

### **3.0 EXISTING CONDITIONS ALONG THE CORRIDORS**

The existing conditions along the three focused corridors were defined through field reconnaissance and data gathering exercises with City staff. The resulting information revealed how pedestrians are currently accessing and using transit services within the City.

Many studies have been completed to define what pedestrians consider a reasonable distance to access services. The one-quarter mile radius is widely accepted as the reasonable walking distance for most people in suburban areas. The distance is closer to a half mile radius in more urbanized settings. However, for evaluation purposes in the City of Longview, a one-quarter mile radius along the corridors was considered.

#### **3.1 SIDEWALK INVENTORY**

A sidewalk inventory was conducted to understand current pedestrian characteristics. Field reconnaissance coupled with GIS analysis was performed to assess the existing system's conditions. The City of Longview provided GIS shapefiles for the City's boundaries, street network and a partial inventory of its sidewalks. The shapefiles were imported into the project's base file and used to develop the figures and analysis associated with the project. The shapefiles created during this study for data and representation of concepts, can be readily imported back into the City's GIS database.

FNI conducted a site assessment along the streets to identify sidewalks that were missing from the current GIS shapefiles. The resulting sidewalk inventory is presented in **Appendix A**. Our observations revealed that the three focus corridors lack an extensive network of sidewalks within their right-of-ways. The highest concentration of available sidewalk is along Mobberly Avenue; however, the majority of the sidewalk is not compliant with current ADA standards.

#### **3.2 ORIGINS AND DESTINATIONS WITHIN WALKING DISTANCE**

Understanding what attractions transit users are trying to reach is an important component to improving pedestrian access. By mapping the various origins and destinations located along the focus corridors, a picture of the trips' overall goal emerges. The City of Longview provided GIS layers for the land use features including governmental buildings, parks and other civic locations. FNI supplemented the GIS information with low-income housing locations and significant apartment complexes. Information was also compiled on census data of household income, auto ownership and other indicators of the propensity to ride transit.

The three corridors offer a wide array of origins and destinations that drive transit ridership:

- Moberly Avenue – The corridor contains a mix of residential areas and commercial businesses. The residential areas are comprised of both single- and multi-family units. The corridor is ethnically diverse and intersects several areas with low-income households. LeTourneau University is located on the route’s southern edge and is a large contributor to ridership.
- Cotton Street – The corridor passes through the City’s downtown area and offers access to several businesses, some industrial in nature. At its western point, the route passes Lear Park, a large sporting venue within the City. This park does not currently contribute a large volume of ridership. The majority of transit use along the corridor is contributed to people accessing the downtown business district.
- Fourth Street – This corridor provides riders access to many of the region’s medical facilities. Near the Multimodal Center, the route passes by the Good Shepherd Medical Center and several other medical offices. As the route extends north, it goes through a large residential area, which is comprised of mostly single-family residential development. Continuing northward, the corridor passes the Longview Regional Medical Center and a major retail area near the Loop 281 intersection.

### **3.3 TRANSIT RIDERSHIP CONCENTRATIONS AND POTENTIALS**

Boarding information is currently compiled hourly for each route using fare-box tabulation capabilities. The available data shows ridership boarding variations aggregated by route and by hour of day, but it does not indicate stop-specific information. The time-stamped boarding information, along with driver observations, has been used over the years to locate bus shelters and benches at these higher boarding locations. Information is not collected on the alighting passengers and the locations where they depart the buses.

In discussions with Longview Transit staff, it was decided that the existing bus shelters and bench locations are indicators of high bus utilization activities. The one-quarter mile radius surrounding these stops would have a greater need for improved pedestrian transit accommodations than other locations along the routes. These indicators are sufficient to recognize areas where higher priority needs for enhancements exist.

### **3.4 PEDESTRIAN ACCESS CONDITIONS AT KEY BUS STOPS**

Base maps focusing on a one-quarter mile radius from the existing bus stops were created to assess pedestrian access to transit. The maps highlighted existing pedestrian features and were used to identify facilities needed to enhance transit access. The maps are shown in **Appendix A**.

The safest and optimum configuration is the separation of pedestrians and vehicular traffic. However, the analysis revealed a large portion of the existing roadway network lacked sidewalks. Given the shortage of sidewalks within

public right-of-ways, a set of criteria is warranted to assess and prioritize sidewalk needs for bus stops within these corridors. Since development will occur over time, the following criteria will be considered when identifying and prioritizing transit access projects:

- Local streets with very low traffic volumes (less than 500 cars per day) can accommodate pedestrian activity without the provision of sidewalks, if necessary.
- Existing development parking lots can sometimes serve as pedestrian access ways without the addition of sidewalks.
- On many of the streets the current bus routes only provide one-direction of service, therefore this access limitation should be considered when placing new sidewalks.
- Walking along the street parallel to the bus route allows riders to spot the bus in advance and select an appropriate boarding location. However, walking along local and collector streets may provide a more comfortable setting for pedestrians versus walking along sidewalks on a higher volume arterial.
- To facilitate transit services, the construction of new walking routes should connect existing concentrations of rider activity, to the extent reasonable. Projects that provide the missing link between high-use areas should have a higher prioritization.
- Consideration to how bicyclists may access the bus service is important.

## 4.0 EXISTING BUS SERVICE ATTRIBUTES

In conjunction with the on-system sidewalk and trails assessment, existing transit services along the focused corridors were also evaluated for potential improvements that could facilitate walking and bicycling access to transit.

### 4.1 EXISTING SYSTEM CHARACTERISTICS

Longview Transit runs six fixed-route bus routes that radiate from the central transfer center at Magrill Park. Demand responsive service (i.e. paratransit service) is also provided but is not part of this study.

#### 4.1.1 Duration

The bus service runs from 6:15 a.m. to 7:15 p.m. on Monday through Friday and 7:15 a.m. to 6:15 p.m. on Saturday, beginning and ending at Magrill Park. At the present time, bus service is not available on Sundays.

#### 4.1.2 Frequency

Routes 1, 3, 5 and 6 operate with one-hour headways. The routes are scheduled for a 55-minute travel time with a 5-minute period for pulse transfers at Magrill Park. The pulse transfers occur at 15 minutes past every hour. On Route 2 and 4, the travel time is a 25-minute route with a 5-minute dwell at Magrill Park for transfers. This layover occurs at 15 minutes before and after every hour. Unlike the other routes where one bus is assigned full-time, Routes 2 and 4 share a bus for their operations. The routes are interlined, meaning the bus completes Route 2, stops at the park for transfers, and continues on to serve Route 4. After running Route 4, the bus returns to the park for transfers and begins again along Route 2. This approach creates what appears to be a one-hour headway for riders along each route.

#### 4.1.3 Service Reliability and the Central Pulse Transfer

Because of the one-hour headways, the pulse transfers at the Magrill Park are essential for effective cross-town service. Note pulsed transfer operations have inherent benefits and inefficiencies:

- The scheduled 5 minutes of pulsed transfers provide slack time for the buses to synchronize at each pulse. The synchronization of the routes enhances the overall reliability of the service.
- Not all buses will be able to complete their service routes exactly between pulses. Some may have extra slack time, while some buses may barely arrive at the transfer point so that the other buses are not delayed.

- As the radial routes are extended to serve more of the community, additional slack time must be built into the routes' schedules to maintain the pulsed transfer.
- Currently, Routes 2 and 4 are interlined, shorter routes that pass through the transfer center every 30 minutes. Cross-town access would be enhanced if the system were expanded to incorporate additional short routes. This modification would allow transfers to pulse every 30 minutes.

#### 4.1.4 Passenger Service Stops

It is the current practice of Longview Transit to pick-up and drop-off passengers at any point along the route, not only at designated stops. Bus stop signs have been placed where passengers commonly request to board or depart the buses. Bus benches and shelters are also present at the higher activity locations. Given the one-hour service headways, passengers tend to arrive at the bus stops early and wait for the bus to arrive because the consequences of missing it are significant. The amenities provided at each bus stop should reflect the wait time and conditions experienced by the riders. Routes with longer headways should provide benches and/or shelters that passengers can comfortably wait at.

#### 4.1.5 Service Coverage

Route placement is a balancing act between providing close access to major origins/destinations and operating the route in a timely matter. A bus route is considered to provide coverage, or adequate service, to the area within a one-quarter mile walking distance of its stops. As shown in **Figure 4A, 4B, 4C and 4D**, Longview Transit provides good service coverage to the majority of the City's developed areas. However, a street with a route heading in only one direction (e.g., inbound but not outbound) can require a passenger to ride in the opposite direction from their destination for a portion of their trip, or to walk further to board a bus heading directly toward their destination.

## 4.2 BUS SERVICE BY FOCUSED CORRIDOR

The three study corridors are provided with various levels of transit service, ranging from partial two-way service to single direction service.

### 4.2.1 Mobberly Avenue

Mobberly Avenue is served by the inbound leg of Route 6 from Birdsong Street to the downtown area and by the outbound leg of Route 1 from Avalon Street southbound to Estes Parkway. The two routes overlap and provide two-way service for four blocks between Avalon Street and Birdsong Street. LeTourneau University is a major trip generator along Mobberly Street and is served by the outbound leg of Route 1. A bus shelter is provided near its

front entrance. In addition, students can access a connection to the inbound leg of Route 1 nearby at the intersection of Estes Parkway and High Street.

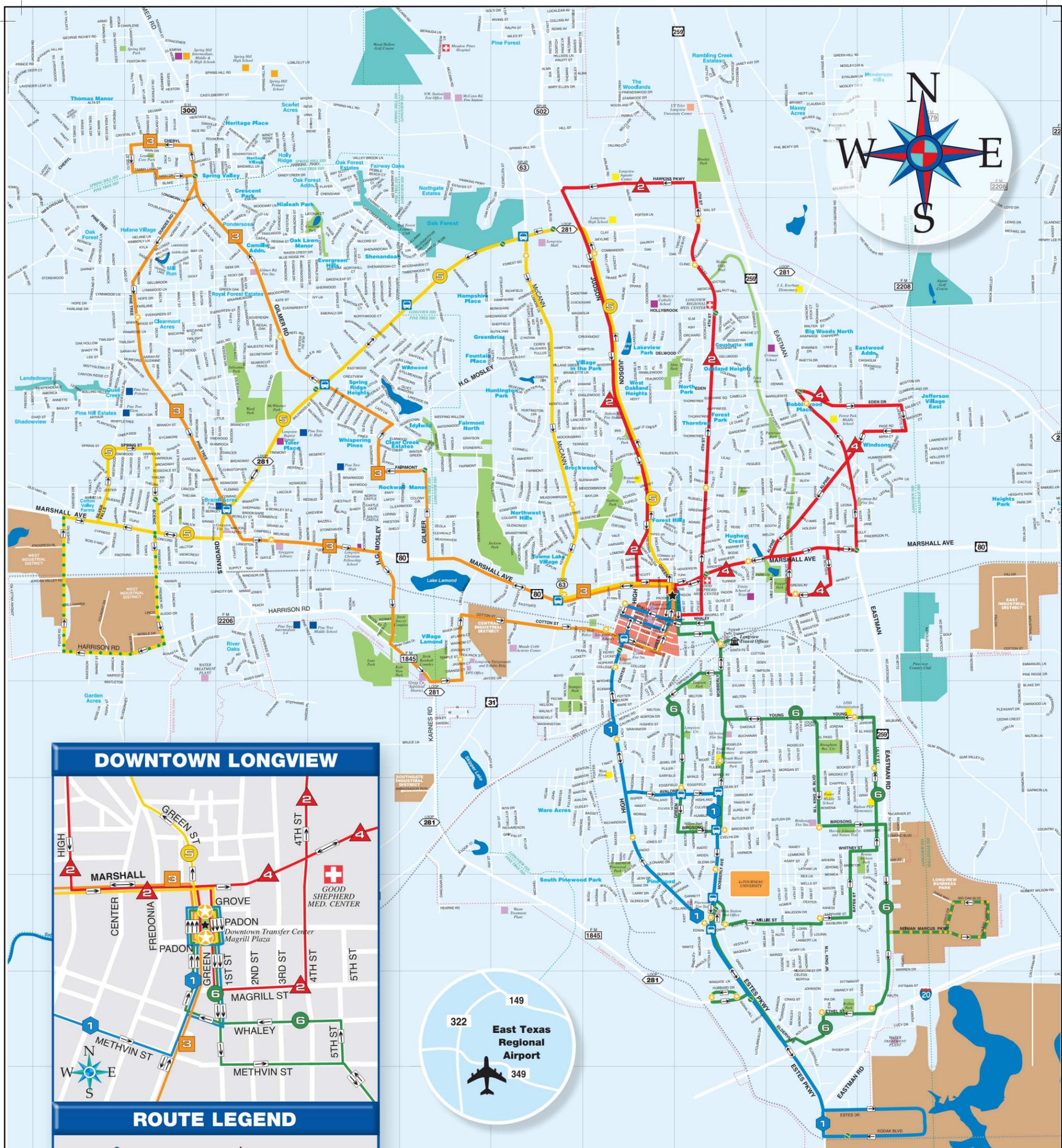
Route 1 provides five bus shelters and five benches, while Route 6 provides three bus shelters and three benches. The large number of shelters and benches is an indicator of high ridership. Most of all the shelters and benches are located within a one-quarter mile walking distance of the Mobberly Street corridor. This web of Routes 1 and 6 has evolved over time in response to input from riders, but is somewhat difficult to comprehend and expectedly cumbersome to use.

#### 4.2.2 Cotton Street

Cotton Street is served by the inbound leg of Route 3. The outbound leg of Route 3 runs along Marshall Avenue (US 80), which parallels Cotton Street to its north. The distance between Cotton Street and Marshall Avenue (US 80) varies between one-quarter to one-half of a mile. However, the closest point between the roadways occurs at McCann Street. There is one bus shelter located along the Cotton Street corridor, near the Library, where Route 3 intersects with Route 1. The bus shelter indicates a high use location along the routes.

#### 4.2.3 Fourth Street

Fourth Street is served by the outbound leg of Route 2. Major trip generators along the route include Good Shepherd Medical Center near downtown, Longview Regional Medical Center and the Wal-Mart Supercenter on the route's northern end near Loop 281. Existing bus shelters and/or benches are located near the Wal-Mart Supercenter and the Social Security Administration office. The added amenities indicate high-use transit activities are present. The inbound leg of Route 2 is located between one-quarter to one-half of a mile west of Fourth Street along Judson Road. Judson Road is also serviced by Route 5, resulting in over three miles of two-way bus service. The overlap benefits the Fourth Street corridor since it's within the accepted walking distance for transit access.



ROUTE LEGEND	
	Mobberly/ LeFornau Univ
	Medical District/ Longview HS
	Pine Tree/ Springhill
	East Marshall/ Alpine
	Loop 281/ Silver Falls
	MLK/ South Eastman
	Transfer Points
	Bus Shelter
	Bus Bench
	Longview Transit Office
	Hospitals
	City Parks
	Spring Hill ISD Schools
	Pine Tree ISD Schools
	Longview ISD Schools
	Points of Interest
	Downtown
	Private Schools

# LongviewTransit

## Bus Routes

1

# Mobberly/LeTourneau University



Real East Texas  
CITY OF **LONGVIEW**  
Longview Pedestrian Access Study  
Transit Line System  
**Figure 4B**

# Medical District/Longview HS

2



Real East Texas  
CITY OF **LONGVIEW**

Longview Pedestrian Access Study  
Transit Line System  
**Figure 4C**

3

# Pine Tree/Spring Hill



Real East Texas  
CITY OF **LONGVIEW**  
Longview Pedestrian Access Study  
Transit Line System  
**Figure 4D**