Mobility

Chapter 3

Why this Comprehensive Plan chapter is Important for Bellaire:

- ✓ *Communicates the importance of minimizing traffic congestion while also ensuring safe roadway conditions.*
- ✓ *Emphasizes the fundamental priority placed on neighborhood integrity in Bellaire, which is influenced by traffic conditions on residential streets and the safety of kids and adults when walking and biking in the community.*
- ✓ *Highlights the role of street design in establishing and reinforcing the desired character of an area, particularly in locations where walkability and an urban "feel" is desired more than accommodation of the automobile.*
- ✓ *Recognizes Bellaire's position within the growing regional transit network and how the community will benefit from—and be impacted by—this reality.*
- ✓ *Provides the public policy basis for the City's regulations and standards related to streets, sidewalks, bike lanes, parking, and other mobility-related infrastructure and physical improvements.*

The purpose of this chapter is to guide the ongoing development and ensure the orderly enhancement of Bellaire's city-wide transportation system, within the context of the regional mobility network. Besides considering the circulation of automobiles within and through the community, this also involves the safety and viability of reaching destinations by bike and on foot, plus the outlook for regional transit services in and around Bellaire. This chapter is closely related to the Land Use & Community Character and Commercial Area Development & Enhancement chapters through recognition of how transportation investment decisions shape a community's physical character and appearance and contribute to its future development and redevelopment potential. Ultimately, however, it is residents' quality of life and safety that must factor into all mobility policies and strategies.

Key Planning Considerations

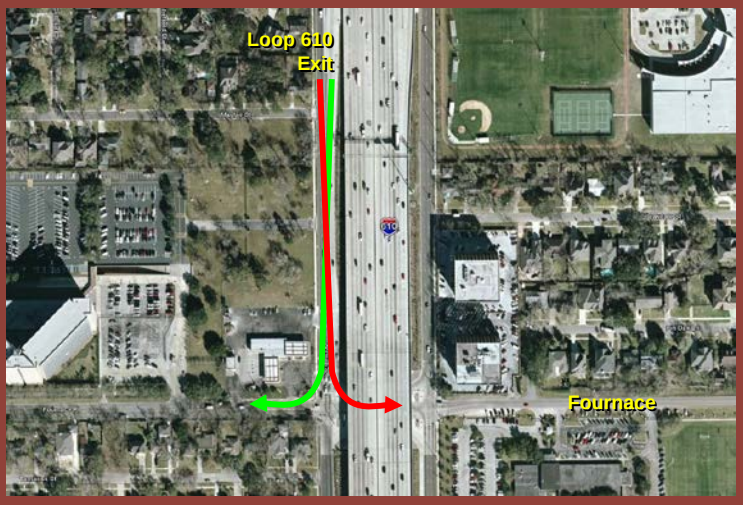
The following facts, assumptions, and considerations provide the context for the goals and action strategies presented in this chapter:

Grid Street System. Much of Bellaire, especially its residential neighborhood areas, are on a traditional grid of east-west and north-south streets as opposed to a more curvilinear and discontinuous street pattern as found in many suburban subdivisions. Grid street systems have the beneficial effect of dispersing traffic across an interconnected network that offers many circulation options versus concentrating most traffic on certain "primary" roadways. On the other hand, neighborhood residents in "grid" cities, including Bellaire, become concerned when they perceive limited ways to prevent speeding, cut-through traffic, and similar impacts on their local streets.

Loop 610 Impact. The introduction of a major north-south freeway corridor through Bellaire in the 1960s significantly disrupted the City's grid street system by restricting east-west connectivity and circulation options. Ever since, Bellaire residents and all others passing through the community have been limited to four points for crossing the West Loop corridor, whether in vehicles or traveling by bike or on foot: Fournace, Bissonnet, Bellaire, and Evergreen. In addition, the interchange of Loop 610 with U.S. 59, while just outside Bellaire, is a major factor in area traffic flows, both on the freeway main lanes and adjacent service roads, as well as the surface street network. This massive interchange remains the most congested crossroads in Texas according to the Texas A&M Transportation Institute. It was also the scene of a 1970s ammonia truck accident that caused a major emergency situation for surrounding areas, including portions of north Bellaire. Given the proximity of these freeway corridors, Bellaire's police and fire departments must also bear the burden of periodic response to a variety of incidents.

Bissonnet Exception. Bissonnet is a striking example of one major street that departs from the gridiron street pattern of the rest of the City, traversing Bellaire on a diagonal from northeast to southwest (dating back to when it was the primary travel route between Houston and Richmond, before the existence of Bellaire Boulevard). This creates unusual angles at numerous intersections along this key corridor and affects sight distances for drivers at many locations, which can make turning movements more challenging. Where other major streets intersect with Bissonnet, the angle also causes intersections to cover a larger area than usual. A perfect example is the busy intersection of Bissonnet and Bellaire Boulevard in the City Center area, where a more expansive intersection also increases the distance that pedestrians and cyclists must cover to cross these major streets. A related impact, which clearly detracts from development potential in City Center, is how the diagonal street affects parcel shapes along the corridor, especially causing unusual triangular tracts at many intersections.

Traffic "Hot Spots." From their own historical perspective and driving and commuting routines, residents consistently identified two locations in Bellaire as particular traffic concerns (1) the southbound service road along the West Loop approaching Fournace, and (2) just north of the intersection of Bissonnet and Newcastle, where Fournace terminates into Newcastle from the west. In the first case, it was noted how congested the Loop service road becomes during rush hour periods, and how this situation is exacerbated by vehicles attempting to cross multiple lanes in different directions over a short distance (motorists exiting the freeway attempting to maneuver across several lanes to turn right onto Fournace, and other drivers on the service road working their way through the exiting traffic to reach the U-turn lane under the freeway or to turn left onto Fournace). In the second location, the proximity of Fournace to the Bissonnet/ Newcastle intersection creates a complicated traffic scenario and various safety concerns during rush hour and peak school traffic periods. This is particularly true for northbound motorists on Newcastle attempting to turn left onto Fournace, as well as westbound drivers on Fournace attempting to turn left onto Newcastle, especially during peak traffic times when southbound vehicles on Newcastle are queued up at the Bissonnet traffic signal. This also makes this area a very inhospitable location for bicyclists and pedestrians attempting to navigate across these streets. It was also noted how the



Difficult traffic scenarios at Loop 610 and Fournace (above) and the Bissonnet-Newcastle-Fournace intersections (below).

narrowing of Newcastle from four lanes in Houston to two lanes in Bellaire adds to the traffic backup at Bissonnet.

School Coordination. Schools of varying types and campus sizes are a major part of the landscape in Bellaire. Along with large-scale office buildings along and near Loop 610, school campuses are also among the community's most significant traffic generators, including bus traffic and pick-up/drop-off queuing. This ranges from elementary schools that create localized traffic impacts within neighborhoods (e.g., Horn Elementary) to high school campuses (Bellaire High School in the southwest with approximately 3,500 students, and Episcopal High School in the northeast with approximately 700 students) that impact traffic patterns on adjacent thoroughfares, as well as nearby neighborhood streets, during peak morning and afternoon times. In particular, streets and intersections in northeast Bellaire are routinely affected by a cluster of schools in the area, including an expanded Episcopal High School at Loop 610 and Bissonnet; Post Oak Montessori and HISD's Mandarin Chinese Immersion School at Bissonnet and Avenue B (with HISD intending to relocate the Mandarin school at the time this Comprehensive Plan was updated in 2015); Pin Oak Middle School near Loop 610, at Glenmont and Avenue B; and the Houston Community College Southwest Campus just outside of Bellaire along Loop 610 at Glenmont.

The City of Bellaire coordinates with Houston Independent School District (HISD) officials and representatives of private schools in the community regarding campus-related access, parking, and safety issues, including the traffic and parking impacts associated with peak-hour pick-up/drop-off activity, as well as periodic special events. Various strategies have been implemented over time to help offset these impacts, including typical school zones with reduced speed limits; traffic restrictions and conversion to one-way traffic movement on certain adjoining streets during designated hours; parking restrictions and required permits for on-street parking (e.g., in the vicinity of Bellaire High School); and, assignment of Bellaire police officers to school areas during the peak morning and afternoon hours. The City also has lease agreements in place to govern shared community use of recreation facilities and associated parking areas at certain campuses. Most Bellaire residents expressed their strong support for the presence of quality public and private schools within the community and understand there will be times when special events and activities draw crowds to school campuses, resulting in additional traffic and overflow parking onto nearby public streets. But some also want the City to be more assertive in expecting the schools to do more to reduce their impacts on surrounding neighborhoods and ensure a safer environment for all. It was also noted that there appears to be uneven use of safety measures such as school crossing guards and school zones among the various campuses.

At the time that this Comprehensive Plan was updated in 2015, HISD was considering options for its Bellaire High School Campus and may proceed with a plan to reconstruct the school starting as early as 2016. Whatever the timing, this will undoubtedly remain a contentious issue in Bellaire.

Therefore, traffic circulation and safety and parking management should remain core items on which the City and District must coordinate closely given the degree of community and neighborhood concern.

Traffic Calming Experience. The City of Bellaire instituted a Neighborhood Traffic Improvement Program in 1996-97. This established a typical municipal process for enabling property owners within a neighborhood to request that the City take steps to address traffic-related problems in a designated area or street segment, following necessary study and public review and input. In the intervening years, various mitigation measures have been installed in multiple locations, including speed "humps" (such as on Maple Street in southeast Bellaire), traffic diverters (a physical barrier to disallow certain turning movements to/from particular streets as done along portions of Renwick Drive in southwest Bellaire), and physical barriers to close permanently certain streets (e.g., Avenue B at Glenmont, Sunburst at Newcastle, and multiple streets along the West Loop 610 service road in northwest Bellaire).

Traffic calming measures on Maple Street.

The Comprehensive Plan Advisory Committee discussed the analogy of flood prevention levees constructed by various communities along the Mississippi River, which provide some measure of local protection while simply shifting much of the problem to other communities upstream and downstream. Instead, given how typical calming measures can yield unintended consequences, Bellaire should focus on moving traffic along its major thoroughfares as efficiently and safely as possible as this is the best way to discourage drivers from seeking alternate routes along local neighborhood streets, backed by visible police presence and regular enforcement within neighborhoods.

Enclave City. Given the major freeway corridor and regional arterial streets that traverse the community, Bellaire must continue to coordinate with the City of Houston and other neighboring cities, Harris County, METRO, the Houston-Galveston Area Council, and the Texas Department of Transportation on ongoing management and improvement of this critical transportation infrastructure.

Bellaire Input to H-GAC. As of 2015, Bellaire had representation on the 28-member Transportation Policy Council (TPC) of the Houston-Galveston Area Council (H-GAC). A Bellaire City Council member was the alternate TPC member representing smaller cities in Harris County. H-GAC serves as the Metropolitan Planning Organization (MPO) for transportation planning and coordination across the eight-county Houston-Galveston area, including Harris County. In addition to providing overall policy guidance, the TPC has the important role of approving the Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP), which allocates funding for priority transportation projects and services throughout the region. Naturally

this Bellaire role is only temporary as local elected officials change and the H-GAC positions rotate to other area cities.

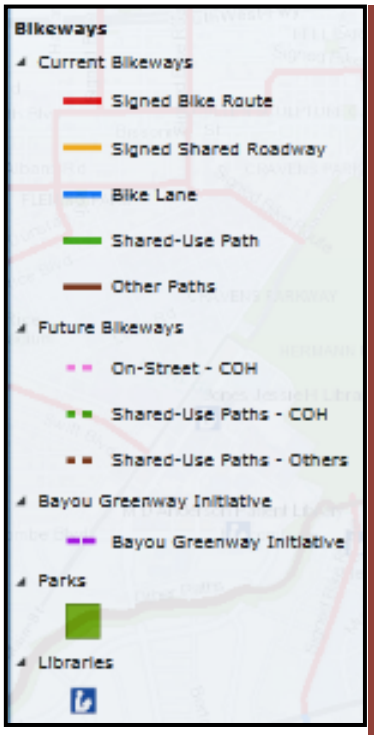
Bellaire Input to METRO. Bellaire is among 14 cities within the METRO service area, other than the City of Houston, that are represented by two members on the agency's nine-person Board of Directors (the City of Houston appoints five Board members, Harris County appoints two members, and the mayors of the 14 other area cities agree on their two representatives). The two "Multi-Cities" representatives at the time this plan was updated in 2015 were former mayors of Bellaire and West University Place, with former Bellaire Mayor Cindy Siegel having served on the METRO Board since March 2012.

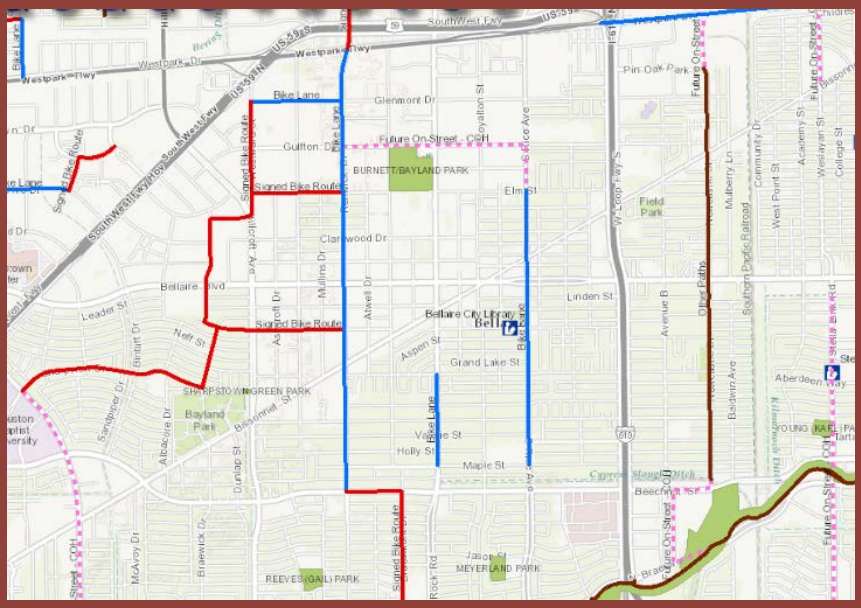
Bike/Ped Emphasis. Many Bellaire residents enjoy walking, jogging, skating, and biking for recreation purposes, but also to reach destinations close to home. The shared-use pathway along Newcastle is especially valued by residents of east Bellaire for this reason. On-street bike lanes are also provided along certain corridors. This is another area for coordination with the City of Houston since some bike routes within Bellaire, such as along Renwick on the far west side, provide connections to the much broader Houston Bikeway Network.

Sidewalks. Sidewalk-related issues and disagreements have been a lingering challenge for Bellaire. One particular aspect has involved implementation of a stated City policy, as part of the Rebuild Bellaire street rehabilitation program, that a sidewalk be incorporated on both sides of the street for major and minor arterials and collector streets, and on one side for local streets. The City Engineer uses criteria such as the percentage of completed sidewalks, extent of existing trees and landscaping, number of crossings, traffic patterns, and citizen involvement to design the sidewalks and decide the side of the street. More generally, the City no longer requires installation of a sidewalk in front of every new home as in the past. As individual homes are redeveloped, existing sidewalk segments are typically replaced. However, if no sidewalk existed previously, then the property owner is not responsible for installing a sidewalk.

A common theme among residents who provided input to this plan was their dissatisfaction with the status and discontinuity of the sidewalk network in some areas of Bellaire, including the level of maintenance of older sidewalks. It was also pointed out that sidewalks should be promoted as the naturally preferred way to reach various destinations in the community from Bellaire's neighborhoods. Through the 2015 update of this Comprehensive Plan, the Planning & Zoning Commission reaffirmed its position that a continuous sidewalk network is desirable for the entire community and should be a high priority of the City's elected officials, even in the face of vocal, localized opposition as particular segments are to be built or improved. While constrained and contentious locations will still be evaluated on a case-by-case basis, sidewalk installation generally should occur as streets are reconstructed.

Truck Traffic. Through Section 30-30 of the City Code, Bellaire restricts heavy trucks from using Bellaire streets for through trips, requiring that they "have a pre-determined, definite destination" within the community. This then becomes a matter of enforcement, and the City also posts "no truck" signs in various locations to discourage truck traffic on local neighborhood streets.





The clip above from the City of Houston Bikeways map shows several identified bike routes that are self-contained within Bellaire (Newcastle, South Rice, Chimney Rock), and the current direct links to the larger area system via Renwick on Bellaire's west side and along Westpark on the north side. Future planned improvements will address the "missing link" between Bellaire's Newcastle multi-use pathway and the Brays Bayou trail system. The map view below, while not entirely legible at this scale, does show the position of Bellaire within the larger area network. The complete Houston Bikeways map is available for better viewing online at: http://www.gims.houstontx.gov/bikeway/default.aspx

Transit Contention. At least among those Bellaire residents who provided input for this Comprehensive Plan update, a majority noted their desire to use transit if it connected them to the right destinations, in central Houston and elsewhere, more quickly and conveniently. The prospect of future METRO light rail service in close proximity to Bellaire was also welcomed by most. (Although, since 2009, METRO funding challenges have pushed back the timeline for constructing the planned east-west University light rail line and the north-south Uptown line, which were to converge at a Bellaire Rail Station along Westpark—and this also led the Uptown Houston District to turn its attention to dedicated bus lanes along Post Oak Boulevard.) However, some residents also worry about the real and/or perceived adverse impacts of transit services and facilities on their community. Some noted potential physical disruptions from transit-related capital improvements, plus the traffic and parking demand that would likely be attracted to a transit station vicinity.

An overarching concern related to public transit—expressed by a variety of residents—involves crime and security issues. In particular, most who provided input to this plan stated their desire to see the METRO Transit Center removed from Bellaire's City Center area at Bellaire Boulevard and South Rice Avenue. This sentiment remained pertinent as of the 2015 update of this Comprehensive Plan. Though still under consideration, it is possible that the construction of a new METRO transit center along Westpark, just outside of Bellaire, plus other adjustments to METRO's transit services, could lead to the removal of the current transit center on Bellaire Boulevard.

Primary Arterial

A major thoroughfare with limited at-grade access, which expands and links to the expressway system and is designed primarily for movement of through traffic. (*Examples:* Chimney Rock Road, Bellaire Boulevard, Bissonnet Street, IH 610)

-- Section 24-202(139) Bellaire City Code

Secondary Arterial

A major thoroughfare with limited at-grade access, which supports the primary arterial system by providing essential system linkages to expressways, primary arterials and activity centers of medium intensity. (*Examples:* Fournace Place and South Rice Avenue)

-- Section 24-202(155)

Collector Street

A roadway designed to provide direct access to residential, commercial, industrial and other activity areas with a primary function of collecting and distributing traffic between local access streets and the major thoroughfare system. (*Examples:* Glenmont Drive, Newcastle Drive, Evergreen Street, and Avenue B)

-- Section 24-202(39)

Local Street

A residential or non-residential street designed to provide direct access to individual homes, shops, abutting land and similar traffic destinations, with no provision for through traffic. (*Examples:* Little Lake Street, Spruce Street)

-- Section 24-202(99)

Existing Traffic Conditions

Traffic volume data for central Houston highlights the significant flows of traffic that pass through Bellaire daily, especially on West Loop 610 (more than 200,000 vehicles each day according to 2013 data from the Texas Department of Transportation), and also on major arterial streets such as Bellaire Boulevard, Bissonnet, and South Rice Boulevard.

Some primary roadways are within—or form a portion of—the Bellaire City limits for only a short distance but carry considerable traffic relative to local residential streets. Examples include Westpark at the north City limits, Chimney Rock in southwest Bellaire, Renwick along the western City limits, Newcastle in east Bellaire, and the portion of Fournace west of Loop 610 where Chevron's major facility is located and where Fournace continues westward into Houston.

Significant pass-through traffic is a daily reality for Bellaire, as an enclave city. This situation is managed with transportation infrastructure, screening and noise reduction measures, provision for alternative travel modes (transit, bike/pedestrian routes), and regulation and enforcement of speeds and other traffic laws. Bellaire has only limited influence over traffic conditions in some

locations (i.e., Loop 610 and key regional arterials) versus corridors that are very much under the City's control in terms of design, traffic controls (signals, signage, speed limits), and traffic law enforcement.

Future Outlook

Long-range transportation planning conducted by the Houston-Galveston Area Council (H-GAC) for the eight-county metropolitan area (encompassing Harris and all abutting counties) presumes that, by 2040, 3.8 million more residents will live in the region, for a total of 9.6 million people. This would represent 66 percent growth in population over 30 years. The clear implication of this rate and magnitude of growth is that area traffic volumes and congestion challenges will continue to increase. Traffic pressures will also intensify within the region's core, where Bellaire is located, since major employment centers such as downtown Houston, the Texas Medical Center, the Galleria area, and the Greenway Plaza area will remain key commuting destinations.

For Bellaire the issues will remain the same into the future, especially since the community's roadway infrastructure is well established, and will only grow in importance:

- dealing with significant daily pass-through traffic;
- aiming to maintain the efficiency of the major street network to deter non-local traffic from seeking alternate routes on local neighborhood streets; and
- promoting greater transit use, feasible bicycle commutes, walking or biking trips to destinations closer to home, and other mobility alternatives to the private automobile.

Smarter, multi-modal use of available street and highway rights-of-way will be increasingly emphasized going forward given the practical and financial constraints to adding further significant roadway capacity. New and expanded transit options will also play an increasing role in regional and cross-town mobility. A potential new METRO transit center along Westpark, just outside of Bellaire, could provide a valuable new access point for residents to this growing regional system, but it might also introduce a new traffic generator near Bellaire's north City limits.

Goals and Actions

The tables on the following pages present a set of goals and guiding principles for addressing the key issues identified in relation to mobility in Bellaire. Potential action strategies are then outlined to respond to particular opportunities and challenges associated with the overall goal. The action options are arranged in six categories that represent the main ways that comprehensive plans are implemented.