

Commonwealth of Massachusetts
Executive Office of Environmental
Affairs ■ MEPA Office

ENF Environmental
Notification Form

<i>For Office Use Only</i> <i>Executive Office of Environmental Affairs</i>
EOEА No.: 14472 MEPA Analyst: <i>Ashley Eglinton</i> Phone: 617-626- <i>1824</i>

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: Hamilton Canal Walkway and Bridge Rehabilitation		
Street: Hamilton Canal, near Jackson Street, and adjacent to Pawtucket Canal		
Municipality: Lowell	Watershed: Merrimack River	
Universal Transverse Mercator Coordinates:	Latitude: 42° 38' 27.51" Longitude: -71° 18' 55.55"	
Estimated commencement date: Spring 2010	Estimated completion date: Summer 2011	
Approximate cost: approx. \$2.7 million	Status of project design: 75% complete	
Proponent: Massachusetts Highway Department		
Street: 10 Park Plaza, Room 4260		
Municipality: Boston	State: MA	Zip Code: 02116
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Catherine Rilla		
Firm/Agency: MassHighway	Street: 10 Park Plaza, Room 4260	
Municipality: Boston	State: MA	Zip Code: 02116
Phone: (617) 973-7882	Fax: (617) 973-8879	E-mail: Catherine.Rilla@mhd.state.ma.us

- Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?
 Yes No
- Has this project been filed with MEPA before?
 Yes (EOEA No. ___) No
- Has any project on this site been filed with MEPA before?
 Yes (EOEA No. EEA#14240) No
- Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:
- a Single EIR? (see 301 CMR 11.06(8)) Yes No
 - a Special Review Procedure? (see 301 CMR 11.09) Yes No
 - a Waiver of mandatory EIR? (see 301 CMR 11.11) Yes No
 - a Phase I Waiver? (see 301 CMR 11.11) Yes No

Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres): It is anticipated that MassHighway will fund 20% of the construction costs and the Federal Highway Administration will fund 80% of the construction costs. The project will use four DCR- owned parcels (3200-301, -329.1, -339.1, and -349.1) that have existing Lowell National Historic Park (LNHP) easements.

Are you requesting coordinated review with any other federal, state, regional, or local agency?
 Yes (Specify _____) No

List Local or Federal Permits and Approvals: Chapter 91 Waterways License, Notice of Intent under the Wetlands Protection Act, and Army Corps of Engineers Programmatic General Permit

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- | | | |
|---------------------------------|---------------------------------------|--|
| <input type="checkbox"/> Land | <input type="checkbox"/> Rare Species | <input checked="" type="checkbox"/> Wetlands, Waterways, & Tidelands |
| <input type="checkbox"/> Water | <input type="checkbox"/> Wastewater | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Air | <input type="checkbox"/> Solid & Hazardous Waste |
| <input type="checkbox"/> ACEC | <input type="checkbox"/> Regulations | <input type="checkbox"/> Historical & Archaeological Resources |

Summary of Project Size & Environmental Impacts	Existing	Change	Total	State Permits & Approvals
LAND				<input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input checked="" type="checkbox"/> Chapter 91 License <input type="checkbox"/> 401 Water Quality Certification <input type="checkbox"/> MHD or MDC Access Permit <input type="checkbox"/> Water Management Act Permit <input type="checkbox"/> New Source Approval <input type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i>
Total site acreage	0.51			
New acres of land altered		0.51		
Acres of impervious area	0.17	0.06	0.23	
Square feet of new bordering vegetated wetlands alteration		0		
Square feet of new other wetland alteration		11.25 (LUW - temporary)		
Acres of new non-water dependent use of tidelands or waterways		0		
STRUCTURES (Pedestrian Bridge)				
Gross square footage	2641	1755	4396	
Number of housing units				
Maximum height (in feet)	El. 98 ft	3.7 ft	El. 101.5 ft	
TRANSPORTATION				
Vehicle trips per day	-0-	-0-	-0-	
Parking spaces	-0-	-0-	-0-	
WATER/WASTEWATER				
Gallons/day (GPD) of water use				
GPD water withdrawal				
GPD wastewater generation/ treatment				
Length of water/sewer mains (in miles)				

CONSERVATION LAND: Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

Yes (Specify _____) No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

Yes No

Canal-side lands and the air rights over the canal are subject to Article 97. However, the project is consistent with the parks uses which these properties are restricted to.

RARE SPECIES: Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

Yes (Specify _____) No

HISTORICAL /ARCHAEOLOGICAL RESOURCES: Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

Yes No

The site includes portions of the Lowell Canal system, which is a contributing property in the Locks and Canals National Historic Landmark District and is located within the Lowell National Historic Park.

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

Yes No

Deteriorated elements of the granite block canal wall be removed, repaired, and reconstructed to match the existing as closely as is feasible, in accordance with the U.S. Secretary of the Interior's Standards for Rehabilitation. An abandoned railroad bridge across the canal will be rehabilitated to accommodate pedestrian traffic. The bridge's existing steel girder superstructure and granite block piers and abutments will remain in place. One missing span in the bridge's superstructure will be replaced with a new steel stringer span, which will allow for the required minimum 7'3" clearance under the bridge. A new concrete deck and new railings with ornamental lighted bollards will be installed on the bridge.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN: Is the project in or adjacent to an Area of Critical Environmental Concern?

Yes (Specify _____) No

PROJECT DESCRIPTION: The project description should include (a) a description of the project site, (b) a description of both on-site and off-site alternatives and the impacts associated with each alternative, and (c) potential on-site and off-site mitigation measures for each alternative (You may attach one additional page, if necessary.)

The Massachusetts Highway Department (MassHighway) and the City of Lowell are proposing to construct a walkway along the Hamilton Canal and to rehabilitate an existing abandoned trolley bridge that crosses the Pawtucket Canal for use as a pedestrian bridge in Lowell, Massachusetts.

The proposed improvements are related to and will complement the larger private development project, the Hamilton Canal District Redevelopment, proposed by the Trinity

Hamilton Canal Limited Partnership; however, they are to be considered to be independent activities. The Trinity Hamilton Canal Limited Partnership is proposing to redevelop approximately 13 acres of underutilized and vacant property located in the Jackson/Appleton/Middlesex Streets Area, known as the Hamilton Canal District. The Hamilton Canal District redevelopment project is a mixed-use, transit oriented development with the goal of bringing new life to these 13 acres of blighted land adjacent to Downtown Lowell and the Dutton Street gateway to the City of Lowell. The Trinity Hamilton Canal Limited Partnership submitted a Final Environmental Impact Report (FEIR) in accordance with the Massachusetts Environmental Policy Act (MEPA) Regulations in April 2009 to the Executive Office of Energy and Environmental Affairs (EOEEA #14240). While the improvements proposed by MassHighway and the City of Lowell are referenced in the Trinity Hamilton Canal Limited Partnership's FEIR Super-Massachusetts Environmental Policy Act (MEPA) document, the environmental impacts and permits are not considered to be part of their proposed improvements and therefore, are not included in the FEIR Super-MEPA document.

Existing Conditions

The project area is an urbanized historic mill landscape with scrubby vegetation along the south edge of the Hamilton Canal.

The project site is located between Jackson Street and the Hamilton Canal, from the former trolley bridge to the west, to a trestle bridge near Revere Street to the east. The existing canal wall is partly stone masonry and partly concrete. A historic lock structure and access stairwell is located near the east side of the project along the canal wall. A large paved area is located southwest of the project site, and some of that pavement extends into the project area.

Additionally the project site includes the abandoned trolley bridge over the Pawtucket Canal which was constructed in the 1820's. The existing trolley bridge has fallen into disrepair, with deteriorated stone masonry piers and a rusted steel superstructure with a missing span. The total length of the project is approximately 900 feet (0.17 mile).

The canal system in Lowell has operating water-level control locks that prevent extreme water level fluctuations typically seen in riverine systems. The water level in the Hamilton Canal is maintained at an approximately constant elevation. The water elevation was recorded at elevation 87.3 feet (NGVD 1929) when the project's basemapping was prepared in 1990. The canal operator reports that the canal elevation is maintained at a constant level (except intentional draw-downs for maintenance); therefore, there is no seasonal fluctuation.

Alternative Analysis

MassHighway and the City of Lowell considered three alternatives for the proposed project. They are: No Build, New Walkway at an Adjacent Location Alternative, and Hamilton Canal Walkway and Rehabilitation of Existing Abandoned Trolley Bridge Alternative. The results of the analysis for each of these alternatives are outlined below.

No-Build Alternative: The No-Build Alternative would not meet the project's intended

purpose which is to provide a pedestrian walkway along the abandoned bridge over a portion of the Pawtucket Canal also known as the Swamp Lock Basin and along the Hamilton Canal for recreational purposes. Additionally, the existing canal wall and former trolley bridge would continue to deteriorate and would likely require independent maintenance and repairs in the future to avoid structural failure.

New Walkway at an Adjacent Location Alternative: The New Walkway at an Adjacent Location Alternative would not be feasible because the proposed walkway is as close to the canal as possible without impacting the canal; an alignment farther from the canal would not provide a direct visual connection with the canal. The construction of a new pedestrian bridge over the Pawtucket Canal, near the existing abandoned trolley bridge, would have a greater impact on the canal and the historic district by adding a new element. Also, the construction of a new pedestrian bridge would not stabilize the existing abandoned trolley bridge. The shoulder along the adjacent Thorndike Street roadway bridge over the Pawtucket Canal is too narrow to accommodate pedestrian use and would offer an unsafe experience for pedestrians due to the proximity to vehicular traffic.

Hamilton Canal Walkway and Rehabilitation of Existing Abandoned Trolley Bridge Alternative (Preferred): The Hamilton Canal Walkway and Rehabilitation of Existing Abandoned Trolley Bridge Alternative, as outlined in the Proposed Improvements section, will fulfill the project purpose and need while avoiding and minimizing resource impacts.

Proposed Improvements

The development of the Hamilton Canal walkway will provide an 8-foot wide bituminous concrete (chip and seal) pedestrian walkway along the south side of the Hamilton Canal at its junction with the Pawtucket Canal to Revere Street, and will include the rehabilitation of the existing abandoned trolley bridge over the Pawtucket Canal for use as a pedestrian bridge. This canal walkway and pedestrian bridge will be part of a larger system of walkways that are part of the Lowell National Historic Park. Additional proposed improvements include: landscape plantings, decorative rail installation, lighting, and other necessary appurtenances.

There will be minor repairs of the existing stone masonry canal walls and bridge foundations. Woody vegetation that has become established in the existing stone masonry canal wall will be removed to prevent damage and instability that would result from tree roots. The wall cap will be reconstructed. In one location the top four courses of stone masonry will be removed and replaced with new granite blocks and backfilled. Any re-pointing or block replacement that may be required below the existing water level the work will be performed when the canal is drained. The lock structure and stairwell adjacent to the canal will be reconstructed above the normal water level.

A pedestrian bridge will be constructed on the existing abandoned trolley bridge framing and a new span will be constructed where the existing bridge girders are missing. The structure has several stone-masonry piers in the canal and these will be pointed to provide additional stability. One dislodged stone block rests at the bottom of the canal and will be re-set into its original position in Pier #1, which is the southernmost pier.

Runoff from the project site, including the existing abandoned trolley bridge, currently proceeds as sheet flow into the canal. Landscaped areas will be planted along the south side of the walkway, providing an opportunity for stormwater infiltration. The runoff from the proposed walkway and pedestrian bridge on the existing abandoned trolley bridge would run off as sheet flow to the canal. No curbs are proposed for the walkway and pedestrian bridge deck, therefore, no closed drainage system is proposed.

Potential Mitigation Measures

The project will disturb approximately 22,200 SF (0.51 acre) of soil and pavement adjacent to the Hamilton Canal for construction of the walkway and associated landscaping and amenities. In order to prevent erosion and sedimentation from affecting the water quality of the canal, standard erosion and sedimentation (E&S) controls will be utilized project-wide. These controls include the installation of perimeter baled-hay and silt fence parallel to slope contours, prior to any earth-disturbing activities, and a silt boom within the canal parallel to the south canal wall, to contain any sedimentation. Any work below the Ordinary High Water (OHW) level will be performed in-the-dry when the canal is drained, in order to avoid the need for cofferdams.

The proposed improvements will result in no permanent impacts to Bordering Vegetated Wetlands (BVW) or Land Under Water (LUW), therefore, no wetland replication is proposed.

Environmental Permits

There are no areas designated as Bordering Vegetated Wetlands (BVW) within the project area. The canal has nearly vertical stone masonry and concrete walls that define the limits of the canal's open water and the adjacent upland banks. There will be no permanent or temporary impacts to any BVW as part of this project. The project involves approximately, 11.25 SF of temporary LUW impacts due to the removal of one stone masonry block from the canal bed. This stone masonry block will be replaced in its original position in one of the existing bridge piers. This work will be performed while the canal water level is lowered.

According to the Wetlands Protection Act (WPA) Regulations (310 CMR 10.58(2)g.) manmade canals (e.g., the Cape Cod Canal and canals diverted from rivers in Lowell and Holyoke) and mosquito ditches associated with coastal rivers do not have Riverfront Areas. Even though, this canal does not have a Riverfront Area and the canal will be lowered during construction, this project involves 11.25 SF of temporary LUW impacts and the project is located within a 100-year flood zone, therefore, the filing of a Notice of Intent (NOI) with the Lowell Conservation Commission is required. The project involves less than 5,000 SF of wetland impacts; therefore, the Order of Conditions (OOC) will serve as the Section 401 Water Quality Certificate.

This project will require a Section 404 U.S. Army Corps of Engineers (USACE) Programmatic General Permit (PGP). It is anticipated that MassHighway's Wetlands Unit will issue a non-reporting PGP Category I for this project.

This project requires a Chapter 91 License issued by the Department of Environmental

Protection (DEP) for the rehabilitation of the existing abandoned trolley bridge for the use as a pedestrian bridge.

According to the 2008 Natural Heritage and Endangered Species Atlas, this project is not located within mapped Priority Habitat of Rare Species and/or Estimated Habitats of Rare Wildlife and Certified Vernal Pools, therefore coordination with the MA Division of Fisheries and Wildlife is not required.

Additionally, according to the list of Federally Listed Endangered and Threatened Species in Massachusetts, there are no federally listed, threatened, or endangered species found in Lowell.

The project does require the removal of trees along the Hamilton Canal where the Hamilton Canal Walkway is proposed, however, this area is not designated as a public way, and therefore, these trees are not considered public shade trees. The project proposes to plant new trees in the area where the trees will be removed along the edge of the proposed Hamilton Canal Walkway.

This project requires an Environmental Notification Form under 301 CMR 11.03(3)(b)6 because the project involves the reconstruction of canal walls and an existing abandoned trolley bridge which together have a base area greater than 1,000 SF and the structures are located in a waterway.