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CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : Longfellow Bridge rehabilitation Project
PROJECT MUNICIPALITY : Boston and Cambridge
PROJECT WATERSHED : Boston harbor
EEA NUMBER : 14384
PROJECT PROPONENTS : Massachusetts Highway Department/Department of
Conservation and Recreation
DATE NOTICED IN MONITOR : March 25, 2009

Pursuant to the Massachusetts Environmental Policy Act (MEPA) (G. L. c. 30, ss. 61-62I) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** the preparation of an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project entails the rehabilitation of the Longfellow Bridge. A primary goal of the proposed Project is to upgrade the bridge's structural capacity and meet modern codes. The Project concurrently seeks to ensure repairs and modifications of the bridge will be consistent with the historic character of the bridge. Restoration and rehabilitation of the bridge was chosen as the preferred method, rather than complete replacement.

The Longfellow Bridge is one of the most architecturally and historically distinguished bridges in Massachusetts. The Longfellow Bridge (originally named the Cambridge Bridge), located on the site of the 1793 West Boston Bridge, was completed in 1908 and was renamed to

honor Henry Wadsworth Longfellow in 1927. The bridge joins Cambridge Street in Boston with Main Street in Cambridge and carries the Massachusetts Bay Transportation Authority (MBTA) Red Line and two-way vehicular traffic across the Charles River. The bridge presently carries 28,000 motor vehicles, 90,000 transit users, and significant numbers of pedestrians and cyclists each day.

The 1908 bridge was extended in 1956 and rehabilitated in 1959. The bridge today consists of eleven original open-spandrel steel arch spans plus two later-stage steel girder approach spans at the Cambridge end. The bridge has an overall length of 2,135 feet, and a deck width of 105 feet, which includes a 27-foot fenced median occupied by the Red Line. The existing cross-section provides an upstream 6-foot sidewalk and a 33-foot wide roadway while the downstream side consists of a 10-foot sidewalk and 29-foot wide roadway. The bridge's substructure is built of granite block masonry and consists of ten hollow piers and two hollow abutments. The two central piers carry the signature pairs of neoclassically inspired dressed granite towers that have given the bridge its popular nickname – the Salt and Pepper Bridge.

In the proposed design, the bridge's distinctive architectural features will be preserved or restored, while the deteriorated structural elements of the bridge are carefully rehabilitated. All new elements of the work will be sensitively designed to complement the bridge's historic character and its prominent position within the scenic Charles River basin.

As indicated above, the planned rehabilitation will address the bridge's current structural deficiencies, upgrade its structural capacity and bring the bridge up to modern code. In particular, the structural steel elements supporting the bridge deck have deteriorated and require upgrading, and the abutments will have to be modified slightly to allow the sidewalk approaches to meet Americans with Disabilities Act (ADA) standards. At the same time, the bridge's ornate pedestrian railings will be restored or replicated, its masonry elements will be cleaned and conserved, and an appropriate new bridge lighting system will be designed. Areas on the riverbanks disturbed by the project will be carefully landscaped to tie the bridge into its historic setting.

Because of the unique significance of this project to the cities of Boston and Cambridge and their residents, it is not surprising that I have received numerous comments expressing very detailed suggestions and concerns with the restoration and rehabilitation of this iconic bridge. Many commenters have expressed interest in pedestrian and bicycle issues and highlighted traffic management concerns. Other commenters have asked that I require additional MEPA review of the project to address perceived inadequacies in the information provided in the ENF or to allow for a different planning process. While I appreciate the thoughtful engagement of the many commenters on this important project, after reviewing the ENF submission and the comments received, I am satisfied that the review of the ENF is sufficient to meet the requirements of the MEPA statute. I note that MEPA is not a zoning process, nor is it a permitting process. Rather, it is a process designed to ensure informed public participation in the state environmental review, to ensure that state permitting agencies have adequate information on which to base their permit decisions and their Section 61 Findings, and to ensure that the project has avoided, minimized, and mitigated environmental impacts to the maximum extent feasible. As detailed further herein, the review of the ENF has met those standards.

In light of the currently deteriorated nature of this crucial transportation and visual link between Boston and Cambridge, it is clear that the agencies need to move forward as expeditiously as possible with this necessary repair and restoration project to ensure the continued safe and reliable use of the bridge. I have therefore determined that no further MEPA review is required, subject to the findings and conditions outlined below.

Jurisdiction and Permitting

The project is subject to review pursuant to Sections 11.03(10)(b)(1) and 11.03(6)(b)(2)(b) of the MEPA regulations because it is being undertaken by a State agency and because it will result in the demolition of any exterior part of a Historic Structure listed the Inventory of Historic and Archaeological Assets of the Commonwealth and the cutting of five or more living public shade trees of 14 or more inches in diameter at breast height. The project requires a 401 Water Quality Certificate and possibly a Chapter 91 permit from the Department of Environmental Protection (MassDEP). The project also requires an Order of Conditions from the Boston Conservation Commission and an Order of Conditions from the Cambridge Conservation Commission; Section 106 review under the National Historic Preservation Act will be coordinated and reviewed by with the Massachusetts Historical Commission (MHC). The project also requires a Programmatic Section 4(f) Evaluation and an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA); a Massachusetts Programmatic General Permit from the Army Corps of Engineers; a U.S. Coast Guard Construction Letter; and a National Pollutant Discharge Elimination System (NPDES) Construction General Permit issued by the United States Environmental Protection Agency (U.S. EPA).

The project will be undertaken by the Department of Conservation and Recreation (DCR) and the Massachusetts Highway Department (MassHighway), two State Agencies. Therefore, MEPA jurisdiction for this project is broad and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment, as defined in the MEPA regulations.

Historic and Cultural Resources

As noted in the ENF, the Longfellow Bridge is included in the Inventory of Historic and Archeological Assets of the Commonwealth, and is listed on the National Register of Historic Places as part of the Charles River Basin Historic District. The bridge possesses several historically significant features including the neoclassical-inspired stone towers, iron railings, steel arches, and fascias that give the bridge its distinctive visual character.

A foundational goal of the project is to preserve the historic integrity and architectural character of the Longfellow Bridge. I commend the proponents' commitment to restoring the bridge's most significant elements to the standards set forth in the Secretary of the Interior's Standards for Restoration, including the main and abutment towers, streetlights/poles, and pedestrian sidewalk railing/fascia. Similarly, the project will adhere to the Secretary of the Interior's Standards for Rehabilitation for less significant features, some of which are much deteriorated. As described in the ENF, rehabilitated features will include the steel arch ribs, deck

structural support system, and granite retaining walls at both the Boston and Cambridge approaches. I concur with the proposed historically sensitive restoration and rehabilitation approach and I encourage DCR and MassHighway to make this a signature historic restoration project.

Alternatives

As described in the ENF and related documents, several project alternatives were considered, and three alternatives were presented in detail the ENF and attached figures. A key consideration presented in the ENF is that the typical roadway cross section across the Longfellow Bridge, which must be incorporated into the approach design, measures 37.5 feet. The available space to fit the approach alignment varies, but at the narrowest location (the “pinch-point” at the intersection of Span 1 and the abutment) the existing dimension from the bridge railing to the Jersey barrier at the MBTA reservation is 30.5 feet. Based on the total desirable width, the alternatives available included: widening the bridge; accepting dimensions lower than desirable; or modifying the MBTA reservation to create more space. However, after discussions with the MBTA about modifying their platform area to provide more space to accommodate the revised roadway, the proponents considered other alternatives to have greater advantages and rejected this alternative. The three alternatives the ENF explored in detail were:

The proposed Preferred Alternative - Alternative 1- consists of increasing the available right-of-way at the pinch-point by widening the bridge by 2 feet over the most easterly span, Span 1. East of the abutment tower, the existing granite wall will be dismantled and re-built approximately 12 feet to the south of the existing location. The sidewalk width provided is 5 feet and the bike lane is also generally 5 feet except that it is reduced to 4 feet for a short distance on either side of the pinch point. To the east of the tower, three travel lanes that meet MassHighway design criteria are provided, with the left roadway lane transitioning to a left turn lane, and the right roadway lane transitioning to two through lanes.

The proposed Alternative 2 consists of not widening the Bridge at the “pinch point” and the dimensions of the various roadway elements are locally reduced below desirable widths. The roadway lanes are reduced to 10.5 feet while both the sidewalk and bike lane are only 3.5 feet wide. East of the abutment tower, the existing granite wall will be dismantled and re-built approximately 12 feet to the south of the existing location. To the east of the tower, three travel lanes that meet MassHighway design criteria are provided, with the left roadway lane transitioning to a left turn lane, and the right roadway lane transitioning to two through lanes. The bike lane merges with the through lane. The proponents also developed an Alternative 2A which provides 11 foot wide lanes with the additional foot required to achieve this taken from the sidewalk and the bike lane.

The proposed Alternative 3 also consists of not widening the Bridge at the “pinch point” and the dimensions of the various roadway elements are also locally reduced below desirable widths. Under this variation, the roadway lanes are 11 feet wide while both the sidewalk and bike lane are locally only 3 feet wide. Outside of the pinch point, the bike lane and sidewalk are maintained at 5 feet. East of the abutment, only two travel lanes are provided, with the existing granite wall remaining in its current location.

Based upon my review of the ENF, I am satisfied that a comprehensive alternatives screening process was conducted and that a reasonable explanation for the elimination of alternatives was presented in the ENF. The proponents recommended implementation of the Preferred Alternative-Alternative 1 because it provides the most satisfactory solution for the vast majority of bridge users, and most closely conforms to current MassHighway design criteria. Although the bridge structure will be modified, the span widening will be designed in an architecturally and historically sensitive manner. In addition, the re-location of the retaining walls will involve modification of a narrow section of parkland (described in further detail below), but this area currently provides very limited use, and the improvements in pedestrian and bicycle access incorporated into the approach re-construction will create an overall enhancement to this section of the Esplanade.

Bicycle and Pedestrian Access

Bicycle lane widths will be increased to conform to MassHighway criteria with a 5 foot lane on the upstream and downstream sides of the bridge. Sidewalks are proposed to be added at the Boston approach. There is currently no sidewalk to the east of the Boston abutment. This project also proposes to restore an ADA compliant sidewalk across the entire bridge while satisfying MassHighway design standards and maintaining the historical character of the bridge. The sidewalks on both sides of the bridge will be widened to 10 feet. As stated in the ENF, the Project is consistent with goals and recommendations contained in DCR's 2002 Charles Basin Master Plan.

As indicated above, the ENF provides three alternatives to addressing a "pinch point" on the Boston approach side. The preferred alternative would widen the bridge over the first span by removing the granite parapet wall and extending the bridge superstructure out by several feet. In contrast to the other two alternatives, the preferred alternative would provide the greatest amount of space for pedestrians and bicyclists, outcomes which I encourage and support. The preferred alternative represents significant improvements for pedestrian and bicycle access over the current design, and I commend the agencies for their attention to this important aspect of the project. Although I acknowledge the comments requesting consideration of further pedestrian and bicycle improvements, such as a dedicated pedestrian/bicycle promenade, I am satisfied that the preferred alternative balances both pedestrians' and bicyclists' considerations with traffic flow and MBTA operations. However, I encourage the proponents to review and evaluate the numerous comments and detailed suggestions provided on these issues and to continue to promote enhanced pedestrian and bicycle access to the maximum extent feasible.

Public Parkland

According to the ENF, areas of public parkland, namely undeveloped sections of the Charles River Reservation on the Boston side of the bridge, will be occupied by a slightly widened sidewalk at the approaches to the bridge. The parkland impacts are caused by proposed modifications to the connection of the Longfellow Bridge to the inbound and outbound approaches on the Boston side of the Charles River. The Boston connections are complicated by

the fact that the available space between the MBTA Reservation and the outside of the bridge has been constricted by the Charles/MGH Station platform extensions.

On the north side of the bridge, about 350 square feet of parkland will be used to widen the sidewalk and bike lane; on the south side of the bridge about 1,200 square feet will be used for the sidewalk improvements. The sidewalk changes will be within the area presently used for pedestrian/vehicular traffic and that use will not be changed. As indicated above, these areas currently provides very limited use, and the improvements in pedestrian and bicycle access incorporated into the approach re-construction will create an overall enhancement to the public's use of parklands.

Wetlands

According to the ENF, the project will temporarily impact approximately 2,500 square feet (sf) of Land Under Water and equipment access would affect Bank resources. The ENF confirms the project will involve cutting and removing lead-based paint (LBP) from structural steel member and this work would be performed within temporary enclosures to minimize impacts. I remind the proponents that if the construction work yard or lay down area is within a wetland resource area, buffer zone, or filled tidelands not considered landlocked, mitigation may be required. The construction period mitigation needs to be fully explained in a construction period control plan required by the Wetlands Notice of Intent and 401 Water Quality Certification applications. The plan for construction also must incorporate measures to prevent contamination of wetland resource areas from LBP, as well as propose special handling requirements to be implemented at the work yard if these materials are to be temporarily stored there prior to disposal at an approved facility.

Stormwater Management

As a redevelopment project, I remind the proponents that pursuant to the Wetlands Protection Act and 401 Water Quality Certification regulations, the project must be designed to comply with the MassDEP Stormwater Standards, to the maximum extent practicable and improve existing conditions. In addition, both MassHighway and DCR have U.S. EPA NPDES permit obligations to implement construction site runoff controls, post-construction runoff controls, and pollution prevention/good housekeeping measures, in addition to addressing any applicable Total Maximum Daily Load (TMDL) requirements, which have been established for the Charles River Basin.

MassDEP has stated in its comment letter that the project has not demonstrated that the MassDEP Stormwater Standards are met to the maximum extent practicable and do not improve existing conditions. Therefore, the project's stormwater components must be revised to be consistent with MassDEP Stormwater Standards' requirements and to meet U.S. EPA NPDES permit obligations. The proponents should consult with MassDEP to resolve this issue. I also note the concerns cited by the Charles River Watershed Association (CWRA), and I strongly encourage the proponents to address the CWRA's comments as they work with MassDEP to revise the stormwater management program for the project.

Waterways

The Longfellow Bridge was licensed originally by Harbor and Lands License #2373 (1900). As described in the ENF, the proposed project will be largely confined to the existing licensed footprint of the bridge, and the structural rehabilitation associated with the project will not diminish the existing navigational clearances. There will be a slight increase to the licensed footprint of the bridge on the Boston side. The proponent intends to move the location of existing retaining walls outward on both the north and south sides of bridge in order to improve pedestrian accommodation on the filled areas of the project. However, these proposed small expansions are located more than 250 feet landward of the high water mark of the Charles River, and are entirely separated from the river by an interconnected public way. Thus, these areas are located in Landlocked Tidelands, pursuant to 310 CMR 9.02, and under 310 CMR 9.04(2), Landlocked Tidelands are not subject to the licensing requirements of Chapter 91. Comments from MassDEP therefore indicate that the no new Chapter 91 license will be required for the project.

As the proponents develop and refine the construction mobilization plan, MassDEP recommends that the proponents consult with the WRP concerning any proposed plans for barge-based construction activities. Given that these waters of the river are heavily used by recreational and small-scale commercial vessels seasonally, a Chapter 91 permit may be required for any activity that is intended to remain in place on a temporary basis and that has the potential to impair the public's rights in tidelands. I expect that the proponents will coordinate closely with MassDEP with respect to this permitting issue.

Traffic Control and Construction Management

The preferred construction phasing described in the ENF, which the proponents propose to implement, involves completing work on eastbound travel lanes on the Longfellow Bridge first. Under this construction phasing the deck supporting the eastbound travel lanes and the inbound Red Line will be reconstructed first due to utility relocations. Westbound traffic will be detoured across the Charles River Dam Road (Monsignor O'Brien Highway). The outbound Red Line track will be relocated on to a temporary track on the existing westbound roadway and the inbound Red Line track will be shifted to the existing outbound side. The eastbound traffic will then be relocated to the inside westbound travel lane. The existing bridge deck under the eastbound travel lanes and inbound Red Line track will then be demolished and reconstructed. A second temporary Red line track will be constructed on the fast lane of the new eastbound roadway.

After this first stage is completed Stage 2 will begin. The deck supporting the westbound roadway and the outbound Red Line track will be reconstructed in Stage 2. Eastbound traffic will be moved back to the inside eastbound roadway lane. The inbound Red Line track will be relocated to the second temporary track on the eastbound roadway, and the outbound Red Line will be relocated to the newly completed inbound track. The deck supporting westbound travel lanes and the outbound Red Line track will be demolished and reconstructed. The final stage, Stage 3, is the final configuration. In Stage 3 westbound travel lanes will be reopened, the

inbound and outbound Red Line will be restored on to the new tracks, and both eastbound travel lanes will be re-opened.

Mitigation of traffic impacts is a critical aspect of this project. Many commenters have expressed concerns about the traffic routing plans in light of other planned construction in the area and other have asked that the traffic analyses, including pedestrian and bicycle counts, be updated. I note in particular the comments I have received from the Boston Transportation Department, the City of Cambridge and other stakeholders requesting a comprehensive and coordinated planning process for construction period transportation routing. I support this request and ask that the proponents work closely with all interested stakeholders to think proactively about traffic and transportation planning, routing and access during the construction period. I also advise the proponents to work closely with the MBTA to ensure the least amount of disruption of Red Line Service during all phases of construction of this project as it is imperative that the Red Line remains in service throughout the construction period. The proponents should also consider additional public transportation mitigation as part of the comprehensive program that will be developed as suggested in the comments from A Better City (ABC).

Construction Impacts

As described in the ENF, the removal and the delivery of materials to the site will generate traffic. Off peak and nighttime work schedules will be used to reduce the impact of the introduction of this additional traffic into the project area. Police details and traffic flagging personnel will monitor traffic flow throughout the construction period. Emergency vehicles will be given preference in day to day traffic management. Specific marine navigational channels may be closed but marine traffic will always be maintained. Notifications of impacts will be communicated to Mariners through the United States Coast Guard.

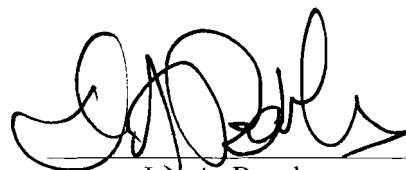
There will be nighttime construction activities that will generate noise level concerns; dust generation, abrasive blasting, and painting will all create local air quality concerns. These impacts will be mitigated by performing abrasive blasting and painting within temporary enclosures around the work site as described in the Wetlands section of this Certificate.

Conclusion

Based on the information presented in the ENF, and after consultation with the relevant state agencies, I find that no further MEPA review is required. However, as indicated above, I expect that the agency proponents will continue to work closely with the cities of Boston and Cambridge and other interested stakeholders to ensure a properly coordinated plan is in place to minimize the potential impacts of this project.

May 15, 2009

Date



Ian A. Bowles

Comments received:

03/31/09 City of Cambridge, Cambridge Water Department
 05/06/09 John David Corey
 05/06/09 Angie Tung
 05/06/09 Tim Pierce
 05/07/09 Charles River Watershed Association
 05/07/09 John S. Allen
 05/07/09 Peter Stokes
 05/07/09 Livable Streets Alliance, Charles Denison
 05/07/09 Massachusetts Water resources Authority
 05/08/09 ABC, A Better City
 05/08/09 Massachusetts Division of Marine Fisheries
 05/08/09 Frederick P. Salvucci
 05/08/09 Stephen Kaiser
 05/08/09 Massachusetts Historical Commission
 05/08/09 Department of Environmental Protection – NERO
 05/08/09 John Burckardt
 05/08/09 George Perkins
 05/08/09 Cambridge Bicycle Committee, Ken Field
 05/08/09 Charvak Karpe
 05/08/09 Elizabeth Levin
 05/08/09 Conservation Law Foundation
 05/08/09 WalkBoston
 05/08/09 MIT's Department of Facilities
 05/08/09 Alan Moore
 05/08/09 Downtown North Association
 05/08/09 Ann Hershfang
 05/08/09 MassBike
 05/08/09 Boston Transportation Department's Policy & Planning
 05/08/09 City of Cambridge's Executive Department
 05/10/09 Stephen Kaiser, 2nd email
 05/11/09 Massachusetts Bay Transportation Authority
 05/11/09 Light Boston, Inc.
 05/11/09 Boston Transportation Department's Engineering Division
 05/11/09 The Boston Landmarks Commission
 05/14/09 Beacon Hill Civic Association
 05/14/09 Partners Health Care

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