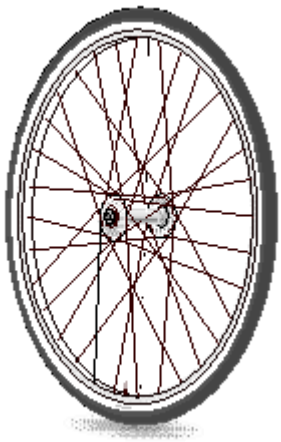
June 12, 2014

Ms. Pamela Stephenson,
Division Administrator<
Federal Highway Administration
55 Broadway, 10th Floor
Cambridge, Massachusetts 02142

Re: connect Historic Boston project



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Dear Ms. Stephenson:

I am writing to comment on the connect Historic Boston project.

It is my opinion that the Federal Highway Administration should not approve this project, as it currently stands.

Most central to the Federal Highway Administration's role, the project includes a number of treatments which are in experimental status or are completely nonstandard. I have seen no evidence that a Request to Experiment has been submitted for this project. Perhaps one has, but I would expect to be aware of that, as a member of the Bicycle Technical Committee of the National Committee on Uniform Traffic Control Devices.

Links to my comments to project proponents and to the response I received are at http://john-s-allen.com/pdfs/egan_response.pdf; please review them in connection with the following.

There are serious design and safety issues, as well as procedural issues with this project. In particular, the project

- fails as a transportation project, because it degrades rather than improves access to the North Station transportation hub;

- addresses the downtown Boston urban area as a tourist attraction, rather than an urban hub, and does not provide direct and convenient routes for bicycle travel;

- nonetheless, the project, despite its name, fails to connect with some of the most important historic sites near its route;

- the project incorporates known hazardous designs: in particular, a narrow two-way sidepath on a sloping street (Staniford Street), which crosses a wide driveway; a bizarre, curved segment inside the intersection connecting the Causeway Street segment with the Staniford Street segment; and bike lanes and "bike boxes" which encourage bicyclists to overtake to the right of right-turning motor traffic. In the Boston area, the majority of fatal motor vehicle-bicycle collisions in recent years have been of right-turning motor vehicles colliding with bicyclists;

- The project results in slow travel, delays and temptation to violate the traffic law for bicyclists as well as other travelers;

- The project establishes a fixed pattern of segregated space, literally set in stone, which precludes modification to reflect future changes in traffic volume, modes and vehicle characteristics;

- The project could be redesigned to provide much better options. I have discussed these at length in my comments, which I have placed online as indicated previously.

Having attended the February 26, 2014 public hearing and May 15. 2014 public information meeting about the project, and having conducted extensive Web searches, I can add that public involvement and awareness of the project are very limited and lopsided – in strong contrast to that of previous projects, for example, the Artery-Tunnel project and the Longfellow Bridge reconstruction.

- The project proponents have not placed before the public any study showing the effects of the project on traffic volume, travel times and level of service for bicycling or for other travel modes. This is a major omission, because the lane reductions, more complicated movements at intersections, and increased signalization due to the project will result in very significant impacts.

- The project proponents have not placed alternative designs or routes before the public for review. There have been some minor design changes but only one design was presented at each public meeting.

- Though a stenographic record was being taken at the February 26, 2014 25% design public hearing, which I attended and at which I spoke, I cannot find the transcript online. The project's proponents have placed no link to it online and have no contact information on their Web site.

- There is no contact information on the proponents' Web site.

- At the February 26 25% design public hearing, no plans, but only conceptual drawings, were presented.

- Other comments besides mine were submitted following the February 26 public hearing, but despite an extensive Web search, I cannot find any online unless they were posted by commenters.

- At the May 15 meeting, which was sparsely attended, Mr. Egan asserted that the project had been subjected to extensive public review. Indeed, the project proponents have held a number of public meetings. However, publicity for the meetings was directed to local neighborhood groups and to advocacy groups which were likely to favor the project, lacking outreach to citizens and businesses in Boston and throughout the region whose interests stand to be affected by the project.

- Though detailed design drawings were on display at the May 15 meeting, the 25% design public hearing had passed, and this was not the design public hearing. Though a promise was made that the drawings would be placed online, I cannot find them online.

- A search on the Web sites of the Boston Globe and Boston Herald newspapers finds *not one single article about the project* – a news blackout. This is astonishing considering that the Globe has a reporter, Martine Powers, whose beat is to address transportation issues, and that the Herald has published incisive articles about the related development project at North Station. There has been a single article on the Boston Magazine blog, following my suggestion to the reporter, but it only briefly describes the project without addressing any of the issues it raises.

- I have found no input from the MBTA or MassDOT into the design or review of the project, though it will have serious consequences for travel on roadways, including for public transit, and as noted, for access to North Station.

- In his letter responding to my comment, Boston Chief Civil Engineer William Egan fails to address most of the points I made, and he cites and footnotes only a narrow selection of sources which support the case he wants to make.

Let's look at this situation more closely. Mr. Egan dismisses classic studies posted on my Web site as "outdated." These studies examine specifics of design and of crash causation, and their results have been confirmed by newer ones. Surveys of research are online at http://www.cyclecraft.co.uk/digest/research.html and http://ianbrettcooper.blogspot.com/2012/08/bicycle-infrastructure-studies.html Mr. Egan dismisses the research record out of hand while citing and footnoting documents which have been demolished as deeply flawed and biased. The overall case he is trying to make is for facilities which can be called cycle tracks, without addressing the specifics of what is safe or unsafe about any particular design.

Let's now go through Mr. Egan's footnotes one by one:

In his footnote #1, Mr. Egan cites the Kittleson & Associates Report (Washington DC), http://ddot.dc.gov/page/bicycle-facility-evaluation, pointing out increased bicycle traffic volume on the 15th Street NW left side cycle track. He does not mention the safety issue which the study raises. After installation, crashes increased from 20 in 4 years to 13 crashes in 14 months – over twice as many crashes per month. Taking into account the doubling of cyclist volumes, this represents an increase in crashes of 10% — contrary to any claim of safety in numbers. Mr. Egan also emphasizes the greater increase in bicycle traffic on this street in the evening rush hour – cherry-picking. Videos of actual riding conditions on this path are available at https://vimeo.com/album/1632204. These videos show numerous hazards, chaotic conditions at intersections, and that conflicts at intersections due to the separated bikeway lead to very slow travel unless bicyclists ignore traffic signals. Most did.

In his footnote #2, Mr. Egan cites the study Lusk, A. C., Furth, P. G., Morency, P., Miranda-Moreno, L. F., Willett, W. C., & Dennerlein, J. T. (2011). Risk of injury for bicycling on cycle tracks versus in the street, to the effect that there were 2.5 times as many bicyclists on cycle track streets as on streets without. This finding reflects not only the presence of cycle tracks, and cyclists' belief that these were preferable,

but also reflects the unfair selection of comparison streets (see comments on footnote #5) and the cycle track streets in many cases the made direct connections for through travel, while comparison streets did not.

In his footnote #3, Mr. Egan cites the work of Prof. John Pucher to the effect that bicycle crash rates decrease as bicycle use increases. It is well known that as the volume of traffic increases, risk per mile of travel decreases. This is an example of Smeed's law, which has been known for decades, but is no justification for construction of facilities which fail to optimize safety: the proper safety comparison among facilities is for the same population on different types of facilities; also, the safety in numbers effect has not been consistently demonstrated with bicycle facilities (see especially comments on footnote #1). Pucher ranges widely in his citations, but he reveals himself as an enthusiastic promoter of separate bicycle facilities, gullible and unqualified to evaluate research. He cites Jacobsen's study which includes the infamous descending hyperbolic curve due to faulty math that gives the same results when fed totally random data. Pucher also republishes a series of photos from Muenster, Germany showing various types of vehicles parked in the street and describing the space they occupy when parked as the space needed for travel. These gaffes are in the document http://www.cts.pdx.edu/pdf/Pucher_PSU_talk_9-28-07.pdf, pages 24 and 30. I have commented on the Muenster drawing: http://john-s-allen.com/blog/?p=7. More extensive critiques of Pucher's work are found here: http://www.johnforester.com/Articles/facilities.htm

In his footnote #4, Mr. Egan cites a study referenced by Pucher, to the effect that a larger percentage of female cyclists is associated with a larger bicycle mode share. This does not make a case for constructing the Connect Historic Boston project as designed; it only makes one for increasing mode share. The underlying assumption that women are a disabled population is degrading. Increasing the mode share does not make it ethical to provide facilities which are inherently unsafe.

In his footnote #5, Egan again cites the study Lusk, A. C., Furth, P. G., Morency, P., Miranda-Moreno, L. F., Willett, W. C., & Dennerlein, J. T. (2011). Risk of injury for bicycling on cycle tracks versus in the street. Injury prevention, 17(2), 131-135 as demonstrating a 28% lower crash rate for cycle tracks in Montreal, relative to comparison streets. Do the people at Harvard School of Public Health know what they are doing? If so, they are intentionally biasing their work. Flaws of the study include describing stretches of paths in parks and away from streets as cycle tracks; including stretches which had not been built yet in the reported mileage; selecting a multi-lane comparison street 10 blocks away with heavy, fast traffic for comparison with a cycle track street which is small and has light, slow traffic; examining short stretches which end just short of busy intersections; giving the length of one of the segments studied as twice as long as it is, halving its reported crash rate; and not counting injuries to pedestrians. A detailed rebuttal and a link to the study online may be found at http://john-s-allen.com/reports/montreal-kary.htm. Another review reaching similar conclusions is at http://bicyclingmatters.wordpress.com/critiques/montreal-cycle-tracks/

In his footnote #6, Egan cites Lusk, A. C., Morency, P., Miranda-Moreno, L. F., Willett, W. C., & Dennerlein, J. T. (2013). Bicycle Guidelines and Crash Rates on Cycle Tracks in the United States. American journal of public health, 103(7), 1240-1248 to the effect that bicycling on cycle tracks is safer than bicycling on roads. This study dilutes the data for cycle tracks like the ones proposed for Connect Historic Boston by including paths which have few or no intersections or driveway crossings. Using the authors' figures, these have less than 1/10 the crash rate of the facilities which meet the definition of cycle tracks, but those which do meet that definition have twice the average rate for bicycle travel. Links to the study, a careful rebuttal by Boston's former bicycle coordinator, Paul Schimek, Ph.D. and the authors' reply may be found online at http://bicycledriving.org/sidepaths/bicycle-guidelines-and-crash-rates-on-

cycle-tracks-in-the-united-states . Schimek has commented on the exchange: "Read my published letter about Lusk et al.'s latest paper claiming increased safety due to cycle tracks, and marvel at their response."

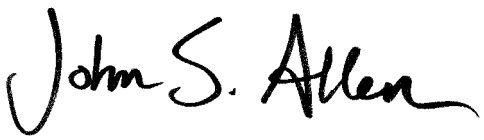
In his footnote #7, Egan cites Teschke, K., Harris, M.A., Reynolds, C.C., Winters, M., Babul, S., Chipman, M., Cusimano, M.D., Brubacher, J.R., Hunte, G., Friedman, S.M., Monro, M., Shen, H., Vernich, L., & Cripton, P.A. (2012). Route infrastructure and the risk of injuries to bicyclists: A case-crossover study. American journal of public health, 102(12), 2336-2343. This study has been reviewed and debunked by John Forester, http://www.johnforester.com/Articles/Facilities/Infrastructure%20&%20Injuries.pdf. The central problem with this study is that the one facility described in the study as a cycle track is a bikeway on a long bridge separated by a Jersey barrier, with no cross traffic..

The authors of the study which Egan cites in his footnote #7 gave a presentation at the 2012 Velo-City conference in Toronto. I have posted comments on this presentation at http://john-s-allen.com/blog/?s=Teschke. The graphics for the presentation display the preposterous result that bicycle crashes were 2000% as high on streets without cycle tracks as on streets with them, although the study also reports that more than half of all the crashes did not involve a motor vehicle. There are other absurdities. Also, it is clear from the authors' presentation at a conference that they do not understand the definition of a collision, or intentionally skewed their data by describing single-bike crashes as collisions.

Mr. Egan does not make his case. He does not answer pressing questions about the project, and none of the works he cites are credible.

And, as I've said, I do not have access to comments by others about the project, or to the proponents' responses. Comparing this project to others, past, present and in the planning stage – the Artery-Tunnel Project; the Longfellow Bridge reconstruction; the Turnpike straightening – the management of the Connect Historic Boston project does not measure up, and I urge the FHWA not to approve it in its present form.

Very truly yours,



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-- but writing on my own behalf.