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TO: Rebecca Tepper, Secretary
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THROUGH: Kurt Gaertner, Asst. Secretary for Environmental Policy

FROM: John DeLeire, Director of the Right of Way Bureau
Massachusetts Department of Transportation
10 Park Plaza, Suite 7160
Boston, MA

DATE: June 5, 2025

RE: M.G.L. c.3, §5A - Alternative Analysis
Reconstruction of Intersection of Route 3/3A/3A (Cambridge Road) and Bedford
Road/South Bedford Street in Woburn and Burlington

**An Act Preserving Open Space in the Commonwealth (M.G.L. c.3, §5A) –
Alternatives Analysis:**

In accordance with the Executive Office of Energy and Environmental Affairs (EEA) and the Guidance on Implementation of An Act Preserving Open Space in the Commonwealth (M.G.L. c.3, §5A) issued in February 2023, the Massachusetts Department of Transportation (MassDOT) issues the following alternatives analysis as required by M.G.L. c.3, §5A for the change of use of land related to the proposed traffic and safety improvement project at the intersection of Cambridge Road at South Bedford Street and Bedford Road in Woburn and Burlington (the “Project”). The purpose of the alternatives analysis is to demonstrate that no feasible or substantially equivalent alternative exists that avoids or further minimizes impacts to public land adjacent to the project site that is protected by Article 97 of the Massachusetts Constitution.

(i) Explain the Proposed Article 97 Action and Identify the Public Purpose that it will Serve

MassDOT proposes the Project to address a long-standing need to reduce traffic congestion, improve safety, and enhance pedestrian/bicycle mobility through the

intersection of Cambridge Road at South Bedford Street and Bedford Road in Woburn and Burlington. This Project location has been identified as a high crash location within the Metropolitan Area Planning Council (MAPC) region. The existing geometry and traffic operation present challenges for motorists, pedestrians, and cyclists. Proposed Project improvements consist of widening the existing roadways to provide adequate turn lanes, bicycle lanes, sidewalks and other Complete Streets components, in addition to installing a new traffic signal system.

- A. **PROJECT LOCATION:** Cambridge Road, South Bedford Street, and Bedford Road intersect to form a four-way signalized intersection (the "Intersection"), located in the western portion of Woburn on the Burlington town line. At the intersection, Cambridge Road approaches from the north and south, South Bedford Street approaches from the west, and Bedford Road approaches from the east. The land located on either side of South Bedford Street at the Intersection is owned by the City of Boston Department of Parks and Recreation, managed by the Trustees of Reservations and subject to Article 97.

- B. **INTERSECTION DESCRIPTION:** The Intersection is currently controlled by a semi-actuated traffic signal under the jurisdiction of MassDOT. From the north, Cambridge Road is about 30 feet wide and permits two-way travel separated by a double yellow center line (DYCL). Just north of the Intersection, the roadway contains one lane in each direction, inclusive of a channelized right-turn lane. From the south, Cambridge Road is about 33 feet wide and permits two-way travel separated by a DYCL. Although there are currently no exclusive left-turn lanes marked for the Cambridge Road northbound and southbound approaches, left-turn vehicles tend to encroach over the DYCL to avoid blocking the travel lane while waiting for a gap in the oncoming traffic.

- B. **SAFETY CONCERNS:** The Intersection of Cambridge Road, South Bedford Street, and Bedford Road is currently a top crash location within Massachusetts. The existing traffic signal operates with only two phases; the east-west and north-south movements run together with no lead or lagging phases. There is a single lane approach on Cambridge Road to the Intersection in both directions without dedicated turn lanes. Because there are no dedicated turn lanes for Cambridge Road northbound and southbound approaches, left-turn vehicles tend to encroach over the DYCL to avoid blocking the travel lane while waiting for a gap from oncoming traffic creating a safety and accident risk. Further, there is only one crosswalk at the intersection located on the east side and it is not facilitated by pedestrian

signals, push buttons, or an exclusive pedestrian phase. There are no bicycle facilities in the project vicinity and the bus stops do not meet current standards.

C. PROPOSED PROJECT IMPROVEMENTS: The Project will improve accommodations for vehicles, bicycles, pedestrians and transit as detailed below.

- Vehicular accommodation improvement includes dedicated left-turn lanes on Cambridge Road, dedicated right-turn lanes on Bedford Road and South Bedford Street, a new traffic signal system, and 11-foot-wide travel lanes and 10-foot-wide turn lanes.
- Bicycle accommodation improvement includes 5-foot-wide buffered bike lanes on Cambridge Road and 5-foot-wide separated bike lanes adjacent to the sidewalk on Bedford Road and South Bedford Street.
- Pedestrian accommodation improvement includes 5-foot-wide sidewalks on both sides of each approach, new ADA compliant pedestrian curb ramps, combines 10-foot-wide sidewalk at curb ramps and intersection corners and crosswalks on each leg of the intersection.
- Transit accommodation improvement includes new ADA compliant bus stops and bus stops optimally located with allocated space outside of travel lanes.

(ii) Identify the Alternatives Considered and Describe Why Those Alternatives Not Selected are Not Feasible or Substantially Equivalent to the Proposed Article 97 Action

As it was determined that the Intersection at Cambridge Road, South Bedford Street, and Bedford Road needed to be improved, there were two alternative designs evaluated by the design team which were a signalized intersection and a 2x2 roundabout. Both alternative designs impact Article 97 land, however, it was determined that the roundabout alternative would impact more lands protected by Article 97 than the signalized intersection. Additionally, the roundabout would result in increased the costs and scope of the project if selected. Accordingly, to minimize the impact to Article 97 protected lands, as well as limit project cost and scope, it was determined that the design would be a signalized intersection.

It should be noted that one alternative NOT considered was eliminating this intersection improvement project. The safety risk to vehicles, bicycles, pedestrians and transit necessitates intersection improvements at this time.

(iii) Equal Justice (“EJ”) Population Analysis

Environmental Justice Screening was conducted on October 2, 2023, via desktop review for the proposed intersection reconstruction located at the intersection of Cambridge Road, Bedford Road, and South Bedford Road in Woburn/Burlington, Massachusetts. The desktop review was conducted using the Executive Office of Energy and Environmental Affairs EJ Maps Viewer. The review revealed that the Project Site is located within 1 mile of the following Minority Environmental Justice populations:

- Block Group 1, Census Tract 3324.02, Middlesex County, Massachusetts
- Block Group 1, Census Tract 3322.01, Middlesex County, Massachusetts
- Block Group 2, Census Tract 3322.02, Middlesex County, Massachusetts
- Block Group 4, Census Tract 3331, Middlesex County, Massachusetts

Additionally, it was noted that a portion of the Project Site is in the Town of Woburn (Zip code 01801), in which 14.4% of households speak a language other than English. This area overlaps with Block Group 4, Census Tract 3331.

The Project Site is also located within Burlington (Zip code 01803), in which 12.2% of households speak a language other than English. This area overlaps with Block Group 1, Census Tract 3324.02; Block Group 1, Census Tract 3322.01; and Block Group 2, Census Tract 3322.02.

The Project was reviewed considering its proximity to these EJ Populations, and it was determined that the proposed change in use and disposition of the lands protected by Article 97 will have no adverse impact on the Environmental Justice Populations.

An Act Preserving Open Space in the Commonwealth (M.G.L. c.3, §5A) – Replacement Land Request:

Article XCVII requires that a public entity seeking to use protected land for another purpose or otherwise dispose of said land, identify replacement land or an interest in land, which is not already subject to said Article XCVII, in a comparable location and that is of equal or greater natural resource value, as determined by the Secretary of EEA, and acreage and monetary value, as determined by an appraisal of the fair market value or value in use, whichever is greater; and take, acquire or dedicate said land or interest in said land in perpetuity for Article XCVII purposes.

MassDOT respectfully requests that the Secretary consider a waiver for the replacement land requirements of M.G.L. c.3, §5A as replacement land for this Project was previously set aside in contemplation of future improvements to the Intersection. In anticipation of the safety improvement project of the intersection of Cambridge Road, South Bedford Street, and Bedford Road in Woburn and Burlington, the Town of Burlington proactively required that a parcel distinct from this Project be encumbered by Article XCVII restrictions. Specifically, in 2018, the Town of Burlington issued a Special Permit to a private property owner for land located on Off Wheeler Road in Burlington for a self-storage facility. The Special Permit contained the following terms and conditions:

The Applicant acknowledges the objectives of the Planning Board relative to their efforts to reconcile traffic and pedestrian limitations at the intersection of Route 3/3A/Cambridge Street/Road and South Bedford Street with a larger regional solution and has, therefore proposed to contribute the following towards that end: The Applicant offers and the Planning Board accepts a contribution in the amount of \$50,000.00 to the Town of Burlington towards a traffic mitigation fund to defray the costs of the Route 3/3A,Cambridge Street/Road and South Bedford Street intersection improvement project.

The Applicant shall prepare a Conservation Restriction (CR)/Conservation Easement for 9+/- acres of the project site in order to satisfy Article 97 of the Massachusetts Constitution requirements for land replacement obligations due to the required takings to effectuate the above referenced improvements.

On June 15, 2021, the property owner recorded a Conservation Restriction with Middlesex South Registry of Deeds which granted to the Town of Burlington a conservation restriction defined in and authorized by Sections 31, 32, and 33 of Chapter 184 of the Massachusetts General Laws to ensure the property will be maintained in perpetuity for conservation purposes, in a natural, scenic and undeveloped condition, and to prevent any use or change that would impair or interfere with its conservation and preservation values. Documentation relative to this Conservation Restriction and Special Permit were submitted by MassDOT to EEA in July of 2024 for review.

For these reasons, MassDOT respectfully requests that the Secretary of EEA accept the land that was set aside in anticipation of this Project as satisfying the replacement land provisions of Article XCVII, Section 5(A)(a)(ii) and (iii).

MassDOT would like to share with the Secretary some concerns if this request is not approved. Specifically, if required to provide additional Sreplacement land, MassDOT may lose Federal funding for the following reasons:

(i) MassDOT will not likely be able to advertise the Project on time

MassDOT is initiating the process of appraising Article 97 land owned by DCR needed for the Project. Once that appraisal is complete, MassDOT will know the value of a replacement parcel it should acquire. MassDOT will then need to locate and appraise a replacement parcel to ensure that it complies with the following M.G.L. c.3, §5A requirements:

- a. the parcel is not already subject to Article 97
- b. the parcel is located in an area of equal or greater natural resource value than the Article 97 land
- c. the parcel is of equal or greater acreage and monetary value than the Article 97 land.

When a replacement parcel has been identified and satisfies the requirements of the M.G.L. c.3, §5A, the MassDOT environmental team will need to perform an environmental assessment to determine if permitting or approvals are necessary before acquiring the replacement parcel. The environmental assessment may also result in a determination that the replacement parcel cannot be acquired due to possible contamination issues, historical significance, current 4F or 6F designation, etc.

MassDOT environmental permitting for the Project was approved based on the Project parameters as submitted to MEPA and NEPA. If MassDOT is required to acquire a replacement parcel these approved permits may be negatively impacted.

After a replacement parcel of appropriate value has been selected and passed environmental review, the process of acquisition by eminent domain can proceed which could take an additional 9 to 12 months ensuring the project would not meet the current advertising date. Additionally, an adversarial taking of land not required by the project design opens the door for litigation. This litigation will not enjoy the typical benefits of said land being used for a safety improvement project. A layer of complexity will burden the Attorney General's office in their efforts to defend such a claim.

(ii) Federal Highway may not approve of MassDOT taking property outside the project limits

Federal Highway may not condone the taking of private property which has no relation to the Project. They may not be willing to continue providing funding for the Project.

(iii) MassDOT will be required to perform an Environmental Justice analysis on any replacement land

Federal Highway requires an EJ analysis on all property impacted by a project. By adding replacement land to the Project, MassDOT will now be required to complete an EJ analysis. Failure to complete the analysis will potentially result in a loss of Federal funds. Alternatively, complying with the requirement will be time-consuming, possibly resulting in MassDOT not being able to advertise on time, which would also jeopardize the federal funding.

An Act Preserving Open Space in the Commonwealth (M.G.L. c.3, §5A) – Public Notice Requirement

The City of Woburn and the Town of Burlington has posted this notice publicly as required by An Act Preserving Open Space in the Commonwealth (M.G.L. c.3, §5A).

Thank you for considering this request. We look forward to hearing from you.