



## Saugus Walk Assessment Saugus, MA

September 12, 2018

*Sponsored by the Massachusetts Executive Office of Public Safety and Security's Pedestrian Safety Planning Initiative for High-Fatality Communities*

**MAKING MASSACHUSETTS MORE WALKABLE**

Old City Hall | 45 School Street | Boston MA 02108 | T: 617.367.9255 | F: 617.367.9285 | [info@walkboston.org](mailto:info@walkboston.org) | [www.walkboston.org](http://www.walkboston.org)

## **Walk Assessment Overview**

On September 12, 2018, WalkBoston conducted a walk assessment in Saugus, with support from the Massachusetts Executive Office of Public Safety and Security (EOPSS). The goal of the walk assessment was to recommend improvements to the local built environment that improve pedestrian safety. Participants included Saugus residents, WalkBoston staff, and representatives from the Town Manager's office, Town Meeting, Fire Department, Police Department, Planning Department, and Public Works Department.

Pedestrian safety has been a longstanding concern in Saugus and several recent high-profile pedestrian crashes with motor vehicles have further galvanized the issue. The extension of the Northern Strand Community Trail through Saugus will mean even more people walking and biking locally, so there is a critical need to improve safety for all road users. The Town is currently planning to dedicate more police resources to traffic enforcement, so the built environment improvements described in this report will complement these activities and further improve pedestrian safety.

The Town of Saugus has already pursued built environment changes by applying to the state's Recreational Trails program for a grant to improve six crossings where the Northern Strand trail intersects with motor vehicle traffic. Walk assessment participants examined two of these trail crossings at Central Street and Essex/School Streets. The recommendations for those areas in this report can inform other the trail crossing locations as well.

The walk assessment participants met at Saugus Town Hall and walked through Saugus Center to Winter Street and back, passing the Central Street trail crossing en route. The group then drove to Cliftondale Square, the trail crossing at Essex Street and School Street, and the intersection of Essex Street and Felton Street to examine pedestrian conditions at those locations. The group discussed a number of general recommendations to improve walkability throughout Saugus, as well as more specific recommendations at targeted intersections and locations.

**The report sections that follow discuss these "Overall Recommendations" and "Specific Improvements" in more detail. These recommendations can be applied to other locations in Saugus and can inform future Complete Streets initiatives as well. "Overall Recommendations" include the following:**

- Use fog lines, bike lanes, curb extensions/bumpouts, and pedestrian refuge islands to calm traffic, reduce long crossing distances, and improve pedestrian visibility.
- Install traffic calming measures and advance signage/pavement markings on the approaches to the Northern Strand trail crossings.
- Improve conditions and locations of crosswalks and curb ramps for visibility, accessibility and ADA compliance.
- Create a comprehensive plan to improve sidewalks.

## **Overall Recommendations**

- **Use fog lines, bike lanes, curb extensions/bumpouts, and pedestrian refuge islands to calm traffic, reduce long crossing distances, and improve pedestrian visibility.** Wide travel lanes induce motor vehicles to travel at high speeds and long pedestrian crossing distances leave pedestrians exposed to this fast-moving traffic, creating safety hazards throughout Saugus. Fog lines and bike lanes can narrow vehicular travel lanes to help slow traffic down. Curb extensions/bumpouts and pedestrian refuge islands reduce crossing distances and improve pedestrian visibility while also helping to calm traffic. All the aforementioned measures can be installed at low cost in the near term using paint, planters and/or plastic flex posts.
- **Install traffic calming measures and advance signage/pavement markings on the approaches to the Northern Strand trail crossings.** Walk assessment participants noted that motor vehicles often fail to slow down in the vicinity of the trail, creating hazards for people walking and biking. Advance signage and pavement markings alerting drivers that they are approaching the trail crossings and encouraging them to slow down can help address this issue.

These measures should be accompanied by fog lines to narrow the travel lanes and calm traffic. Pedestrian refuge islands, curb extensions/bumpouts, and high visibility pedestrian signage (including in-street pedestrian delineators) should also be considered at the trail crossings themselves to provide additional protections for people walking and biking and to further slow traffic down. As mentioned above, these improvements can all be installed at low cost in the near term using paint, planters and/or plastic flex posts. Flashing lights or pedestrian/cyclist-actuated Rectangular Rapid Flash Beacons (RRFB) can provide additional traffic calming as well.

- **Improve conditions and locations of crosswalks and curb ramps for visibility, accessibility and ADA compliance.** Many crosswalks in Saugus lack high visibility pedestrian signage, including the in-street pedestrian delineators that are a proven measure to reduce pedestrian crashes at unsignalized and midblock crossings. These low-cost measures should be installed throughout Saugus in the near term to improve crosswalk visibility and safety.

In addition some crosswalks lack curb ramps, and in other instances the ramps are in poor condition and/or lack the tactile warning panels needed for ADA compliance. Some crosswalks also end in driveways, creating an inhospitable environment for pedestrians. Curb ramps with tactile warning panels should be added where needed to address ADA compliance issues. In addition, crosswalks that end in driveways should be relocated to avoid pedestrian conflicts with motor vehicles.

- **Create a comprehensive plan to improve sidewalks.** Several areas that walk assessment participants examined have sidewalks in poor condition, especially along Central Street near the trail crossing. Conditions included heaving concrete panels, uneven tree pits, and crumbling asphalt. The group noted that the Town of Saugus completed an inventory of sidewalk conditions in 2014 and that the priority list of repairs identified at that time has just been completed. The Town should build off this positive first step by developing a second phase of sidewalk improvements. Such a plan must also address the accessibility and ADA compliances issues around crosswalks and curb ramps described above.

## Specific Improvements

### **Central Street at Main Street/Hamilton Street**

Central Street and Main Street/Hamilton Street come together at a large rotary in Saugus Center, right next to Town Hall. The vehicular travel lanes are very wide at this location, resulting in fast-moving traffic and long pedestrian crossing distances that can create safety hazards for people walking. Several triangular yellow painted areas around the crosswalks help guide vehicular movements through the rotary and create pedestrian refuge islands of sorts, but these areas can be further enhanced to provide additional safety benefits. **Strategies to improve walking safety include the following:**



*Excessively long crossing distances and wide vehicular travel lanes present challenges for people walking in Saugus Center.*

- **Use fog lines and bike lanes to narrow vehicular travel lanes and calm traffic.** These pavement markings should be implemented on the approaches to the rotary and through the rotary itself to reduce the vast roadway expanse dedicated to motor vehicles and create a safer pedestrian environment.
- **Use curb extensions/bumpouts to reduce crossing distances, calm traffic and increase pedestrian visibility.** Bumpouts can be added at low cost in the near term using paint, planters and/or plastic flex posts.
- **Enhance the current triangular yellow painted areas around the crosswalks with planters, plastic flex posts and/or green space.** This will create physically protected refuge islands for pedestrians in the middle of the crosswalks, while also helping to further calm traffic. Some walk assessment participants suggested that these areas could even be turned into small parks that add green space to the public realm in Saugus.

## Central Street

South of the rotary outside Town Hall, Central Street has narrower travel lanes, several small businesses, and parking on both sides of the street that creates buffers between people walking and motor vehicles. All of these attributes contribute to a more hospitable environment for pedestrians, but several challenges remain. As described earlier in this report, the conditions of sidewalks and crosswalks are sometimes poor, with some crosswalks lacking curb ramps or ending in driveways. In addition cars often park immediately next to crosswalks, blocking sightlines between people walking and people driving. Walk assessment participants also noted that several street trees had been removed along Central Street, leaving behind unsightly and uneven tree pits that present tripping hazards. **Strategies to improve walking safety include the following:**

- **Restrict parking next to crosswalks and intersections to improve pedestrian visibility.** The installation of “No Parking” signs next to crosswalks may be accompanied by increased police enforcement, yellow paint on curbs, and physical measures on the street to block parking, such as paint, planters and/or plastic flex posts. In some instances the angle-in parking on the east side of Central Street may need to be reconfigured to further improve visibility.
- **Use curb extensions/bumpouts to reduce crossing distances, calm traffic and increase pedestrian visibility.** Bumpouts can be added at low cost in the near term using paint, planters and/or plastic flex posts.
- **Improve conditions and locations of sidewalks, crosswalks and curb ramps for visibility, accessibility and ADA compliance.** As mentioned earlier in this report, crosswalks should be enhanced with high-visibility pedestrian signage, including in-street pedestrian delineators at unsignalized or midblock locations. Crosswalks that end in driveways should be relocated and ADA-compliant curb ramps with tactile warning panels should be provided at all crosswalks. Some walk audit participants also suggested that sidewalks could be widened to provide an expanded pedestrian realm.
- **Create even tree pits that do not present tripping hazards.** Regardless of whether street trees are re-planted or not, improving the tree pits will create a safer and more visually appealing pedestrian environment. Empty tree pits can be filled with mulch or permeable pavers to create continuous walking surfaces that can also accommodate future tree growth.



*Several crosswalks along Central Street end in driveways and lack ADA compliance.*



## Central Street trail crossing

Walk audit participants observed that motor vehicles often fail to slow down on the approach to the Northern Strand trail crossing on Central Street. The parking lot on the west side of the street at this location also presents challenges, as there is no path delineating walking and biking access across the parking lot to and from the trail. **Strategies to improve walking safety include the following:**

- **Add fog lines and advance signage/pavement markings along the trail crossing approaches to calm traffic and alert drivers to the presence of people walking and biking.**
- **Add curb extensions/bumpouts, an in-street pedestrian delineator, and a pedestrian refuge island at the trail crossing itself.** All these measures can be implemented at low cost in the near term and will help calm traffic and improve crossing safety. Bumpouts and pedestrian refuge islands can be added using paint, planters and/or plastic flex posts.



*The parking lot at the Central Street trail crossing lacks a clearly defined path for pedestrians and cyclists.*

- **Paint a clearly marked and high-visibility path across the parking lot to the trail to indicate the presence of people walking and biking.**
- **Consider installing a flashing light or a pedestrian/cyclist-actuated Rectangular Rapid Flash Beacon (RRFB) as a traffic calming measure at the trail crossing.**
- **Install appropriate fencing at the trail entrances to slow pedestrians and cyclists as they approach the road crossing and make them aware of oncoming traffic.**

## Central Street at Winter Street

The intersection of Central Street and Winter Street just south of the trail crossing is another overly wide expanse of pavement that induces traffic to move at high speeds, especially northbound traffic coming down the hill on Central Street. Due to the presence of an auto body shop with an extended curb cut, the crosswalk across Winter Street is set far back from the intersection and away from the pedestrian desire line.

- **Add fog lines along Central Street and Winter Street to narrow the vehicular travel lanes and slow traffic down.**
- **Use curb extensions/bumpouts to reduce crossing distances, calm traffic and narrow wide turning radii for motor vehicles.** Bumpouts can be added at low cost in the near term using paint, planters and/or plastic flex posts.
- **Explore ways to potentially relocate the crosswalk across Winter Street closer to the intersection.** This may require reconfiguring the existing curb cuts at the auto body shop to better accommodate pedestrians. A relocated crosswalk can also utilize the concrete median island that currently exists at this intersection as part of a pedestrian refuge.



*Wide travel lanes and wide turning radii present challenges for people walking at the intersection of Central Street and Winter Street.*

## Cliftdale Square

Cliftdale Square, which is formed by the convergence of Lincoln Street, Essex Street and Jackson Street at a large traffic rotary, is an important small business district in Saugus. Walk assessment participants discussed the potential for more active uses in the business district and ways that improving walking conditions can help facilitate such uses. The group agreed that a forthcoming study to examine local parking and its connections to economic development should incorporate walkability as well.

While the roads approaching Cliftdale Square are relatively narrow, the



*Wide expanses of pavement and sidewalk crowding at bus stops detract from the pedestrian environment in Cliftdale Square.*

square/rotary itself is a very wide expanse of pavement that enables high traffic speeds. The conditions of sidewalks and crosswalks are also sometimes poor, with some narrow sidewalks creating pedestrian choke points and some crosswalks lacking curb ramps or ending in driveways.

Like Saugus Center, Clifftondale Square has several triangular yellow painted areas that help guide vehicular movements through the rotary. These areas can be further enhanced to provide additional safety benefits. **Strategies to improve walking safety include the following:**

- **Use fog lines and pavement markings to narrow vehicular travel lanes through the rotary and calm traffic.**
- **Use curb extensions/bumpouts to reduce crossing distances, calm traffic and increase pedestrian visibility.** Bumpouts can be added at low cost in the near term using paint, planters and/or plastic flex posts. A yellow painted bumpout already exists at the corner of Jackson Street, presenting a potentially replicable model.
- **Improve conditions and locations of sidewalks, crosswalks and curb ramps for visibility, accessibility and ADA compliance.** As mentioned earlier in this report, crosswalks should be enhanced with high-visibility pedestrian signage, including in-street pedestrian delineators at unsignalized or midblock locations. Crosswalks that end in driveways should be relocated and ADA-compliant curb ramps with tactile warning panels should be provided at all crosswalks.
- **Consider widening sidewalks to provide an expanded pedestrian realm.** This is especially important in front of the bus shelter at the corner of Jackson Street, which currently is a pedestrian choke point due to the narrow sidewalk there.
- **Enhance the current triangular yellow painted areas with planters, plastic flex posts and/or green space.** This will help to further regulate motor vehicle movements through the rotary and thus calm traffic.

### Essex Street/School Street trail crossing

Walk assessment participants observed that motor vehicles often fail to slow down on the approach to the Northern Strand trail crossing at Essex Street and School Street. The current trail crossing is a diagonal across Essex Street. While this is the most direct desire line for cyclists and pedestrians using the trail, it also leaves them more exposed to motor vehicles on Essex Street.

The presence of a fire station at this location presents additional challenges. Walk assessment participants noted that people driving often park immediately outside the fire



*Shifting the crosswalk to the other side of the fire station will reduce pedestrians' and cyclists' exposure to oncoming traffic at the School Street trail crossing.*



station to use the nearby athletic fields. This creates obstacles for cyclists and pedestrians using the trail, in addition to interfering with the operations of the fire department itself. **Strategies to improve walking safety include the following:**

- **Consider reconfiguring the trail crossing to be perpendicular across Essex Street.** This would shift the crossing to the other side of the fire station, thus reducing pedestrians' and cyclists' exposure to oncoming traffic on Essex Street. If this shift is implemented, it should be accompanied by the installation of ADA-compliant curb ramps, as well as the painting of a clearly marked and high-visibility path across the fire station's curb cut to indicate the presence of people walking and biking.
- **Add fog lines and advance signage/pavement markings along the trail crossing approaches on Essex Street to calm traffic and alert drivers to the presence of people walking and biking.**
- **Add curb extensions/bumpouts, an in-street pedestrian delineator, and a pedestrian refuge island at the trail crossing itself.** All these measures can be implemented at low cost in the near term and will help calm traffic and improve crossing safety. Bumpouts and pedestrian refuge islands can be added using paint, planters and/or plastic flex posts.
- **Restrict parking on Essex Street next to the trail crossing to improve pedestrian visibility.** The installation of "No Parking" signs may be accompanied by increased police enforcement, yellow paint on curbs, and physical measures on the street to block parking, such as paint, planters and/or plastic flex posts.
- **Consider installing a flashing light or a pedestrian/cyclist-actuated Rectangular Rapid Flash Beacon (RRFB) as a traffic calming measure at the trail crossing.**
- **Install appropriate fencing at the trail entrances to slow pedestrians and cyclists as they approach the road crossing and make them aware of oncoming traffic.**

### **Essex Street at Felton Street**

The intersection of Essex Street and Felton Street, which is crossed by many children attending local schools, presents several challenges for pedestrians. Traffic moves at high speeds along Essex Street without slowing down, despite the presence of a flashing yellow light that changes to solid red when the pedestrian button is pushed. A guard rail was installed on the southwest corner of the intersection after fast-moving cars crashed into the house there several times. While standing at the intersection, walk audit participants happened to meet a longtime resident of the house, who



*Crossing safety is a challenge at the intersection of Essex Street and Felton Street.*

provided the group with additional details about these crashes as well as traffic speed on Essex Street more broadly.

In addition to the issues with speed, drivers often double park outside the convenience store at this intersection, even though parking is not allowed there. These illegally parked cars present additional obstacles and safety hazards for pedestrians. **Strategies to improve walking safety include the following:**

- **Add fog lines along Essex Street to narrow the vehicular travel lanes and slow traffic down.**
- **Add curb extensions/bumpouts, an in-street pedestrian delineator, and a pedestrian refuge island at the intersection.** All these measures can be implemented at low cost in the near term and will help calm traffic and improve crossing safety. Bumpouts and pedestrian refuge islands can be added using paint, planters and/or plastic flex posts.
- **Restrict parking on Essex Street outside the convenience store to improve pedestrian visibility.** The installation of “No Parking” signs may be accompanied by increased police enforcement, yellow paint on curbs, and physical measures on the street to block parking, such as paint, planters and/or plastic flex posts.
- **Consider replacing the flashing yellow light with another traffic control device proven to be more effective at slowing traffic at locations like this one.** Devices may include a full traffic signal, a pedestrian beacon, or a STOP sign. This will require further study as to whether the intersection meets certain engineering criteria to warrant such a move.