



**Environmental**

**Notification Form**

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.

<i>For Office Use Only</i> Executive Office of Environmental Affairs	
EOEA No.:	<u>13710</u>
MEPA Analyst:	<u>Beiona Angus</u>
Phone:	617-626- <u>10219</u>

Project Name: <b>Shutesbury Roadway Reconstruction Project</b>		
Street: <b>Leverett, Cooleyville, &amp; Prescott Roads</b>		
Municipality: <b>Shutesbury</b>	Watershed: <b>Chicopee and CT River Basins</b>	
Universal Transverse Mercator Coordinates: <b>Zone 19 251535 E, 4654131 N</b>	Latitude: <b>42°28' 897N</b>	Longitude: <b>72°25' 854W</b>
Estimated commencement date: <b>2006</b>	Estimated completion date: <b>2006</b>	
Approximate cost: <b>\$2.9 million dollars</b>	Status of project design: <b>75% complete</b>	
Proponent: <b>Massachusetts Highway Department</b>		
Street: <b>Ten Park Plaza</b>		
Municipality: <b>Boston</b>	State: <b>MA</b>	Zip Code: <b>02116</b>
Name of Contact Person From Whom Copies of this ENF May Be Obtained: <b>Patrick Leahy, Environmental Analyst</b>		
Agency: <b>MassHighway</b>	Street: <b>Ten Park Plaza, Room 4260</b>	
Municipality: <b>Boston</b>	State: <b>MA</b>	Zip Code: <b>02116</b>
Phone: <b>617.973.8245</b>	Fax: <b>617.973.8879</b>	E-mail: <b>patrick.leahy@mhd.state.ma.us</b>

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 Department to pay 20% (\$550K - \$600K) of the construction**

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

List Local or Federal Permits and Approvals: **Federal: National Environmental Policy Act (NEPA) Review/Categorical Exclusion Checklist; Army Corps of Engineers Section 404 Massachusetts Programmatic General Permit Category 1; National Pollution Discharge Elimination System Construction General Permit**

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

**An ENF is required for this project pursuant to 301 CMR 11.03 (6) (b) 2. a, & 301 CMR 11.03 (6)(b) 2. b.**

- |                                 |                                       |  |
|---------------------------------|---------------------------------------|--|
| <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
<b>LAND</b>				<input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input checked="" type="checkbox"/> Section 401 Water Quality Certification <input type="checkbox"/> Chapter 91 License <input type="checkbox"/> MHD or MDC Access Permit <input type="checkbox"/> Water Management Act Permit <input checked="" type="checkbox"/> Section 404 Army Corps of Engineers PGPI <input type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input checked="" type="checkbox"/> Other Permits (including Legislative Approvals) – Specify: <b>Town approval, MassHighway Approval and Right-of-Way Certificate</b>
Total site acreage	<b>19.0 ac. +/-</b>			
New acres of land altered		<b>5.2 ac. +/- (2.5 acres temporary)</b>		
Acres of impervious area	<b>8.36 ac. +/-</b>	<b>0.70 ac. +/-</b>	<b>9.06 ac. +/-</b>	
Square feet of new bordering vegetated wetlands alteration		<b>15 ft<sup>2</sup></b>		
Square feet of new other wetland alteration		<b>482</b>		
Acres of new non-water dependent use of tidelands or waterways		<b>N/A</b>		
<b>STRUCTURES</b>				
Gross square footage	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	
Number of housing units	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	
Maximum height (in feet)	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	
<b>TRANSPORTATION</b>				
Vehicle trips per day (2001)				
<b>Leverett Road</b>	<b>1,862</b>	<b>125</b>	<b>1,987*</b>	
<b>Cooleyville / Prescott Road</b>	<b>950</b>	<b>65</b>	<b>1,015</b>	
Parking spaces	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	
<b>WASTEWATER</b>				
Gallons/day (GPD) of water use	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	
GPD water withdrawal	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	
GPD wastewater generation/ treatment	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	
Length of water/sewer mains (in miles)	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	

\* The anticipated increase in traffic volumes is due to background growth & not a result of the proposed roadway improvements.

**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  No **According to the Natural Heritage & Endangered Species Program letter dated January 27, 2005, they are not aware of any rare plants or animals in the vicinity of the proposed project site. (Specify: Please refer to attached NHESP letter)**

**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 (**Inventoried Historic and Archaeological Assets**)  No

**Based on the nature of the proposed work, it appears that the Leverett, Cooleyville, and Prescott Roads Reconstruction Project will not adversely affect the character-defining features of the National Register-eligible Shutesbury Center Historic District or any of the other NR-eligible properties along the roadway corridor. In compliance with Section 106 of the National Historic Preservation Act of 1966 as amended (36 CFR 800), MassHighway's Cultural Resource Unit (CRU) has coordinated its project review with the MA State Historic Preservation Officer (SHPO) for potential project impacts and their concurrence is expected with the No Adverse Effect finding.**

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, in conjunction with the Town of Shutesbury, is proposing to reconstruct Leverett, Cooleyville and Prescott Roads from Pratt Corner Road east to Route 202, a distance of 2.8 miles in Shutesbury, Massachusetts. This project is part of MassHighway's Footprint Roads Pilot Program, which was established to help towns preserve and enhance historic character, environmental assets and other unique community characteristics when implementing necessary roadway improvements. Work under this program consists primarily of roadway improvements that follow the existing horizontal and vertical alignments ("Footprint") of the project roadway. The project also reflects the goals of the Commonwealth's Fix-It-First Priorities and Community First Design Policy. This ENF is being submitted to the Secretary of Environmental Affairs pursuant to the Massachusetts Environmental Policy Act (MEPA) Regulations because the project involves the "...maintenance of a roadway or right-of-way that will alter the bank or terrain located ten or more feet from the existing roadway for one-half or more miles" (301 CMR 11.03 (6) (b) 2. a.), and "...maintenance of a roadway or right-of-way that will cut five or more living public shade trees of 14 or more inches in diameter at breast**

height" (301 CMR 11.03 (6)(b) 2. b.).

**EXISTING CONDITIONS:** Leverett, Cooleyville and Prescott Roads are functionally classified as Major Rural Collectors within the project area. The roadways are owned and maintained by the Town of Shutesbury. The existing roadway width varies from 21 to 25 feet, with lanes typically 10.5 feet and shoulders ranging between 0-2 feet. The existing right-of-way widths for Leverett and Cooleyville Roads is approximately 50 feet, and the existing right-of-way width for Prescott Road is approximately 60 feet. The surrounding area has primarily rural residential land use with limited commercial, institutional, and agricultural uses.

In numerous locations throughout the project area, the existing road base is insufficient and/or exhibits poor drainage characteristics. Predominant forms of pavement distress include high severity transverse and longitudinal cracking, and widespread "alligator" cracking. Currently, this entire roadway has only partial, inadequate stormwater drainage systems. Surface drainage from the roadway flows down numerous driveways. The drop inlets located within the project limits do not have grates; consequently, silt build-up is a recurring problem, making frequent maintenance necessary. In addition, many of the drainage pipes, cross-culverts, and headwalls in the project area exhibit considerable deterioration. The combination of a lack of sufficient drainage and non-functional catch basins has resulted in significant ponding of stormwater runoff into several residential yards and damage of personal property (one resident's garage fills with water after storm events and in winter the water freezes forming ice in the garage).

**PURPOSE & NEED:** The purpose of this project is to address the structural deterioration of Leverett, Cooleyville and Prescott Roads, and to address the numerous drainage deficiencies along this critical east-west roadway. The goal of the project is to reduce the need for frequent, high-cost maintenance, while protecting the area's environmental and cultural resources, maintaining the area's scenic qualities, and maintaining the quality of life for residents who live in and travel through the project area.

**PROPOSED IMPROVEMENTS:** The work to be performed under this contract consists of the reconstruction of approximately 2.8 miles of Leverett, Cooleyville and Prescott Roads, three roadways that form a continuous east-west route in Shutesbury, Massachusetts. Work will start at the intersection of Leverett and Pratt Corner Road, and end at the intersection of Cooleyville Road and Route 202. This project will involve one (1) small Fee Acquisition at an intersection, and eight (8) small permanent easements for drainage purpose. The easements will occur on private property with no changes in access control. Please refer to the attached locus map.

The rehabilitation of these roadways will consist of crushing, pulverizing and blending the existing pavement structure and a specified depth of the underlying sub-base material. This material will be re-used as sub-base material for the new pavement structure, which will consist of a 3 ½ inch base course, a 1¾ inch binder course, and a 1¾ inch top course.

In some of the denser residential areas, reclaimed material will be temporarily removed to allow for the excavation and removal of the underlying material. The result will be a roadway profile 4 to 8 inches lower than the existing roadway profile, which will address some of the aforementioned drainage problems.

The project also includes extensive drainage improvements. The existing closed drainage systems will be completely replaced, and new Type A asphalt berms ("Cape Cod" berms) will be installed along the roadway edges to control roadway runoff and direct it to the new deep sump catch basins. Some of these systems will be expanded from what currently exists at locations where it is desirable to direct

the roadway surface drainage to more appropriate outlets points. In several areas, an open drainage scheme is being proposed, with vegetated water quality swales conveying and dissipating stormwater. A bio-retention basin is also proposed at the junction of Cooleyville and Prescott Roads to help better direct and treat stormwater. Additional work includes the replacement of existing cross culverts and headwalls, and the removal of 13 trees in order to improve sight distance.

Once the final paving is completed, new thermoplastic pavement markings will be installed. All traffic signs within the project limits will be replaced, and new ones will be installed where warranted. New street signs will be installed at all intersecting side streets. New guard rail meeting current standards for crashworthiness will be installed where necessary.

**ENVIRONMENTAL IMPACTS:** Portions of the proposed work are within areas protected by the Massachusetts Wetlands Protection Act and a Notice of Intent (NOI) was filed with the Shutesbury Conservation Commission. The Commission has reviewed the NOI for this project and the public hearing closed October 27, 2005. The Commission will issue the Order of Conditions in November of 2005. The majority of the project will result in only temporary impacts to the 100-foot buffer zone and resource areas, as most of the work will occur in the existing roadway right-of-way. The roadway reconstruction and the installation of drainage structures will temporarily impact the 100-foot buffer zone and approximately 40,369 ft<sup>2</sup> of previously disturbed riverfront area. However, in accordance with the MWPA listed at 310 CMR (6) (a) the installation of stormwater structures/utilities and road reclamation projects are exempt from the riverfront performance standards. Erosion controls will be installed and maintained adjacent to the proposed work areas to protect wetlands and other resources during construction

The culvert replacement portions of this project will permanently impact 15 ft<sup>2</sup> of Bordering Vegetated Wetland (BVW), 85 linear feet of Bank and will convert 482 ft<sup>2</sup> of Land Under Water (LUW) to culvert bottom. A 160 ft<sup>2</sup> wetland replication area is proposed at the corner of Montague and Leverett Roads in order to mitigate for the permanently impacted 15 ft<sup>2</sup> of BVW. The two perennial stream culvert replacements were designed in compliance with the General Standards defined in the Massachusetts River and Stream Crossing Standards: Technical Guidelines to the maximum extent practicable. The following standards were met:

- If a culvert, then it should be embedded greater than or equal to 25% for pipe culverts;
- Natural bottom substrate within culvert (matching upstream and downstream substrates)
- Designed to provide water depths and velocities at low flow that are comparable to those found in upstream and downstream natural stream segments.

Due to the nature of the stream crossings underneath the existing roadway, and the shallow depth of pipe cover, it was not feasible to provide a culvert span wide enough for an openness ratio of greater than or equal to 0.25, or to approximate the bank full width. The project is designed with the goals of providing river and stream continuity, fish and other aquatic organism passage as well as wildlife passage through the culverts. The designed culvert installations will greatly improve upon the existing conditions of the perennial stream crossings along the project corridor.

Portions of the roadway are adjacent to BVW associated with the Quabbin Reservoir, which is considered an Outstanding Resource Water (Massachusetts Surface Water Quality Standards, 1995). Near Route 202, the roadway travels through land owned by the Department of Conservation and Recreation (DCR). MassHighway and the Town of Shutesbury have coordinated extensively with DCR regarding the proposed roadway reconstruction and have incorporated the agency's concerns into the design plans. This project is exempt from the Massachusetts Watershed Protection Act listed at 350

**CMR 11.05 (8). Therefore, a permit from DCR is not required for this project.**

**Alternatives Analysis:** This project is part of MassHighway's Footprint Roads Pilot Program, which was established to help towns preserve and enhance their historic character, environmental assets and rural community characteristics when implementing necessary roadway improvements. Work under this program should consist primarily of roadway improvements within the existing "footprints" of the project roadways. Therefore, horizontal/vertical roadway alignments were not presented as alternatives. The only alternatives evaluated were related to drainage. Ultimately, the locations of berms, ditches, swales, closed drainage systems, and the detention basin were designed to improve upon and to address the issues with the current drainage system while minimizing impacts to existing features such as trees and lawns.

**LAND SECTION – all proponents must fill out this section**

**I. Thresholds / Permits**

- A. Does the project meet or exceed any review thresholds related to land (see 301 CMR 11.03(1))  
 Yes (Specify \_\_\_\_\_)     No

**II. Impacts and Permits**

- A. Describe, in acres, the current and proposed character of the project site, as follows:

	<u>Existing</u>	<u>Change</u>	<u>Total</u>
Footprint of buildings	0	0	0
Roadways, parking, and other paved areas	8.36	0.70	9.06
Other altered areas (describe)	0	5.2	5.2*
Undeveloped areas	0	0	9.94

**\*This is the area between the edge of road and the edge of the work limit. Approximately, 2.5 acres of the 5.2 acres will be temporarily disturbed.**

- B. Has any part of the project site been in active agricultural use in the last three years?  
 Yes (Specify \_\_\_\_\_)     No; if yes, how many acres of land in agricultural use (with agricultural soils) will be converted to nonagricultural use?
- C. Is any part of the project site currently or proposed to be in active forestry use?  
 Yes (Specify \_\_\_\_\_)     No; if yes, please describe current and proposed forestry activities and indicate whether any part of the site is the subject of a DEM-approved forest management plan:
- D. Does any part of the project involve conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth to any purpose not in accordance with Article 97?  Yes (Specify \_\_\_\_\_)     No; if yes, describe:
- E. Is any part of the project site currently subject to a conservation restriction, preservation restriction, agricultural preservation restriction or watershed preservation restriction?  Yes  No; if yes, does the project involve the release or modification of such restriction?  Yes  No; if yes, describe:
- F. Does the project require approval of a new urban redevelopment project or a fundamental change in an existing urban redevelopment project under M.G.L.c.121A?  Yes  No; if yes, describe:
- G. Does the project require approval of a new urban renewal plan or a major modification of an existing urban renewal plan under M.G.L.c.121B? Yes  No ; if yes, describe: