**Commonwealth of Massachusetts**
***Executive Office of Environmental Affairs ■ MEPA Office***

# ENF Environmental Notification Form

*e For Office Use Only*
*Executive Office of Environmental Affairs*
EOEA No.: 14159
MEPA Analyst: Bill Gage
Phone: 617-626-1025

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-93/Lowell Junction Interchange Project** | | |
| Street: **I-93** | | |
| Municipality: **Andover/Tewksbury/Wilmington** | | Watershed: **Merrimack** |
| Universal Transverse Mercator Coordinates: **19 321854 E 4719087 N** | | Latitude: **42.60° N** Longitude: **71.17 W** |
| Estimated commencement date: **2013** | | Estimated completion date: **2018** |
| Approximate cost: **$44,000,000- $59,000,000 (2006 construction cost estimate)** | | Status of project design: **5 Percent Complete** |
| Proponent: **Massachusetts Highway Department and the Executive Office of Housing and Economic Development** | | |
| Street: **10 Park Plaza** | | |
| Municipality: **Boston** | State: **MA** | Zip Code: **02116** |
| Name of Contact Person From Whom Copies of this ENF May Be Obtained: **John Fallon** | | |
| Firm/Agency: **Massachusetts Highway Dept.** | Street: **10 Park Plaza, Room 4260** | |
| Municipality: **Boston** | State: **MA** | Zip Code: **02116** |
| Phone: **617-973-7408** | Fax: **617-973-8879** | E-mail: **john.fallon@mhd.state.ma.us** |

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)? ☒Yes ☐No
**11.03 (6)(a)2. New interchange on a completed limited access highway and**
**11.03 (3)(a) 1.a. Alteration of one or more acres of bordering vegetated wetland.**

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): **Projects funded by MassHighway 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: **NEPA review with FHWA**) ☐No

List Local or Federal Permits and Approvals: **Section 106 of the National Historic Preservation Act, National Environmental Policy Act (Environmental Impact Statement), Section 401 Water Quality Certification, Section 404 Permit, NPDES Construction General Permit**

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

| | | |
|---|---|---|
| ☒ Land | ☐ Rare Species | ☒ Wetlands, Waterways, & Tidelands |
| ☐ Water | ☐ Wastewater | ☒ Transportation |
| ☐ Energy | ☐ Air | ☐ Solid & Hazardous Waste |
| ☐ ACEC | ☐ Regulations | ☐ Historical & Archaeological Resources |

| Summary of Project Size & Environmental Impacts | Existing | Change | Total |
|---|---|---|---|
| **LAND** | | | |
| Total site acreage | 314.5 acres | | |
| New acres of land altered | | 13.3 to 36.4 acres | |
| Acres of impervious area | 0 | 5.6 to 18.5 acres | 5.6 to 18.5 acres |
| Square feet of new bordering vegetated wetlands alteration | | 2.9 to 6.0 acres | |
| Square feet of new other wetland alteration | | 0 to 3.0 acres of BLSF | |
| Acres of new non-water dependent use of tidelands or waterways | | None | |
| **STRUCTURES** | | | |
| Gross square footage | | | |
| Number of housing units | | | |
| Maximum height (in feet) | | | |
| **TRANSPORTATION** | | | |
| Vehicle trips per day | I-93 -136,000 | | I-93 -136,000 |
| Parking spaces | | | |
| **WASTEWATER** | | | |
| Gallons/day (GPD) of water use | | | |
| GPD water withdrawal | | | |
| GPD wastewater generation/ treatment | | | |
| Length of water/sewer mains | | | |

**State Permits & Approvals**

- ☒ Order of Conditions
- ☒ Superseding Order of Conditions
- ☐ Chapter 91 License
- ☒ 401 Water Quality Certification
- ☐ MHD or MDC Access Permit
- ☐ Water Management Act Permit
- ☐ New Source Approval
- ☐ DEP or MWRA Sewer Connection/ Extension Permit
- ☐ Other Permits (*including Legislative Approvals*) – Specify:

Variance

**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 **Project is within Estimated Habitat (EH 796) and Priority Habitat (PH 380)** ) ☐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 (Specify_____) ☒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

The Massachusetts Highway Department (MassHighway) and the Executive Office of Housing and Economic Development (EOHED) are proposing to construct a new interchange on Interstate 93 (I-93) in the Towns of Andover, Tewksbury, and Wilmington. The new interchange is proposed between the I-93/Route 125 Interchange in Wilmington and the I-93/Dascomb Road Interchange in Andover in an area referred to as Lowell Junction (see Figures 1 and 2). The purpose of the project is to relieve traffic congestion on I-93 and adjacent local roadways and to improve access to industrial and commercial developments, as well as to undeveloped land suitable for industrial and commercial development.

Currently, access from the south to businesses in the Lowell Junction area (east of I-93) is via the I-93/Route 125 Interchange (Interchange 41) to Ballardvale Street (a local, partially residential roadway north of Route 125). From the north, access to the Lowell Junction area is via the I-93/Dascomb Road Interchange (Interchange 42) to Dascomb Road, Clark Road, Andover Street, River Street and, finally, Ballardvale Street. This series of roadways, from Interchange 42 south to the numerous businesses in the Ballardvale Street area, is approximately 3.5 miles long. These narrow, winding residential roads are unsuited for the volume of commuter traffic using them. By 2025, traffic volumes on Ballardvale Street are expected to increase during the morning peak period by 66 percent, to over 2,500 vehicles. Evening peak period traffic volumes are expected to increase by 85 percent, to almost 3,000 vehicles.

Commercial and industrial growth in the Lowell Junction area contributes to significant congestion on I-93 and local roadways during peak periods. Traffic volumes on I-93 in the project area are approximately 136,000 vehicles per day. During the morning peak period, I-93 southbound traffic between Interchanges 41 and 42 operates at Level of Service (LOS) E. Similarly, during the evening peak period, traffic volumes on I-93 between Interchanges 41 and 42 operate at LOS D. By the year 2025, morning and evening peak period traffic volumes on I-93 in the Lowell Junction area are projected to increase by 30 percent, resulting in I-93 southbound and I-93 northbound operating at LOS F during morning and evening peak periods, respectively.

In the morning and evening peak periods, motorists traveling to and from I-93 and the businesses in the Lowell Junction area experience severe traffic congestion at the exit and entrance ramps of Interchanges 41 and 42. The I-93 northbound exit and entrance ramps operate at LOS F during evening peak periods. The I-93 southbound exit and entrance ramps at Interchange 42 operate at

LOS F during morning peak periods. The I-93 northbound exit and entrance ramps at Interchange 41 operate at LOS D in the evening peak period. In both peak traffic periods, the signalized intersection at Route 125 and Ballardvale Street operates at LOS F in the morning and E in the evening. Future (2025) traffic conditions are anticipated to worsen, despite numerous planned transportation improvements (described in the next paragraph). Existing and future (2025) LOS at Interchanges 41 and 42 and various intersections in the Lowell Junction area are depicted on Figures 2 and 3.

A construction project is currently underway to improve traffic conditions at Interchange 41. An I-93 northbound entrance ramp from Route 125 westbound is being constructed. Other improvements include widening Route 125 and improved signalization at the intersection of Ballardvale Street and Route 125.

To evaluate traffic conditions and make recommendations for improving traffic operations on I-93 and the local roadway network, MassHighway and the Merrimack Valley Planning Commission undertook the *Interstate 93 Corridor Study*. An Interchange Justification Study (IJS) was also prepared to determine if a new interchange on I-93 in the Lowell Junction area was consistent with Federal Highway Administration's (FHWA's) criteria for allowing a break in access on an interstate highway.

An important part of the IJS was public participation and outreach. Outreach methods included public meetings, presentations, and the establishment of a Study Advisory Task Force. Public meetings, where public input was solicited, were held in the three towns in which the interchange would be constructed, Andover, Tewksbury, and Wilmington. Numerous presentations were made to the affected regional planning agencies (*i.e.*, the Merrimack Valley Planning Commission, the Metropolitan Area Planning Council, and the Northern Middlesex Council of Governments). In addition, numerous meetings were held with the Study Advisory Task Force which was comprised of representative key public agencies (see Appendix C). Responsibilities of the Task Force included providing input to the study, reviewing the results of various analyses, and making recommendations.

The *I-93/Lowell Junction IJS* included an analysis of ten alternatives (interchange concepts), including the No-Build Alternative, for engineering feasibility, traffic impacts, environmental resource impacts, and costs. After the evaluation of the interchange concepts, six of the nine build alternatives were eliminated from further consideration because of excessive environmental resource impacts, increased traffic on local roadways, or costs (see Appendix A for the Executive Summary of the IJS and Appendix B to view the alternatives dismissed during the IJS process). The IJS presented the three remaining alternatives (Alternative 3, Alternative 4, and Alternative 9) as preferred alternatives.

Alternative 3, Alternative 4, and Alternative 9 are described below and are depicted on Figures 4, 5, and 6. To ensure the benefits of a new interchange and to attempt to relieve traffic congestion on I-93, each alternative proposes the widening of I-93 from three lanes in each direction to four lanes in each direction between Interchanges 41 and 42.

Alternative 3

Alternative 3 is shown in Figure 4. Alternative 3, a combination trumpet and diamond interchange, provides access to I-93 from the east via a new roadway from the intersection of Research Drive and Ballardvale Street in Andover. This new roadway crosses the Haverhill Commuter Rail Line on a new bridge and, approximately 600 feet west of the intersection, provides a new connection to Burtt Road (currently a dead-end road). Approximately 800 feet further west, a signalized intersection leads to diamond-shaped interchange ramps east of I-93. A bridge over I-93 leads to

trumpet interchange ramps for I-93 southbound motorists. Alternative 3 provides access east of I-93, but not west of I-93.

Alternative 4

Alternative 4 is a diamond interchange and is shown on Figure 5. East of I-93, Alternative 4 is identical to Alternative 3. With Alternative 4, the bridge over I-93 leads to a signalized intersection west of I-93 and a diamond configuration for southbound traffic to and from I-93. The roadway west of I-93 continues and connects with South Street in Tewksbury. Two new north-south roadways, west of the I-93 southbound exit and entrance ramps, are proposed to provide access to potential future developments.

Alternative 9

Alternative 9 is an offset diamond interchange shown on Figure 6. Similar to the other two alternatives, Alternative 9 involves the construction of a roadway beginning at the intersection of Research Drive and Ballardvale Street and proceeding west to a bridge over the Haverhill Commuter Rail Line. A signalized intersection would be constructed approximately 1,400 feet west of Ballardvale Street to accommodate a new road connecting to Burtt Road. Entrance and exit ramps would be constructed to provide access to and from I-93 northbound west of this intersection. South of the Burtt Road intersection, a new roadway would be constructed. This roadway will extend south approximately one-half mile before turning west to a bridge over I-93. On the west side of I-93, this new road will travel north, parallel to I-93, for approximately 4,000 feet, ending with a signalized intersection. This intersection would lead to entrance and exit ramps providing access to and from I-93 southbound.

In a letter, dated April 5, 2007, FHWA conditionally approved added access to I-93 in the Lowell Junction area on an engineering and operational analysis basis (see Appendix D). FHWA indicated that only Alternative 3 met all the criteria contained in FHWA's Interstate Access Modification Policy.

Alternative 4 does not fully meet the FHWA Interstate Access Modification Policy because of local land use and zoning restrictions. Alternative 4 is the only alternative of the three preferred alternatives to propose access to local roadways west of I-93. Tewksbury zoning regulations preclude connection to an existing public roadway except for a connection for emergency vehicle access. This conflicts with the FHWA Interstate Access Modification Policy which requires new interchanges to be consistent with local and regional land use and transportation plans.

Alternative 9 does not meet the FHWA's Interstate Access Modification Policy because it requires unreasonable, circuitous routing of local traffic desiring to use the interchange. Excessive travel is required to gain access to Burtt Road from I-93 southbound via the interchange proposed by Alternative 9. Specifically, to travel from the I-93 southbound exit ramp, one would first encounter a signal, travel approximately three-fourths mile south, cross I-93, and travel approximately one-half mile north before reaching Burtt Road on the east side of I-93.

Development on a preferred alternative is on-going. In a letter to Senator Kennedy, dated November 29, 2007, FHWA stated, "the environmental process will involve stakeholder coordination and include the review of interchange alternative concepts that meet all criteria in the FHWA Interstate Access Modification Policy(See Appendix F)." FHWA further indicated that final approval for a new interchange in the Lowell Junction area could only be granted upon satisfactory completion of their environmental requirements (23 CFR 771).

Several large businesses, such as Proctor and Gamble and Wyeth Biotech, are east of I-93 in the project area. To the west of I-93 is a mixture of undeveloped woodland and cleared land, and a small residential development, Jennie's Way.

Environmental resources in the project area (Figure 4) include the Shawsheen River, approximately one-half mile north of the proposed interchange. The Shawsheen River is bordered by wetlands and an area of 100-year floodplain (Bordering Land Subject to Flooding (BLSF)). A linear strip of wetlands exists south of Jennie's Way. A larger area of wetland and BLSF exists south of the Tewksbury-Wilmington town boundary. Other smaller wetlands are scattered throughout the project area. The boundaries of wetland resources depicted on the attached figures are based on GIS information and limited field work. The Sutton Brook Landfill, a Superfund site (MA DEP RTN # 3-0003893), is east of South Street in Tewksbury, west of I-93. A new interchange in the Lowell Junction area may improve access for the remediation of the Sutton Brook Landfill.

Based on a MassGIS analysis and field assessment, Alternative 3 will affect approximately 2.9 acres of wetlands, Alternative 4 will affect approximately 5.3 acres of wetlands, and Alternative 9 will affect approximately 6.0 acres of wetlands. Alternative 9 will also alter approximately 3.0 acres of BLSF. The two other alternatives will not affect BLSF. During the project design, MassHighway will seek to avoid and minimize impacts on wetlands and BLSF. Permanent impacts on wetlands will be mitigated through the construction of wetland replacement areas.

The Natural Heritage and Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries & Wildlife was requested to provide information about state-listed rare species in the project area (see Appendix E). According to NHESP, the project area is within Priority Habitat (PH 380) and Estimated Habitat (EH 796) of rare, threatened, or endangered species. The NHESP database indicated two endangered species, the New Jersey Tea Inchworm and the Twilight Moth (both moths), and two species of special concern, the Frosted Elfin (a butterfly) and the Triangle Floater (a mussel), have been found in the project area. MassHighway will conduct an Endangered Species Habitat Assessment during the preparation for the EIS/EIR and will continue to work with NHESP.

In accordance with Federal Highway Administration noise regulations (23 CFR 772), MassHighway will conduct a Type I Acoustical Analysis to determine if the proposed construction of the I-93/Lowell Junction Interchange will result in noise impacts to adjacent neighborhoods. If adverse noise impacts occur, noise mitigation will be evaluated to see if it is feasible and reasonable to be incorporated into the project.

The proposed project exceeds MEPA review thresholds for Transportation, Wetlands, and Land. In accordance with the MEPA regulations (301 CMR 11.03 (6)(a)2 and 301 CMR 11.03 (3)(a)1.a), a mandatory EIR is required because the project requires the construction of a new interchange on a completed limited access highway and the alteration of one or more acres of bordering vegetating wetlands. An ENF is required pursuant to 301 CMR 11.03 (1) (b)1 because of the direct alteration of 25 or more acres of land.

All other proposed developments in the Lowell Junction area will submit separate MEPA fillings in the future, as required.

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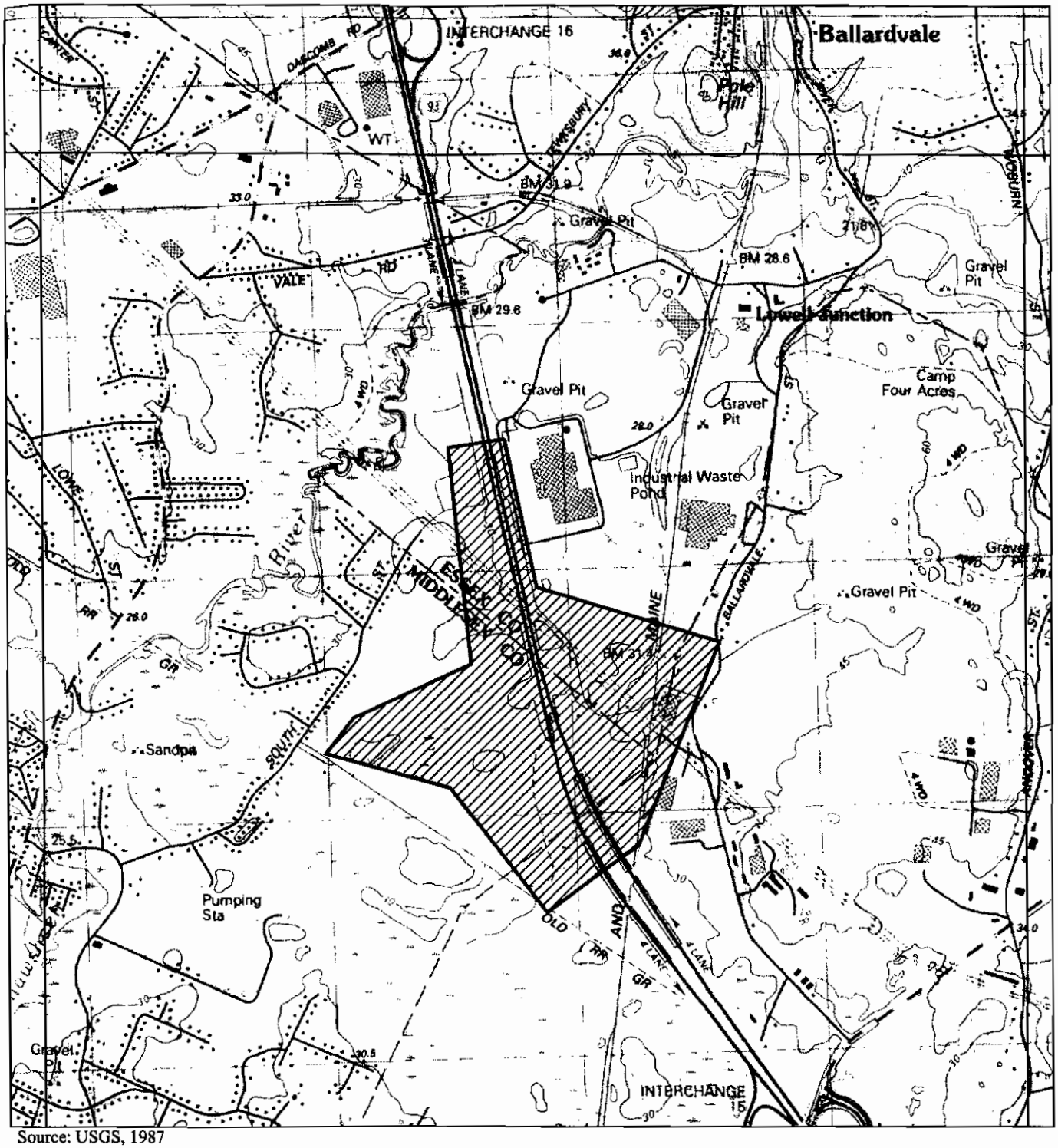


Source: USGS, 1987

Vanasse Hangen Brustlin, Inc.

Project Location Map — Figure 1
I-93/Lowell Junction Interchange Project — December 2007
Tewksbury, Wilmington, and Andover, Massachusetts

0 1000 2000 Feet

Project Area