walkBoston™

Downtown Leominster Walk Assessment
Leominster, MA

July 5, 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 | www.walkboston.org

Walk Assessment Overview

On July 5, 2018, WalkBoston conducted a walk assessment in downtown Leominster, 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. The following individuals participated in the walk assessment:

- Leominster State Representative Natalie Higgins
- Leominster City Councilor Mark Bodanza
- Taylor Landry, Legislative Aide to Rep. Higgins/Leominster resident
- Andrea Freeman, Massachusetts Public Health Association/Leominster resident
- Adi Nochur, WalkBoston

WalkBoston consulted MassDOT's Highway Safety Improvement Program (HSIP) crash portal to determine potential locations for the walk assessment. As shown below, the data show that downtown Leominster has two pedestrian crash clusters that indicate potentially dangerous locations for people walking. The walk assessment focused on these clusters, as well as the nearby intersection of West Street with Pond Street (just west of downtown) and the West Street corridor approaching downtown from the west.

Pedestrian crash clusters in downtown Leominster are centered on the intersection of Main Street at Merriam Avenue ("A," in brown), as well as the intersections of Main Street/Pleasant Street at West Street/Mechanic Street and Pleasant Street at Park Street/Central Street ("B," in blue).

Walk assessment participants discussed a number of general recommendations to improve walkability throughout downtown Leominster, 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. "Overall Recommendations" include the following:**

- **Upgrade crosswalks throughout downtown with fresh paint and highly visible ladder design and signage.**
- **Improve conditions of sidewalks and curb ramps throughout downtown for accessibility and ADA compliance.**
- **Provide longer and more frequent WALK signal cycles and explore opportunities for pedestrian signal upgrades.**

Overall Recommendations

- **Upgrade crosswalks throughout downtown with fresh paint and highly visible ladder design and signage.** Many crosswalks in downtown Leominster feature painted pink flamingoes as an homage to the popular lawn ornaments' invention and manufacture in the city. Creative as these designs are, however, they do not substantially enhance the crosswalks' visibility to people driving. Faded crosswalks should be re-striped, and all crosswalks that only utilize two parallel lines – whether flamingoed or not – should be upgraded to utilize a more highly visible ladder design and signage (including the use of in-street pedestrian crossing signs at midblock and unsignalized locations).

Flamingoes (and people) would be able to cross to the other side of the road more safely if crosswalks utilized a more visible ladder design with perpendicular striping.

- **Improve conditions of sidewalks and curb ramps throughout downtown for accessibility and ADA compliance.** Some sidewalks in downtown (particularly on West Street) are in poor condition. 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. A comprehensive strategy is necessary to address these issues.
- **Provide longer and more frequent WALK signal cycles and explore opportunities for pedestrian signal upgrades.** Pedestrians face long waits for WALK signals at the intersections of Main Street at Merriam Avenue, Main Street/Pleasant Street at West Street/Mechanic Street, and Pleasant Street at Park Street/Central Street. In addition the WALK signals often do not provide sufficient time to cross the street, and the old signal equipment does not display pedestrian countdowns. Signal timing should be updated in the near term to provide more frequent WALK signals with more pedestrian crossing time.

Additional upgrades such as pedestrian countdowns, automatic WALK signals that do not require a push button, WALK signals that are concurrent with traffic, and leading pedestrian intervals that provide people walking with a headstart before motor vehicles should be considered as well. Some of these upgrades may require installing new signal equipment in the medium to longer term. More details on potential signal upgrades at the aforementioned intersections are provided in the "Specific Improvements" section of this report.

Specific Improvements

West Street at Park Street/Church Street

The intersection of West Street, Mechanic Street and Park Street outside Leominster City Hall and the Leominster Public Library (where the walk audit participants met) presents a number of safety challenges for people walking. The intersection is very wide, creating long pedestrian crossing distances, and the traffic pattern is confusing; lack of clarity over which way vehicles are moving/turning and who has the right of way creates hazards for all road users. Walk audit participants also noted that pedestrians frequently cross West Street directly between City Hall and the library despite the lack of a crosswalk there, as this is a common desire line for people walking. **Strategies to improve walking safety include the following:**

Wide expanses of pavement and confusing traffic patterns create hazards for all road users at the intersection of West Street at Park Street/Church Street.

- **Use bumpouts/curb extensions at crosswalks to improve visibility between pedestrians and drivers, reduce long pedestrian crossing distances, and calm traffic by narrowing wide turning radii and travel lanes.** Bumpouts can be added at low cost in the near term using paint, planters and/or plastic flex posts.

- **Consider measures to better regulate traffic flow through the intersection.** STOP signs could be added to all four legs of the intersection at low cost in the near term (currently only the Park Street and Church Street approaches have STOP signs), whereas installing traffic and pedestrian signals, or a flashing light to slow traffic down, would be more costly and longer-term fixes. A traffic signal would also need to be coordinated with the nearby signalized intersections of Main Street/Pleasant Street at West Street/Mechanic Street and Pleasant Street at Park Street/Central Street (which themselves are in need of improved signal timing, as described elsewhere in this report). Adding pavement markings through the intersection can also help guide vehicle movements

  Walk audit participants also suggested the interesting possibility of converting the intersection into a roundabout to create more orderly and predictable traffic flow. This could potentially be

piloted in the near term at low cost using signage, paint/pavement markings, and temporary barriers such as plastic flex posts or planters to test its viability as a long-term solution.

- **Convert the cobblestone patches on West Street into a highly visible median and pedestrian refuge island.** The Park Street approach to the intersection from the southeast includes a raised and paved median and island with embedded signage, which help guide motor vehicle movements, calm traffic, and provide a protected waiting area for pedestrians in the middle of the crosswalk. Cobblestone patches on West Street at the approach to the intersection from the west potentially serve similar functions, but they are less visible compared to the median and island on Park Street. Signage, paint, plastic flex posts and/or planters should be used to enhance the visibility of the cobblestone area in the near term at low cost. In the long term, the cobblestone area can be paved and raised to replicate the median and island at the Park Street approach.

- **Consider the installation of an accessible mid-block crosswalk with highly visible ladder design and signage between City Hall and the library.**

West Street at Pond Street

Wide vehicular travel lanes and a slip lane for turning traffic at West Street and Pond Street create hazards for pedestrians.

The Leominster Senior Center and the Leominster Veterans Memorial Center are both located at the intersection of West Street and Pond Street, several blocks west of downtown. The travel lanes on West Street are relatively wide, which induces traffic to move at high speeds. The pedestrian crossing across Pond Street is broken up by a slip lane for traffic turning right from Pond Street onto West Street, which prioritizes vehicular movements over people walking and increases the overall pedestrian crossing distance. Walk audit participants also noted that the current positioning of the STOP line at the crosswalk across Pond Street impedes visibility of oncoming traffic for people driving and creates additional hazards. **Strategies to improve walking safety include the following:**

- **Paint fog lines on West Street to narrow the travel lanes and slow traffic down.**

- **Shift the STOP line and crosswalk across Pond Street slightly to the north to improve sightlines for people driving.** A shifted crosswalk can still utilize the existing pedestrian ramps at this location.

- **Remove the slip lane for right-turning traffic to reduce the crossing distance and reclaim excess roadway space for pedestrians.** In addition to improving safety, this can also create a small plaza or pocket park that can be used as public space.

West Street between Pond Street and downtown

As noted above, wide travel lanes on West Street cause traffic to move at high speeds, especially on the downhill eastbound approach to downtown. There is on-street parking on the north side of West Street (westbound traffic) with pavement markings to delineate the parking spaces. There are no such markings on the south side of West Street (eastbound traffic), but there are also no "No Parking" signs to indicate any parking restrictions.

Wide travel lanes on West Street induce vehicles to travel at high speeds, especially along the eastbound approach to downtown.

<u>Strategies to improve walking safety include the following:</u>

- **Paint fog lines on both sides of West Street to narrow the travel lanes and slow traffic down.**

- **Clarify whether or not parking is allowed on the south side of West Street and add new pavement markings accordingly.** If parking is allowed, then pavement markings delineating the parking spaces should be added, similar what currently exists on the north side of the street. Parked vehicles provide a physical buffer between people walking and people driving; along with associated pavement markings, they also visually narrow the street for people driving and help slow traffic down.

Main Street and Merriam Avenue

At the time of the walk assessment the segment of Main Street between West Street/Mechanic Street and Merriam Avenue had recently been resurfaced. Temporary pavement markings were sprayed on the street to indicate the locations for more permanent markings delineating crosswalks, STOP lines and parking spaces. However, the temporary crosswalk markings along Main Street did not include a more highly visible ladder design at the time of the assessment (though this might have changed since then).

Temporary crosswalk markings on Main Street did not include a more highly visible ladder design at the time of the walk assessment.

In addition, the pedestrian signals at the intersection of Main Street and Merriam Avenue (next to the Post Office) do not support safe crossings for people walking. The old signal equipment does not display pedestrian countdowns and only 15 seconds of pedestrian crossing time are provided, which is not enough time for a pedestrian to

cross both legs of the intersection. (The pedestrian signals are exclusive at this intersection, meaning that they come on in all four directions with all traffic stopped.) Pedestrians also face long waits to get a pedestrian signal at this location. **Strategies to improve walking safety include the following:**

- **Reassess crosswalks along Main Street and upgrade with highly visible ladder design and signage, including in-street pedestrian crossing signs where feasible.**

- **Increase the amount of pedestrian crossing time provided at Main Street and Merriam Avenue from 15 to 25 seconds.** This will ensure that people walking, including seniors and people with mobility impairments, will have sufficient time to cross the 75-foot diagonals of the intersections within a single exclusive pedestrian signal cycle.

- **Update the overall traffic signal cycle at Main Street and Merriam Avenue so that people walking get more frequent pedestrian crossings.**

- **Make the WALK signal cycle automatic so that pedestrians do not need to press a button.**

- **Upgrade the pedestrian signals to display pedestrian countdowns.** While this measure will require installing new signal equipment in the medium to long term, studies show that displaying pedestrian countdowns significantly reduces the number of pedestrian crashes at high-crash intersections.

Main Street/Pleasant Street at West Street/Mechanic Street

The pedestrian signals at the intersection of Main Street/Pleasant Street at West Street/Mechanic Street are not optimized with respect to walking safety. While the current pedestrian signal cycle provides a substantial 35 seconds for people walking to cross West Street, the signal equipment does not display pedestrian countdowns. The pedestrian signals are also not concurrent with traffic at this location, meaning that pedestrians do not get a WALK signal in the same direction as moving traffic with a green light. **Strategies to improve walking safety include the following:**

- **Update the pedestrian signals to be concurrent with traffic and provide a six-second leading pedestrian interval (LPI).** This will enable pedestrians to get a WALK signal in the same direction as moving traffic with a green light. Providing the LPI will further enable pedestrians to get a headstart into the crosswalk in advance of turning traffic, increasing their visibility and reducing the likelihood of crashes.

- **Update the overall traffic signal cycle so that people walking get more frequent pedestrian crossings.**

- **Make the WALK signal cycle automatic so that pedestrians do not need to press a button.**

- **Upgrade the pedestrian signals to display pedestrian countdowns.** While this measure will require installing new signal equipment in the medium to long term, studies show that displaying pedestrian countdowns significantly reduces the number of pedestrian crashes at high-crash intersections.

Pleasant Street at Park Street/Central Street

The intersection of Pleasant Street at Park Street/Central Street presents numerous safety challenges for people walking. Pedestrians face very long waits for WALK signals that are confusing and poorly coordinated. The pedestrian signals do not display pedestrian countdowns and are not concurrent with traffic, meaning that pedestrians do not get a WALK signal in the same direction as moving traffic with a green light.

While the current pedestrian signal cycle does provide a substantial 35 seconds for people walking to cross Park Street (this signal is synchronized with the pedestrian signal across West Street at Main Street/Mechanic Street), there is no simultaneous WALK signal provided for people crossing Central Street on the other side of the intersection. When pedestrians finally get a WALK signal to cross Central Street after a very long wait, only 15 seconds of crossing time is provided, which is not nearly enough time to get across such a wide street.

Long waits for inadequate and confusing pedestrian signals, wide expanses of pavement including two right-turning slip lanes, and a lack of complete crosswalks present safety challenges for pedestrians at Pleasant Street and Park Street/Central Street.

The pedestrian crossing across Central Street is also broken up by two slip lanes for traffic turning right from Central Street onto Pleasant Street, which prioritize vehicular movements over people walking and increase the overall pedestrian crossing distance. The slip lanes are ostensibly regulated by traffic and pedestrian signals that in practice are completely uncoordinated; walk audit participants observed that pedestrians received a DON'T WALK signal across the slip lanes even when the turning traffic had a red light. The current intersection configuration includes a traffic island between the slip lanes and Central Street, but lacks a crosswalk across the northern leg of the intersection.

Strategies to improve walking safety include the following:

- **Remove the slip lanes for right-turning traffic to reduce pedestrian crossing distances, reclaim excess roadway space for pedestrians, and provide opportunities for improved pedestrian signals**. In addition to improving safety, removing the slip lanes can also create an expanded plaza or pocket park that can be used as public space. The public realm on the adjacent sidewalk, which is already quite attractive with a number of benches and planter boxes, can be further replicated at this location.

  Removing the slip lanes will also simplify the intersection geometry and make it easier to implement the pedestrian signal improvements that are further described below.

- **Add an accessible crosswalk with highly visible ladder design across the northern leg of the intersection.**

- **Paint fog lines on Central Street to narrow the travel lanes and slow traffic down.**

- **Update the pedestrian signals to provide sufficient time to cross all legs of the intersection.**

- **Update the pedestrian signals to be concurrent with traffic and provide a six-second leading pedestrian interval (LPI).** This will enable pedestrians to get a WALK signal in the same direction as moving traffic with a green light. Providing the LPI will further enable pedestrians to get a headstart into the crosswalk in advance of turning traffic, increasing their visibility and reducing the likelihood of crashes.

- **Update the overall traffic signal cycle so that people walking get more frequent pedestrian crossings.**

- **Make the WALK signal cycle automatic so that pedestrians do not need to press a button.**

- **Upgrade the pedestrian signals to display pedestrian countdowns.** While this measure will require installing new signal equipment in the medium to long term, studies show that displaying pedestrian countdowns significantly reduces the number of pedestrian crashes at high-crash intersections.