walkBoston

May 8, 2009

Secretary Ian Bowles
Executive Office of Energy and Environmental Affairs, MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: Comments on the Environmental Notification Form (ENF) for the Longfellow Bridge between Boston and Cambridge, MA
EOEA # 14384
Attn: Anne Canaday

Dear Secretary Bowles:

WalkBoston has reviewed the Environmental Notification Form (ENF) for the proposed reconstruction of the Longfellow Bridge between Boston and Cambridge, a very important project that could have significant impacts on future pedestrian activity over and around the Charles River. We believe that MassHighway, DCR and EOT should take the opportunity of this very important and expensive (approximately $300m) project to make significant improvements to pedestrian and bicycle service on the Bridge and its approaches. **As an overarching comment, we believe that the time is ripe to think about our future urban transportation network with a greater focus on transit, pedestrian and bicycle access, and a reduced focus on private auto use.**

We are pleased that the state has discussed methods to integrate pedestrian facilities into the project, as is now required by the Highway Design Manual for all state projects. We are also very pleased with the improved and revitalized facilities for pedestrians and bicyclists that EOEEA and DCR are now planning for the bridges and parks of the Charles River Basin. In general, we think these state approaches are a promising basis for an enhanced pedestrian network on the site – one at the center of the metropolitan area that already draws substantial pedestrian use. The Fourth of July annually draws vast numbers of people on foot to the river and to this Bridge for views of the fireworks. We think that the future should provide for large numbers of people using this Bridge for commuting by transit, walking or cycling, and for recreational jogging, walking and cycling, because these numbers have increased substantially over the years, while motor vehicle traffic has been declining. All designs for the bridge should **encourage** these non-motor vehicle increases.

As discussed at the MEPA site meeting on April 30, 2009, MassHighway has recently developed a new option for the potential construction phasing of the project that does not appear in the ENF. We wish we could comment more completely on this option, but lack detailed information. The MassHighway Project Manager stated at the MEPA meeting that the very significant reconstruction costs for the Bridge might be reduced if construction sequencing could allow one half of the entire Bridge deck to be reconstructed in one phase and the other half in the second phase. This potential reduction in costs is welcome and may open opportunities for fresh thinking about the project. For example, it can further

demonstrate that the regional traffic system can work with greatly reduced capacity on the Longfellow Bridge (in fact this was already demonstrated during the 18 month closure of travel lanes during emergency structural repairs in 2007 – 2009).

WalkBoston believes there are many improvements that might be made to the project, and have a number of specific suggestions – summarized below and discussed in detail on the following pages.

Summary

1. The reconstruction of the Longfellow Bridge is a very important celebratory event for the city and region and expectations are high. A bold vision for the Longfellow Bridge is absolutely essential to show what its future might be.
2. Reconstruction of the Longfellow Bridge should not be based primarily on replacing traffic features that now exist, and in fact should take advantage of the reductions in vehicle traffic that have been occurring over the past several years. Designs for the Bridge should reduce the number of motor vehicles lanes and increase space for pedestrians and bicyclists.
3. The plan and design must reflect modern standards for pedestrian facilities and sidewalk designs. The largest proposed sidewalk in the present plan is 7 feet – 5.5 feet after deducting space for a curb lane and the historic railing. This dimension is insufficient for the growing need to meet increasing pedestrian demand.
4. The reconstruction of the Longfellow Bridge includes three phases: before, during and after construction – each phase demands a clear and compelling vision:
    - Before construction:
        a. Develop alternative and innovative designs for accommodating pedestrians, bicycles, motor vehicles and rapid transit on the Bridge. One option must include a permanent reduction in motor vehicle lanes.
        b. Test options for future services on the Bridge by using the pre-construction period to try different capacities for motor vehicles, pedestrians and bicycles.
        c. Design the approaches to the Bridge as an integral part of the reconstruction project. Bridge approaches are currently unsafe for pedestrians, bicyclists and people in wheel chairs.
        d. Improve pedestrian and bicycle connections between the Bridge and the Esplanade as part of this very significant transportation investment.
        e. Develop construction staging options that insure that all present users can use the Bridge at all stages of the reconstruction, even under conditions of reduced capacity.
    - During construction:
        a. Provide space for the MBTA and two motor vehicle lanes (one in each direction), and space for pedestrians and bicyclists at all times.
    - After construction:
        a. Red Line tracks are refurbished and two vehicular lanes – one in each direction – are provided.
        b. Pedestrians and bicycles share very wide corridors both eastbound and westbound.
        c. Safe and convenient access at the approaches to the bridge in Boston and Cambridge, to the MBTA's Charles/MGH Station, and to the sidewalk network – especially at Charles Circle - is provided for pedestrians and people in wheel chairs

5. Safety improvements for pedestrians, bicyclists and people in wheel chairs should be made immediately, as requested in writing by many groups many times over the past three years. Existing conditions pose imminent danger to these user groups on a daily basis and should not be allowed to continue any longer.

Two important technical issues should also be addressed before planning and design advances much further:

1. Counts of all traffic – vehicular, pedestrian, bicycles – should be updated because the counts provided in the ENF are confusing and do not seem to portray the current situation accurately. Updated counts should be taken while there are no severe access restrictions for pedestrians, bicyclists or people in wheel chairs (in other words, during one of the test phases that provides better access for non-vehicular modes).
2. Motor vehicle growth factors used in projecting future traffic must be modified to be more in line with current practice. The growth factors used in the ENF are significantly greater than those being used in other on-going transportation projects in Boston and Cambridge, and do not reflect the reduction in traffic at the Bridge that has been documented over the past 5 – 10 years.

Detailed Review

The Longfellow Bridge has had considerable effort expended on it, but, in respect to pedestrians, bicyclists and people in wheel chairs, the process may have lost its way. Now that the Commonwealth is seriously programming the Bridge for reconstruction, we think it is time to expand the thought process surrounding the reconstruction as described below.

1. <u>The reconstruction of the Longfellow Bridge is a very important celebratory event for Boston and Cambridge and expectations are high.</u> The Bridge is an important local symbol and is recognized as a national historic landmark, and must be rebuilt in its historic form. Construction sequencing is extremely complex and difficult, because of the need to keep the Red Line and reasonable vehicular, pedestrian and bicycle operations throughout the construction period. The project cost has been estimated at approximately $267,500,000. Because all our citizens are concerned about such a major expenditure of resources, a bold vision for the Longfellow Bridge is absolutely essential to show what its future might be. In fact, since the project was not at 25% design before January 2006, it is required that the proponent follow the new MHD Design Manual guidelines which call for greater consideration of pedestrian, transit and bicycle concerns. At this point, because of the extensive preparatory documentation necessary prior to construction, we have a once-in-a-lifetime opportunity to test a variety of motor vehicle, pedestrian and bicycle alternatives before selecting a final configuration for the surface of the Bridge.

2. <u>Reconstruction of the Longfellow Bridge should not be based solely on replacing traffic features that now exist.</u> Although the Bridge is historic, it is not in its original state and this reconstruction cannot restore the Bridge to a pristine state. In fact, certain added facilities have severely disrupted pedestrian use of the Bridge. These include the motor vehicle turning and storage lanes added in the 1950s to the Boston approach. The 1950s changes included cantilevers to permit the road widening; the existing sidewalks through the cantilevered section were totally eliminated, leaving a significant safety gap for all pedestrians, bicyclists and people in wheelchairs. Adjacent to the westbound lanes on the Boston side of the bridge, similar changes were made in the 1950s that ripped out sidewalks and left pedestrians and people in wheel chairs at great risk. The 1950s changes served only motor vehicles; they should not be the most important considerations in reconstructing the Bridge.

3. The plan and design of the Longfellow Bridge must reflect modern standards for pedestrian facilities and sidewalk designs. The widest proposed sidewalk in the present plan is 7 feet, not including "shy distances" appropriate for the Bridge or space for fire hydrants, signs, and utility poles. This dimension at the moment includes a 1.0 foot wide raised curb and 0.5 feet for the historic railing, reducing the effective practical width for pedestrians to 5.5 feet. This dimension is insufficient for modern designs in a highly urban area that is respected for its walkability. The MHD Project Development and Design Manual, published in 2006, calls for dimensions of 6-12 feet for curb-attached sidewalks in most urban situations, and calls for greater widths of 12-20 feet in unique situations. (See pp. 5-14, 5-15, and 5-16.) The federal approach calling for minimum 10-foot sidewalks is outlined in the Guide for the Planning, Design and Operation of Pedestrian Facilities, published by the American Association of State Highway and Transportation Officials, 2004, pp. 58-59 and p 63.

4. The reconstruction of the Bridge includes three phases: before, during and after reconstruction – each of them demands a clear and compelling vision.

   Before construction:

   a. Develop alternative plans for accommodating pedestrians, bicycles, motor vehicles and rapid transit on the Bridge. We should seriously take advantage of this once-in-a-lifetime opportunity to create very broad sidewalks and bike lanes while accommodating the rapid transit line and a reduced number of lanes for motor vehicles. We request that an option which reduces vehicle lanes and adds pedestrian and bicycle space be considered as a serious alternative. (We recognize that limiting motor vehicle lanes means that space must be provided for emergency vehicles to pass other vehicles, perhaps by allowing emergency use of bicycle lanes.)
   b. Test options for future services on the Bridge by using the pre-construction period to try different capacities for vehicles, pedestrians and bicycles. We request that one of the tested options include reduced motor vehicle lanes with expanded pedestrian and bicycle facilities. The tests can be scheduled during the period when environmental document preparation and permitting is underway (anticipated to take at least another year). Consultants for the project have already suggested closing a lane in each direction during peak hours in pre-construction months to observe and possibly video traffic conditions. (See the Functional Design Report for the Rehabilitation and Restoration of the Longfellow Bridge, prepared by the Jacobs team in August 2006, page 42.) This temporary closing of operating vehicular lanes is very important to give the analysts a clear understanding of how traffic might work on the Bridge, both before and after closing a lane in each direction. Needless to say, closing lanes in a test offers a stellar opportunity to evaluate the merits adding a great deal of width to the corridors for pedestrians and bicyclists.
   c. Design the approaches to the Bridge to accommodate pedestrians and bicycles as an integral part of the reconstruction project. Traffic alterations made in the 1950s added motor traffic lanes and eliminated pedestrian facilities at the Boston approaches to the Bridge. The MBTA only partially reconstructed Charles Circle as part of the reconstruction of the Charles/MGH Station. The Longfellow Bridge project must complete the reconstruction of the Charles Circle and the direct links to the Bridge to accommodate pedestrians and cyclists. Likewise, pedestrian and bicycle access needs to be graciously and safely provided on the Cambridge approaches to the bridge.
   d. Improve access between the Bridge and the Esplanade. At present there is a connection between the Longfellow Bridge and the pedestrian bridge that curves from Charles Circle

into the Esplanade. It is accessible only for pedestrians. Bicyclists cannot safely use this connection and people in wheel chairs cannot use it at all. Planning for the Bridge must include this connection and work out options for its improvement.

e. Develop construction staging options to insure that all present users can use the Bridge at all stages of the reconstruction. The time period for construction will bring 3-5 years of disruption to people using the Bridge. As described in the ENF and at the MEPA meeting, pedestrians would retain access, but the construction sequencing plan described calls for the dramatic rerouting of all but one lane of eastbound bicycle and vehicular traffic away from the Bridge. While that may be beneficial for pedestrians, better service would be provided by retaining one lane in each directions at all times during and after construction. Luckily, this, too, can be tested while environmental documents are being prepared.

During construction:

a. Provide for the MBTA tracks and two motor vehicle lanes (one in each direction), pedestrians and bicyclists at all times. This is extraordinarily difficult to do because the deck space must accommodate these movements in a very narrow corridor. Retaining the two motor vehicle lanes allows testing of traffic impacts over the 4-year construction period, by which time new traffic patterns will be firmly established. However, in order to allow temporary provision for the Red Line and the two vehicular lanes, the sidewalks and the bicycle lane will need fresh thinking. One method deserving consideration is the temporary construction of a cantilevered walkway and bike path suspended off either side of the Bridge. There is considerable experience with this type of construction, as cantilevered sidewalks have been built specifically to serve pedestrians and cyclists as permanent features of many older bridges around the country (e.g., Steel Bridge - Portland, OR; Duck Bridge - Lawrence, MA). Construction of a cantilevered walkway would bring significant attention to the reconstruction process, highlight the imagination and foresight of the Commonwealth in using unorthodox solutions, invite people to visit the Bridge specifically to see the new (temporary) pedestrian and bicycle facilities, and assure citizens that reconstruction of the Bridge will lead to significant enhancement of the river crossing for both pedestrians and bicyclists.

After construction:

a. Red Line tracks are refurbished and two vehicular lanes – one in each direction – are provided. Vehicular lanes will be wide enough to allow daily motor vehicle traffic to move safely and will have been tested for nearly 5 years. Where the Bridge meets Charles Circle, the single eastbound lane can widen to two lanes. Significantly, throughout the length of the Bridge, all vehicular lanes will allow passing by emergency vehicles, either in a partial lane that allows emergency vehicles to pass other vehicles or by incorporating the bicycle lane to make space for emergency vehicles to pass.

b. Pedestrians and bicycles share very wide corridors both eastbound and westbound. The pedestrian space will be widened to incorporate much of a former motor vehicle traffic lane. It will be enhanced by replacement of the historic railings at the edge of the Bridge, with historic lighting along the full length of the walkway, and perhaps with benches along the route for pauses to enjoy the spectacular views. The parallel bicycle lane may be on-road, level with motor vehicles, or in a marked sidepath at the edge of, and level with, the pedestrian space. Safe and convenient access onto and off the Bridge and to the street and sidewalk network is provided for pedestrians, bicycles and motor vehicles in Boston and Cambridge. All current safety hazards have been eliminated permanently.

c. Safe and convenient access at the approaches to the bridge in Boston and Cambridge, to the MBTA's Charles/MGH Station, and to the sidewalk network – especially at Charles Circle – is provided for pedestrians and people in wheel chairs.

5. Safety improvements for pedestrians, bicyclists and people in wheel chairs should be made immediately, as requested in writing by many groups many times over the past three years.

   We request that safety improvements be made immediately, as the present situation is extremely dangerous. With the sidewalk blocked off, pedestrians are required to walk in narrow bicycle lanes, with no separation from fast-moving vehicles. The Bridge is not presently ADA accessible, and is unsafe in some locations for both pedestrians and bicyclists (as on the Boston approaches where there are no sidewalks where Charles Circle streets meet the Bridge). There are physical improvements that can be installed inexpensively – even if they are only temporary – to provide safe passage for all. The entire facility should immediately be made ADA accessible for safety, with adequate sidewalks and curb ramps where there are presently none; they can be provided for the duration of the test period to test how they might fit into the long-range vision for the Bridge.

   We think that immediate improvements to make the Bridge and its approaches safe for pedestrians and others should be a condition for any MEPA certificates that allow the state agencies to undertake any further action on this project. This requirement should certainly be included in the scope of next steps for the project.

Technical Issues

1. Counts of all traffic – vehicular, pedestrian, bicycles – should be updated because the counts provided in the ENF do not portray the current situation accurately. Diagrams show very heavy eastbound pedestrian traffic on the Boston end, and zero bicycle traffic from the Cambridge end. These counts in the ENF were taken on November 5, 2005. Several projects were underway at the time, and all of them significantly affect the validity of the counts:
   - At the time of the counts, the Central Artery had not been fully completed. Now, Storrow Drive, passing under the Bridge with connections into Charles Circle to and from both directions, connects directly to the Artery (I-93) only 1000 feet north of Charles Circle. Memorial Drive, also passing under the Bridge, connects to the Artery via the Charles River Dam/Craigie Bridge, and to Route I-93 via the Gilmore Bridge.
   - The full-scale reconstruction of MBTA's Charles/MGH Station on the Red Line was underway in November of 2005, with major disruptions for cars, the Red Line, and pedestrians and bicyclists throughout Charles Circle, as well as the streets leading into and out of the Circle.

   Now that both of these projects are fully completed, it is mandatory to do further counts to update the 2005 counts and to reflect the current situation. The counts should include the Bridge and all of its approaches and all modes using it. They should include both peak and non-peak hours. Latent demand should be estimated for all modes. (See *MHD Project Development and Design Manual*, published in 2006, p. 3-24 footnote.) The counts should not be taken while Bridge sidewalks are closed; they should be taken only after the sidewalks are reopened or during the tests of wider sidewalks, during temperate weather, and certainly after the universities are back in session as the Bridge is used by many students from the colleges facing the river. Counts should be taken only after emergency, immediate improvements are made for pedestrians, bicyclists and people in wheel chairs. At present, Bridge sidewalks

eastbound are closed to all users. All non-motorized travel is shunted into narrow bike lanes immediately adjacent to fast moving motor vehicle traffic. Wheelchairs cannot use the street without close encounters with motor vehicles, especially on the Boston approaches.

Westbound facilities are particularly severe for people in wheel chairs. There are no methods for accessing the Bridge sidewalks from the Boston end, forcing all wheel chair occupants into the bike lanes on the street, where they must use the street at a narrow pinch point until they reach the wheel chair ramps. This situation must be remedied immediately, and most certainly before further counts are taken of non-motorized traffic.

2. Motor vehicle growth factors used in projecting future traffic must be modified to be more in line with current practice. The growth factors used in the ENF apparently assume growth of 1—1.5 per cent per annum. These factors seem to be too high. Data from the MHD website on traffic counts on the Bridge show reductions in traffic over the last ten years. Current data from Cambridge also indicate that vehicular use is not growing and may be shifting downward. Mode shifts away from motor vehicles can be documented and may be expected for a variety of reasons, including increasing gas prices, measures to reduce vehicle use to address climate change, and the growing inner city population that is less dependent on motor vehicles.

Thank you for the opportunity to comment on this document. Please feel free to contact us if you have questions.

Sincerely,

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