and when making a right turn. In cases where crossing the bicycle lane is necessary, the ordinance should also state that the motorist must first yield to any and all bicycle traffic.

Enforcement Recommendation 5: Work with local advocacy groups to encourage a volunteer bicycle fleet to offer group rides. Enforcement efforts do not need to necessarily come from police officers. Safe bicycle behavior can be established with good examples. Many of the local bicycle retail stores and bicycle advocacy groups organize group rides to help people learn safe bicycling skills and responsibilities. These can be especially helpful for those venturing out on the road for the first time. Having several bicyclists riding together also reminds motorists of the presence of bicyclists and encourages courteous sharing of the road. Group rides can also help people confidently

² Thomas, S., Acton, C., Nixon J., Battistutta, D., Pitt, W.R., Clark, R. (1994) Effectiveness of bicycle helmets in preventing head injury in children: case-control study. *BMJ Journal*, 308 doi: <http://dx.doi.org/10.1136/bmj.308.6922.173>.



ride in the evening and night hours. Each group ride may begin with a review of safe bicycling laws and tips. Gently reminding riders of safe behavior along the ride helps new riders test the waters in a safe and welcoming environment.

A summary of the support program efforts recommended in this Chapter is shown in Table 5.1 below.

Table 5.1 Support Program Recommendations			
#	Action	Potential Cost (City only)	Priority
Education			
Edu1	Distribute information on the proper use of bicycles and facilities	Minimal cost for materials	Immediate
Edu2	Temporary police patrols after new bicycle facilities are implemented to educate users on safe riding habits	None (existing Sugar Land Police staff)	Coordinate as on-street facilities are developed
Edu3	Work with schools to encourage walking and riding (school by school basis)	By existing staff, School Districts	Immediate, ongoing
Edu4	Increase bicycle training for both children (through schools) and for adults	Minimal City cost to support	Immediate, ongoing
Edu5	Provide safe walking information	Minimal cost for materials	Immediate, ongoing
Encouragement			
Enc1	Seek "Bicycle Friendly" status	By existing staff	Immediate
Enc2	Provide information to promote walking	Minimal cost for materials	Immediate, ongoing
Enc3	Provide information on incentives to encourage walking and bicycle commuting by City leaders and area employers.	By existing staff	Near term
Enc4	Work with schools to review improvements to facilitate walking and riding to school	By existing staff, School Districts	Near term
Enc5	Develop printable ped/bike map - develop interim signed bike routes	\$20,000 for design and printing	Near term
Enc6	Increase the availability of bike racks at major destinations across the City - cost shared with businesses	\$10,000	Near term
Enc7	Install wayfinding signs, trailheads, information kiosks	Initial \$20,000 then \$10,000 +/- per year	Coordinate as major facilities are developed
Enc8	Promote ped/bike connections to park & rides and area transit. Work with transit providers to encourage adequate accommodations for bicycles on buses	By existing staff	Near term



Table 5.1 Support Program Recommendations

#	Action	Potential Cost (City only)	Priority
Enforcement			
Enf1	Increased enforcement of bicycling related infractions (stop sign/signal runners, vehicles in bike facilities)	None (existing Sugar Land Police staff)	Immediate, ongoing
Enf2	Consider passage of safe passing rule	By existing staff	Immediate
Enf3	Consider passage of helmet requirements for young riders	By existing staff	Immediate
Enf4	Consider passage of rules regarding driving in bicycle lanes by motor vehicles	By existing staff	Immediate
Enf5	Work with advocacy group to offer special rides to teach rules	By local groups	Near term