

5 May 2008

James Gillooly  
Boston Transportation Department  
1 City Hall Plaza  
Boston, MA 02201

Dear Mr. Gillooly:

LivableStreets Alliance, the Metro-Boston chapter of MassBike, and Professor Furth of Northeastern University all want to convey our sincere appreciation for being given the opportunity to review the Commonwealth Avenue bicycle accommodation plan. The feedback in this letter represents the consensus of the above review team. We strongly believe that by acting collaboratively together—the city of Boston and external stakeholders—we will come up with the best possible design given the various constraints at hand.

Overall, we are extremely pleased with the progress that has been made in the design. In particular, we are delighted that the designs include continuous bicycle lanes running along the entire length of the Comm. Ave. reconstruction project. The design and engineering decisions made regarding the overall concept, dimensions and geometry of the bicycle lane and the adjacent travel and parking lanes are sound. However, we do have a few comments for consideration by BTM, DPW, Boston Bikes, and their consultants that we feel will make the project an even safer and more successful piece of infrastructure for cyclists. Attachment A details these comments. Please feel free to contact me to discuss any of our comments in greater detail, I can be reached at (617) 850-6559.

Sincerely,



Phil Goff, Board of Directors, LivableStreets Alliance  
Christopher Porter, President, MetroBoston chapter of MassBike  
Peter Furth, Professor of Civil Engineering, Northeastern University

Cc: Michael Kineavy, Thomas Tinlin, Dennis Royer, Vineet Gupta, Nicole Freedman, Luisa Paiewonsky

## **ATTACHMENT A: REVIEW COMMENTS, COMM. AVE. BICYCLE ACCOMMODATION PLAN**

### **Typical Cross Section**

**Recommendation:** Use 1' fog line, two 11' travel lanes, 5.8' bicycle lane, 8' parking

The current plan indicates a standard 5' bicycle lane adjacent to 8' parking with two 11' travel lanes and a 1.8' shoulder area adjacent to the central median. While acceptable, the 13' bicycle/parking lane combination should be considered a minimum dimension in an intense urban environment such as the stretch of Comm. Ave. under consideration. Given the volume and speed of traffic, the hi-turnover curbside parking and the bus pull-offs, some additional space is needed to ensure a more comfortable and safe cycling environment. A 5.8' bicycle lane with 8' parking will allow a far greater portion of the bicycle lane to be outside of a parked car's "door zone" and gives additional space for a cyclist to pass a bus pulled over to the curb. This is easily achieved by reducing the shoulder space adjacent to the median from 1.8' to 1.0', the standard shy distance alongside raised central medians in numerous locations throughout the city.

### **Kenmore Square Transition**

**Recommendation:** Option 1- narrow travel lanes to 10' each where needed to ensure minimum 13' bicycle lane + parking dimension; Option 2- remove curbside parking where needed to ensure minimum 5' bicycle lane (against curb).

By far, the most problematic element of the bicycle lane plan is the inbound transition at Kenmore Square. Narrowing the bicycle lane to less than 4' adjacent to 7.5' parking is absolutely unacceptable, even for this short stretch. As both dimensions shrink, a cyclist is forced to ride immediately adjacent to cars and in significant danger from opening car doors. As mentioned above, 13' is the minimum acceptable dimension for the combined bicycle and parking lane. We strongly encourage BTM to consider narrowing the two adjacent travel lanes to 10' in width in order to provide enough space for a 5' bicycle lane adjacent to 8' of parking. This is the same width as travel lanes on the Mass Ave bridge but for a far shorter stretch of roadway. If 10' lanes are not acceptable along Comm. Ave, then curbside parking should be removed where the combined bicycle and parking lane combination is less than 13'. While we do not take the removal of curbside parking lightly, we also recognize that this stretch sits adjacent to buildings without a ground-floor retail presence or loading docks (and therefore the "need" to retain curbside parking is mitigated). A third option would be to rebuild the curb within this block in order to retain the recommended typical section as described above.

For west-bound cyclists, it is not clear to us why the bicycle lane begins approximately 200' from Deerfield Street. While it does appear that there are some dimensional constraints at the east end of the project area, we recommend either narrowing the adjacent travel lanes to 10' and/or removing a few parking spaces to ensure that a 5' bicycle lane continues to the extent of the project.

*Beyond these details, we strongly encourage the City to consider how cyclists can safely pass through Kenmore Square, especially in the inbound direction. As east-bound cyclists proceed from the Beacon Street intersection, they are confronted with the need to merge with Brookline Ave traffic, a difficult move for even the most experienced cyclist. As you know, the area will be repaved in the near future, so the time to develop a plan (outside of the scope of the adjacent Comm. Ave construction project) to enhance bicycle safety in the square before the repaving begins is now! This presents a unique opportunity for Boston to be innovative and present a unique solution to an extremely difficult design problem that will require striping, signage, enhanced-signal timing and education to provide safe passage for cyclists.*

### **BU Bridge Intersection**

**Recommendations:** advanced green bicycle signal; tweaks to transitions; additional curb extension; shoulder at bridge approach; additional bicycle lane on BU bridge toward Comm. Ave. intersection.

1. One of the most difficult intersections for cyclists within the project is where Comm. Ave. and University Road intersect. Outbound cyclist on Comm. Ave. will need to contend with motorists crossing the bicycle lane and wishing to turn a hard right on University or veer right to access the BU bridge north-bound. To mitigate this conflict zone, we recommend a special bicycle signal be located at this intersection so that outbound cyclists can be given an advanced green, giving them an opportunity to enter the intersection and establish their priority before cars are able to proceed. This signal should be part of the typical signal cycle (not button activated) and be fitted with a bicycle stencil so that motorists do not mistake it for a standard traffic light. We also recommend that the vehicle stop line be set-back 10 - 12 ft behind the crosswalk so that cyclists can queue ahead of the stopped cars and take advantage of the early green to depart before the general traffic queue begins moving forward.
2. As the outbound bicycle lane reaches the western-most edge of the project limit line, it terminates at a location on the road where curb-side parking is likely to occur, creating a serious hazard. Solutions to this problem include the removal of a minimum of 50' of curb-side parking to allow for a transition back into the right-most travel lane or the bicycle lane should terminate at least 50' short of where indicated on the drawings to allow for a transition. This transition zone should include a gored area to the right of the bicycle lane to encourage merging BU Bridge traffic to enter the stream of Comm. Ave. traffic earlier than what's implied in the drawings currently. *Ultimately, the solution to this transition lies in the City's desire to reconfigure Comm. Ave to the west of the BU Bridge to Brighton*

*Ave. and beyond. Like the portion of Comm. Ave. now under construction, this segment should replace one of the travel lanes with a wider median and bicycle lanes.*

3. The curb extension from the north-bound side of Essex Street towards the BU Bridge will add significant benefit by forcing cars to make a right turn on to Essex Street and reduce the crossing distance for pedestrians. We recommend that this curb extension extend only 6' from the curb so that it will provide 2' clearance from the adjacent bicycle lane to provide a shy distance for passing cyclists.
4. To accommodate west-bound cyclists interested in crossing the BU Bridge, a minimum 4' shoulder area along the curb should be created between University Road and the curb ramp that leads to the sidewalk on the east side of the bridge. The large pedestrian island to the west should be shrunk accordingly if necessary, not the adjacent sidewalk.
5. To accommodate north-bound cyclists coming from Carlton Street, the 12.5' travel lanes and 2.5' shoulder on the left side should be shrunk to provide a 5' bicycle lane on the right side. To place cyclists in the appropriate position to turn left (either to Comm. Ave or to the BU Bridge) a bicycle box and set-back stop bar should be utilized so that cyclists can place themselves in front of the stopped traffic if necessary while the light is red.
6. While the potential reconstruction and restriping of the BU Bridge is something we are keen to see implemented in the near future, for the moment, the Comm. Ave project can provide some safety improvements for cyclists riding south-bound across the bridge. The 10' travel lanes that currently exist on the bridge should be continued to the Comm. Ave intersection. Narrowing the four travel lanes will provide space for a 5' south-bound bicycle lane that begins at the curb-cut from the west sidewalk of the bridge, terminating at the pedestrian island. A minimum 50'-long gore should be integrated between the bicycle lane and the curb to discourage right-turning traffic from cutting across this bicycle lane too close to the location of the curb cut and catching cyclists by surprise as they enter the bridge roadway from the sidewalk path.

### **Striping, Stencils and Signage**

**Recommendations:** Tweaks to usage of dashed lines, frequency of bicycle stencils, lane direction markings, and usage of colored bicycle lane treatments.

1. The dashed bicycle lane segments needs to be applied more consistently. The dashed sections should indicate to cyclists and motorists alike places where motor vehicles are likely to cross the dedicated bicycle lane. At intersection where right-turn movement will not be allowed—Cummington and Granby Streets—a dashed bicycle lane prior to the intersection is not necessary. Additionally, the dashed line segments should be shortened in numerous places at the BU Bridge intersection to minimize the opportunity for a bicycle-motor vehicle conflict. For example, a 100' stretch of dashed bicycle lane should be sufficient to provide an opportunity for motorists to cross the bicycle lane in

order to enter the right-turn lane to Essex or Carlton streets. Likewise for south-bound bridge traffic crossing the bicycle lane to proceed on Comm. Ave westbound. For this one especially, a shorter merging area will add some predictability for the outbound cyclist trying to understand where traffic may be crossing the bicycle lane.

2. Bicycle lane stencils should be painted more frequently than what is indicated in the plans (which shows them only at the start and end of a block). Stencils should be painted at a maximum of every 200'
3. The lane direction markings along Comm. Ave between Carlton and the bridge itself in both directions are too far downstream to be effective. They will quickly become covered by queuing cars and should be moved further from their respective stop lines.
4. We are very pleased to see the plan call for solid colored marking in the bicycle lane as it crosses University Road. Solid colored markings for the bicycle lane should be employed in additional places where there is heavy traffic weaving across the bicycle lane including (a) where south-bound cars merging from the bridge to Comm. Ave westbound cross the bicycle lane, and (b & c) where right-turning cars will cross the bicycle lane to access Essex or Carlton Streets. Additionally, the colored lanes should be bordered with short broken white lane lines rather than solid. Consultants should research recent best practices for color treatment. In the past, Cambridge has used blue while more recent projects in Portland (OR) and in New York City have utilized a lime green color reportedly recommended because of its better visibility. In all likelihood, green will be the color of choice for other future bicycle lane projects in the City of Boston and we should be on the cutting edge of national standards.