## NORTH UNIVERSITY-HERITAGE-ROSEDALE NEIGHBORHOOD BIKEWAYS

### BACKGROUND

Neighborhood bikeways are local streets with a combination of speed management, signage, and pavement markings that allow people walking, bicycling, driving, and playing to share street space more safely and comfortably. ATD is seeking your feedback on a proposed neighborhood bikeway project designed to provide bikeway connections in Central Austin neighborhoods for people of all ages and abilities.

### FUNDING

The 2016 Mobility Bond dedicates \$137 million to local mobility projects. The Local Mobility Program is enhancing mobility, safety, and connectivity by funding construction of new infrastructure like bikeways, sidewalks, and urban trails as well as improvements to existing infrastructure. Funding for these proposed changes is available from the Bikeways program.

### **COMMENT PERIOD**

The comment period for this project will be open through Sunday, March 1, 2020. Please submit feedback through the project survey. For questions, please contact:

> **Dylan Johnstone** (512) 974-7021 dylan.johnstone@austintexas.gov

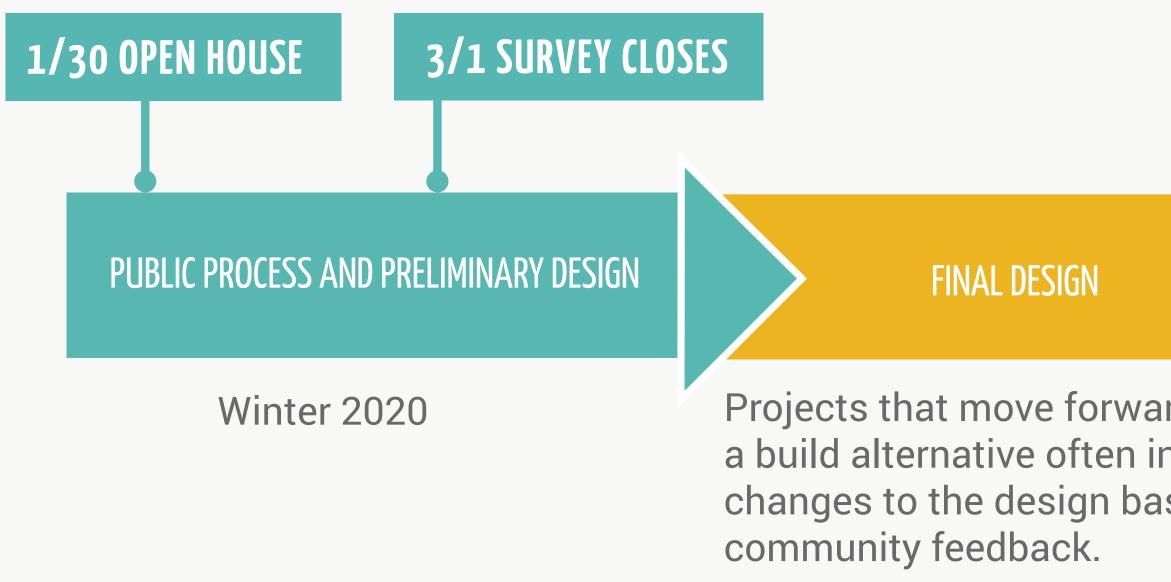


For more information about this project, neighborhood bikeways, the progress of the All Ages and Abilities Bicycle Network, or the 2016 Mobility Bond, visit the following AustinTexas.gov webpages:

Example of a shared lane marking, aka "sharrow," on a neighborhood bikeway in Portland, Oregon.

### TIMELINE

The project timeline is subject to change pending the outcome of the public process and coordination with other projects. Sign-up for the project email updates to stay informed of the project status.







### LEARN MORE

#### **/NUHR-BIKEWAYS /NEIGHBORHOODBIKEWAYS /AAABIKENETWORK /2016BOND**

	TBD - Estimated 2020
	IMPLEMENTATION
rd with nclude sed on	If a build alternative moves forward, implementation may occur in phases. Additional detail on phasing would be shared in future project updates.

## **CITYWIDE POLICY DIRECTION**

This project is informed by citywide plans and policies including Imagine Austin Comprehensive Plan (2012), Austin Strategic Mobility Plan (ASMP, 2019), Austin Complete Streets Policy (2014), Vision Zero Action Plan (2016), Austin Bicycle Plan (2014), and Pedestrian Safety Action Plan (2018).



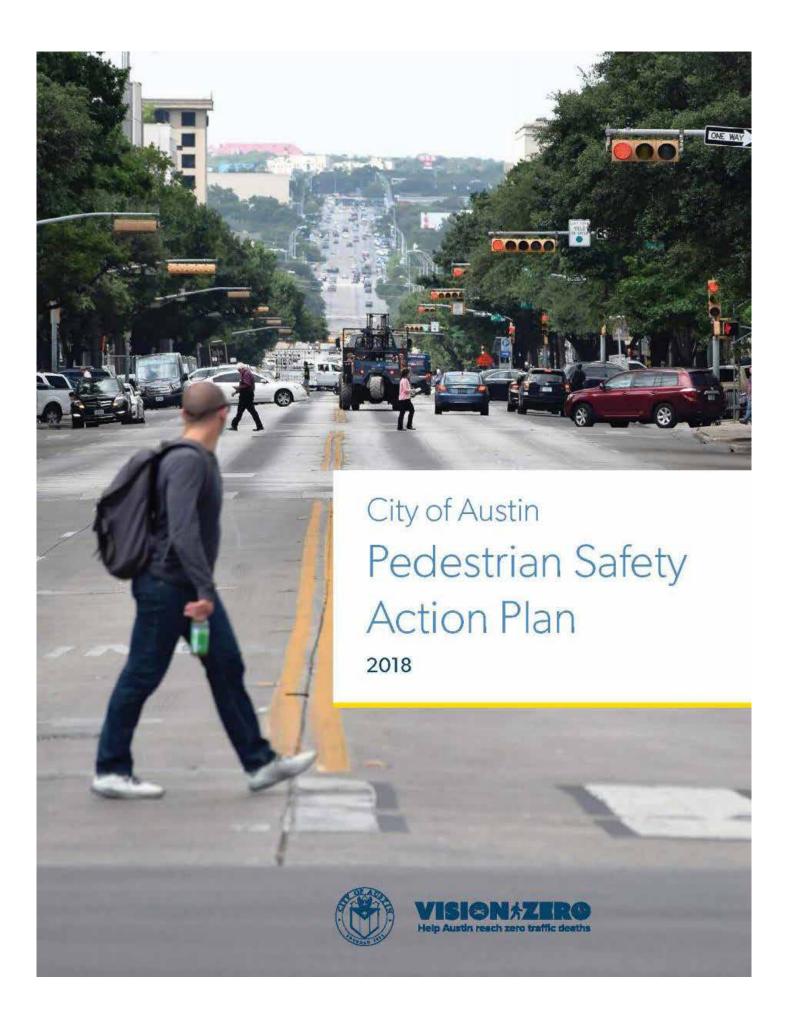


### AUSTIN Complete Streets









# WHAT ARE NEIGHBORHOOD BIKEWAYS?

Neighborhood bikeways are local streets where motor vehicle traffic speeds and volumes are kept low to make it safer and more comfortable to bicycle, walk, and play.

Neighborhood bikeways were formerly called "quiet streets" in the 2014 Austin Bicycle Plan and were recently renamed "neighborhood bikeways" in the Austin Strategic Mobility Plan. They are sometimes called "bicycle boulevards" in other cities.

Encourage slower speeds for more comfortable and safer conditions for sharing the road! Generally, keep on-street parking

Concept for a neighborhood bikeway



Several factors are used in selecting local streets to form neighborhood bikeway routes:

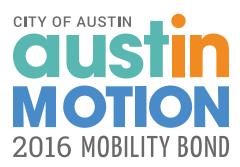
- Naturally lower motor vehicle volumes and speeds are preferred
- Connectivity to other high-comfort bicycle facilities, such as protected bikeways and urban trails, to form an "all ages and abilities"
- network
- Elevation changes
- Directness of the route

### **ALL AGES AND ABILITIES CONNECTIONS**

Neighborhood bikeways are designed to be lowstress and are intended to serve people of all ages and abilities.

Austin's All Ages and Abilities Bicycle Network was adopted by City Council through the Austin Bicycle Plan and Urban Trails Plan in 2014, and recently updated in the Austin Strategic Mobility Plan (ASMP).





### HOW ARE NEIGHBORHOOD BIKEWAY ROUTES SELECTED?



### NEIGHBORHOOD BIKEWAY DESIGN TOOLBOX ROUTING **LOWER SPEEDS AND VOLUMES**

Pavement markings called "sharrows" encourage users to share the road without the presence of bicycle lanes.





#### **STOP SIGN CHANGES**

Stop sign changes are used to prioritize through bicycle movements.

Gateway 🗲 Cully

### WAYFINDING SIGNS

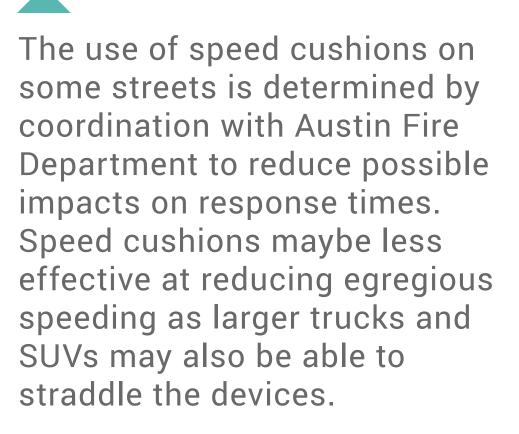
Wayfinding signs help to guide people along the bikeway route to local and regional destinations. Wayfinding signs can include information on the distance and approximate time it takes to bicycle to a destination.

Asphalt speed humps may reduce speeds by 6-13 mph and speed cushions by 5-7 mph (Source: FHWA ePrimer). Using local data, ATD has found rubber speed cushions can achieve comparable speed reductions as speed humps. Given that asphalt speed humps and rubber speed cushions are more effective at reducing speeds, these devices are preferred for use on neighborhood bikeways. For streets without sidewalks, ATD would install speed devices leaving a 3-foot clear space between the gutter and the edge of the speed device.

Speed humps are constructed to have a gentle, rolling profile and are placed from gutter-to-gutter across a roadway.







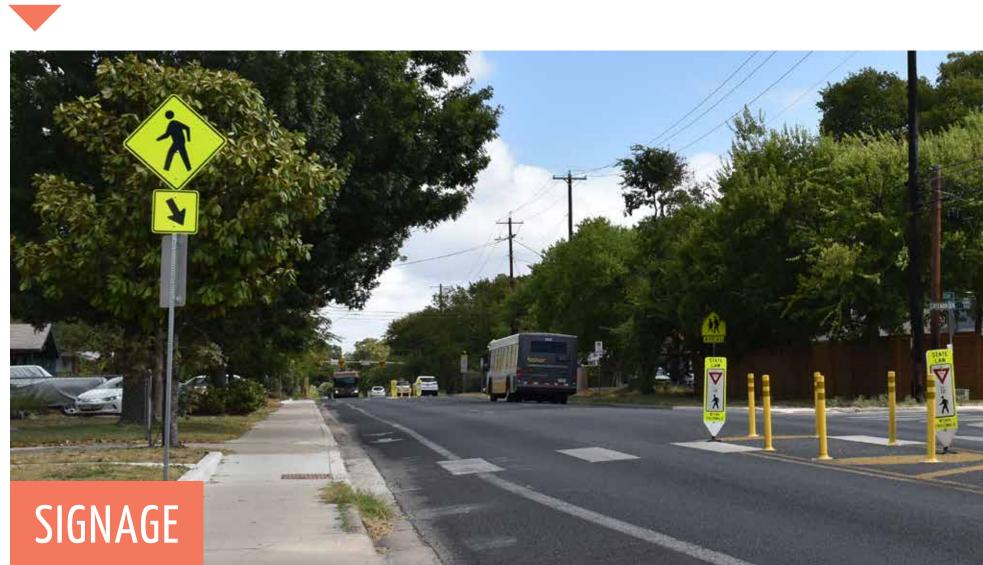


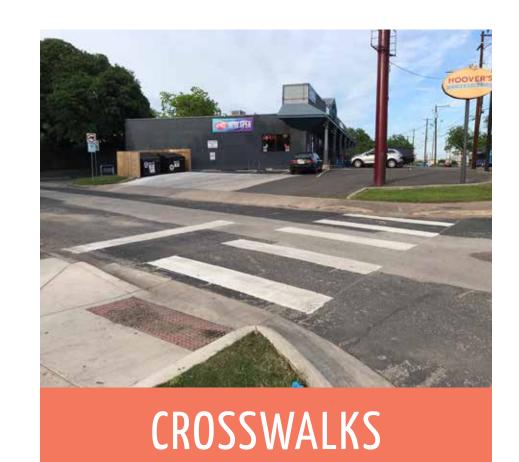
Curb extensions are used to shorten crossing distances and slow motor vehicle speeds during turning movements.





Signage, crosswalks, crossing islands, rapid flashing beacons, or pedestrian hyrbid beacons can be used to bring attention to people walking and bicycling at crossings and encourage better yielding behavior by drivers.





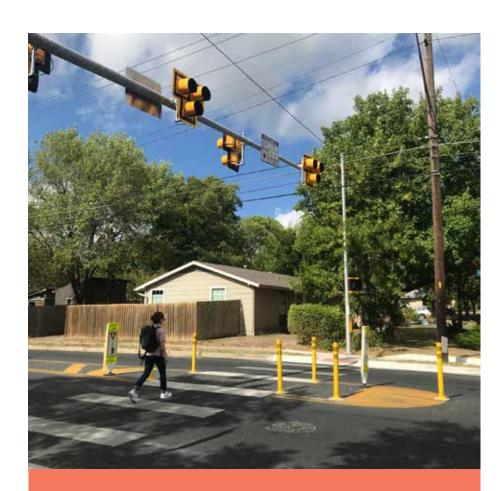




### **CROSSING IMPROVEMENTS**

**RAPID FLASHING BEACON** 





**PEDESTRIAN HYBRID BEACON** 

# **PROJECT OVERVIEW**

### ROUTING

- New shared lane markings ("sharrows")
- New wayfinding signs
- Study feasibility of switching stop signs at 4 intersections to prioritize the bicycling route

### **LOWER SPEEDS AND VOLUMES**

- New speed reduction devices (e.g., speed humps or speed cushions) to achieve closer to 20 mph speeds
- No volume reduction is proposed for this project

### **CROSSING IMPROVEMENTS**

- Intersection improvements (e.g., signal timing changes, ADA upgrades, curb extensions, detection)
- New bicycle lanes for connecting across major streets:
  - W 29th Street between W Guadalupe Street and Hemphill Park with proposed localized parking restrictions
  - W 34th Street between West Avenue and W Guadalupe Street with proposed parking restrictions on the north and south curbs
  - W 40th Street between N Lamar Boulevard and Marathon Boulevard with proposed localized parking restrictions

### **SHOAL CREEK TRAIL CONNECTION**

Alternatives are being considered for W 31st Street/Shoal Creek Boulevard between N Lamar Boulevard and W 34th Street to provide a more clear Shoal Creek Trail connection (see corresponding boards for additional details)





Not-to-scale, updated 2020-01-30

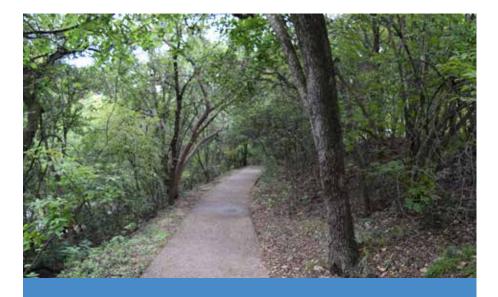


### ROUTING **MAKING CONNECTIONS**

The proposed neighborhood bikeway routes connect to other high-comfort bicycle facilities, such as protected bikeways and urban trails, to form an <u>All Ages and Abilities Bicycle Network</u>. This project connects to the Shoal Creek Trail, Speedway, Shoal Creek Boulevard, and Rio Grande Street.

Data from Strava, a mobile phone app commonly used by more confident bicyclists, confirms that these streets are popular bicycling routes already. With a few changes, these routes can be improved to be more comfortable for all ages and abilities.





SHOAL CREEK TRAIL



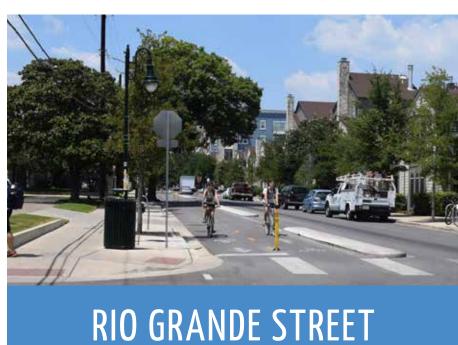
SHOAL CREEK BOULEVARD





### **STOP SIGN CHANGES**

This project proposes to study the feasibility of switching stop signs at 4 intersections to prioritize the bicycling route:









Hemphill Park (east side) and W 32nd Street -Switch from north-south to either east-west or all-way stop

Hemphill Park (west side) and W 33rd Street -Switch from east-west to north-south

W 41st Street and Sinclair Avenue - Switch from east-west to north-south

W 41st Street and Rosedale Avenue - Switch from east-west to north-south

## LOWER SPEEDS AND VOLUMES

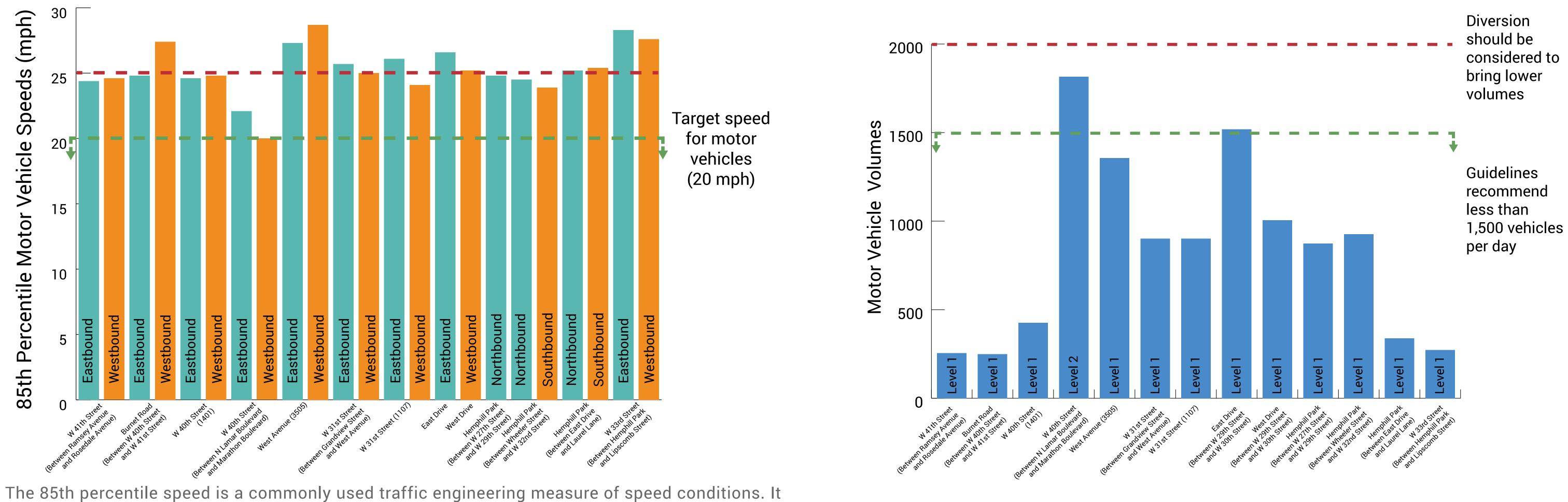
Neighborhood bikeways are critical pieces of Austin's All Ages and Abilities Bicycle Network. It is important that these streets are comfortable places for people walking, bicycling, and driving to share, including young children and older adults. To do this, lower motor vehicle speeds and volumes are necessary.

Data show us that when speeds increase, so do the risk of crashes and injuries, and related "traffic stress." When motor vehicle volumes increase, the likelihood of a motor vehicle passing a person bicycling in the same direction also increases-the more often this happens, the more stressful it can be for a less confident bicyclist.

For neighborhood bikeways to be low-stress and more welcoming to less confident bicyclists, national best practices recommend a target goal of 20 mph (up to 25 mph in some contexts) for motor vehicles speeds and  $\leq$  500–1,500 vehicles per day for motor vehicle volumes. Austin Transportation collected speed and volume data for this project to evaluate if improvements would be needed to meet neighborhood bikeway design guidelines.

### SPEEDS

Most of the streets studied are within speeds of 20-25 mph. Speed reduction devices are recommended to bring target speeds closer to 20 mph (see the preliminary design for proposed locations of devices).



is the speed at which 85% of all motor vehicle traffic is traveling at or below. It means that 15% of motor vehicle traffic is traveling faster than that speed.

#### VOLUMES

Motor vehicle volumes on all the streets studied are within an appropriate range given neighborhood bikeway design guidelines. No motor vehicle diversion is proposed at this time.



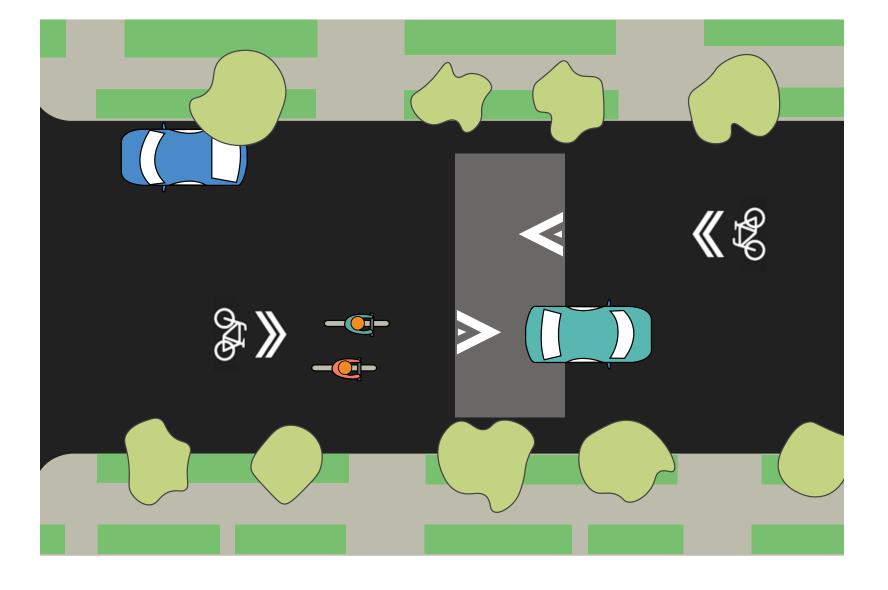
## SPEED REDUCTION DEVICES

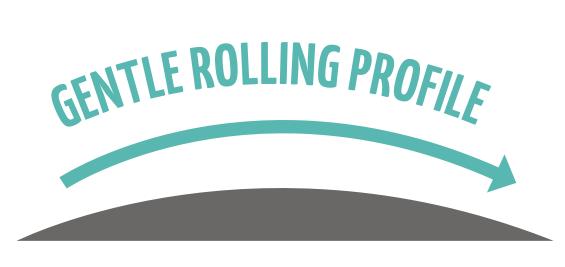
Asphalt speed humps may reduce speeds by 6-13 mph and speed cushions by 5-7 mph (Source: FHWA ePrimer). Using local data, ATD has found rubber speed cushions can achieve comparable speed reductions as speed humps. Given that asphalt speed humps and rubber speed cushions are more effective at reducing speeds, these devices are preferred for use on neighborhood bikeways. For streets without sidewalks, ATD would install speed devices leaving a 3-foot clear space between the gutter and the edge of the speed device.



Speed humps are constructed to have a gentle, rolling profile and are placed from gutter-to-gutter across a roadway. They are constructed using asphalt.

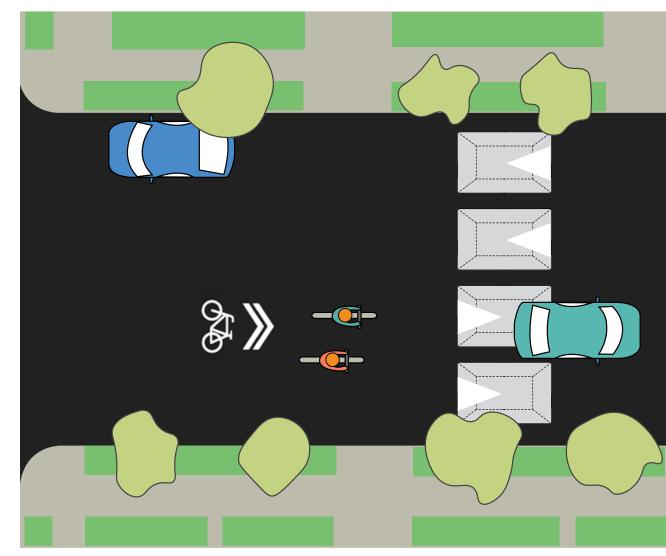
The spacing and gentle profile of speed humps helps to prevent hard braking and accelerating patterns, which reduces traffic noise and lowers speeds to be more compatible with a neighborhood context.

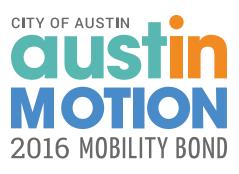






Speed humps are constructed to be comfortable for people bicycling and other users traveling 20 mph or less.



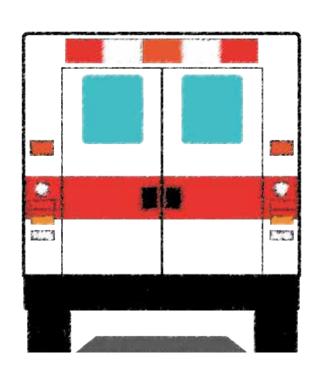


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Speed cushions are constructed with a trapzoidal profile and are placed in groups of 2+ cushions. Speed cushions may be constructed using asphalt or rubber.

The use of speed cushions on some streets is determined by coordination with Austin Fire Department to reduce possible impacts on response times.

Speed cushions maybe less effective at reducing egregious speeding as larger trucks and SUVs may also be able to straddle the devices.



## **CROSSING IMPROVEMENTS**

Planned pedestrian crossing island to sidewalk and two-way protected bicycle lanes on Shoal Creek Boulevard. Construction scheduled for 2020.

Add pushbutton for people bicycling to use the existing pedestrian hybrid beacon. Add a crosswalk on the north leg of the intersection. Improve connection to Shoal Creek Trail and sidewalk on N Lamar Boulevard on southwest corner.

#### Legend

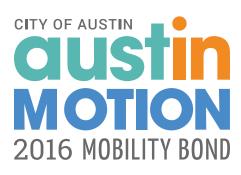
- Proposed Neighborhood Bikeway Route
- Proposed Connecting Bicycle Lanes
- Shoal Creek Trail Connection
- **Existing Traffic Signals** 600
  - Existing Pedestrian Hybrid Beacon
- Planned Crossing Island

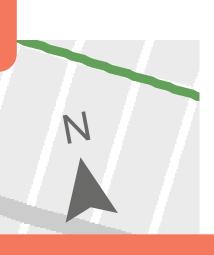
Study Stop Sign Switch Feasibility

Planned / Existing All Ages and Abilities Bicycle Network W 35th St

Not-to-scale, updated 2020-01-30







Speedway

New bicycle lanes on W 40th Street between Marathon Boulevard and N Lamar Boulevard. Localized parking restriction proposed on north and south curbs.

> New bicycle lanes on W 34th Street between West Avenue and W Guadalupe Street. Proposed parking restriction on the north and south curbs.

New pedestrian crossing island and curb extensions at West Drive/W 30th Street. Curb extensions at East Drive/W 30th Street.

New raised crosswalk midblock on East Drive

### **SHOAL CREEK TRAIL CONNECTION** ALTERNATIVES FOR W 31ST STREET/SHOAL CREEK BOULEVARD (W 34<sup>TH</sup> STREET TO N LAMAR BOULEVARD)

Planned rapid flashing beacon and crosswalk for trail crossing

Creek Trail

Shoal

Narrower trail with a steep uphill that is rideable, but may not be accessible for some users. Options are limited to improve the existing trail due to steep slopes, trees, and other environmentallysensitive features. Trailheads

Middle school drop-off/pick-up

Blvd

ek

al

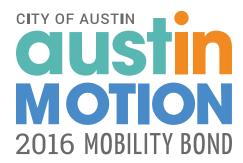
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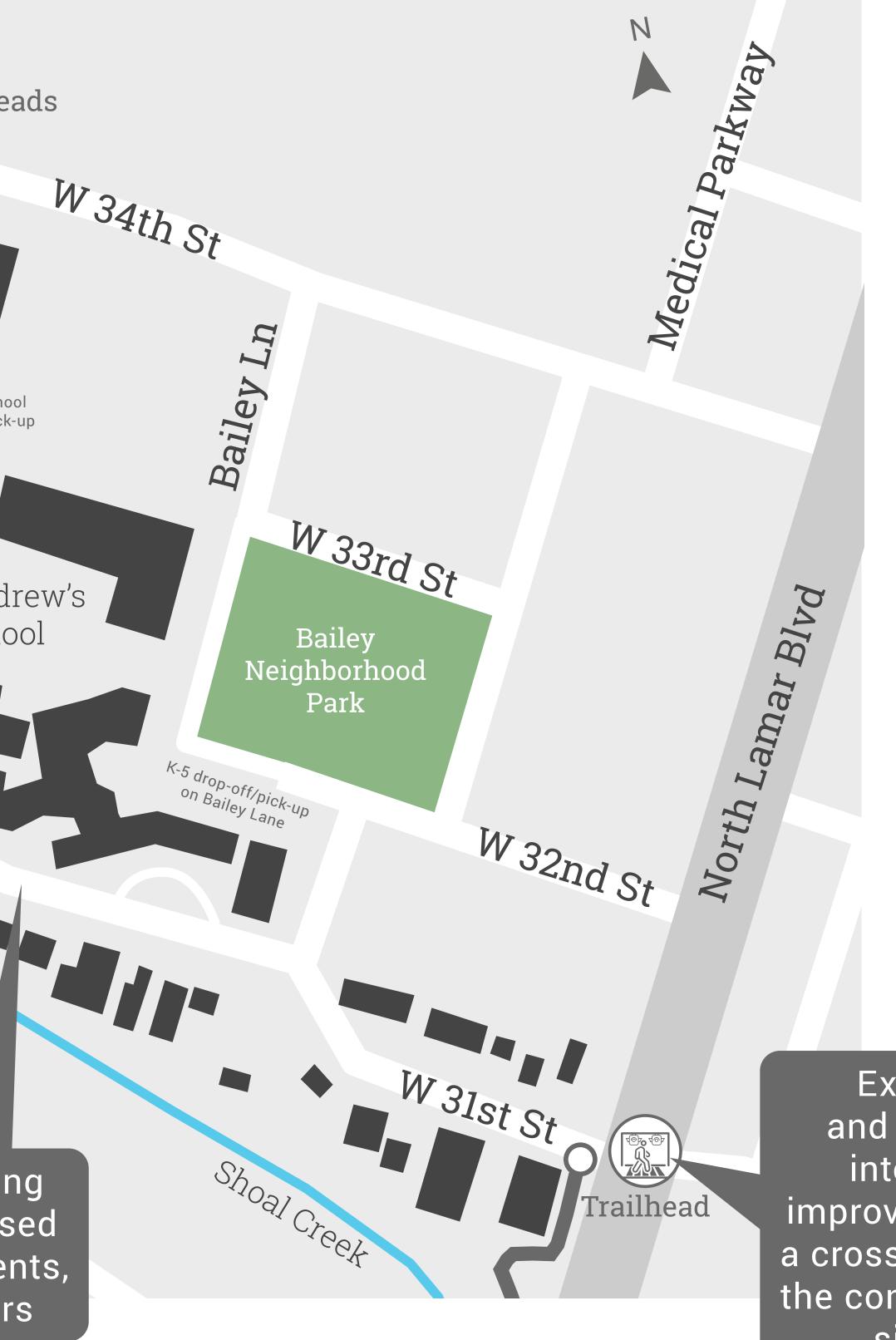
Trailhead

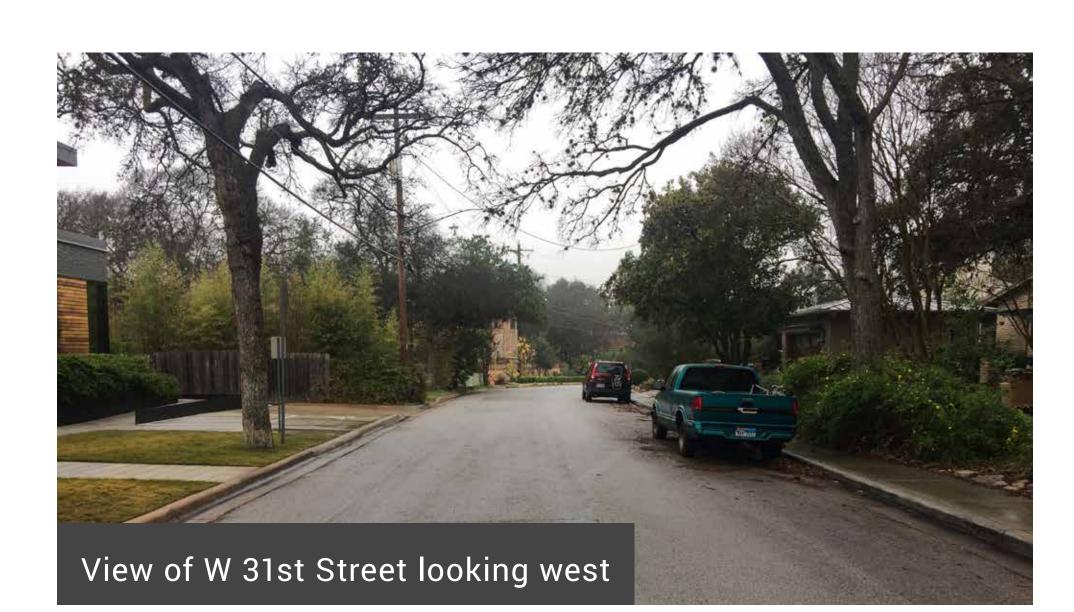
St. Andrew's School

In this section, there is not adequate public right-ofway along the creek to build the missing trail connection



On-street parking on north curb used by school, residents, and trail visitors





The Shoal Creek Trail is an important part of both the Bikeways and Urban Trail networks. However, this section of the trail is currently disconnected and there is not adequate public right-of-way along the creek to build the connection. Austin Transportation, in coordination with the Urban Trails Program, is evaluating alternatives to provide a more clear and higher-comfort trail connection.

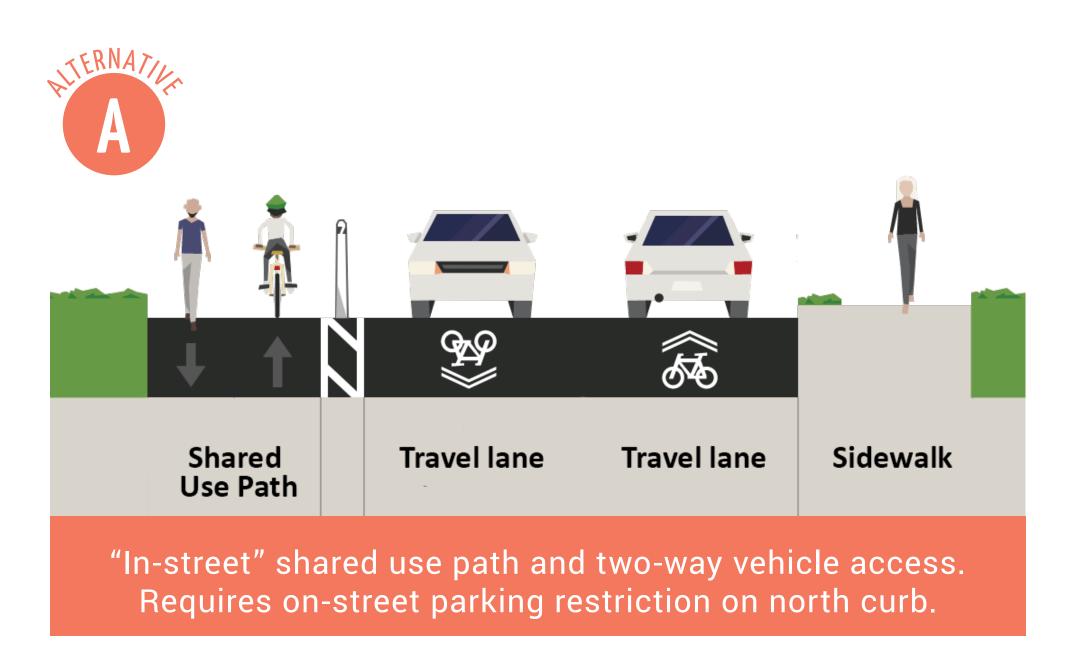
The following alternatives seek to provide options to balance the varied needs of people using the street, including the St. Andrew's school community, residents, businesses, and trail users.

Existing pedestrian hybrid beacon and crosswalk on the south leg of the intersection. This project proposes improvements to bicycle detection, adding a crosswalk to the north leg, and improving the connection to the Shoal Creek Trail and sidewalk on N Lamar Boulevard.

### SHOAL CREEK TRAIL CONNECTION ALTERNATIVES FOR W 31ST STREET/SHOAL CREEK BOULEVARD (W 34<sup>TH</sup> STREET TO N LAMAR BOULEVARD)

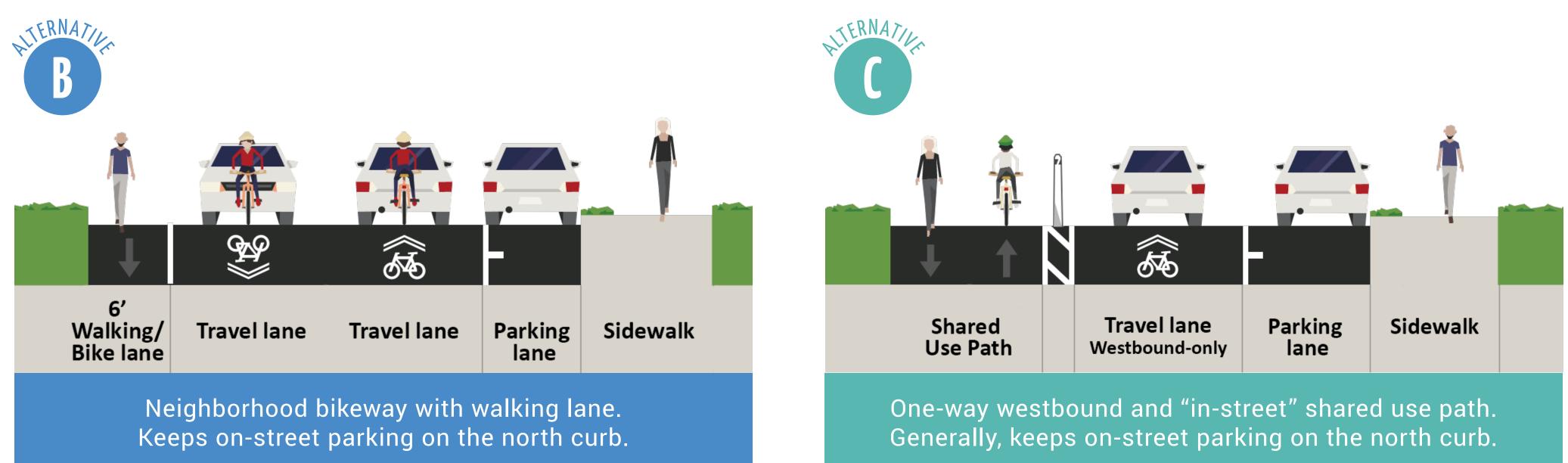
Currently, this section of West 31st Street/Shoal Creek Boulevard allows travel in both directions for motor vehicles. There is a sidewalk on the north side of the street and parking on the north curb. It is a Level 1 ("local") street with low motor vehicle volumes (less than 1,000 vehicles per day). The street sees higher use during the peak morning and evening periods for student drop-off and pick-up.

Below are typical cross-sections for three alternatives and different trade-offs to consider. The alternatives propose using the available street space on West 31st Street/Shoal Creek Boulevard since existing trees, steep slopes, and utility conflicts prevent constructing behind the south curb of the street.



Alternative A proposes to make the trail connection by reconfiguring the street to provide an "in-street" shared use path on the south curb. This would require a parking restriction on the north curb. This proposal would maintain travel in both directions for motor vehicles and the existing sidewalk.

The Shoal Creek Vision to Action Plan, a community-driven plan for the Shoal Creek Trail, recommended completing this trail gap through an "in-street" shared use path.



Alternative B proposes a neighborhood bikeway with an eastbound bicycle/walking lane on the south curb. This would keep existing on-street parking on the north curb.

West 31st Street/Shoal Creek Boulevard meets neighborhood bikeway design guidelines for lower motor vehicle speeds (average speeds of 25 mph) and volumes (less than 1,000 vehicles per day), expect during school drop-off and pick-up peak times. Speed reduction devices are recommended to bring target speeds closer to 20 mph.

Alternative C proposes converting West 31st Street/Shoal Creek Bouelvard to a oneway westbound general travel lane and an "instreet" shared use path on the south curb.

This would generally keep on-street parking on the north curb. Parking restrictions may be needed to accommodate longer motor vehicle queues at the middle school drop-off/pick-up loop.



W 34th S