

## **ALL WRITTEN PUBLIC COMMENTS RECEIVED**

RE: federal fiscal years (FFYs) 2020–2024 Transportation Improvement Program (TIP) Amendment Three (Chronological by Date Received)

Friday, April 3, 2020

Boston Region MPO,

After reviewing the draft 2021-2025 TIP I offer the following recommendation:

- Swap the two projects listed below in their respective TIP years
- Move 606130 Norwood out to 2022
- Move 601607 Hull into 2021.

My reasoning is based on readiness. I don't want to enter the new TIP with a project we do not have confidence to make the ad year.

The ROW (state) is not set for the Norwood project. The project is at 75% design and requires additional work that will likely affect the layout. There is no time table for this work to be performed. See attached email. the 25% was submitted in 2012, the 75% in 2019. The only glitch I see is there is a private development just off the project limit that was trying to combine with this work. They did not advance it on time so the work was not included. If the project is pushed out to 2022 and the additional work is included it may affect the TFPCC, although the developer should be responsible for the additional work.

Hull is at 100% design. There was a delay between 75% and 100% (2015-2019). The ROW should be achievable for 2021.

There is a slight difference in the funding (~\$1 million more for Hull). It is my understanding there may be some flexibility for funding allocation on the TIP between 2021 and 2022.

Best to you and yours.

Stay well,  
Pam

**Pamela Haznar, P.E. District Five Project Development Engineer**  
**MassDOT – Highway Division**  
1000 County Street, Taunton, MA 02780 | 508-884-4239



RE: Project No: 608611 CANTON- MILTON- RANDOLPH- REPLACEMENT AND REHABILITATION OF THE HIGHWAY LIGHTING SYSTEM AT THE INTERCHANGE OF ROUTE 24 AND ROUTE I-93

Dear Secretary Pollack and MassDOT Board & MassDOT Representatives and Boston Region Metropolitan Planning Organization Representatives,

Please extend the comment period for the project to install lights on the interchange of Route Route 24 and Interstate 93.

COVID-19 Pandemic has impacted the ability to do proper community engagement and we would like to have some more time to review the impacts of this project to the environment and the community. Members of the public should also have the same opportunity.

Best,

A handwritten signature in blue ink, appearing to read "Robert V. Kearns". The signature is fluid and cursive.

Robert V. Kearns  
Outings Chair & Executive Committee  
Sierra Club Massachusetts

Friday, April 10, 2020

Hi Matt,

I am writing in support of keeping the Bruce Freeman Rail Trail [ID 608164], as currently proposed, on the TIP Amendment 3 for FY 2022.

(Amendment Three documents cost changes and readiness updates for MPO regional target funded projects in the FFYs 2020–24 TIP.)

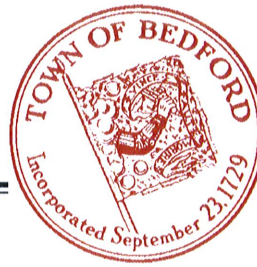
There are several reasons:

1. The Town of Sudbury has consistently voted "YES" to the Bruce Freeman Rail Trail at every Town Meeting since 2012.
2. The Town of Sudbury has consistently voted "YES" to the Bruce Freeman Rail Trail at the polls.
3. The Town of Sudbury has voted full funding for the design of the Bruce Freeman Rail Trail, right through the 100% design. Funding the design has never been an issue.
4. The Bruce Freeman Rail Trail will be a major regional recreation and transportation corridor for its 25-mile length from Lowell to Framingham, connecting eight communities along its route.
5. Because of the narrow roads in Sudbury, many without walkways, and population density, pedestrians and bicyclists are at risk of injury and death. There have been two bicyclists deaths in Sudbury. The enhanced safety provided to users by a rail trail is a particular benefit.
6. The north/south BFRT will intersect with the east/west Mass Central Rail Trail in Sudbury just north of Route 20. Portions of the Mass Central has been constructed, most recently in Wayland and Weston. Together they will form the backbone of a recreational and transportation corridor serving dozens of communities in the MetroWest region, and hundreds of thousands of residents across the Commonwealth.
7. The existing BFRT is highly trafficked, portending similar usage once it has been extended into Sudbury and Framingham, and connected to the Mass Central.
8. DOT's comments on the 25% design, submitted in the fall, are being addressed by the Town and Jacobs, the design consultant.
9. The Town is looking forward to the design public hearing, live or electronically, as soon as possible.

As a former member of the Sudbury Board of Selectmen, I appreciate the opportunity to submit these comments in support of the Bruce Freeman Rail Trail.

Len Simon  
40 Meadowbrook Circle  
Sudbury

TOWN OF BEDFORD  
DEPARTMENT OF PUBLIC WORKS



314 THE GREAT ROAD  
BEDFORD, MASSACHUSETTS 01730

TEL: 781-275-7605  
FAX: 781-275-9010

April 13, 2020

Matt Genova  
Transportation Improvement Program Manager  
Central Transportation Planning Staff  
10 Park Plaza  
Suite 2150  
Boston, MA 02116

**Minuteman Bikeway Extension  
TIP I.D. 607738**

Dear Mr. Genova:

In response to the 21-day public comment period for TIP Amendment 3, this letter has been drafted to comment on the delay of the Minuteman Bikeway Extension project to FFY 2023.

The Town has worked diligently the past 15 years planning and designing this regionally significant project, which extends the Minuteman Bikeway from Bedford Center to the Concord Town Line. While we are disappointed that the MPO plans to vote to delay the project to FFY2023, we understand that budget overruns have caused a number of projects to be deferred. At this time, we would also like to reiterate our commitment to work with MassDOT to keep the design review process on schedule, and remain as faithful as possible to the original FFY2022 schedule. The Town has already contracted a MassDOT prequalified appraiser to ensure the appraisals move forward promptly, and plans are underway to secure approval of easement acquisitions at a fall, 2020 Special Town Meeting. We plan on being well positioned to take advantage of additional funds if they become available, or if there are any openings in the TIP schedule.

The Town of Bedford thanks the MPO membership for their time and effort required to make these difficult decisions. Your support is greatly appreciated, and we urge you to ensure that this is a one-time postponement. The residents of Bedford have gathered extensive political will to finalize the 25% design plans, and the community would be very disappointed in the TIP process if the project is delayed further. Furthermore, the existing path has not been significantly maintained in anticipation of construction; any additional delay would only deteriorate conditions further. If you have any questions, or would like to discuss further, please call me at your convenience at (781) 275-7605. Thank you for your consideration.

Very Truly Yours,  
TOWN OF BEDFORD

*David Manugian*  
David Manugian, PE  
Director Department of Public Works

Dear Matt and Members of the MPO,

Thank you for the opportunity to comment on ensuring TIP funding for construction in Sudbury of Phase 2D of the Bruce Freeman Rail Trail (BFRT).

I want to assure the MPO members that this segment of the BFRT is "essential"!!

As you know, the funds to PURCHASE the Right of Way from CSX are "ready and waiting" in the Town of Sudbury, so that huge obstacle has been surmounted by the voters and residents of Sudbury. They and the Friends of the BFRT are counting on this project continuing its place in the TIP budget, so that construction goes forward as scheduled.

I would further like to share with you - and have you share with the members of the MPO - the following national honor that the adjacent segment of the BFRT has just been awarded (formal ceremony in August). I received notice of this from Richard "Chip" Barrett, Westford's Supt of Highway and President of the New England Chapter of the American Public Works Association:

**April 15, 2020**

**Primary Agency – Town of Concord, MA**

**Primary Contractor – D.W. White Construction, Inc.**

**Primary Consultant – Greenman-Pedersen Inc.**

**Congratulations!**

The Bruce Freeman Rail Trail Phase 2C in the Small Cities/Rural Communities Transportation category has been selected as one of the **American Public Works Association's *Public Works Projects of the Year*** for 2020. As the managing agency, primary contractor and primary consultant for this project we are pleased to inform you of this honor. Your selection puts you in a very elite group of winners and APWA is proud to have those on this project epitomize the public works profession and our association.

This is a very special occasion and we look forward to fully recognizing your contributions and achievements in the field of public works.

**Rhonda Wilhite**

Awards and Chapter Relations Associate

American Public Works Association

Kansas City Office

Your Comprehensive Public Works Resource

As you can see, the BFRT is a worthy project - both locally and nationally :)

Please keep Phase 2D AS CURRENTLY SCHEDULED on the 2020-2024 TIP.

Thank you again for this opportunity to comment - and to share the exciting award just announced about the BFRT!!

Gratefully,  
Emily

Emily Teller  
Secretary and Westford Board Member  
Friends of the Bruce Freeman Rail Trail, Inc.  
9 Texas Road, Westford, MA 01886  
[978 692 6968](tel:9786926968) home  
[978-884-4473](tel:9788844473) cell  
[www.brucefreemanrailtrail.org](http://www.brucefreemanrailtrail.org)  
[Facebook.com/BruceFreemanRailTrail](https://www.facebook.com/BruceFreemanRailTrail)  
[Twitter.com/FriendsofBFRT](https://twitter.com/FriendsofBFRT)

Heather Clish ([hclish@outdoors.org](mailto:hclish@outdoors.org)) sent a message using the contact form at <https://www.ctps.org/contact>.

Thank you for the opportunity to comment on the proposed highway lighting system replacement and rehabilitation project for the interchange of Route 24 and I-93 in Canton, Milton, and Randolph.

AMC is the nation's oldest conservation and recreation organization with over 30,000 members in Massachusetts, many of whom are regular users of the Blue Hills Reservation, which would be impacted by this project. We understand the project would replace existing lighting with high-mast lighting and lights that would have a color temperature of 4000K.

AMC urges Mass DOT to instead replace the existing lights with 3000K or lower LED lights for energy efficiency and safety while not causing undo harm to the surrounding environment.

Based on the available diagrams, it appears the proposal would cast spillover detrimental lighting over areas of the Blue Hills Reservation that are known and mapped as priority habitat for threatened and endangered species.

It is known that lights with a color temperature of 4000K, rich in blue light, are harmful to nocturnal ecosystems and create more sky glow than LEDs with a lower color temperature, such as 3000K. Reflecting the increased understanding of lighting impacts on environmentally sensitive areas such as the Blue Hills Reservation, the Illuminating Engineering Society (IES) and International Dark Skies (IDA) Boards of Directors have jointly and unanimously adopted the following Five Principles for Responsible Outdoor Lighting just last week (see <https://www.ies.org/pressroom/reducing-light-pollution-and-its-negative-affects-ies-and-ida-new-collaboration/>):

- All light should have a clear purpose
- Light should be directed only to where needed
- Light should be no brighter than necessary
- Light should be used only when it is useful
- Use warmer color lights where possible

AMC strongly urges MassDOT to reconsider this project in the context of the IES Principles for Responsible Outdoor Lighting listed above. To minimize the detrimental effects of this project and still improve the efficiency of lighting the interchange, AMC recommends be replacing the existing lights with LED lights of 3000K or lower, consistent with general recommendations by the International Dark-Sky Association (see [www.darksky.org](http://www.darksky.org)). This may also substantially lower the cost of the project.

At a minimum, MassDOT should ensure a thorough environmental assessment of the effects spillover light, not just in the impacts to the project construction area, and ensure the project is reviewed by the Massachusetts Department of Conservation as well as the Massachusetts Natural Heritage and Endangered Species Program to determine the necessity of the project relative to the impacts and whether the full number of high-mast lights are needed in all of the locations proposed.

Thank you again for the opportunity to comment. Please don't hesitate to contact me at [hclish@outdoors.org](mailto:hclish@outdoors.org) or 617-391-6580 with questions or to discuss further.

Heather Clish

ZIP code: 02129



James Lowenthal ([jlowenth@smith.edu](mailto:jlowenth@smith.edu)) sent a message using the contact form at <https://www.ctps.org/contact>.

Mr. Gautaum Sen  
Massachusetts Dept. of Transportation  
10 Park Plaza  
Suite 4160  
Boston, MA 02116  
Dear Mr. Sen:

I am writing in regard to MA DOT Project #608611, "Randolph-Quincy-Replacement & Rehabilitation of HWY Lighting System at Interchange I-93/ Rte. 24". The project presents an opportunity to both enhance driver safety and protect the environment. Unfortunately, the current plan calls for overly-bright, excessively blue, poorly shielded high-mast lighting to be installed at that location. Those lights will produce blinding glare that reduces visibility and safety rather than enhancing it. The resulting light pollution will also cause negative impacts on human health and quality of life for residents and businesses nearby, on the visibility of the starry night sky, and on wildlife and plants in and around the nearby Blue Hills Reservation. I urge you to reconsider the project and to consider a better, safer alternative.

The International Dark-Sky Association (IDA) Massachusetts chapter supports intelligent, safe, well-designed outdoor lighting that respects and protects the natural and built environment. IDA has recently partnered with the Illuminating Engineering Society to promote high-quality outdoor lighting and minimize light pollution. They recommend five main rules for outdoor lighting: It should be useful (carefully and intentionally designed), targeted (down only, directly on the area to be lit), only as bright as necessary, controlled (on only when necessary), and warm color (as low CCT as possible). I hope MassDOT will adopt those principles in the I93/Route 24 project as well as all other highway lighting projects in the future. For more info, please see <https://www.ies.org/pressroom/reducing-light-pollution-and-its-negative-affects-ies-and-ida-new-collaboration/>

Here are the main problems with the proposed high-mast lighting at the I-93/Route 24 interchange:

- **Color:** At 4000K correlated color temperature (CCT), they are much too blue. The American Medical Association (AMA) recommends using lights no bluer than 3000K, since blue light at night is associated with multiple human health risks including elevated rates of cancer, diabetes, and suppression of the hormone melatonin. According to the Illuminating Engineering Society (IES), low-CCT (less blue) lighting has less environmental impact than bluer light (IES RP-8-18, Chapter 4, section 4.4.1 and Section 2.3.4.2). If any lighting must be installed, it should be the lowest-CCT possible. 1800K high-pressure sodium lights have been the norm for 50 years, and LEDs are now available with 2200K. There is no longer any good reason to use anything bluer than 2700K.
- **Brightness:** The current plan calls for average illumination levels brighter than 1 foot-candle, or 100x brighter than the Full Moon. That is unnecessary and excessive at this highway location with no sidewalks or pedestrian activity. Lighting that is 5x less bright

(0.2 fc) could easily meet your visibility goals if it is well-shielded (see below) against glare.

- **Glare and shielding:** High-mast lighting like that currently proposed necessarily causes significant glare because the light sources are visible from significant distances down the roadway. The Federal Highway Administration says that “Disability glare is one of the most important elements to control in a lighting system. It affects your ability to adequately see, particularly for older drivers.” ([https://safety.fhwa.dot.gov/roadway\\_dept/night\\_visib/lighting\\_handbook/#fig26](https://safety.fhwa.dot.gov/roadway_dept/night_visib/lighting_handbook/#fig26)). The current plan shows light spilling hundreds of feet away from the roadway. I understand that you are considering adding glare shields to the proposed luminaires to control the glare and keep the illumination directed only at the roadway, and not on sensitive natural areas nearby, nor shining into the eyes of motorists. If done properly, that is potentially a reasonable solution. A better one is to avoid high-mast lighting entirely; if any lighting is required at that interchange, it should be no higher than 25 feet and should use fully-shielded luminaires with no light escaping at greater than 60° from the vertical directly below the light source.

Is there any evidence that the current lighting is unsafe? Is there a history of crashes at the interchange that have been shown to be due to darkness? What are the argument and evidence that bright blue high-mast lighting like that in the current proposal will enhance safety rather than compromise it?

Some alternatives to the proposed high-mast LED lighting that would reduce the harmful effects of light pollution include:

- Replacing the existing high-pressure sodium (HPS) lights with new well-shielded, low-CCT, not excessively bright LEDs, keeping the existing poles
- A hybrid lighting system with poles at the onramps/offramps in combination with LED lane markers
- Adaptive controls, so that the lights turn on only when needed
- No lighting at all, such as the default on California highways and interchanges, with no documented increase in crashes or hazards.

The Department of Conservation and Recreation’s Blue Hills Reservation is a popular and historic natural area with abundant wildlife from mammals like deer and coyotes to insects, birds, and amphibians and a wide variety of native flora. It is visited by many thousands of people each year and enjoys the support of an advocacy group, Friends of the Blue Hills. The reservation and its many visitors and neighbors in Randolph and Quincy deserve protection from the ill effects of light pollution and glare that will result from the proposed lighting. It is entirely possible to achieve safety on the highways without compromising human health and wildlife – if outdoor lighting is designed and applied wisely and judiciously. I urge you to revise substantially the current lighting plan for the I-93/Route 24 interchange.

Sincerely,  
James Lowenthal, President  
IDA-MA

ZIP code: 01060

April 20, 2020

Mr. Matt Genova  
Transportation Improvement Program Manager  
Boston Region Metropolitan Planning Organization (MPO)

Dear Mr. Genova:

I am writing in support of the Bruce Freeman Rail Trail (ID Number 608164) as proposed on the TIP Amendment 3 for FY2022.

The Bruce Freeman Rail Trail is an important regional multi-modal project. The rail trail will connect numerous communities along its 25-mile route including Lowell, Chelmsford, Westford, Carlisle, Acton, Concord and Sudbury, and eventually leading to a connection with Framingham via the CSX corridor. As a member of the Sudbury Select Board, the liaison for the Bruce Freeman Rail Trail (BFRT) project and a longtime Sudbury resident, I hear repeatedly the enthusiasm of residents who are eager to use the BFRT in Sudbury so they can pursue healthy activities such as cycling, jogging, walking, rollerblading, and cross country skiing. A rail trail provides a way to connect with each other, offering safe passage for our family friendly community as well as our growing senior population.

The residents of Sudbury have overwhelmingly supported the creation of the BFRT for many years. Sudbury has appropriated significant tax dollars for the 25%, 75% and 100% design of the BFRT. The Town has also applied for and received grant money to be applied toward the acquisition and design of the trail. Sudbury's dedication to building the BFRT is evident.

At the April 13, 2020 Conservation Commission meeting, commissioners received the General Wildlife Habitat Assessment Report from Stantec Consulting Services Inc. which stated that, "As a result, no adverse effect to wildlife habitat within wetland resource areas is anticipated based on the 25% Design Submittal." The town was pleased to learn that this study will not impede further MassDOT consideration of the 25% design, and most importantly that the BFRT will not have an adverse impact to wildlife. See Page 10: [https://s3-us-west-2.amazonaws.com/cdn.sudbury.ma.us/wp-content/uploads/sites/273/2020/04/ConservationCommission\\_2020\\_Apr\\_13\\_supporting\\_materials\\_2.pdf?version=3db9847201a1726a7a810b75318edfae](https://s3-us-west-2.amazonaws.com/cdn.sudbury.ma.us/wp-content/uploads/sites/273/2020/04/ConservationCommission_2020_Apr_13_supporting_materials_2.pdf?version=3db9847201a1726a7a810b75318edfae)

As stated in Sudbury's draft Master Plan, the Town is seeking to minimize the impact of traffic congestion and create a safe network of walking, biking, and public transportation options that gets people out of their cars as they travel around Sudbury. The Bruce Freeman Rail Trail has been frequently referenced as a strongly positive central component of the Master Plan for recreation and transportation.

Sudbury is eager to schedule the 25% Design Public Hearing. At the recent Boston Region MPO Zoom meeting, Beth Suedmeyer, Sudbury's Environmental Planner, suggested the possibility of a virtual hearing given the current COVID-19 situation. I hope her suggestion will be considered.

Thank you for the opportunity to submit my comments in support of the Bruce Freeman Rail Trail.

As noted above, I am a member of the Select Board, however, in this letter I write on my own behalf, and not for the entire Board, as the specific issue has not been a subject of discussion at a public meeting.

Sincerely,



Janie Dretler  
Sudbury, MA resident and member of the Sudbury Select Board

Kelly Beatty ([kbeatty@darksky.org](mailto:kbeatty@darksky.org)) sent a message using the contact form at <https://www.ctps.org/contact>.

This comment regards project #608611, the proposed lighting installation for the interchange of Interstate 93 and State Route 24 in Randolph, MA. Included here is my April 17th response to an email by Gautam Sen, the MA DOT project manager.

\*\*\*\*\*

Hello, Mr. Sen,

Thank you for your response to my comments. I appreciate that you have endeavored to mitigate the adverse environmental impact that the proposed lighting retrofit (#608611) will cause within the Blue Hills Reservation. However, the steps you outline are not enough. Specifically, the Resource Management Plan adopted for Blue Hills Reservation by DCR's Stewardship Council (<https://www.mass.gov/service-details/blue-hills-planning-unit>) sets forth Goal 5, to "repel or mitigate external pressures that threaten the character and qualities of the Blue Hills." Without question, this lighting plan will threaten and degrade the nocturnal environment at Blue Hills Reservation.

I am not a lighting professional, but clearly the roadway lighting of this interchange should be upgraded. However, the installation of high-mast lighting at this interchange will be environmentally harmful. A \$5.7 million effort to blanket the entire area with illuminance that is 50x to 100x brighter than a full Moon's light is not the correct solution. I have contacted two nationally-recognized experts in roadway lighting, and both agree your proposed lighting plan is not optimal, given the environmental sensitivity of the surroundings. One of them suggests that you should engage the lighting firm WSP, with whom MA DOT has many contracts, and roadway specialist Paul Lutkevich in particular, to further vet and refine this design.

Regarding the points you've made:

- **Current Lighting design is based on Highway Lighting Chapter 10 of IES and Coordination with MassDOT**

IES RP-8-18 devotes several sections to mitigation of environmental effects. Also NCHRP 940 (Solid-State Roadway Lighting Design Guide: Volume 1: Guidance) offers extensive guidance on the environmental impacts of solid-state (LED) lighting and devotes an entire chapter to environmental impacts.

- **I-93/Rte. 24 interchange is considered as a major/major roadway classification (over 3500 ADT)**

Does your design incorporate adaptive control so that the illuminance can be reduced at times when vehicular traffic is minimal?

- **Zone 0 (LZ-0) for the wooded area Blue Hills Reservation to the North, East, and West of the interchange requires cut-off shields. Lighting in the environmentally sensitive area is designed not to exceed 0.05 FC beyond the state owned ROW**

**toward the sensitive areas.**

As you have noted elsewhere, the proposed installation will include 180° shields. however, as you know, photometrics for the installation are invalidated by the addition of such shields. Further, why is the lighting plan based on the state-owned ROW, rather than just the roadway itself? Do your photometrics include factors such as scatter off poles and/or aerosols? Without allowing for these additional considerations, your assumption of a lighting reduction to 0.05 fc beyond the state-owned ROW seems unachievable in practice.

- **Wooded areas between the roadway ramps/interchange were not factored in as part of the nature preserve, but were included as a portion of the interchange / driver safety requirements.**

Why is this a defensible decision?

- **Consideration of different distribution types and fixtures was part of the design process.**

Both of the roadway-lighting experts I contacted disagree with your assessment of lighting distribution types.

- **The project includes flagging and surveying wetlands, completing Early Environmental Coordination, preparing a Notice of Intent and preparing a CE Checklist. A formal NEPA Environmental Assessment was not conducted.**

Were Blue Hills Reservation stakeholders, such as DCR's Stewardship Council or Friends of the Blue Hills, notified specifically concerning this project?

- **High mast design will draw more energy in terms of electric usage. However, as stated previously it will cover more roadway area.**

Apart from the increased energy consumption that will ensue, this project will cost \$5.7 million, as amended. alternatively, did you assess upgrading the existing pole infrastructure with suitable SSL fixtures? did you assess the installation of passive wayfinding such as LED pavement markers? at face value, it seems either of these alternatives would involve far lower project costs and operational energy use.

- **Color Temperature: The basis of design - 4000K CCT**

It should be noted that the interchange's existing high-pressure sodium lighting has a color temperature of ~2200K, which is environmentally quite benign because it emits virtually no blue light. the same cannot be said of 4000K lighting, which is no longer considered best practice in the lighting industry. quoting one of the lighting specialists I consulted: "4000K lighting creates twice as much sky glow as 2200K. Use 2700K or lower CCT sources. IES no longer supports high CCT lighting as better than low CCT and agrees that low CCT has less environmental impact. See IES RP-8-18, Chapter 4,

section 4.4.1 and Section 2.3.4.2, which in this case makes CCT irrelevant to the visibility argument. Use the lowest color temperature you can." Further, the American Medical Association has offered clear policy (<https://is.gd/RVPred>) recommending the use of lower CCT lighting (<3000K) to minimize potential health and environmental effects.

In conclusion, high-mast lighting is an obviously beneficial solution for MA DOT, because it minimizes maintenance costs. but the large-footprint illumination, glare, and skyglow they create make them a questionable choice for motorists and the environment. I have seen several of MA DOTs high-mast installations, and they appear consistently excessive in terms of illuminance intensity and footprint. but high-mast lighting is an egregiously poor choice for this particular interchange, and I urge you to revise your plans with better environmental and energy-efficiency in mind.

Clear skies,  
Kelly

\*\*\*\*\*

Kelly Beatty  
International Dark-Sky Association  
[www.darksky.org](http://www.darksky.org)  
617-416-9991 (mobile)

ZIP code: 01824



RE: Project No: 608611 CANTON- MILTON- RANDOLPH- REPLACEMENT AND REHABILITATION OF THE HIGHWAY LIGHTING SYSTEM AT THE INTERCHANGE OF ROUTE 24 AND ROUTE I-93

Dear Secretary Pollack, MassDOT Board & MassDOT Representatives, and Boston Region Metropolitan Planning Organization Representatives

Sierra Club Massachusetts opposes the installation of high-mast lighting infrastructure at the interchange of State Route 24 and Interstate 93, which sits within the environmentally sensitive Blue Hills Reservation.

This expansive tract of undeveloped land represents the largest protected open space in metropolitan Boston, and the Resource Management Plan adopted by DCR's Stewardship Council for this property calls for "protect[ing] those natural resources most at risk from . . . avoidable environmental change."

The high-mast lighting that MassDOT has proposed for the interchange would create significant adverse effects on the surrounding nocturnal ecosystem and wildlife that live there. We are also concerned about potential impacts of additional light pollution to nearby residential areas.

Guidelines established by the Illuminating Engineering Society (in its publication RP-18-8) define protected areas such as the Blue Hills Reservation as falling within Lighting Zone 0, within which permanent lighting is not expected and, when used, should be limited in amount and in the period of operation. Further, for LZ0, the IES guidelines recommend maximum levels of 0.05 foot-candle for spill light from external sources. Yet even with the proposed shields on outward-facing sides of the interchange's fixtures, levels higher than the



IES's recommended maximum seem likely — especially during times when fog, rain, or other aerosols increases the light scattering below the masts.

The high mast poles in the woods surrounding the highway would contribute to more light pollution to the Blue Hills Reservation and neighborhoods surrounding the interchange. Cost savings might be achieved by reusing existing poles. Light overspill into ecologically-sensitive areas adjacent to the interchange, skyglow (light pollution), and project cost could all be reduced by reusing and retrofitting the existing pole infrastructure.

MassDOT should use the lowest possible correlated color temperature no higher than 2700K. Lower temperatures are less disruptive for wildlife and vegetation. We also would like to see enhanced passive wayfinding measures such as reflective signage, LED roadway markers, and roadway striping that will reduce the need for lighting.

MassDOT must act with the best use of taxpayer money in mind. The safety objectives of this project can be achieved by simply upgrading the existing lighting at the current height using “Dark Sky” criteria, and safety can be further enhanced with reflective signage and roadway striping. This leaves money for other projects. In particular, MassDOT is keenly aware that the Global Warming Solutions Act and the scientific realities of the climate crisis require a rapid and immediate reduction in vehicle miles traveled (VMT) and the adoption of electric vehicles. Those saved valuable tax dollars could then be used for upgrades such as bike infrastructure, bus lanes and the construction of EV Level 3 fast charge stations.

Blue Hills is a wonderful resource to our neighborhoods and cities and to the wildlife who dwell there. Let's make it optimal for all.





We urge MassDOT to alter its plan and remove high-mast lighting and, instead, to upgrade the existing lighting infrastructure to protect the surrounding environment while providing safe conditions for motorists within the interchange.

Best,

A handwritten signature in blue ink that reads "Deb Pasternak". The signature is written in a cursive, flowing style.

Deb Pasternak

Director

Sierra Club Massachusetts



*Town of Lexington*  
Town Manager's Office

James J. Malloy, Town Manager  
Kelly E. Axtell, Deputy Town Manager

Tel: (781) 698-4540  
Fax: (781) 861-2921

April 16, 2020

David Mohler, Chairman  
Boston Region Metropolitan Planning Organization  
State Transportation Building  
10 Park Plaza, Suite 2150  
Boston, MA 02116-3968

Re: Minuteman Bikeway Extension Project, TIP Project Number 607738

Dear Chairman Mohler and Members of the Boston MPO:

On behalf of the Town of Lexington, I am writing to enthusiastically support the Minuteman Bikeway Extension Project which would extend the Bikeway to the Concord town line. The Minuteman Bikeway is heavily used by Lexington residents and is a vital recreational, tourism, and transportation asset for the entire region. The Bikeway Extension will enhance this key connection between the communities of Concord, Bedford, and Lexington

We strongly support this project as it will improve the overall safety and accessibility for pedestrians and bicyclists using the Minuteman Bikeway. The Project will include a formalized ten-foot wide shared use path as well as a reconstructed paved twelve-foot wide bikeway. The proposed surface and grading will improve access to those with disabilities. The project's addition of signage, traffic signal modifications, and an underpass will increase user safety at road crossings.

The project is also creating three new parking locations with access to the path, which will provide greater opportunity for regional use of the path as an alternative transportation option to the Alewife T station. The additional parking also improves options to access the trail for those with disabilities. We strongly encourage the MPO to keep the Minuteman Bikeway Extension project in the FFY2022 TIP as this Bikeway Extension will enhance recreation, transit, and tourism opportunities in the region.

Sincerely,

James Malloy  
Lexington Town Manager

Doug Lucente, Chair  
Lexington Select Board

cc: Sarah Stanton, Town Manager, Town of Bedford  
Michelle Ciccolo, State Representative

# TOWN OF HINGHAM

OFFICE OF THE SELECTMEN

Karen A. Johnson, Chair  
Mary M. Power  
Joseph M. Fisher



Tom Mayo, Town Administrator  
Michelle Monsegur,  
Assistant Town Administrator

April 21, 2020

By Email (david.mohler@state.ma.us)

Boston Region Metropolitan Planning Organization  
State Transportation Building  
10 Park Plaza, Suite 2150  
Boston, MA 02116  
Attention: David Mohler, Chair

Re: TIP ID 605168 – Hingham Intersection Improvements at Route 3A/Summer Street Rotary

Dear Mr. Mohler:

This letter is sent on behalf of the Town of Hingham to provide comments to the Third Amendment to the 2020-2024 TIP issued by the MPO. This letter supplements my previous letter of March 24, 2020, and public comments previously made on behalf of the Town by Representative Joan Meschino.

We have reviewed Amendment Three to the FFYs 2020-2024 TIP and the simplified Amendment Three chart. We also received a summary of the MPO's last meeting from Stephen Boudreau of Vanasse & Associates, who participated in the meeting on behalf of the Town and spoke to project readiness.

Our understanding is that the discussion around Amendment Three focused on cost changes and readiness updates. The impacts of Amendment Three on the Route 3A project are in both areas, resulting in a removal of the project from the FFY 2024 TIP.

First and foremost, the Town appreciates the MPO's recognition of the merits of the increased budget for the project, which increase is due primarily to the change in pavement strategy and, to a lesser degree, a small expansion in the length of roadway included in the project to increase the safety improvements.

However, from a project readiness perspective the Town is surprised that the project has been moved to FFY 2025. We understand that there were a number of projects that were either moved forward on the TIP schedule or pushed back. However, in almost all instances the determination of which projects were rescheduled was made based on project readiness. That analysis does not appear to have been applied in the case of the Route 3A Project. Due to the diligence of the Town since discussion of this project began in 2009, design of the Route 3A Project is currently on schedule to be completed well before the current 2024 TIP allocation. As the Route 3A Project remains a very high priority for the

Boston Region MPO

April 21, 2020

Page 2

Town, its neighboring communities and MassDOT, the Town continues to work at its current pace to receive all approvals necessary to go to bid and be “shovel ready” by FFY 2024 or earlier.

We do note that, based on the simplified Amendment Three chart, the intention of the MPO is to have the draft FFYs 2021-2025 TIP reflect the amended project cost allocation for the project, and we are optimistic that the Route 3A project will be included in the final FFYs 2021-2025 TIP with the updated cost allocation.

Whereas the Route 3A Project is on track to be ready for construction ahead of schedule, and whereas deferment of the Route 3A Project would be detrimental to the safety and welfare of all motorists, residents and bicyclists who heavily rely on the Route 3A corridor, the Town respectfully requests that the MPO consider retaining the readiness status and programming of this project for FFY 2024.

Thank you for your consideration of this request.

Thomas Mayo  
Hingham Town Administrator

cc: Matt Genova, Transportation Improvement Program Manager  
Rep. Joan Meschino  
Hingham Board of Selectmen