

ENF Environmental Notification Form

<i>For Office Use Only</i> Executive Office of Environmental Affairs	
EOEA No.:	13201
MEPA Analyst:	Anne Canaday
Phone: 617-626-	1035

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: Intersection Improvements at Boston Road (Routes 119 & 225) at Forge Village Road (Route 225) and Sandy Pond Road in Groton		
Street: Boston Road at Forge Village Road and Sandy Pond Road		
Municipality: Groton, MA	Watershed: Merrimack	
Universal Transverse Mercator Coordinates: Start x: 198416, y: 925189 Finish x: 198056, y: 925611	Latitude: 42°34'38"N to 42°34'52"N Longitude: 71°31'09"W to 71°31'25"W	
Estimated commencement date: Summer 04	Estimated completion date: Fall '05	
Approximate cost: \$1,400,000	Status of project design: 100 %complete	
Proponent: MassHighway and the Town of Groton		
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: Lori Macdonald		
Firm/Agency: MassHighway	Street: 10 Park Plaza, Room 4260	
Municipality: Boston	State: MA	Zip Code: 02116
Phone: (617) 973-7764	Fax: (617) 973-8879	E-mail: lori.macdonald@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. _____) No
- Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:
- | | | |
|--|------------------------------|--|
| a Single EIR? (see 301 CMR 11.06(8)) | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| a Special Review Procedure? (see 301CMR 11.09) | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| a Waiver of mandatory EIR? (see 301 CMR 11.11) | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| a Phase I Waiver? (see 301 CMR 11.11) | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> 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):

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

List Local or Federal Permits and Approvals:
 Request for Determination of Applicability under the MA Wetlands Protection Act

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 type="checkbox"/> Wetlands, Waterways, & Tidelands |
| <input type="checkbox"/> Water | <input type="checkbox"/> Wastewater | <input checked="" type="checkbox"/> Transportation |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Air | <input type="checkbox"/> Solid & Hazardous Waste |
| <input checked="" 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 type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input 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 checked="" type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i> Request for Determination of Applicability under the MA Wetlands Protection Act National Pollution Discharge Elimination System Permit for Construction Projects Resulting in over 1 Acre of Earth Disturbance Title 5 Certificate of Compliance
Total site acreage	5.2 acres			
New acres of land altered		0.9 acres		
Acres of impervious area	2.9 acres	1.4 acres	4.3 acres	
Square feet of new bordering vegetated wetlands alteration		None		
Square feet of new other wetland alteration		None		
Acres of new non-water dependent use of tidelands or waterways		None		
STRUCTURES				
Gross square footage	N/A			
Number of housing units	N/A			
Maximum height (in feet)	N/A			
TRANSPORTATION				
Vehicle trips per day	18,000*	0	18,000	
Parking spaces	N/A			
WATER/WASTEWATER				
Gallons/day (GPD) of water use	N/A			
GPD water withdrawal	N/A			
GPD wastewater generation/ treatment	N/A			
Length of water/sewer mains (in miles)	N/A			

*BOSTON ROAD

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 (Specify _____) No

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

According to the Massachusetts Natural Heritage Endangered Species (MNHES) Atlas July 1, 2003, the project area falls within estimated habitat of rare wildlife (see attached map). A letter has been submitted to MNHES Program requesting their review of the proposed project.

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 (Specify _____) No

There are three inventoried late 18th/early 19th century houses on the easterly side of Boston Road that do appear to be of varying amounts of historical interest: 1.) 797 Boston Road, Loring-Duffy House (GRO.59); 2.) 785 Boston Road, Ridge Hill Tavern (GRO.57); and 3.) 15 Forge Village Road, Derby-Blodgett House (GRO.58). Each of these buildings including the whole project area is located within an inventoried area known as "The Ridges and Forge Village Road" Area (GRO.G). In our opinion, the Loring-Duffy House, 797 Boston Rd., is probably individually eligible for NR listing as an intact, somewhat unusual, Federal-style house with outbuildings. The project as currently proposed will require the taking of a long sliver of land along Forge Village Rd., and a wider arc of land at the southeasterly corner of the Boston Rd./Forge Village Rd. intersection, from the potentially NR-eligible Loring-Duffy House property. Some of the existing screen of trees along the property's Forge Village Rd. frontage will be removed, but a row of replacement trees will be planted. There will be no physical impacts upon the house, its connected outbuildings, the row of granite fence posts in front of (NW of) the house, or any other feature of the setting that appears to be of potential significance. Given the fact that the project will take a portion of the Loring-Duffy House property, but will have no physical impact on those characteristics which appear to make the property National Register-eligible and there do not appear to be any National Register-eligible archeological resources within the project area, we have recommended to Mass Historical Commission a finding of No Adverse Effect for the proposed project's impacts on historic/archaeological resources. (Source: MassHighway Cultural Resource Unit Review).

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

Yes (Specify _____) No

The Chinese restaurant scheduled for demolition is a modern structure of no apparent historical interest. (Source: MassHighway Cultural Resource Unit Review).

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

Yes (Specify Work north and west of the intersection will occur within the Petapawag Area of Critical Environmental Concern)

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.*)

Boston Road (Route 119/225) at Forge Village Road (Route 225) and Sandy Pond Road is a four-way intersection in Groton located approximately 3 miles (5 kilometers) northwest of Interstate Route 495. Route 119 is an east/west route that is shared with Route 225 to the north of its intersection of Sandy Pond Road and Forge Village Road (Route 225). Within the project limits, Route 119 and Route 225 are classified as "Rural Minor Arterials" by the "Geographical Information System for Highway Functional Classifications". The average daily traffic on Boston Road was recorded in 1999 to be 18,800 vehicles and is projected to increase to 27,950 vehicles per day in the year 2019. The land uses at this location are commercial and residential. The proposed work north and west of the intersection is located within the Petapawag Area of Critical Environmental Concern. The proposed project will widen the roadway by 4 feet or more for a ½ mile or more in distance.

Project Limits: The limits of work on Boston Road (Route 119/225) begin approximately 670 ft. (200m) southeast of its intersection with Forge Village Road and Sandy Pond Road and ends 1,180 ft. (360m) north of the Forge Village Road/Sandy Pond Road intersection at Shelters Road. Whiley Road, which is located about 260 ft. (80m) northwest of the project intersection, forms a "T" intersection with Route 119 (Boston Road). The limits of the project also include approximately 460 ft. (140m) of Sandy Pond Road, 560 ft. (170m) of Forge Village Road (Route 225), and 390 ft. (120m) of Whiley Road. In total, the project involves approximately 0.6 mile (1010 m) of roadway work.

Purpose and Need: During the late 1990's, the Town of Groton, in cooperation with the Massachusetts Highway Department and the local Planning Agency, identified the intersection of Route 119 (Boston Road) at Route 225 (Forge Village Road) and Sandy Pond Road as one that was presently experiencing high traffic volumes and one that would continue to experience increasing volumes for future years. The No-Build traffic capacity analysis indicates that during both AM and PM peak hours the minor approaches at the project intersections operate at unacceptable levels of service under 1999 Existing and 2019 Design Year conditions, with significant vehicle queues and delays.

Existing Intersection Conditions: The established state highway layout along Boston Road (Route 119/225), Forge Village Road (Route 225) and Sandy Pond Road have widths of 50 feet (ft.) (15.24 meters (m)). All approaches to this intersection currently provide one general-purpose lane in each direction. Each minor approach has a flashing red signal, while the Boston Road approaches have a flashing yellow signal. The Boston Road travel lanes vary in width from approximately 12 ft. (3.7m) to 12.5 ft. (3.8m). The Sandy Pond Road travel lanes are approximately 11.5 ft. (3.5m) wide and the Forge Village Road (Route 225) westbound lane flares out from approximately 12.5 ft. (3.8m) to 21.5 ft. (6.6m) wide at its intersection with Boston Road (Route 119/225). Each approach does have a striped shoulder that is less than 1.5 ft. (0.5m) wide. There are currently no sidewalks or bicycle accommodations within the project area.

Proposed Improvements: Work will include full depth pavement widening and grading along the eastbound side of Route 119 (Boston Road) for the entire length of the project to provide two 3.75 m travel lanes in each direction, a 12.3 ft. (3.75m) exclusive left turn lane from Boston Road (Route 119), westbound, onto Sandy Pond Road, a 12.3 ft. (3.75m) exclusive left turn lanes from Boston Road eastbound onto Forge Village Road and from Boston Road westbound into the Boston Road Market Place. Channelized right turn lanes from Boston Road onto Forge Village Road and Sandy Pond Road will be constructed to accommodate for the skew of the intersection. The operation and safety of the intersection will be improved by realigning Sandy Pond Road to form a "T" intersection with Boston Road and Forge Village Road. Sandy Pond Road will be widened to accommodate a 12.3 ft. (3.75m) general-purpose lane and 12.3 ft. (3.75m) exclusive left turn lane entering the intersection and a 14.8 ft. (4.5m) lane exiting the intersection in addition to the channelized lane mentioned above. Forge Village Road will

undergo full depth pavement widened/reconstruction to accommodate a 12.3 ft. (3.75m) exclusive right turn lane and a 12.3 ft. (3.75m) general purpose lane entering the intersection and a 12.3 ft. (3.75m) lane exiting the intersection in addition to the channelized lane mentioned above. Whiley Road will be widened to accommodate an exclusive right turn lane and exclusive left turn lane onto Boston Road. Outside paved shoulders are proposed for all roadways and widths will vary between 2.5 ft. (0.75m) to 9.0 ft. (2.75m) due to tapering at the intersections and at the roadway limits. Minor improvements will be made to the vertical alignments of Boston Road, Whiley Road and Sandy Pond Road. The outside shoulders will accommodate bicycles. The intersection will include bicycle detectors with signage alerting bicyclists to stop at the intersection for a GREEN signal. New handicap accessible 5 ft. (1.525m) cement concrete sidewalks are proposed within the project area. The intersection will be wired with a push button pedestrian phase. The project limits will be signed to alert motorists of pedestrians and bicycle traffic.

Other project improvements include the installation of a new fully actuated traffic signal system on a combination span wire assembly and signal posts at the project intersection. The existing pavement along Boston Road (Route 119/225), Forge Village Road (Route 225), Sandy Pond Road and Whiley Road shall be reconstructed and/or cold planed and overlaid, depending on the proposed geometry and pavement condition. Other improvements include the removal of existing and construction of new raised islands, construction of new site driveways at Boston Road Marketplace, new vertical granite curb and granite edging, installation of guardrail, slope grading, loaming and seeding, landscaping, new signing and striping, an improved closed drainage system, crosswalks at the intersection and other miscellaneous work. Construction will be completed in phases so traffic can continue through the intersection during construction. Utilities will be relocated by others. The demolition of Chinese Food Restaurant at the intersection of Sandy Pond Road and Boston Road will be required to widen and realigned Sandy Pond Road and widen Boston Road.

Portions of the proposed design include traffic mitigation related to the proposed Boston Road Marketplace to be located at the intersection of Sandy Pond Road and Boston Road which are listed in the June 30, 2003 EOE Certificate issued on the Single EIR for the proposed development (EOEA #12880 Certificate Attached). In addition to the proposed design commitments, Boston Road Marketplace has agreed to include Traffic Demand Management Program measures in their design including: an on-site transportation coordinator, ride-matching program, preferential parking for ridesharing, bicycle racks/storage, and an ATM.

Alternatives Analysis: During the preliminary stages of the project, several alternatives were explored with the purpose of improving traffic operations at the intersection. These alternatives varied in design and type and included the implementation of a roundabout at the four way project intersection, the implementation of a larger roundabout to include Whiley Road, located just to the northwest of the project intersection, the realignment of Sandy Pond Road to form a four way intersection with Whiley Road and allowing Forge Village Road to "T" into Route 119 (Boston Road), and finally the present alternative of signalization at the project intersection. Each of these alternatives were analyzed with regards to cost, operation, impacts to both the right of way and private property, impacts to sensitive areas, and finally the alternative's aesthetics and how it fit in with the Town of Groton's future plans. Most of the alternatives resulted in impacts to large portions of private property, thus making them costly and, therefore, undesirable. It was eventually determined that by signalizing the intersection, while basically maintaining the intersection's existing geometry, provided the most cost effective solution with the most improved traffic operation while minimizing right of way and private property impacts.