



Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Jamey Tesler, Secretary & CEO
Jonathan L. Gulliver, Highway Administrator



October 27, 2021

Ms. Simone Monteleone
Superintendent
Minute Man National Historical Park
174 Liberty Street
Concord, MA 01742

RE: Project 608495 – Concord-Lincoln-Lexington – Resurfacing and Related Work on Route 2A

Dear Superintendent Monteleone,

Thank you for your participation in the multiple stakeholder meetings for MassDOT Project #608495 as well as forwarding your July 23rd Comment Letter to MassDOT. MassDOT's main priority for this project is to make Route 2A safer for all types of travel, especially before the start of the 250th anniversary festivities that will take place at Minute Man National Park. We retained Toole Design Group to evaluate Route 2A and determine what can be done to improve the safety of the roadway while respecting the historic designation of the Park. The District considered Toole's recommendations from the Stakeholder's meeting and we agree with the divisions of work to be included into two separate projects. The first group of improvements (Phase 1) will be incorporated into this resurfacing project, and the second more long termed improvements (Phase 2) will be incorporated into another project in the future. Phase 1 will include the realignment of the Lexington Road Intersection, the realignment of the Airport Road Intersection, multiple pedestrian crossings throughout the project, installing splitter islands, and narrowing the lane width in each direction. The District believes that these traffic-calming measures will increase safety for pedestrians, bicyclists, and motorists.

The Section 106 process will be coordinated through the MassDOT Cultural Resources Section and your organization will be contacted. The Project Manager, Andrew Wilkins, can be contacted regarding the status of the Section 106 submittal schedule.

Working Group

A submission will be made with the working group to discuss the updates to the project prior to the formal 100%/PSE submission.

Evaluation of Pedestrian Safety Measures

The District has incorporated the recommended crossings from Toole Design identified in the Stakeholder's meetings throughout the limit of this project. Two locations were missed, a crossing approaching Mill Street and a crossing at the Bedford Road intersection. These locations will be added back into the Phase 1 resurfacing project design. To enhance pedestrian crossing Route 2A, the District is now proposing rectangular rapid flashing beacons at each mid-block crossing

and yield lines, or “shark teeth” markings, prior to each crossing. The design will keep the pedestrian refuge islands and advanced signage at each crossing.

Signs for Crosswalks and Refuge Islands within Historic District

To secure federal and state funding for this work, the District will need to follow the guidance from MassDOT design standards and the Manual on Uniform Traffic Control devices (MUTCD). As such, the signs and pavement markings must meet this criteria.

During the construction period, the District will work with NPS to investigate the locations where RRFB foundations and pedestrian concrete landing areas regarding archeological monitoring. The MassDOT Cultural Resources Section will coordinate this effort. As part of this project, existing signs will be maintained and if needed, they will be replaced.

To respond to the multiple comments regarding crosswalk location selection we offer the following. Toole’s recommendations for proposed crossings came after multiple discussions with the working group to locate the best possible locations. All crossings that are proposed must include crosswalk pavement markings, even if there are infrequent pedestrian crossings. At each crossing, there will be a Rapid Rectangular Flashing Beacon (RRFB) system and a refuge island. These proposed roadway features indicate to motorists to reduce speeds. This will create traffic calming on this section of Route 2A.

MassDOT would be in favor of any safety education and enforcement measures to help reduce speeds and reliance on extensive infrastructure. This project proposes low impact features that will match the context of this historic roadway.

Use culturally compatible alternatives for steel guardrails

The District must specify highway safety items in our contracts that meet federal and state crash worthiness criteria. In areas where guardrail is required for safety, the District investigated if there were any federally approved (MASH 2016 TL-2) steel-backed timber guardrails and unfortunately at this time there are currently none that meet the latest standards. MassDOT enacted Engineering Directive E-20-004 on April 21, 2020 and it states all roadside hardware must conform to MASH 2016 or request for a MASH waiver. After discussions with the Traffic Safety Engineer, MassDOT has not granted waivers for timber guardrail since enacting this engineering directive. The District is proposing to only replace the existing steel guardrail with MASH approved equipment and will leave in place any existing timber guardrail.

The District understands the need to keep the aesthetics of the national park, but the District must also meet all safety requirements for these projects. The appropriate guardrail treatment can be discussed further during the Section 106 process.

Clarification on tree trimming

After discussions with the work group, tree trimming will be very limited and will be performed only at RRFB installation locations if there is not enough sunlight for the solar panel charging. The

detail that was included in the plan set is more associated with highway projects and has been removed. During construction, the District will work with NPS to make sure no excessive trimming has been performed. Any tree trimming would be limited to within the state highway right of way and not encroach into the Park property.

Reduce vehicle lane width and increase bicycle shoulder width

The District is proposing a 10.5 foot wide travel lane and this will result in a wider shoulder for bicycle use. No pavement widening is proposed.

Inspections and Biweekly Progress Meetings

Once the project has been awarded, NPS will get an invitation to participate in the pre-construction conference. In construction, MassDOT's Resident Engineer will invite all necessary parties including National Parks Services to the bi-weekly meetings.

Spring 2022

The advertisement for this project has been moved to June 2022 and likely won't start active construction until September 2022. As of right now, the current work schedule is to have paving operations at night to avoid any conflicts with the park operations. If the paving needs to be scheduled during daytime hours, the contract will include a clause that will alert the contractor to avoid major road work until after Patriots' Day.

Specific Comments on the 25-75% Draft Submission Sheets

Cover Sheet

- The design speed on cover sheet is in reference to the original design speed of Route 2A. After construction has been completed, a traffic speed study can be performed to determine if the traffic calming elements have reduced the speed of the motorists and a speed limit adjustment could be considered.
- The Federal Aid Number is not generated until the PS&E submission has been accepted which will be a few weeks before the advertising date. All sheets will be updated with the Federal Aid Number at that time.

Sheet 4 of 45

- Our original survey had the incorrect names and they will be updated throughout the plan set.

Sheet 5 of 45

- A typical section with the refuge islands will be added in the next submission
- All timber guardrails will be preserved.
- No addition steel guardrail will be added, only the existing steel guardrail will be replaced with MASH 16 approved steel guardrail.
- Wood break-away posts are not feasible for the new traffic signs.

Sheet 6 of 45

- The District will work with the Landscape Section to verify if those erosion controls are acceptable.
- The District will do a walk through with NPS to ensure that the tree trimming that will be proposed during the RRFB installation that no roadside aged trees are excessively pruned.
- The referenced detail has been removed from the next submission

Sheet 10 of 45, STA 53-54

- The District requests NPS to send a specification for the bollards and chain to be installed at the Lexington Road.
- The street label has been changed to Brooks Road.
- The District is still evaluating if this location is suitable for a crossing. The District will also evaluate what type of signage or other elements are needed at this crossing and will be included in the plans for the working group to comment on.
- The increase in an asphalt driveway apron will be evaluated.

Sheet 11, Sta 38

- The District's Maintenance Section has been notified about the box culvert at Elm Brook and will schedule it for repair.

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Sheet 12, Sta 26 to 28, Islands #9 and #10

- A construction detail will be added to depict the splitter islands within the roadway. The detail will be added to the construction detail section.

Sheet 13, Sta 8

- A design will be developed to ensure that the area near the northern ramp at Bedford Lane is stabilized. A detail will be included in the next plan submission. The crossing will likely be moved east to accommodate a typical fire emergency vehicle turning radius. The islands will be made with sloped edging to make them mountable.

Sheet 14, Sta 4

- A crossing is to be proposed at the western portion of the Bedford Road intersection. The crossing or proper signage will not be obscuring the Capt. William Smith House and all work will be within the state highway layout.
- If a trail on NPS land was proposed, it will not be proposed in this project due to the trail not being within the State Highway Layout. Right of way acquisitions are not proposed as part of this project
- The District is in favor of having the crossing to the west of Bedford Road as a safer location. Pedestrians crossing to the east of Bedford Road would be in conflict right turning vehicles.

- The eastern corner of the Bedford Road will be narrowed with a colored pavement to make the turn safer for motorists.

Sheet 17, Sta 33. To 35

- The District is working with the Landscape Section to see what can be proposed to allow for a more desirable transition from Route 2A to the parking lot driveways. The District is not in favor of increasing the asphalt in this area, but will propose a material similar to a dense gravel to transition from asphalt to the parking lots.

Sheet 17, Sta 1 to 2

- The crossing at Mill Street will be west of the Mill Street intersection and concrete level landing areas are proposed. All work will be within the state highway layout.

Sheet 18 of 45, Sta 13

- The District will continue to work with NPS to ensure that the new driveway apron does not conflict with the proposed islands for the Access Road to the Minute man Visitor Center.

Sheet 19 of 45, Sta 19 and 173

- Toole's initial recommendation for a crossing at Minuteman Technical High School was located at the eastern end of the driveway apron to meet the existing asphalt walkway on Minuteman High School's property. During the District's design, it was discovered that there is not enough right-of-way to include the 5' concrete pad for the crossing and there is not 3' of access between the end of the stone wall and the edge of the driveway. The District instead proposed moving the crossing west where there is enough right-of-way and will be able to a future sidewalk without needing a property taking. Future discussions with the school and Town to discuss moving the sidewalk to the other side of the driveway is required.

Sheet 20, Sta 166 and 162

- The District notes NPS's objection to the left turn lane.
- The District will evaluate if a crossing is appropriate at this location.

Sheet 21, Sta 158

- Toole did not recommend a crossing for the main entrance of Minuteman High School due to the limited right-of-way, stone walls on both sides of Route 2A and the additional signal work that would need to be done to include a pedestrian phase. This crossing can be evaluated by Toole again for Phase II of this project.

Sheet 39

- The advanced warning signs will be removed at this location.

Post-Construction Considerations and Further Discussion Topics

Ensure Consultation on Road Repairs

The District is working with the Landscape section to repair the soft shoulder erosion with an appropriate material and not asphalt or pavement millings.

Collaborate with MassDOT to change Route 2A's Roadway Functional Classification

The Designer has reached out to the MassDOT Planning Section to investigate the possibility of changing the roadway classification of Route 2A. We will share this information when notified.

Based on results of the speed studies, reduce posted speed limit on Route 2A

After a post construction speed study has been completed, MassDOT will evaluate if the Phase 1 traffic calming measures reduced the speed of Route 2A.

Study possible implementation of through-truck exclusion on Route 2A

Route 2A cannot have a truck exclusion due to the roadway being a numbered route.

Implement Corridor Management Plan

Phase 1 of the Route 2A reconstruction plan has implemented multiple elements of the Corridor Management Plan, such as reducing lane width and pedestrian refuge islands. Other elements of the plan will be considered in the Phase 2 project.

Minute Man Visitor Center (MMVC)

The District will continue to work with NPS to ensure that any proposed infrastructure improvements to MMVC will not conflict with the proposed traffic calming measures or proposed pedestrian crossings of this project.

After the 25/75% comments have been responded to, the National Park Service will be able to review the 100%/PSE package for this project. Currently, the District is anticipating the design package to be submitted to the MassDOT Project Manager by November to remain on schedule with our current advertisement date of June 4, 2022.

MassDOT would like to thank the National Parks Service again for participating in the stakeholders meetings and taking the time to review this project. If you have any other comments prior to the next submission, feel free to contact Andrew Wilkins, Project Manager at 857-368-9436 or Frank Suszynski, P.E., Deputy District Highway Director at 857-369-4011.

Sincerely,

Paul D. Stedman,
District Highway Director