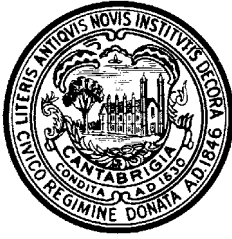


City of Cambridge



Community Development Department
Iram Farooq, Assistant City Manager

Department of Public Works
Owen O'Riordan, Commissioner

Traffic, Parking, and Transportation
Joseph E. Barr, Director

MEMORANDUM

To: Louis DePasquale, City Manager

From: Iram Farooq, Assistant City Manager for Community Development
Owen O'Riordan, Commissioner of Public Works
Joseph E. Barr, Director of Traffic, Parking, and Transportation

Date: January 25, 2017

Re: Update on Bicycle Safety Work Plan

This memo is intended to provide you and the City Council with an update on the City's immediate progress on bicycle safety improvements, including the improvements that have already been implemented in the past two months and the larger deployments of separated bicycle lane treatments that are being planned for the spring and summer of this year.

Ongoing Separated Bicycle Lane Demonstrations

Implementation of the first two separated bicycle lane demonstrations took place on two blocks along Massachusetts Avenue:

- From Sidney Street to Douglass Street (Lafayette Square) in the northbound/westbound direction. In the location, the bicycle lane is separated from motor vehicle traffic by parking, other than in the area opposite the Lafayette Square fire station, where parking is cleared to allow fire vehicles to easily exit and enter the fire station.
- From Waterhouse Street to Everett Street (near Harvard Law School) in the northbound/westbound direction. This location required the removal of approximately 20 parking spaces and the separation is provided only by flexible vertical delineators, other than in the area of the bus stop served by the MBTA and Harvard's shuttle service.

Installation at both locations began in mid-December and was completed early this month, following the final installation of flexible vertical delineators and additional adjustments to parking.

As part of the installation of these separated bicycle lanes, we have learned several important lessons that will inform and improve future installations:

- Installation of these lanes took place prior to the first significant snow event, which occurred on Saturday, January 7, and the Department of Public Works successfully cleared the lanes

without damage to the flexible delineators. It is important to note that both demonstration locations are in areas where smaller snow clearance equipment was already in regular use for other reasons, so it was not necessary to deploy new snow clearance resources to these areas. As more separated bike lanes are installed, this will require additional snow clearance equipment, as well as a clear understanding of how snow clearance (and if necessary, snow removal) activities for these lanes will be prioritized.

- In relocating and/or removing parking and other curb uses, it became clear that it is important to pay particular attention to special curb uses such as accessible parking, bus stops, and loading zones. While there are not necessarily cookie cutter solutions to these situations, it is important to identify these needs early in the planning for future installations, since these will require special attention.
- To install the flexible delineators, it was necessary to upgrade certain equipment used by the City's Traffic Maintenance Workers. However, with this new equipment in place, future installations will be able to occur more quickly and efficiently. In the interim prior to the installation of the flexible delineators, we deployed tall construction cones to provide temporary separation.
- Further discussions are needed regarding the types of delineators that will be used, and how the design, installation, and placement of these delineators can be optimized to simplify both snow and street sweeping operations. We will also evaluate whether delineators are necessary in locations where on-street parking provides separation between the bike lane and the nearest travel lane.
- The response to these installations has generally been quite good, with very positive feedback from cyclists (particularly once the full set of features was installed) and limited feedback from local businesses and motorists. The Harvard-Epworth Church located opposite Waterhouse Street has both a specific concern about the loss/relocation of an accessible parking space on Massachusetts Avenue and general concerns about the loss of parking for parishioners. There have also been some concerns expressed about people parking motor vehicles in the bike lanes.

Overall, the installation of these demonstration locations has been positive in terms of the experience that the City has gained, the response from the public, and the improvement for cyclist safety.

Future Separated Bicycle Lane Demonstrations

As noted in previous communications to the City Council, we are committed to working towards the implementation of additional, larger demonstrations of separated bicycle lanes using the same set of "operational" materials that avoid the need for major capital construction. At the January 11 meeting of the City's Bicycle Committee, we solicited guidance from the committee and members of the public on prioritizing locations for these improvements¹. In addition to the committee itself, we

¹ In addition to this discussion, we will also be meeting with the Bicycle Committee on January 30 to discuss coordination between the Five-Year Plan for Street and Sidewalk Reconstruction and the Bicycle Plan.

specifically invited representatives from bicycle advocacy organizations (including the Cambridge Bicycle Safety group) to attend and provide their input. We asked the group in attendance at the meeting to take into account factors such as crash rates, connections to the existing bicycle network and the future bicycle network vision, the bicycle level of comfort analysis presented in the Bicycle Plan, and the land uses served by different corridors.

Based on this discussion, as well as internal staff discussions, we have identified two priority corridors for implementation, beginning in the spring of 2017:

- Massachusetts Avenue from Trowbridge Street (Sullivan Square) to Quincy Street (Quincy Square). These improvements can be implemented with the removal of an extra travel lane, thereby limiting the impact on parking. We expect to be able to fund this installation using money from the “Separate Bike Lanes from Traffic” Participatory Budgeting project that was approved as part of Fiscal Year 2017 cycle.

We believe that this installation can take place in the spring as soon as the weather permits us to install pavement markings.

- Cambridge Street from Quincy Street to Inman Square. This corridor was selected based on the existing crash history, the ability to create a new link in the bicycle network, and the land uses served, including Cambridge Rindge and Latin School and the main branch of the Cambridge Public Library. This corridor will also connect to the new bicycle facilities that are expected to be installed as part of the upcoming reconstruction of Inman Square. Given the width of this corridor, implementing separated bicycle lanes will require removing parking from one side of the street, although the side from which parking is removed could vary in different segments of the corridor. Additional planning is required to understand these impacts on a street-by-street and block-by-block basis, including the design of bus stops, how to accommodate loading activities, and determining locations where additional short-term and/or accessible parking could be installed.

In addition to these two corridors, the January 11 meeting identified a number of other corridors that are of interest for future improvements, and that could potentially be implemented in the future.

- Broadway from Quincy Street to Prospect Street, with a priority on the western segment from Quincy Street to Ellery Street.
- Hampshire Street from the Cambridge/Somerville border to Broadway.
- The eastern portion of Cambridge Street, from Inman Square to the eastern terminal at Lechmere.
- Massachusetts Avenue from Sidney Street to Memorial Drive
- Main Street from Third Street to Sidney Street.

Outreach Process

Over the past month, we have also developed a plan for the outreach that we recommend performing for the Cambridge Street corridor, to inform the community about the plans for creating separated bike lanes, communicate the benefits of these improved facilities, develop measures to mitigate impacts, and evaluate the effectiveness of the treatments. All of these discussions will begin from the perspective that separated bicycle lanes are being installed on Cambridge Street, with the main topics of discussion focusing on any adjustments or improvements that can be made to tailor the implementation to local conditions (for example, to accommodate specific land uses or add metered parking on adjacent streets).

The list below lays out the approach that we are intending to use for these discussions on Cambridge Street. Note that this is not intended to be a sequential process, and many of the activities would take place in parallel or with some overlap.

- Develop initial outreach materials describing proposed demonstration, data collection, and community process; distribute/publicize via social media/web, stakeholder group individuals/organizations, and the media
- Set up web page and email contact list of interested parties
- Create brochure to explain the demonstration project and its benefits
- Meet with key City stakeholders, including leadership from Cambridge Public Schools, Cambridge Public Library, and War Memorial Recreation Center to inform them of pilot and upcoming process and solicit input
- Meet with representatives from key institutions along Cambridge Street, including Cambridge Hospital, Youville/Spaulding Rehabilitation, and Harvard Vanguard Medical Associates
- Create stakeholder/advisory group to provide guidance through meetings and email updates.

The initial list for this group includes:

- Inman Square Neighborhood Association
- Cambridge Rindge and Latin School
- Representative of local retailers
- Cambridge Hospital
- Youville/Spaulding Rehabilitation
- War Memorial Recreation Center
- Harvard Vanguard Medical Associates
- Mid-Cambridge Neighborhood Association
- MBTA
- Harvard University
- representatives from the Pedestrian, Bicycle, and Transit Advisory Committees,
- Cambridge Bicycle Safety
- Livable Streets
- Boston Cyclists Union
- Massachusetts Bicycle Coalition

- Create and implement online and paper survey both before and after implementation, including assessment of bicycle level of comfort
- General community meetings in open house format
 - First meeting: after data collection process, to inform people about current conditions, proposed plan, and gather input on evaluation design
 - Second meeting: before demonstration implementation, to inform people of proposed demonstration design and gather input on any modifications needed
 - Third meeting: after demonstration completion to present evaluation and next steps

Evaluation Process

A critical part of the process will be evaluation of this corridor, both to make adjustments for future installations and to help stakeholders understand how this demonstration project is working. To provide adequate time for users to adjust to the changes, we expect the demonstration to last at least six months, after which we will make decisions about whether to retain the demonstration as a permanent improvement and whether any changes or tweaks are required based on the performance during the demonstration period.

While the exact details of the evaluation are still being determined and will be discussed as part of the community process, we expect to look at the following data both before and after implementation:

- Parking use: occupancy and availability along both the main corridor and the adjacent side streets
- Traffic volumes: motor vehicles and bicycles
- Transit performance: stop dwell time, travel time, and ridership
- Traffic compliance with parking and lane use: motor vehicles and bicycles
- Speed
- Crashes (acknowledging that it can be difficult to draw conclusions based on a limited period of time)
- Ability to maintain bike path, in winter and for street cleaning.
- Retail access: customer mode share survey
- Retail success: sales tax receipts (if available) or other data