

ENF Environmental Notification Form

For Office Use Only
 Executive Office of Environmental Affairs

EOEA No.: 14210
 MEPA Analyst: Nick ZAVOLAS
 Phone: 617-626- 1030

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: I-495/I-290/Route 85 Interchange Improvement Project		
Street: I-495/I-290/Route 85		
Municipality: Hudson/Marlborough	Watershed: Concord	
Universal Transverse Mercator Coordinates: 19 286747E 4693078N	Latitude: 42.3646507 N	Longitude: 71.5896530 W
Estimated commencement date: 2014	Estimated completion date: 2016	
Approximate cost: \$31,000,000 (2007 dollars)	Status of project design: Pre-25 Percent	
Proponent: Massachusetts Highway Department		
Street: 10 Park Plaza		
Municipality: Boston	State: MA	Zip Code: 02116
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Catherine Rilla		
Firm/Agency: Massachusetts Highway Dept.	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. _____) 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 301CMR 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): MassHighway projects are typically 80 percent federally funded and 20 percent state funded

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

List Local or Federal Permits and Approvals:
NEPA Categorical Exclusion, Section 401 Water Quality Certification, Section 404 Permit, Section 106 Clearance, MA Wetlands Protection Act Order of Conditions, EPA National Pollution Discharge Elimination System (NPDES) 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 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 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 type="checkbox"/> Chapter 91 License <input checked="" 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	145 acres			
New acres of land altered		5.6 acres		
Acres of impervious area	27.5 acres	0.5 acres*	28.0 acres	
Square feet of new bordering vegetated wetlands alteration		<5,000 sf		
Square feet of new other wetland alteration		7,000 sf BLSF		
Acres of new non-water dependent use of tidelands or waterways		0		
STRUCTURES				
Gross square footage				
Number of housing units				
Maximum height (in feet)				
TRANSPORTATION				
Vehicle trips per day				
Parking spaces				
WATER/WASTEWATER				
Gallons/day (GPD) of water use				
GPD water withdrawal				
GPD wastewater generation/ treatment				
Length of water/sewer mains (in miles)				

* Assumes removal of ramps to be replaced

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 (See Appendix B)

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 (Robin Hill Cemetery listed in the National Register of Historic Places) No

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

Yes (Specify _____) No

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) is proposing the I-495/I-290/Route 85 Interchange Improvement Project in Marlborough and Hudson (see Figures 1 and 2). Interchange 26 is in Marlborough, one quarter mile south of the Hudson Town Line, and serves traffic from I-495, I-290, and Route 85. The purpose of the project is to relieve traffic congestion and improve safety at the interchange.

Ongoing commercial and residential growth in this area has resulted in severe traffic congestion, especially during peak hours. Interchange 26 accommodates 168,000 vehicles per day (VPD), including approximately 95,000 VPD on I-495 and 73,000 VPD on I-290.

Interchange 26 experiences Level of Service (LOS) F conditions at two exit ramps and two entrance ramps during the evening peak hours and experiences LOS F conditions at one exit ramp and one entrance ramp during the morning peak hours. This congestion is forecast to worsen in the future as traffic in the area increases. In the year 2020, five entrance or exit ramps will experience LOS F conditions during morning and evening peak hours. The 1999 and 2020 LOS conditions at Interchange 26 are depicted on Figures 2 and 3, respectively.

In addition to traffic congestion, this interchange is a high accident location, especially involving trucks along the interchange ramps. The tight turning radii of the ramps (particularly at the I-290 eastbound to I-495 northbound ramp, which has a posted speed limit of 20 mph because of its substandard curve) contribute to a high number of traffic accidents. There were 246 accidents at this interchange between 1999 and 2001 with 84 causing a personal injury and 162 causing property damage. Numerous truck rollovers and rear-end collisions have occurred at the I-495/I-290/Route 85 Interchange despite the signs and lighting mechanisms placed on the ramps to warn drivers of the approaching turn. This accident rate is 33 percent higher than the state average for a highway interchange ramp. In addition to the I-290 eastbound to I-495 northbound ramp, the I-495 southbound to I-290 westbound ramp, the I-495 northbound to I-290 westbound ramp, and the I-290 eastbound to I-495 southbound ramp all have tight turning radii that contribute to traffic accidents and congestion.

As depicted on Figure 2, environmental resources within the project area include wetland and floodplain areas adjacent to the Assabet River, approximately 500 feet north of the interchange. An Interim Wellhead Protection Area (which surrounds the Rimkus Well, a public well in the Town of Hudson), is east of I-495 adjacent to the Assabet River. MassHighway will seek to minimize harm to these areas during project design.

Conservation land, owned by the City of Marlborough and known as the Paternoster Land, lies south of I-290, east of Bigelow Street. Also present within the project area is the Robin Hill Cemetery, southeast of the I-495 southbound to I-290 westbound ramp.

The Robin Hill Cemetery is listed in the National Register of Historic Places. MassHighway does not intend for the project to affect any land in the Robin Hill Cemetery. If necessary, retaining walls will be constructed between the new interchange ramps and the cemetery to avoid impact to the cemetery. MassHighway's Cultural Resources Staff will review this project with coordination with the MA State Historic Preservation Officer for historic and archeological impacts under the amended 2004 Section 106 Programmatic Agreement.

The Massachusetts Highway Department's Bureau of Transportation Planning and Development (MassHighway Planning) initiated the highway planning process by conducting a traffic study, titled *Route 85 Transportation Study*, in response to transportation needs identified by the City of Marlborough and the Town of Hudson. The purpose of the study was to collect data on existing and future traffic conditions at the interchange and to develop alternatives for the improvement of traffic operations and safety. The overall goal of the study was to reach agreement among MassHighway, the City of Marlborough, the Town of Hudson, and other interested parties on how to best address the congestion and safety problems at the interchange and nearby roadways.

MassHighway used two outreach methods to receive comments and input from the public. These methods included establishing an interagency group and holding public meetings. For the interagency group meetings, MassHighway's Planning and District 3 staff coordinated with the Town of Hudson's Departments of Public Works and Administration, the City of Marlborough's Planning Department and Department of Public Works, and the Metropolitan Area Planning Council. The interagency group established goals for the project, created evaluation criteria for use during the alternative analyses, reviewed existing conditions, performed alternative analyses, and drafted a set of recommendations. The evaluation criteria used to rate the alternatives were impact on traffic congestion, improvement of safety, effect on adjacent neighborhoods, effect on the environment, impact to local businesses, projected costs of construction, and proposed schedule of completion. MassHighway considered public comment on the process, analysis, and recommendations of the traffic study. Two public meetings were held; the first in October 1999, when the study began, and the second in July 2001, after the study had finished.

During the development of MassHighway's traffic study, four alternative designs (Appendix A) were developed to improve traffic operations and safety at Interchange 26. Based on existing and forecasted traffic counts, four interchange ramps in Interchange 26 required improvements. These ramps were the I-495 southbound to I-290 westbound ramp, I-495 northbound to I-290

westbound ramp, I-290 eastbound to I-495 northbound ramp, and the I-290 eastbound to I-495 southbound ramp.

The four alternatives and the No Build alternative were evaluated against the criteria established by the interagency group. After coordinating review of the alternatives with the interagency group, Alternative 1 (Figure 4) was chosen as the preferred alternative.

Alternative 1 (Figure 4) involves the reconstruction of five ramps to improve the geometry and increase the capacity of Interchange 26. This alternative would improve the LOS of the interchange from E/F to an LOS of A/B. Major construction elements of Alternative 1 include:

- Construction of a two-lane flyover ramp from I-290 eastbound to I-495 northbound, including construction of a new or expanded bridge over the Assabet River and a realignment of the Route 85 westbound to I-495 northbound ramp.
- Construction of a two-lane flyover ramp from I-495 northbound to I-290 westbound. This ramp would merge on the left side of I-290 westbound beyond the merge area of the I-495 southbound to I-290 westbound entrance ramp.
- Realignment of the I-495 southbound to I-290 westbound ramp.
- Realignment of the I-290 eastbound to I-495 southbound ramp.

Alternative 2 (Figure 5) consists of constructing a two-lane, left hand flyover ramp from I-290 eastbound to I-495 northbound and constructing a two-lane flyover ramp from I-495 northbound to I-290 westbound. Alternative 2 also involved the realignment of the I-495 southbound to I-290 westbound ramp. While this alternative did improve traffic congestion at Interchange 26 and safety at the I-495 southbound to I-290 westbound ramp and at the I-290 eastbound to I-495 northbound ramps, this alternative only minimally improved safety at the I-495 northbound to I-290 westbound ramp.

Alternative 3 (Figure 6) consists of constructing a two-lane flyover ramp from I-290 eastbound to I-495 northbound, including a new or expanded bridge over the Assabet River and a realignment of the I-290 eastbound to I-495 southbound ramp and constructing a two-lane flyover ramp from I-495 northbound to I-290 westbound, including a realignment of the I-495 northbound to Route 85 eastbound ramp. This alternative also includes the realignment of I-495 southbound to I-290 westbound ramp. While this alternative would improve congestion at Interchange 26, it was not chosen as the preferred alternative because this alternative would substantially impact the surrounding neighborhoods and would include construction within the Paternoster Conservation Land which would require approval by the Massachusetts Legislature under Article 97.

Alternative 4 (Figure 2) is not the preferred alternative because it would not alleviate traffic congestion or improve safety at Interchange 26.

Within the project site, several wetland areas (Bordering Vegetated Wetland, Bank, Riverfront Area, and Bordering Land Subject to Flooding), border the Assabet River (See Figure 2). Wetland resource impacts cannot be accurately quantified based on the planning-level design of the project to date. However, based on a GIS-level analysis of wetland resources

in the project area, the proposed project will only affect wetland resources adjacent to the bridge over the Assabet River. These impacts appear to be minor, easily under the 5,000 square foot impact level requiring the preparation of a Wetland Protection Act Variance and under the categorical inclusion threshold for an Environmental Impact Report under the Massachusetts Environmental Policy Act. MassHighway will seek to minimize impact to these resource areas during project design.

The stormwater drainage system will be designed to carry stormwater south of the interchange, away from the Interim Wellhead Protection Area. Neither the Paternoster Land nor the Robin Hill Cemetery will be affected.

In accordance with Federal Highway Administration noise regulations (23 CFR 772), MassHighway is conducting a Type I Acoustical Analysis to determine if the proposed improvement to the I-495/I-290/Route 85 Interchange will result in noise impacts to adjacent neighborhoods. If adverse noise impacts are expected, noise mitigation will be evaluated to see if it is feasible and reasonable to be incorporated into the project.

The noise analysis evaluated sound levels from vehicle traffic under 2020 No-Build and 2020 Build Conditions. The results of the noise analysis demonstrated that several receptor locations currently exceed the Noise Abatement Criteria and, while the proposed roadway improvements will result in small reductions in sound levels at the receptor locations, two receptor locations will continue to exceed the Noise Abatement Criteria. A noise barrier was evaluated as a mitigation measure to reduce sound levels at these impacted receptor locations. This evaluation determined that a noise barrier would not provide the minimum noise reduction to more than a few receptor locations. Therefore, the proposed noise barrier was found to not be feasible and reasonable and does not meet MassHighway's guidelines for noise mitigation.

DEP release sites have been identified in the area, based on a preliminary review it is possible that they may impact the project.

By improving existing transportation infrastructure, the I-495/I-290/Route 85 Interchange Improvement Project complies with the Commonwealth's Fix-It-First Policy. The Fix-It-First Policy is a statewide commitment to the repair and maintenance of infrastructure, such as roads, bridges, transit systems, public housing, historic structures, and public parks.

The proposed project exceeds MEPA review thresholds for Transportation. In accordance with the MEPA regulations (301 CMR 11.03 (6)(b)1.b); an ENF is required because the project requires the widening of an existing roadway for one-half or more miles; and alters terrain ten or more feet from the existing roadway for one-half or more miles.